Selected Glass Finds from Apsorus (Osor) – Reflection of Wealth and Prestige
Izbrane steklene najdbe iz Apsorja (Osorja) – odraz bogastva in prestiža

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Abstract
The article focuses on selected glass finds from Osor. The exact provenance of the finds is unknown; most likely, they were discovered in a Roman necropolis of Apsorus. Among the excavated materials, early products of Roman glassmaking, dated to the 1st century AD, stand out and illustrate the remarkable diversity of glassmaking technological practices of the period. Some of them were still made in moulds, others by mould-blowing, but we should also mention the earliest blown products. Imports of these products in Roman towns and cities along the Adriatic reflect the economic strength of the population and an extensive trade network expanding from northern Italy to the Eastern Mediterranean.
Keywords: Osor, Roman glass, moulds and mould-blowing, trade, import

Izvleček
Članek se osredotoča na izbrane najdbe stekla iz Osorja. Podatki o izvoru najdb niso ohranjeni, najverjetneje pa so bile odkrite v rimski nekropoli Apsorja (Apsorus). Med gradivom izstopajo zgodnjerimski izdelki, nastali v 1. stoletju, in ilustrirajo izredno raznolikost rimskega steklarstva ter tehnoloških praks tistega časa. Nekateri so bili še izdelani v kalupih, drugi so bili pihani v kalup, med njimi pa so tudi zgodnji pihani izdelki. Uvozi tega posodja v prvih rimskih mestih in naseljih vzdolž Jadrana odražajo ekonomsko moč prebivalstva in razvejano trgovsko mrežo, ki se je raztezala od severne Italije do vzhodnega Sredozemlja.
Ključne besede: Osor, rimsko steklo, kalupi in pihanje v kalup, trgovina, uvoz

Osor – Apsorus

The arrival of the Romans in the 2nd century BCE undoubtedly marked the beginning of a new era for Osor. Together with other areas of Kvarner, Osor boldly crossed the threshold of history and began another rich epoch of its splendid past (Blečić Kavur 2015, 231–3). Archaeological sources, no matter how stingy and/or truncated, support the assumption of cultural and economic completion of the longest chapter of Osor prehistory. Then Osor, along with other areas of Kvarner, boldly crossed the threshold of history and began another extremely rich epoch of their magnificent past. Material culture indicates an important role of Osor in the Romanisation of the northern Adriatic. During Roman rule, Osor (Apsorus) was granted the status of a *municipium* and developed into a Roman city (Starac 2000, 79; Faber 1980; 1982).

Although the exact date of the establishment of the autonomous city remains questionable, analyses of material culture can help uncover aspects of town life and its inhabitants, as well as reflect their social status (Kurilić 1999; Šašel Kos 2017; Šmid 2025).

In this article, we will focus on selected glassware finds from the Archaeological Collection Osor, Lošinj Museum (Fadić 1982). The exact provenance of the finds is unknown; most likely, they were discovered in a Roman necropolis west of the Apsorus (Fadić 1982, 111). Marchesetti also confirms this possibility in his publication (1924, 141). Excavations in this necropolis began

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in 1874 by the local priest Bolmarčić. Unfortunately, the excavations were carried out without proper archaeological methods, so it is not surprising that no burial complexes have been preserved. They were continued in 1881 and 1894, but unfortunately, no archaeological documentation has been preserved, nor has all the excavated material been left on Cres (Blečić Kavur 2015, 25–8). That is why the study of the material can focus more or less on typology and comparison.

Among the excavated material exhibited in the museum, early products of Roman glassmaking stand out. Some of them were still made in moulds, others by mould-blowing, but we should also mention a few early blown products.

Why are we focusing on glass, and what do these finds reflect?

In the 1st and 2nd centuries BC, the Hellenistic states of the Mediterranean were conquered by the Romans and incorporated into the Roman State as provinces. This led to cultural and social influences and exchanges, as well as intense development and several innovations in various Roman crafts, including glassmaking. Glass-working developed in the Roman State based on knowledge from the Hellenistic centres and provided the impetus for the creation and development of an independent Roman glass industry, which flourished from the Augustan era until the end of the Roman Empire.

No period better illustrates the remarkable diversity of technological practices of this early period than the Augustan era and subsequent decades. Glass finds from archaeological contexts of this period show a great variety and range in form, colour, decoration and production techniques. Multicoloured mould-made mosaic vessels became quite rare. Monochrome transparent glass vessels, made in moulds, and later also decolourised vessels, were increasingly produced.

