# Dieter Quast and Ülle Tamla with a contribution by Stephanie Felten

# TWO FIFTH CENTURY AD BYZANTINE SILVER BOWLS FROM ESTONIA

This paper deals with the rare silver bowls found at Kriimani and Varnja in eastern Estonia in the 19th century. The vessels are outwardly similar and have been made in the Byzantine Empire in the late 5th – early 6th century. There are four impressed control stamps of the reign of the Emperor Anastasius I (491–518 AD) on the bottom of the vessel from Varnja. In the paper an archaeological and art historical overview of silverware has been given and the questions of how and why such luxury items reached so far north are being discussed. Also S. Felten's, a jeweller-conservator's vision of how the Kriimani vessel had been made and how the only partly survived artefact was restored, has been added.

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In the second half of the 19th century two silver bowls were discovered in Estonia (Fig. 1). They come from the Byzantine Empire and date to the late 5th – early 6th century and they were buried in the same time in Estonia. They are similar and one of them had four control stamps under the bottom dating to the reign of the Byzantine Emperor Anastasius I (491–518 AD). Even if this makes the bowls truly exceptional, there has been no thorough discussion about them. Next to archaeological and art historical analyses of these bowls the question how and why they came to the north is of interest.

#### Kriimani

In the year 1877 the report about the acquisitions of the collection of the Learned Estonian Society in Tartu (Dorpat) mentions an interesting item from Kriimani (Tartumaa) (Fig. 1), which was donated by L. von Stryk (Sb GEG 1877, 102 f.).



Fig. 1. Location of the two Estonian findspots with early Byzantine silver bowls. Graphik by Michael Ober, RGZM.

In "Brinkenhof, Kirchspiel Wendau, Kreis Dorpat" fragments of a silver cup were found. First it was assumed that it came from a masonry of the manor, but later it became clear that it was found from a "partly destroyed cairn, whose rests still showed certain regularities (two parallel rows and one right-angled added one)". Without any doubt it was a tarand-grave. The only additional object found there was a bronze ring (Fig. 9). The report also mentioned that there was a scuffle because of the valuable material and during this the bowl was broken. In the following decades it was occasionally mentioned (Ebert 1913, 545; Guide Riga 1914, 29; Tallgren 1925, 14; Tõnisson 1962, 228; Urtāns 1968, 77; Jaanits et al. 1982, 287, 289; Selirand & Tõnisson 1984, 115; Aun 1992, 142 f.), but V. V. Kropotkin (1970, 88 no. 746, figs 50: 3-4 and 51) was the first to publish a photo of the fragments. However, even this did not help attract attention to this silver cup. The sherds came via the collection of the Learned Estonian Society and the Archaeological Institute of the University of Tartu to the Academy of Sciences of Estonia in Tallinn, now they are preserved at the Institute of History of the Tallinn University (AI 1270).

In 2008 the silver sherds from Kriimani were taken to the Römisch-Germanisches Zentralmuseum (RGZM) in Mainz for restoration. After the completion some observations about the manufacture process were made (cf. contribution of St. Felten and figs 11–16). The bowl is composed of two parts, the cup and the foot (Figs 2, 3). Unfortunately there were no fitments between the bottom and the body, i.e. the reconstructed height is not absolutely precise, but the course of the vessel wall allows a certain appraisal. The diameter of the

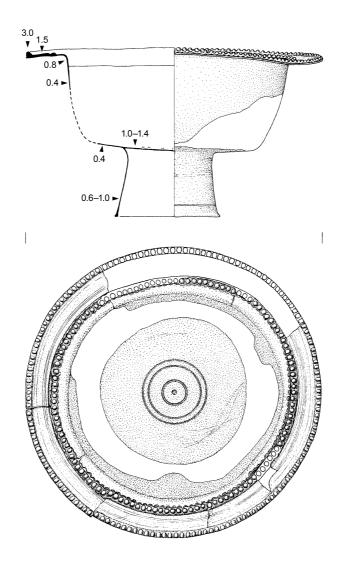


Fig. 2. The Kriimani bowl (AI 1270). Drawing by Monika Weber, RGZM.

rim is 15.5 cm, height is around 9 cm (foot 3.5 cm) and weight (including additions) 251.8 g. The analysis of the silver shows 93-95% Ag, 3.5-5% Cu with leaves of Au and Pb (analysis by Sunhild Hartmann, RGZM). The cup is artless; only two beaded bands border the horizontal rim that shows the rest of a turning process. The material thickness of the wall differs from 0.4–1.4 mm, in some cases the difference could be the result of the removal of corrosion from the surface. Scrapers on the bottom are most probably not antique but from the bedding in the soil or from a "material test" directly after the detection.

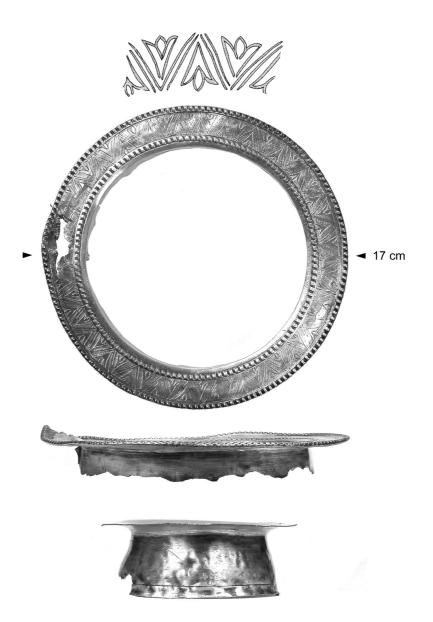


**Fig. 3.** The Kriimani bowl after restoration. Photo by Volker Iserhardt, RGZM.

# Varnja

The second silver cup had more luck. It was discovered in 1895 near the village Varnja (Tartumaa) on the coast of the lake Peipsi "under a stone" (Fig. 1). It was donated by Prof. Dr. Richard Hausmann together with two "beads of stone" (Sb Riga 1895, 72 no. 14) to the Dommuseum in Riga in the same year and was in 1896 first published as the "Russian work of the 16th century" (RK, 248 no. 1351), but Gustave Schlumberger in Paris defined the stamps as Byzantine marks from the time of the Heraclids, i.e. the 7th century (Hausmann 1909, 1 with note 1 and p. 41). The Varnja bowl was often mentioned in the literature, especially because of the imperial stamps under its base (Hausmann 1909, 41; Ebert 1913, 545; Guide Riga 1914, 29 fig. 45; Tallgren 1925, 14; 1926, 4, fig. 4; Rosenberg 1928, 634 f.; Matzulewitsch 1929, 75 f., note 1; Moora 1932, 52, fig. 34; Dodd 1961, 57 no. 3; Urtāns 1968, 77; Jaanits et al. 1982, 287;

Selirand & Tõnisson 1984, 115; Aun 1992, 142). It is now in the property of Latvijas Nacionālais Vēstures Muzejs in Riga (Inv.-Nr. Ads 269 RDM I 1365). The nearly complete rim and the foot with parts of the bottom, which bears four stamps, two round, one triangular and one hexagonal (Figs 4, 5), have survived. According to Erica Cruikshank Dodd (1961, 57) (and visual inspection by Dieter Quast) in some parts frayed stamps can be read as follows (Fig. 5):



**Fig. 4.** The Varnja bowl (Inv.-Nr. Ads 269 RDM I 1365). Photo: Latvijas Nacionālais Vēstures Muzejs Rīga, drawing of the ornament of the rim by Michael Ober, RGZM.