Imports of these products in newly created towns and cities along the Adriatic reflect the economic strength of the population. The presence of glass material made using various glassmaking techniques, as evident in the glass finds from Osor, suggests that the settlement had a wide trade network and a population with the corresponding economic power at that time. Most of the early glass vessels were imported from the newly founded glass workshops of central Italy, but some pieces may also have come from workshops in the Eastern Mediterranean.

The Mould-Made Glasses

The group of mosaic vessels is represented by a ribbed bowl (form Isings 3 (Isings 1957); AR 2; Lazar 2.1.4), unfortunately destroyed and disfigured, as it was most probably placed on a pyre with a deceased (fig. 1a). The bowl was made of cobalt blue and white opaque glass plaques with a marble pattern.

A mould-made ribbed bowl was produced by sagging a glass disc over a preheated mould; this is the most characteristic and widespread form of early Roman glassmaking, achieving exceptional popularity and widespread use, probably due to its practicality. It is known in both the western and eastern parts of the empire. Differences in size, rib design, and glass are a result of the numerous workshops where ribbed bowls were produced. Judging by settlement finds, the bowl was a widely used item in Roman households, as can be concluded from the finds in civil and military contexts at numerous European sites.

Numerous sites, such as Emona and Polhov Gradec in Slovenia (Petru 1972; Plesničar Gec 1972; Lazar 2003 – fig. 1b), and Zadar in Croatia (Eterovič Borzić and Štefanac 2021, 43, cat no. 50), indicate that it was also frequently placed in graves as a vessel or even used as an urn. Its usefulness and popularity are the reasons why it remained in use throughout the entire 1st century and beyond, when glass blowing had already been introduced. Its popularity is therefore the reason why it remained in use throughout the 1st century and beyond, when glass blowing had already completely prevailed over other manufacturing techniques.

From numerous comparisons, we would mention only a few examples. In the settlement

Figure 1: Remains of a Ribbed Bowl (a) Destroyed in a fire (pyre?) and completely preserved (photo by Monika Petrović, 2025)

of Augusta Raurica (Augst in Switzerland), mosaic ribbed bowls are characteristic of the first half of the 1st century, the period between 20 and 50 AD (Fünfschilling 2015, 263, 265). A ribbed bowl made of mosaic glass with a marbled pattern of dark blue and white glass from Celje (Roman Celeia; Lazar 2023, 418) and the one from the northern necropolis of Emona (violet and white glass of the same pattern) can be identified as type AR 2.1. (Fünfschilling 2015, 261). They are also known from Salona, Tilurium (Buljević 2016, 30, pl. 1, 10–1), and Burnum mili-

Figure 2: Completeley Preserved Ribbed Bowl from Slovenj Gradec Necropolis (after Lazar 2003, fig. 9a)

tary camp in Croatia (Jadrić 2011, pl. 4, 2–4), the early layers of Emona (Gaspari 2010, 110, fig. 64) and Romula (Lazar 2025, 55), as well as from the necropolis in Polhov Gradec (Lazar 2003, 37, fig. 9a) and Emona graves (Petru 1972, pl. 21, 17; Plesničar Gec 1983, pl. 3, 12).

The group of monochrome, translucent coloured glasses from the early imperial period is represented by two mould-made vessels, a plate and a bowl (fig. 2; 4), made of translucent deep green glass. D. F. Grose defined six families of mould-made vessels within the group of the early Roman glass (Grose 1989, 244–61). Monochrome translucent coloured fine ware, and monochrome opaque coloured fine ware, were defined as Family III – Roman cast monochrome vessels (Grose 1989, 254). Due to the angular and carinated ceramic-like profiles, the group was also known as the so-called *glass with ceramic profiles,* as it was defined by Berger (1960, 24–30) in his study of the glass from Vindonissa.