Fig. 5. The Varnja bowl. Photo: Latvijas Nacionālais Vēstures Muzejs Rīga.

- O hackneyed bust with inscription ICAK IOV; box-type monogram IωANNOV
- O Bust with inscription  $\Theta \omega \parallel MA$ ; box-type monogram I $\omega$ ANNOV
- $\triangle$  small bust with inscription KO[C || M]A ?; monogram indistinct
- $\overline{O}$  hackneyed, monogram like those in the round stamps; inscribed  $\Theta \omega \| MA$

The rim of the Varnja bowl is decorated with a zigzag band with inscribed calyxes (Fig. 4). Two beaded bands border the rim. The manufacture process must have been the same as in the Kriimani bowl, which is visible at the border of the external beaded band. The diameter of the rim is 17 cm, that of the foot 6.6 cm. The wall thickness under the rim is 0.8 mm; that of the foot is the same.

## Archaeological and art historical analysis

As for the question where and when the two Estonian bowls where produced, the imperial stamps on the Varnja example are of course of high importance. These control stamps had been introduced by emperor Anastasius I. Initially four

different stamps of the *comes sacrarum largitionum* – the person in charge of precious metal production by and for the state – later by the sakellarios (cf. Mundell Mango 1992, 214; cf. against Nesbitt 1992, 226 with further reading) and various officials were used, but from the beginning of the 6th century it has been five (Dodd 1961, 5 f.; Delmaire 1989, 479). Their introduction comes along with a coinage and fiscal reform (Mundell Mango 1992, 214; Meier 2009, 118 ff., with further reading). Silver coins had not been minted in the eastern part of the Empire in the 5th and 6th centuries (400–615) and especially from this period there are lots of silver vessels (Grierson 1992). Mundell Mango (2006, 59) mentions about 1500, ca. 200 of them with stamps. The stamps demonstrate the origin of the plate from official workshops. Because of the written sources it was thought for a long time that the imperial stamps were used only in Constantinople (Dodd 1961, 26 f.; Nesbitt 1992, 225). But it was already Dodd (1961, 34 f.) who discovered that imperial stamped vessels show e.g. "Syrian style" in ornamentation. She deduced that the silver was stamped in Constantinople and decorated elsewhere. This sounds a little bit circuitous and Mundell Mango (1992; 1998, 208) came to the result that the stamps were not used only in Constantinople but additionally in other mints. Dodd's (1992) reply to this argument was that imperial stamps were only used in Constantinople whereas the irregular stamps are those of other production centres. It is not necessary here to go into detail, but it should be admitted that there is a discussion about this topic.

The stamps on the Varnja one may be dated to the reign of Anastasius I (AD 491–518). Thereby the name I $\omega$ ANNOV may refer to John Paphlagonian, *comes sacrarum largitionum* in AD 498 (Dodd 1961, 29, 54, 57). The second silver bowl from Estonia from Kriimani is of the same type even if it has no stamps and decoration on the rim. No other good parallel is known.

The two Estonian bowls are "typological successors" of the bowls with a beaded band on the external rim which had been popular in the 4th and apparently stopped during the 5th century (cf. Mundell Mango & Bennett 1994, 29 f.; Mundell Mango 1997, 92; 2000, 269 f.). They were used at the table for sauces the Latin name for those vessels was *acetabulum* (Martin-Kilcher 1984b, 398 f.) – and they occur without ornamentation from Scotland and England to Constantinople and Kertch in the Crimea and the "Near East" (Curle 1923, pl. 3: A, 14; Cat. Baltimore 1947, 84 no. 379; Dodd 1961, nos 81, 82, 85; Garbsch & Overbeck 1989, 57 nos S7 and S8; Popović 1994, 329 no. 276; Zaleskaya 2006, 48 f., nos 13, 14). Those with figural ornaments are known from the Mildenhall hoard, but also from Carthage (Tunesia), Šabac (Serbia) or Kostolac Viminacium (Serbia) – a fragment was part of the Traprain hoard (Baratte et al. 2002, 14 ff.). A unique example with a facetted cup comes from Aquileia in north-eastern Italy (Piussi 2008, 162 Cat.-no. IV.4). These vessels with beaded rim were produced by embossing the single beads from the back. They are hollow and relatively large (cf. e.g. Lang & Holmes 1983; Mundell Mango & Bennett 1994, 59 figs 1-5; Baratte et al. 2002, 101, fig. 110). Typically the rims of those bowls have a vertical edge (e.g. Mundell Mango 1997, 86, fig. 3).

The plate with beaded bands on the rim appears in another completion. They differ in the way of fabrication because the beads were smaller and "massive". Examples are well known from some large late antique silver plates, such as from the one with the hunting scene from the "North Syrian Treasure" (Mundell Mango 1986, 273 f., no. 101; Gonosová & Kondoleon 1994, 180 ff., no. 58; cf. additionally Martin-Kilcher 1984a, 186, note 8), from Nish (Baratte 1984a, 162, pl. 69; Popović 1994, 326, no. 270), from the Euticius plate from the Kaiseraugst hoard and a fragment from Traprain (Baratte 1984b, pl. 97 and 100), some plates from the so called Sevso-treasure (Mundell Mango & Bennett 1994, 57, fig. 1: 2; 155, fig. 3: 2) and also from Cesena (Alföldi-Rosenbaum 1984, pls. 140–142). Just as the small bowls, these plates have rims with a vertical edge.

The two Estonian bowls are without this edge and they are made in a different way (cf. contribution by S. Felten). We found only one parallel with a similar rim (Fig. 6). It is a goblet without provenance in the Musée d'Art et d'Histoire in Geneva and it dates to the 4th–5th centuries (Lazovic et al. 1977, 18, no. 1). There is another remarkable feature of the two Estonian bowls, which seems to be a chronological attribute. In contrast to the 4th century bowls, which have only a foot made of a small band, the 5th century silver – also the plates – have a higher foot. In addition to the Estonian bowls, items from Ballana grave 3 in Nubia (Török 1988, 134 ff., esp. 143, pl. XVIII); Egypt (Mundell Mango 1997, 86, fig. 3: a), Sucidava (Rădulescu & Cliante 1986, 133 ff., pls. 3: 5; 10: 10; Cliante & Rădulescu 1988, 366 ff.), Toulouse in France (Żelazowski & Żukowski 2005), Reggio Emilia in Italy (Bierbrauer 1975, pl. LXXXV: 4) and the large plate from the Sutton Hoo ship burial with Anastasius stamps (Bruce-Mitford 1983, 7, fig. 5; 25, fig. 24) underline this.



**Fig. 6.** Silver goblet without provenance, Musée d'Art et d'Histoire Genève. Height 8 cm. After Lazovic et al. 1977, p. 17.

An ornamentation on the Kriimani bowl almost does not exist. Additionally to the bead banded rims there are only a few traces of turned lines on the horizontal rim, which could be seen with a bit of effort as typological relics of the pairs of turned creases on the horizontal rims of the characteristic bowls of the late 4th and beginning of the 5th century (Kaufmann-Heinimann 2003, 108 ff., note 224). The decoration of the rim of the Varnja bowl is more conspicuous. Cirruses are of course not unusual in Roman and early Byzantine period but they are much more naturalistic than on the Estonian bowl. However, even if it is unique it is possible to find some similar designs. Zigzag lines with stylised floral motifs – leaves – are known from the large golden plate of the famous Pietroasa hoard (Fig. 7), dated to the first half of the 5th century (Cat. Frankfurt 1994, 231 no. 98: 2; lastly Schmauder 2002, 191 ff., pl. 90). The rim is bordered with beaded bands – the external one with large beads, the inner one with smaller beads, technically near to those on the Varnja bowl. It is not quite certain where this



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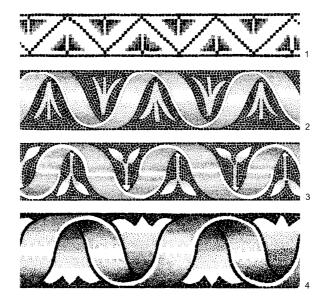
**Fig. 7.** Golden plate from Pietroasa (Pietroasele, jud. Buzău, RO) (diam. 56.8 cm) and detail of the rim decoration. 1 after Schmauder 2002, pl. 90: 2b; 2 after Cat. Frankfurt 1994, p. 231 fig. 98: 2.

*lanx* was produced, but "the artist had in minimum been trained in the handicraft in the Mediterranean" (Schmauder 2002, 193). This is the best comparison to the rim of the Varnja bowl even if the calyxes differ on both objects.

The impression of a zigzag ornament can be found on other objects, e.g. on a lamp from North Africa from the 5th century, but the decoration there is made with leaves or grapes in form of a heart set antithetical with triangles (Cat. Munich 1998, 137, no. 157). Better comparisons are some "frames" of mosaics. One with a zigzag line with stylised leaves or calyxes from El Jem (Tunisia) (Fig. 8: 1) (Balmelle et al. 1985, 37, pl. 9: b), others with rolling cirrus, e.g. from El Mukhayyat in Jordan (Fig. 8: 3) (Balmelle et al. 1985, 115, pl. 65: e) and Tabarka in Tunisia (Fig. 8: 4) (Balmelle et al. 1985, 115, pl. 65: g), the last one with a similar example from Bitola *Heraclea Lyncestis* in the Former Yugoslavian Republic of Macedonia (Cvetović-Tomašević 1995, 47, fig. 8). A good parallel to the Varnja ornament is a mosaic from Thuburbo Majus (Tunisia), which has the same calyxes in the form of arrowheads (Fig. 8: 2) (Balmelle et al. 1985, 115, pl. 65: d).

#### Dating of the burial of the two Estonian bowls

Even if the date of the production of the bowls from Varnja and Kriimani is clear, it should be established when they were buried. Especially imports were often prestigious goods acting as heirloom and of course this is also true with the Byzantine silver plate. A prominent example is the large paten from the Malaya



**Fig. 8.** "Frames" of mosaics. 1 El Jem (Tunisia), 2 Thuburbo Majus (Tunisia), 3 El Mukhayyat (Jordan), 4 Tabarka (Tunisia). After Balmelle et al. 1985, pl. 9: b and pl. 65: d, e, g.

Pereshchepina grave (Ukraine), stamped under Anastasius I but buried first in the mid-7th century (Dodd 1961, 54 f., no. 2; Effenberger et al. 1978, 33 ff., 138 ff., figs 46-50; Werner 1984). Other good examples of the "long life" of Byzantine silver plate are demonstrated by finds of the Kama Region which came there via central Asia (cf. Darkevich 1976; cf. additionally Bálint 1977; Effenberger et al. 1978, 35 ff.; Mundell Mango 1998, 222 ff.; 2004, 226; 2006, 63 f.). Most of them came from features of the 8th-12th centuries, some were combined with Sassanian silver, bear Sogdian or Choresmian graffito or show scratched images of dancing shamans, sun, moon or elks (Leshenko 1970; 1976).



**Fig. 9.** Finger-ring from Kriimani (AI 1270). Photo by Riina Juurik, University of Tartu.

Against this background, an analysis of the objects found together with the two Estonian bowls and the features where they come from is important.

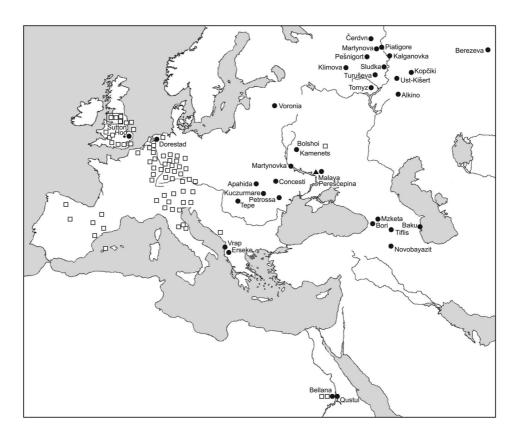
The massive closed finger-ring with hollow-convex cross section found from Kriimani (Fig. 9) represents the earliest type of finger-rings, which was developed from central European forms dating to the Pre-Roman Iron Age. In addition to the south-eastern coast of the Baltic Sea, similar finger-rings also occur in the area of *tarand*-graves in the eastern Baltic region. In that area, particularly in Estonia, they emerged in the 2nd century and were produced also in the 3rd century and perhaps even during the 4th century in some areas (Lang 2007, 213 f.). As later graves have not provided such type of ornaments we can suggest that the bronze finger-ring and the silver bowl represent two different stages of the use of the Kriimani tarand-grave. In this context it should be mentioned that all over Estonia tarand-graves are known, which have been used as burial grounds again in the Migration Period. But only in several tarand-graves in the eastern part of the country, or in their immediate neighbourhood, hoards dating from the 2nd half of the 5th-1st half of the 6th century have been discovered. These (Kardla, Paali I and II, and Villevere) consist mainly of Baltic silver jewellery and a few golden items. Such luxurious find assemblages have been interpreted as votive offerings connected with the cult of the dead in earlier literature (Schmiedehelm 1934), and as ambiguous grave hoards, i.e. an investment in afterlife, hidden from strangers' eyes, in recent writings (Tamla & Kiudsoo 2009, 20, 24).

Richard Hausmann handed the fragments of the silver bowl found beneath a stone in Varnja over to the Riga *Dommuseum* in 1895 together with two "stone beads" (Sb Riga 1895, 72, no. 14) but there is no information if they formed the same find-complex. Since the beads have not survived, and no pictures or drawings of these items have survived either, as far as is known, it is impossible to say whether these beads were made by a human hand or whether they were fossils moulded by nature. The geologist Ralf Männil has stated that stones with a smooth surface and holes in them (some may resemble beads) are pebbles cut loose from the sea floor and moulded by the waves. The holes in them are dents resulting from the activities of some organisms at the bottom of the sea. As some fossils of different shapes with holes in them have occasionally been found in archaeological excavations of graves and settlements from different times, it cannot be excluded that people used these items as decorations, spindle whorls, weights, or for other purposes (cf. Lang 1993, 37 with reference to R. Männil). The time of use of these items, however, remains unclear.