This group of coloured fine wares was made by mould pressing (Lierke 2009) and is characterised by angular lathe-turned forms (fig. 3), strong colours and very high standards of craftsmanship. Some of the colours, like emerald green, are the inventions of the newly established Roman glass industry (Grose 1991, 2). The angular forms reveal the influence of the contemporary metalware of the Julio-Claudian era (Grose 1989, 254). The distribution of these products is Western; the majority of the examples were discovered on Italian and other European archaeological sites. That's why this group is understood as a distinctive product of the early Roman glass industry in the west, and the Italian production centre is assumed. These glasses first appeared in the first quarter of the 1st century AD, perhaps continuing to about AD 60 (Grose 1989; 1991; 2017). Only a generation or two after its appearance, the coloured fine ware obviously fell from fashion.

The plate and bowl from Osor (figs. 2–4) are made of deep green glass, typical of these products. The most widespread colours are dark green in various shades, dark and cobalt blue and peacock blue, the result of the different minerals used to colour the glass. Emerald green and peacock blue are colours developed by the Ro-

Figure 3: Detail from the Interior of the Plate with a Circle and a Dot in the Centre, a Remnant of Working on a Lathe (photo by Monika Petrović, 2025)

Figure 4: Bowlwiith Carinated Walls Made of Deep Green Glass (photo by Monika Petrović, 2025)

man glass industry and used almost exclusively for this group of glassware.

The plate (pl. 1, 1) with carinated walls can be compared with the finds from Slovenia as form 1.1.4. (Lazar 2025, 56, fig. 29). The bowl with carinated walls (pl. 1, 2) represents form Isings 2 or form 2.1.11. known from Romula in Slovenia (Lazar 2025, 58, fig. 30), where this group of glasses is represented with numerous forms and examples.

The comparisons from well-dated sites are known from Magdalensberg (Czurda-Ruth 1979, 65–91), where fragments presumably date before 45 AD when the site was abandoned, with few examples attributed to the late Augustan level (1979, 70–1). In Vindonissa, finds are concentrated in Tiberian and early Claudian contexts, some continuing into the Neronian period (Berger 1960, 24–30). Some fragments are also known from Salona (Buljević 2016, 64).

At Cosa, dated examples come from five deposits (Grose 2017, 81). The earliest is deposit IV (before 25–15 BC) associated with the Augustan reoccupation of the town. They can represent some of the earliest products of the Roman glass industry, or they were imported from the eastern Mediterranean (Grose 2017, 81–2). Deposits V and VI are dated to the period of cca 25–15 BC to cca 40–45 AD, carinated bowls, pyxides and a bowl with an out-turned rim are represented in these strata (Grose 2017, 81, pl. 8, 134, 136–7, 139; 9, 154). Vessels presented in deposits VII and VIII (before cca 50–55 AD) prove the production of these glass vessels until the mid-1st century or even later, but not after the last quarter of the 1stcentury (Grose 2017, 82).

In the second half of the 1st century, demand and taste for fine glassware dramatically changed. Intense colours were forgotten, and the desire for something new and different arose – a group of elegant tableware made of colourless glass appeared on the market, often decorated with cut faceted decoration, which further emphasised the quality of glass and of the glassmaker's work. Therefore, in the Flavian period, the coloured fine ware was replaced by a new group of tableware, made of decolourised glass.

In the Osor Museum collection, the new group of tableware is represented with a shallow footed bowl with a wide, overhanging rim (fig. 5). The bowl is completely preserved, undecorated and made of high-quality decolourised glass (pl. 1, 3). Its form can be compared to the finds from Slovenia (Lazar 2003, 42; 2025, 68, cat. no

Figure 5: Footed Bowl Made of Decolourised Glass (photo by Monika Petrović, 2025)

425, 426) and represents the undecorated version of form 2.1.8 (Lazar 2003, 43).

Small and large bowls made of decolourised glass without decoration appear in considerable numbers and variations in form, for example, at Augst (*Augusta Raurica* in Switzerland (Fünfschilling 2015, 108, form AR16.2; nos. 5254–260) as well as in *Romula* in Slovenia (Lazar 2025, 69). This is a large group of vessels with low ring foot, rarely with a high foot, most often without decoration or with individual shallow ridges on the body. Rim can be made or shaped in very different ways. It is often wide and flared, profiled, and with an overhanging rim.

A varied selection of the rims of these products is presented in a monograph on Roman glass from Augst (Fünfschilling 2015, 108, fig. 141). At the site of Romula, a Roman road and customs station in Pannonia (SE Slovenia), a considerable amount of decolourised undecorated tableware was also excavated (Lazar 2025, 69, fig. 42a). These types of bowls are dated to the late 1st and 2nd centuries (Fünfschilling 2015, 278–79).