#### How did the two bowls arrive in Estonia?

The most interesting question is how the two Byzantine bowls came to Estonia. Of course the important point is the early dating of the objects and their burial. Byzantine finds almost do not exist in the Baltic countries before the Viking Age when a network of ports of trade was created in the whole Baltic Sea region (cf. Callmer 1994; Müller-Wille 1997). So even with the wrong dating of the stamps from the Varnja bowl, which was for a long time thought to be from the Heraclid period (7th century), this object was outstanding (e.g. Hausmann 1909, 25). It was Harri Moora (1932, 52) who first posed the question how this object found its way to the border of the lake Peipsi. Because of the 7th century dating he put them in a context with some Avarian belt fittings from Finland and thought they came via the Dnepr into the North (cf. also Tallgren 1926).

Byzantine silver in northern Europe is rare as distribution maps show (Fig. 10) (Mundell Mango 2004, 229, fig. 15: 4). If the items from the Kama region were erased from the map because of their later "arrival", the exceptional character of the Varnja and Kriimani bowls became obvious. On the other hand, the favourite interpretation of Painter (1988, 103) of the pattern of the distribution of stamped byzantine silver as "signifying for gift-exchange between centres of power" neglected the chronological aspect of the different features. Because of this the following interpretations are somewhat speculative. However, there are two other Byzantine objects from the 5th century. Two solidi of Valentinian III (425–455) and Theodosius II (408-450) are known from Paju and the Island of Vilsandi, both in the parish of Kihelkonna on Saaremaa (Quast 2004, 275 no. 4 and 12 with further reading). Both are lost today and there is unfortunately no further information about their mints. It was Tallgren (1925, 30) who interpreted them as an import from Gotland. Considering the two facts this is quite possible: first there are numerous solidi from the second half of the 5th century up to the reign of Justinian I (527-565) especially on the Baltic sea islands of Bornholm, Öland and Gotland (Kyhlberg1986; Näsman 1998, 260 with further reading), and second, there is a pre Viking Age "Scandinavian influence" detectable in today's Estonia from the Roman Iron Age onwards. Even if most of the Scandinavian objects are from the coastal region as the recently excavated boat grave from Salme on



**Fig. 10.** Distribution map of silver (dots) and copper (squares) metalware found outside the Empire. After Mundell Mango 2004, 229, fig. 15: 4. (Varnja/Voronia is mapped on a wrong place).

Saaremaa (Konsa et al. 2009; Peets & Maldre 2010), there are few but important ones from Tartumaa and Põlvamaa as well (Quast 2004).

The transfer of this interpretation to the silver bowls is not compelling, because of the lack of early Byzantine silver plates from Scandinavia. Of course there are some hoards of scrap silver, but most of them are from the western part of the Baltic Sea – only the Høstentorp hoard is from Bornholm – and they contain silver from the western part of the Roman Empire only (cf. Munksgaard 1987; Axboe 2002; Adelung et al. 2005, 88, no. 20). Obviously, they were all scraped.

However, at the present day knowledge it seems to be more probable that the bowls from Varnja and Kriimani came directly from "the south". They were found in the same area and are the only items of this vessel type. Because of this it is highly probable that they came more or less together to Tartumaa. The Estonian tribes were on the fur trade which is often mentioned as an explanation for Byzantine silver plates, e.g. in the Kama region (Bálint 1977, 274 f.; Effenberger et al. 1978, 35; Mundell Mango 2004, 226) or Roman imports in Finland (Schauman-Lönnqvist 1992, 227). As for the Varnja bowl, Mundell Mango (2004, 226)

mentions the possibility of amber trade but there is nearly no archaeological evidence for amber use or exploitation in the Middle Iron Age Estonia, contrary to the Lithuanian areas (Bliujiene 2007, 336 f.).

Another possibility is that the men of the Baltic tribes went to the south to serve as mercenaries in any of the barbaric kingdoms north of Byzantine frontier or even inside the empire. A comparison interpretation was given by Audrone Bliujiene and Valdas Steponaitis (2009) for the small territory in the south-eastern part of Lithuania – the region between the lakes Tauragnas, Žeimenis and Vajuonis – where relatively many objects of middle Danubian origin were found in some graves. In the context with Scandinavian–Baltic contacts and Scandinavian–Byzantine or rather middle and upper Danubian contacts, this could also be a frame for the explanation for the existence of the Varnja and Kriimani bowls.

## **Stephanie Felten**

# OBSERVATIONS REGARDING THE MANUFACTURING TECHNIQUE

The silver bowl from Kriimani was passed on incomplete. Only eleven fragments were available for the reconstruction (Fig. 11). The height of the object could only be determined roughly due to the large amount of pieces missing from

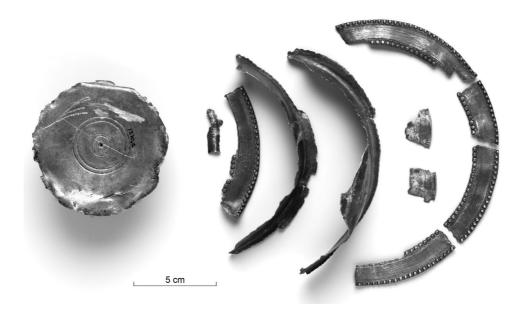


Fig. 11. The fragments of the Kriimani bowl before restauration. Photo by René Müller, RGZM.

the vessel wall. The line of the wall, however, enabled reliable estimations whose "error of margin" may be no more than one centimetre. The flaws in the border area and in the conical platform were on the other hand insignificant issues as regards the reconstruction. The flaws, supplemented by mouldable epoxy resin, allow again the reassembly of the reconstructed dish; however as a safety precaution an external supporting standing aid made out of acrylic glass was created, which grips under the frame and supports the weight of the dish.

#### Outer pearled rim

During the restoration of the vessel the question as to how the vessel was manufactured quickly arose. Especially when looking at the side of the outer pearled rim (Fig. 12) with carved pearls, revealed that a working process of multiple steps had been required. The single half-pearls appear to be hollow. A broad joint between the outer edge and the inserted upon wavy pearled rim edge is clearly recognizable. The outer pearled rim was apparently reinforced on the smooth and flat rim up to a height of 3 to 3.5 mm. Therefore it can be assumed that the pearled rim ornamentation was not made through frontal embossing of the metallic frame, but possibly derives from a wax mould and the resulting casting.

Such manufacturing traces have apparently not been observed and examined anywhere to date. Therefore, some experiments have been carried out in the RGZM so that conclusions on potential silversmith's techniques can be made. In doing so, two alternatives had to be considered:

1) During the use of a wax mould (Fig. 13) the pearled rim would be processed as a separate wax ring, applied to the flat frame and not moulded to it coherently. But it does not explain the hollow pearls. Equally possible is the creation of the wax mould of the pearled rim adornment using moulded "small blocks" (this would correspond to the procedure of the synthetic resin supplement in the pearled rim), which are individually produced and structured with a hollow embossing tool after having been applied on to a wax strip. Among other things the small triangular bell mouths in the spandrels between the small blocks are evidence thereof. A silver casting emerging from such a wax mould however does not display any hollow pearls.

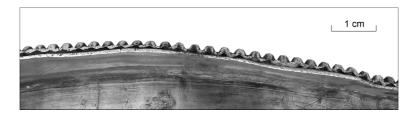


Fig. 12. Side-view (detail) of the outer pearled rim with the carved pearls. Photo by Volker Iserhardt, RGZM.

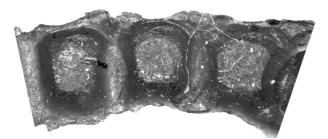


Fig. 13. Production plates for the finishing of the exterior pearl rim. Wax mould. Photo by Volker Iserhardt, RGZM.

2) The hollow pearls can be best explained by the production of a separate silver ring. The silver ring was initially adorned with ball embossing, which had been punched in through the rear side. They formed half pearls on the front side (Fig. 14: 1). This separately finished ring was soldered onto and the still unstructured half pearls were refinished from the front with a suitable hollow embossment tool (Fig. 14: 2). Thus a more distinctive boundary and framing was achieved, as well as a smoothing. Through the overlapping embossing the nearly half-round pearls were slightly compressed on their sides and therefore shaped into more of an oval form.



**Fig. 14.** Production plates for the finishing of the exterior pearl rim. 1 half pearls, embossed with ball embossing tools from the rear side, 2 refinished from the front side with hollow embossing tool, 3 side view. Photo by Sabine Steidl, RGZM.

#### Inner pearl rim

The second, the internal pearled annulus differs from the exterior one in its form. Initially it only reaches a height of  $\pm/-1.5$  mm and therefore surmounts the material thickness of the actual, flat edge slat only fractionally (up to 1.1 mm). Furthermore, the half pearls are solid in this case, meaning that no separately finished pearl ring was reinforced and re-worked, but this range was directly worked into the silver rim. Such a pattern can definitely be engraved in soft silver (material analysis: 93–95% Ag, 3.5–5% Cu, marks of Au and Pb) with an accordingly spherically shaped hollow embossing tool particularly as experiments in copper have proven this technique (Fig. 15). It occasionally occurs that lateral contractions of the flat half pearls appear, but essentially its round shape remains untouched. The serrated rim of the interior pearled frame above and below the half pearls is in good condition. However, on the exterior pearl rim it is detached or rather twisted off. It is evidence of the depth of the embossing on the front side and has probably also been retained as a decorative adornment unit.

## **Spinning marks**

Numerous concentrically running grooves can be recognized on the horizontal rim (between the two pearl seams) as well as on the outside of the whole vessel (Fig. 3). These spinning marks resulted from the process of rotating on the lathe. During this metal-flaking process the rough and uneven casting skin had been taken off and the surface was retouched. Further distinguishing marks show that

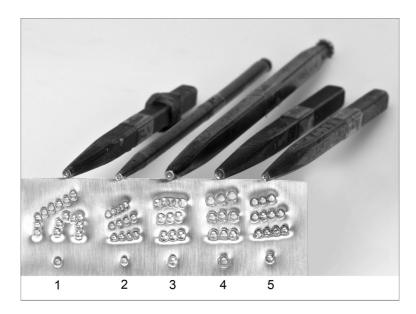


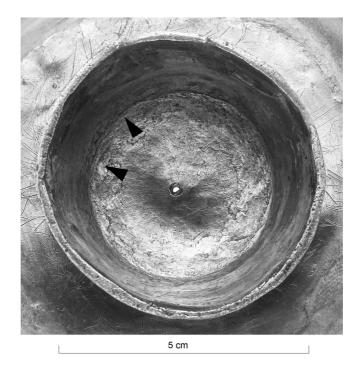
Fig. 15. Production plates for the finishing of the interior pearl rim. Photo by Sabine Steidl, RGZM.

a lathe had been used. The clearly marked geometric centre of the base results from the clamping down of the object. Around this "centre", concentric groove pairs are cut in as an adornment pattern as well as outside on the conical platform.

These presented observations lead to believe that it is a matter of the casting and subsequent reworking of the bowl. The minimally diverging wall thickness of the bowl (Fig. 2) also points to a cast, as well as the base area inside the pedestal that has hardly been re-worked. The alternative that a pre-cast bowl was drawn out and finally twisted off is also credible. However, the time of the application of the exterior pearl rim area remains unclear.

## Pedestal

It could not be finally determined if the frame of the high pedestal was included in the casting or finished separately as a cast object and thereafter soldered onto it. Due to the absence of a vertical soldering joint a production from a metal strip is unlikely. Through examining the traces on the inside of the reinforcing pedestal ring as unrestored traces of the modelling in wax, a reinforcing ring cast as a frame is most likely (Fig. 16). However, if they are interpreted as forging traces, the second option of a separately created and soldered reinforcing pedestal ring is the most likely procedure. Soldering traces have not been proven to date.



**Fig. 16.** The pedestral from the inside. The arrows point to the (possible) traces of the modelling in wax. Photo by Volker Iserhardt, RGZM.

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#### Appendix

After the termination of this manuscript two articles had been published dealing with the Kriimani bowl. Both connected the occurrence of this silver vessel in Estonia with fur trade:

**Казанский М. М.** 2010а. Скандинавская меховая торговля и "Восточный путь" в эпоху переселения народов. – Stratum plus, 4, 1–111, esp. 58 f., fig. 53.

Казанский М. М. 2010b. О контактах населения территории восточной Эстонии и Скандинавии в эпоху великого переселения народов. – Диалог культур и народов средневековой Европы. К 60-летию со дня рождения Евгения Николаевича Носова. Российская Академия Наук, институт истории материальной культуры, Санкт-Петербург, 330–336.

#### References

Adelung, Ph., Carnap-Bornheim, C. v., Ibsen, T. & Valujev, A. (eds). 2005. Die Prussia-Sammlung. Der Bestand im Museum für Geschichte und Kunst Kaliningrad. Hauschild, Bremen.

Alföldi-Rosenbaum, E. 1984. Meerstadtplatte. – Der spätrömische Silberschatz von Kaiseraugst. Eds H. A. Cahn & A. Kaufmann-Henimann. Habegger Verlag, Derendingen, 207–224.

**Axboe, M.** 2002. Sølvkræmmerhuset og Balders død. – Drik – og du vil leve skønt. Festskrift Ulla Lund Hansen. Nationalmuseet, Copenhagen, 295–303.

Bálint, Cs. 1977. Book review of Darkevich 1976. – Acta Orientalia Hungarica, 31, 271–277.

Balmelle, C., Blanchard-Lemée, M., Christophe, J., Darmon, J.-P., Guimier-Sorbets, A.-M., Lavagne, H., Prudhmme, R. & Stern, H. 1985. Le Décor géométrique de la Mosaïque Romaine. Répertoire graphique et descriptif des Compositions linéaires et isotopes. Picard, Paris.

**Baratte, F.** 1984a. Schüssel mit Sechseckstern. – Der spätrömische Silberschatz von Kaiseraugst. Eds H. A. Cahn & A. Kaufmann-Henimann. Habegger Verlag, Derendingen, 159–164.