Mould-Blown Glass

Mould-blowing was the last newly discovered glassmaking technique. Products blown in single and multi-part moulds are represented among the Roman glass material from the 1st to the 5th centuries. However, it is the 1st century in which the greatest range of forms and variety of these vessels can be identified. The predominant products of this period are those of the so-called Syro-Roman workshop circle or production centres. A detailed study of mould-blown wares, about their origins, designs or moulds, to the masters of these wares, was contributed by Marianne E. Stern (Stern 1995), and later complemented by studies of individual craftsmen, such as Ennion (Israeli 2011; Lightfoot 2014).

According to studies by Jennifer Price (Price 1991) and Marianne E. Stern (Stern 1995), 1st-century mould-blown wares can be classified into three groups:

1. Late Tiberian to Early Claudian, i.e. 35–45 (cylindrical beakers signed by *Ennion*, beakers with inscriptions (so-called motto beakers), hemispherical ribbed bowls) (see Fünfschilling 2015, fig. 146, 1–7).
2. The Claudian-Neronian period or between 45–61 (hemispherical ribbed bowls, circus cups, various cups with floral and similar decoration) (see Fünfschilling 2015, fig. 146, 9–13).
3. Group of the Late Neronian and Flavian period or between 61–75 (jug and polygonal bottle with Ennion signature, ribbed bowls, conical beakers with various decoration, head-shaped bottles) (see Fünfschilling 2015, fig. 148, 1–8).

Figure 6: Finely Ribbed Shallow Bowl Made of Translucent Glass with a Bluish Tinge, Mould-Blown (photo by Nadir Mavrović, 2025)

Based on recent finds from August, Sylvia Fünfschilling (2015) concludes that this division is more or less artificial; in archaeological layers, finds from Groups 1 and 2 are represented simultaneously, from the end of the reign of Tiberius until the early years of Nero's reign (Fünfschilling 2015, 113). The forms of all three groups can also be traced together in archaeological contexts; e.g., circus cups and ribbed bowls are represented throughout the second half of the 1st century. The proposed division was an attempt to arrange the known products chronologically within the group as a whole. Today, the archaeological contexts do not fully support the proposed timespan and division, according to Sylvia Fünfschilling (Fünfschilling 2015, 113).

The technique of mould-blowing flourishes from the mid-first century to the Flavian period, with a slightly different development in the west than in the eastern part of the empire. Given the representation of particular forms, like mould-blown bottles with various decorations, the cradle of this technique is probably somewhere in the Middle East (Stern 1995, 66); however, almost nothing is known about the location of the production centres.

Several products were imported from the Eastern workshops, produced in various bright colours such as green, blue, violet, amber, etc. The products are not very numerous, which is why the finds are even more important. On several sites across the Empire, we may observe that mould-blown vessels of the 1st century were a rarity, and available predominantly to well-to-do clients. They are seldom found in graves; probably, they were considered too precious.

Among the Osor finds, we should mention at least three examples of different forms, which are excellent representatives of mould-blown series from the 1st century.

The first one is a shallow, finely ribbed bowl (pl. 1, 4) made of high-quality clear glass with a slight bluish tinge (fig. 6). It was possibly blown into a one-part mould. On the inside of the bottom, we can see a vestigial omphalos, while on the underside, two concentric ridges. The group of mould-blown shallow bowls is considerably smaller than that of deeper specimens, as shown by an overview of these finds in the Gallia Narbonensis region, where this vessel form is the most common among all mould-blown products (Fontaine and Roussel-Ode 2010, fig. 9). Jennifer Price notes that shallow bowls are noticeably

Figure 7: Truncated Conical Beaker with Almond Boss Decoration (photo by Monika Petrović, 2025)

Figure 8: Base of a Beaker Wwith Rosette Decoration (photo by Monika Petrović, 2025)

more common in the context of Mediterranean sites than in the western part of the empire (Price 1991, 72). Many of them are decorated with concentric ridges on the outside of the bottom, while the omphalos inside, at the bottom of the vessel, is less common. Comparisons for the latter can only be found at certain sites, such as Marseille, Apt, the Gulf of Fos, Avignon, and Peyrestortes (Fontaine and Roussel-Ode 2010, 188, fig. 9, 58, 59, 60, 67). Among other comparisons, it is worth mentioning the finds from the Relja necropolis in Zadar (1989, grave 797; 2005, grave 329; Eterović Borzić and Štefanac 2021, 32, cat. no. 18, 149, cat. no. 469), the Black Sea region (Pontykapeion; Kunina 1997, 276, no. 121), southern Spain, Italy (Price 1991, 64) and the nearby Aquileia (Calvi 1968, 101, pl. 16, 1). In France, they are dated to the second quarter of the 1st century (Fontaine and Roussel-Ode 2010, 189), while in Augst they are present in the middle and second half of the 1st century (Fünfschilling 2015, 292).

The second well-preserved find is a truncated conical beaker (pl. 1, 5) with knobbed or almond decoration over the body (fig. 7). This form is sometimes also known as the Hercules beaker[1] and is known in many series. The principal decoration consists of alternating rows of oval knobs or bosses pointing downward. They were made of bluish, naturally coloured or decolourised glass, but finds of beakers made of coloured glass are also known. They were blown into a four-part mould joined to a disk-shaped base section, but beakers blown only in two vertical sections are also known (Stern 1995, 103–4). Decoration on the body occurs in many variations. Knobs can be plain and simple, as seen on the Osor beaker, or three-tiered and alternating with small circular bosses; sometimes the bosses are also framed with linear patterns.

Most of these vessels were probably drinking vessels, and, having in mind their decoration, they should probably be associated with Hercules and associated celebrations or worship.

1 The decoration on the beaker is said to be reminiscent of Hercules' club; exceptionally, there are small bottles made in the shape of Hercules' club (Ernesto Wolf Collection; Stern 1995, 105, fig. 70)

Figure 9: Fragment of a Mould-Blown Cylindrical Beaker with Vegetal Decoration (photo by Monika Petrović, 2025)

A wide variety of these beakers was published from France (Fontaine and Roussel-Ode 2010, 184). The published finds are made of coloured and naturally coloured glass, with various types of decoration (Fontaine and Roussel-Ode 2010, fig. 5, 6). The beaker from Osor is similar to finds from Zaton in Zadar (Gluščević 1986, 256, pl. 1, 2), the Gulf of Fos (no. 44 and Ruscino, no. 49), comparisons are also known from Rome, Augst and Aquileia (Fontaine and Roussel-Ode 2010, 184), Pompeii and Herculaneum (Stern 1995, 104). Several beakers with more elaborate boss decoration and the addition of theatrical masks are known from Liburnian sites in Croatia, such as Asseria (Fadić 2005, 78, 86, figs. 1–3).

They were in use from the mid- to the second half of the 1st century, but less is known about when the form went out of use.

The third find is a fragment of a cylindrical beaker or cup with vegetal decoration (pl. 1, 6). On the wall and rim, we can recognise the line where the two parts of the mould were put together (fig. 9). The fragment is too small to define its form, but most probably, it was a drinking vessel, produced in the Claudian-Neronian period, like other cups with floral or similar decoration (Price 1991, 68). A possible comparison to its form and vegetal decoration is a completely preserved cup from Emona grave no. 5 (1280), dated to the second half of the 1st century (Petru 1972, 116, pl. 118, 3; Lazar 2004, 55, no. 23).

It is also worth mentioning two mould-blown base fragments of balsamaria. They were made of a yellowish glass and blown in the form of a grape (Fadić 1982, 117, fig. 1, fig. 33, and fig. 34). Due to their small size (body height 2.8 and 1.5 cm), we may assume they belonged to a form Isings 78e. These small vessels, mostly without handles, were produced in the 1st century, with the first products appearing in the second half of the 1st century (Moirin and Arveiller 2010, 215; Goethert-Polaschek 1977). The vessels were most often blown from naturally coloured, yellow or blue glass, but also from opaque white glass. Their size did not exceed 10 cm in height. They can be found in settlement contexts and also as grave goods; among other places, they are known from sites in Italy (Pompeii, Aquileia), Spain, France, and Germany (Moirin and Arveiller 2010, 221–4).

Early Blown Glass

The mould-made techniques went out of use in the first decades of the 1st century AD (except for ribbed bowls), and costly products were replaced with new ones.

The discovery of free blowing in the 1st century BC caused gradual changes in glassmaking. The discovery of glass blowing caused the rapid spread of cheaper and more available free-blown products, and in the course of the 1st century AD, glass became, more or less, a commodity for all.