**Baratte, F.** 1984b. Euticius-Platte. – Der spätrömische Silberschatz von Kaiseraugst. Eds H. A. Cahn & A. Kaufmann-Henimann. Habegger Verlag, Derendingen, 188–193.

**Baratte, F., Lang, J., La Niece, S. & Metzger, C.** 2002. Le trésor de Carthage: Contribution à l'étude de l'orfèvrerie de L'Antiquité tardive. CNRS Éditions, Paris.

Bierbrauer, V. 1975. Die ostgotischen Grab- und Schatzfunde in Italien. Centro Italiano di Studi sull'Alto Medioevo, Spoleto.

Bliujienė, A. 2007. Lietuvos priešistorės gintaras. Versus Aureus, Vilnius.

**Aun, M.** 1992. = **Аун М.** Археологические памятники второй половины 1-го тысячелетия н.э. в Юго-Восточной Эстонии. Олион, Таллинн.

**Bliujienė, A. & Steponaitis, V.** 2009. Wealthy horsemen in the remote and tenebrous forests of east Lithuania during the Migration Period. – The Horse and Man in European Antiquity (Worldview, Burial Rites, and Military and Everyday Life). Ed. A. Bliujienė. (Archaeologia Baltica, 11.) Klaipėda University Press, Klaipėda, 185–205.

Bruce-Mitford, R. 1983. The Sutton Hoo Ship Burial. Vol. 3. British Museum Publications Limited, London.

**Callmer, J.** 1994. Urbanization in Scandinavia and the Baltic Region c. AD 700–1000: trading places, centres and early urban sites. – Developments around the Baltic and the North Sea in the Viking Age. Eds B. Ambrosiani & H. Clarke. Riksantivarieämbetet and Statens Historiska Museet, Stockholm, 50–90.

**Cat. Baltimore** 1947. = Early Christian and Byzantine Art. Baltimore.

**Cat. Frankfurt** 1994. = Goldhelm, Schwert und Silberschätze. Reichtümer aus 6000 Jahren rumänischer Vergangenheit. [Exhibition catalogue]. Frankfurt.

**Cat. Munich** 1998. = Rom & Byzanz. Archäologische Kostbarkeiten aus Bayern. [Exhibition catalogue]. Munich.

Cliante, T. & Rădulescu, A. 1988. Le trésor de Sucidava en Mésie seconde. – Revue Archéologique, 357–380.

**Curle, A. O.** 1923. The Treasure of Traprain. A Scottish Hoard of Roman Silver Plate. MacLehose, Jackson and Co., Glasgow.

**Cvetović-Tomašević, C.** 1995. L'art des III<sup>e</sup> et IV<sup>e</sup> siècles, au tournant du paganisme au christianisme. – The Age of Tetrarachs. A Symposium Held from the 4th to the 9th October 1993. Ed. D. Srejović. Belgrade, 29–48.

Darkevich, V. 1976. = Даркевич В. В. Художественный металл Востока. Наука, Москва.

**Delmaire, R.** 1989. Largesses sacrées et res private. L'aerarium impérial et son administration du IV<sup>e</sup> au VI<sup>e</sup> siècle. École française de Rome, Paris.

**Dodd, E. C.** 1961. Byzantine Silver Stamps. The Dumbarton Oaks Research Library and Collection, Washington.

**Dodd, E. C.** 1992. The location of silver stamping: evidence from newly discovered stamps. – Ecclesiastical Silver Plate in Sixth-Century Byzantium. Eds S. A. Boyd & M. Mundell Mango. Dumbarton Oaks Research Library and Collection, Washington, D.C., 217–224.

**Ebert, M.** 1913. Die baltischen Provinzen Kurland, Livland, Estland. – Prähistorische Zeitschrift, 5, 498–559.

Effenberger, A., Maršak, B., Zalesskaja, V. & Zaseckaja, I. 1978. Spätantike und frühbyzantinische Silbergefäße aus der Staatlichen Ermitage Leningrad. Staatliche Museen zu Berlin, Berlin.

Garbsch, J. & Overbeck, B. 1989. Spätantike zwischen Heidentum und Christentum. [Exhibition catalogue Munich]. Munich.

Gonosová, A. & Kondoleon, Chr. 1994. Art of Late Rome and Byzantium in the Virginia Museum of Fine Arts. Virginia Museum of Fine Arts, Richmond.

**Grierson, Ph.** 1992. The role of silver in the early Byzantine economy. – Ecclesiastical Silver Plate in Sixth-Century Byzantium. Eds S. A. Boyd & M. Mundell Mango. Dumbarton Oaks Research Library and Collection, Washington, D.C., 137–146.

**Guide Riga** 1914. = Dommuseum der Gesellschaft für Geschichte und Altertumskunde der Ostseeprovinzen Russlands, I. Führer durch die vor- und frühgeschichtliche Sammlung, Riga.

**Hausmann, R.** 1909. Übersicht über die archäologische Forschung in den Ostseeprovinzen im letzten Jahrzehnt. – Arbeiten des ersten baltischen Historikertages zur Riga 1908. Kommissionsverlag G. Löffler, Riga, 1–52.

Jaanits, L., Laul, S., Lõugas, V. & Tõnisson, E. 1982. Eesti esiajalugu. Eesti Raamat, Tallinn.

**Kaufmann-Heinimann, A.** 2003. Grosse Platte mit Perlrand. – Der spätrömische Silberschatz von Kaiseraugst. Die neuen Funde. Ed. M. A. Guggisberg. Römermuseum Augst, 105–110.

Konsa, M., Allmäe, R., Maldre, L. & Vassiljev, J. 2009. Rescue excavations of a Vendel Era boat-grave in Salme, Saaremaa. – AVE, 2008, 53–63.

**Кгороtkin, V.** 1970. **= Кропоткин В. В.** Римские импортные изделия в восточной Эвропе (II в. до н.э. – V в. н.э.). (Археология СССР. Свод археологических источников, выпуск Д1-27.) Наука, Москва.

**Kyhlberg, O.** 1986. Late Roman and Byzantine solidi. An archaeological analysis of coins and hoards. – Coins, Iron and Gold. (Excavations at Helgö, X.) Almqvist & Wiksell International, Stockholm, 13–126.

Lang, V. 1993. Kaks tarandkalmet Viimsis, Jõelähtme kihelkonnas. (Eesti Teaduste Akadeemia Ajaloo Instituut. Töid arheoloogia alalt, 2.) Tallinn.

Lang, V. 2007. The Bronze and Early Iron Age in Estonia. (Estonian Archaeology, 3.) Tartu University Press, Tartu.

Lang, S. & Holmes, R. 1983. Studies on the technology of beaded rims on Late Roman silver vessels. – Britannia, 14, 197–205.

Lazovic, M., Dürr, N., Durand, H., Houriet, C. & Schweitzer, F. 1977. Objets byzantins de la collection du Musée d'art et d'histoire. – Genava N.S., 25, 5–62.

Leshenko, V. 1970. = Лешенко В. Ю. Новое Византийское блюдо из верхнего Прикамя. – Сообшения Государственного Эрмитажа, 31, 49–51.

Leshenko, V. 1976. = Лешенко В. Ю. Использование восточного серебра на Урале. – Даркевич В. В. Художественный металл Востока. Наука, Москва, 176–188.

**Martin-Kilcher, St.** 1984a. Glatte unverzierte Platten. – Der spätrömische Silberschatz von Kaiseraugst. Eds H. A. Cahn & A. Kaufmann-Henimann. Habegger Verlag, Derendingen, 180–187.

**Martin-Kilcher, St.** 1984b. Römisches Tafelsilber: Form- und Funktionsfragen. – Der spätrömische Silberschatz von Kaiseraugst. Eds H. A. Cahn & A. Kaufmann-Henimann. Habegger Verlag, Derendingen, 393–404.

**Matzulewitsch, L.** 1929. Byzantinische Antike. Studien auf Grund der Silbergefäße der Ermitage. Verlag von Walter de Gruyter & Co., Berlin.

Meier, M. 2009. Anastasios, I. Die Entstehung des Byzantinischen Reiches. Klett-Cotta, Stuttgart. Moora, H. 1932. Die Vorzeit Estlands. Akadeemiline Kooperatiiv, Tartu.

**Müller-Wille, M.** 1997. Migration in der Wikingerzeit. Eine Skizze. – Chronos. Beiträge zur prähistorischen Archäologie zwischen Nord- und Südosteuropa: Festschrift für Bernhard Hänsel. Eds B. Hänsel et al. (Internationale Archäologie. Studia honoraria, 1.) Marie Leidorf, Espelkamp, 777–792.

Mundell Mango, M. 1986. Silver from Early Byzantium. The Kaper Koraon and Related Treasures. The Walters Art Gallery, Baltimore.

**Mundell Mango, M.** 1992. The purpose and places of Byzantine silver stamping. – Ecclesiastical Silver Plate in Sixth-Century Byzantium. Eds S. A. Boyd & M. Mundell Mango. Dumbarton Oaks Research Library and Collection, Washington, D.C., 203–216.

**Mundell Mango, M.** 1997. Continuity of fourth/fifth century silver plate in the sixth/seventh centuries in the Eastern Empire. – Antiquité Tardive, 5, 83–92.

**Mundell Mango, M.** 1998. The archaeological context of finds of silver in and beyond the Eastern Empire. – Acta XIII Congressus Internationalis Archaeologiae Christianae. Eds N. Cambi & E. Marin. (Split, II.) Pontificio Instituto di Archaeologia Cristiana & Arheološki Muzej Split, Città del Vaticano, 207–252.

**Mundell Mango, M.** 2000. Byzantine, Sasanian and Central Asian silver. – Kontakte zwischen Iran, Byzanz und der Steppe im 6.–7. Jahrhundert. Ed. Cs. Bálint. Archäologisches Institut der Ungarischen Akademie der Wissenschaften, Budapest, 267–284.

**Mundell Mango, M.** 2004. Tracking Byzantine silver and copper metalware, 4th–12th centuries. – Byzantine Trade, 4th–12th Centuries. The Archaeology of Local, Regional and International Exchange. Ed. M. Mundell Mango. Ashgate, Farnham, 221–236.

**Mundell Mango, M.** 2006. Silver in changing contexts. – The Road to Byzantium. Luxury Arts of Antiquity. [Exhibition Cat.]. Fontanka, London, 59–65.

**Mundell Mango, M. & Bennett, A.** 1994. The Sevso Treasure: Art Historical Description and Inscriptions and Methods of Manufacture and Scientific Analyses. Part 1. (Journal of Roman Archaeology, 12. Supplementary series.)

Munksgaard, E. 1987. Spätantikes Silber. – Frühmittelalterliche Studien, 21, 82–84.

Näsman, U. 1998. The Justinianic era of south Scandinavia: an archaeological view. – The Sixth Century. Eds R. Hodges & W. Bowden. Bill, Leiden, 255–278.

**Nesbitt, J. W.** 1992. Some observations in Byzantine control stamps. – Ecclesiastical Silver Plate in Sixth-Century Byzantium. Eds S. A. Boyd & M. Mundell Mango. Dumbarton Oaks Research Library and Collection, Washington, D.C., 225–227.

**Painter, K.** 1988. Roman silver hoards: ownership and status. – Argenterie Romaine et Byzantine. Actes de la Table Ronde Paris 11–13 octobre 1983. Ed. F. Baratte. De Boccard, Paris, 97–111.

**Peets, J. & Maldre, L.** 2010. Salme paadijäänused ja luunupud. – Ilusad asjad. Tähelepanuväärseid leide Eesti arheoloogiakogudest. Ed. Ü. Tamla. (MT, 21.) Tallinn, 47–88.

**Piussi, S.** (ed.). 2008. Cromazio di Aquileia 388–408 al crocevia di genti e religioni. [Exhibition catalogue Udine]. Milano.

**Popović, I.** (ed.). 1994. Antique Silver from Serbia. [Exhibition catalogue]. National Museum Belgrade, Belgrade.

**Quast, D.** 2004. Ein skandinavisches Späthascheidenmundblech der Völkerwanderungszeit aus Pikkjärve (Põlvamaa, Estland). – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz, 51, 243–279.

**Rădulescu, A. & Cliante, T.** 1986. Tezaurul de la Sucidava-Izoarele (jud. Constanța). – Pontica, 19, 127–158.

RK = Katalog der Ausstellung zum X. archäologischen Kongress in Riga 1896. Riga.

**Rosenberg, M.** 1928. Der Goldschmiede Merkzeichen. Vol. IV. Ausland und Byzanz. 3rd edition. Frankfurter Verlags-Anstalt A.G., Berlin.

Sb GEG 1877. = Sitzungsberichte der Gelehrten Estnischen Gesellschaft, 1861–1923. Dorpat.

**Sb Riga** 1895. = Sitzungsberichte der Gesellschaft für Geschichte und Alterthumskunde der Ostseeprovinzen Russlands.

Schauman-Lönnqvist, M. 1992. Kontinentaler und skandinavischer Import als Indikator sozialer Strukturen der Kaiser- und Völkerwanderungszeit in Finnland. – Praehistorische Zeitschrift, 67, 220–239.

Schmauder, M. 2002. Oberschichtgräber und Verwahrfunde in Südosteuropa im 4. und 5. Jahrhundert. Editura Academiei Române, Bukarest.

Schmiedehelm, M. 1934. Keskmise rauaaja aardeleid Kambjast. – ERM Ar, IX–X, 212–224.

Selirand, J. & Tõnisson, E. 1984. Through Past Millennia. Archaeological Discoveries in Estonia. Perioodika, Tallinn.

Tallgren, A. M. 1925. Zur Archäologie Eestis, II. Von 500 bis etwa 1250 n. Chr. C. Matthiesen, Dorpat.

**Tallgren, A. M.** 1926. Miten on erään avaarilaisen esineen löytyminen Suomesta selitettävä? – Suomen Museo, 33, 1–9.

Tamla, Ü. & Kiudsoo, M. 2009. Ancient Hoards of Estonia. Catalogue of Exhibition. Tallinn.

**Tõnisson, E.** 1962. Eesti aardeleiud 9.–13. sajandist. – Muistsed kalmed ja aarded. Ed. H. Moora. (Arheoloogiline kogumik, II.) Tallinn, 182–274.

**Török, L.** 1988. Late Antique Nubia. History and Archaeology of the Southern Neighbour of Egypt in the 4th – 6th c. AD. Archaeological Institute of the Hungarian Academy of Sciences, Budapest.

Urtāns, V. 1968. Latvijas iedzīvotāju sakari ar slāviem I g.t. otrajā pusē. – Arheoloģija un Etnogrāfija, VIII, 65–85.

Werner, J. 1984. Der Grabfund von Malaja Pereščepina und Kuvrat, Kagan der Bulgaren. C.H. Beck, München.

Zaleskaya, V. 2006. = Залеская В. И. Памятники византийского прикладного искусства IV– VII веков. Издательство Государственного Эрмитажа, Санкт Петербург.

Żelazowski, J. & Żukowski, R. 2005. Deux plats en argent de l'Antiquité tardive au Musée National de Varsovie. – Archeologia, Rocznik Instytutu Archeologii i Etnologii Polskiej Akademii Nauk, 56, 107–131.

## Dieter Quast ja Ülle Tamla Kaastöö Stephanie Feltenilt

# KAKS VIIENDA SAJANDI BÜTSANTSI HÕBENÕU EESTIST

#### Resümee

Artiklis on käsitletud 19. sajandi teisel poolel idapoolsest Eestist Kriimanist ja Varnjast (joon 1) leitud haruldasi Bütsantsi päritolu hõbenõusid. 2008. aastal viidi Kriimani anuma fragmendid (joon 11) Saksamaale Rooma-Germaani Keskmuuseumisse (RGZM) restaureerimisele, kus tehti kindlaks eseme materjali koostis ja korraldati eksperiment valmistamistehnoloogia tundmaõppimiseks. Selgus, et 93–95% hõbedasisaldusega sulamist meisterdatud, 0,4–14 mm seinapaksusega ja umbes 9 cm kõrgune karikakujuline jalaga nõu (joon 2, 3) on valminud mitmes etapis. Korrapärased ringjooned kummitud mummudega kaunistatud horisontaalsel äärisel ja kupa pinnal osutavad töö lõppjärgus toimunud treimisele. Fragmentaarsuse tõttu jäi anuma 3,5 cm kõrguse jalaosa kinnitusviis täpsemalt selgitamata (joon 12–16).

Varnja hõbenõu on väljanägemiselt ja teostuselt küllalt sarnane Kriimanist leituga. Varnja karikakujulise anuma kupa põhjale löödud neli templit (joon 4, 5) tuleks dateerida Anastasius I valitsemisajaga, kusjuures ühe templi monogramm võib kuuluda Paphlagonia Johannesele, kes oli aastal 498 *comes sacrarum largitionum*, s.o isik, kes vastutas riigis ja riigi jaoks valmistatud väärisesemete kvaliteedi eest.

Eestist leitud hõbenõud on 4. sajandil populaarsete horisontaalsete servadega ja neile kantud pärlikeed meenutavate reljeefsete kaunistustega anumate "tüpoloogilised järglased". Selliseid anumaid kasutati lauanõudena kastmete serveerimiseks. Nende valmistamine lõppes 5. sajandil. Lähem vaste Kriimani ja Varnja eksemplaridele leidub Itaalias Genova Kunstiajaloo Muuseumis (joon 6). Varnja nõu graveeritud servakaunistus on ainulaadne. Võrdlusena on esitatud mõned sarnaste kujunditega ornamenditud esemete näited, sh suur kuldvaagen Pietroasa aardest Rumeeniast (joon 7) ja mosaiikmustrid Tuneesiast, Jordaaniast ning endise Jugoslaavia Makedoonia Vabariigi alalt (joon 8).

Varnja ja Kriimani nõude dateerimiseks on peatutud ka nende leiuoludel ja kaasleidudel ning arutletud selle üle, millal ja miks sattusid väärisvarad maapõue. Kriimani nõu leiti kivivarest, kus täheldati tarandkalmele iseloomulikku kaht paralleelset ja neid ühest otsast ühendavat kivirida. Tarandkalmele osutab ka koos hõbenõuga leitud kinnine pronkssõrmus (joon 9). Seda tüüpi sõrmused ilmusid Eesti tarandkalmetesse 2. sajandil, olid siinmail soositud ka 3. sajandil ja mõnes piirkonnas ilmselt veel 4. sajandilgi. Kuna hilisemates muististes selliseid enam ei kohta, tuleb arvata, et pronkssõrmus ja hõbenõu kajastavad Kriimani kivikalme kaht erinevat kasutusperioodi. Tarandkalmete taaskasutamist rahvasterännuaja matmispaikadena on täheldatud üle Eesti, kuid üksnes maa idapoolsetest kalmetest või vahetult nende lähedalt on avastatud sellel perioodil sinna maetud

aardeid. Need (Kardla, Paali I ja II ning Villevere) esemekogumid koosnevad valdavalt baltipärastest hõbe- ja üksikutest kuldehetest.

Varnjast leitud hõbenõu fragmendid (joon 4, 5) anti üle Riia Toommuuseumile koos kahe "kivist helmega", kuid pole teada, kas need moodustasid ühe leiukompleksi. Kuna helmed pole säilinud, siis on võimatu öelda, kas tegemist oli inimese valmistatud esemetega või olid need looduse vormitud kivistised.

Kuidas jõudsid Bütsantsi hõbenõud Eestisse? Intrigeeriv on nõude varane dateering ja fakt, et sedavõrd varaseid Bütsantsi leide ei ole siitkandist pea üldse teada. Isegi juhul kui Varnja nõu templid on valesti dateeritud (pikka aega arvati, et need pärinevad 7. sajandist), on tegemist silmapaistvate luksusesemetega. Nagu nähtub levikukaardilt (joon 10), on Bütsantsi hõbe põhjas haruldane. Kuna kontrolltemplitega Bütsantsi hõbeesemete levikukaardi seletamine võimukeskuste vahel toimunud hinnaliste kingituste vahetamisega välistab nende seostamise eriaegsete muististega, siis on esitatud hüpotees, et Bütsantsi hõbenõud jõudsid sinna otse lõunast. Kuna nende avastamiskohad paiknevad lähestikku ühes vesikonnas ja tegemist on ainsate seda tüüpi anumatega Eestist, siis on tõenäoline, et nõud jõudsid siia korraga ning need võidi vahetada näiteks karusnahkade vastu. Teine oletus on, et Baltikumis elanud hõimude mehi läks Bütsantsi piirialadele või impeeriumisse palgasõduriks ja nemad tõid hõbenõud Emajõe suudmealale. Sellise arvamuse esitasid ka A. Bliujienė ja V. Steponaitis (2009) Tauragnase, Žeimenise ning Vajuonise järve vahelise Kagu-Leedu väikese piirkonna leiumaterjali alusel, kus mõnes hauas esineb palju Kesk-Doonau alalt pärit esemeid. Skandinaavia-Baltikumi kontaktide ja Skandinaavia-Bütsantsi või pigem Kesk- ning Ülem-Doonau kontaktide kaudu võisid Peipsi läänekaldale jõuda ka Varnja ja Kriimani nõud.