The Zarte Rippenschalen were one of the earliest free-blown products known in all the provinces of the Empire. Marianne E. Stern placed them among the so-called vessels exploring the blow-pipe, i. e., among the products made in the period from 30 BC to 50 AD (2001, 43).

The bowls are mostly hemispherical, around 5 to 6 cm in height, and the rim is cracked-off, unworked or lightly ground. During the working process, the glassblower wound the thin glass thread around the paraison and then created the ribs, before the bowl was inflated to its final shape. The threads became thin, in some places almost invisible; the ribs did not expand because pinching cooled the glass during forming (Stern 2001, 82).

The use of these bowls is still questionable. According to some researchers, the unworked rim should speak against being a drinking vessel, but for serving food or even washing hands at dinner. However, some bowls were very probably used (also) as drinking vessels. From sites in Croatia and Slovenia, a wide range of these finds from settlements and necropolises, varied in size, colour, and decoration (Croatia: Jadrić 2011, 364 and note 21, pl. 5, 1– 4; Slovenia: Lazar 2004, 61, no. 42, 43), could perhaps confirm their use as drinking vessels.

The finds of these bowls are widespread in all the provinces of the Empire, but predominantly concentrated in northern Italy, the SE Alpine area, Dalmatia and the Ticino area. They were most probably made in the western part of the Roman Empire. Several bowls found in the Eastern Mediterranean are monochrome, like the completely preserved bowl from Osor. We can't confirm if this is a regional variant or perhaps a local product.

The earliest dating of these finds is known from Cosa in Italy, where finds come from the strata dated to the last decades of the 1st century BC, even earlier than the Magdalensberg and Morgantina finds, which are dated to the first decades of the 1st century AD (Grose 2017, 123).

Concluding Remarks

With the selected 1st-century AD glass finds, we presented the varied assemblage of glass products discovered in Osor. The products represent all glass-making techniques developed and used by Roman glassmakers. It is a rare opportunity to have such a varied group of glass products on one site and study them. We can mention a similar example from Slovenia, the Roman road and customs station *Romula* in Pannonia, where we had an opportunity to compare 1st-century finds from a settlement and necropolis (Tomaž et al. 2024; Tomaž et al. 2025).

What can this selected group of high-quality glassware tell us about the Roman town of Osor? Without a doubt, its population included a group of wealthy people, both Romans and locals, who were well aware of what was available on the glassware market and what the most prestigious products were. They were well informed about what was popular in the period and where or by whom these items were available. These residents had the wealth and economic power to buy these products or have them made to order. With their quality and uniqueness, they could show off the prestige, taste and personal economic power to their dinner guests. The rich and varied glass material, imported from Italic and Mediterranean workshops, shows that Osor played an important role in the process of Romanisation of the northern Adriatic.

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Catalogue

Mould-made glass

1. Melted fragments of a ribbed bowl made of mosaic glass, blue and white marbled pattern.

   Form: Is 3; Lazar 2.1.4.

   Publication: unpublished.

2. Plate with carinated walls and a low ring-foot made of dark green glass, mould-made, with a circle on the inside of the base, remnants of attachment to a lathe.

   Dim.: diam. 18 cm, height 2.7 cm, inv. no. 176, 210.

   Form: Trier 7; Lazar 1.1.4.

   Publication: Fadić (1982, 120, sl. 3, 44).

3. Bowl with carinated walls and a low ring-foot, made of dark green glass, mould-made.

   Dim.: diam. 13.5 cm, height 5.5 cm, inv. no. 160, 594.

   Form: AR 6.2; Lazar 2.1.11.

   Publication: Fadić (1982, 122, sl. 3, 47).

4. Bowl with an outplayed wall and overhanging rim on a low ring-foot made of decolourised glass, mould-made and finished on a lathe.

   Dim.: diam. 13.3 cm, height 4.1 cm, inv. no. 159, 593.

   Form: var. AR 16.2; Lazar var. 2.1.8.

   Publication: Fadić (1982, 122, sl. 3, 46).

Mould-blown glass

1. Finely ribbed bowl made of naturally coloured glass with a bluish tinge, mould-blown, possibly blown in one-part mould. On the inside of the bottom, a vestigial omphalos, on the underside, two concentric ridges.

   Dim.: rim diam. 12.4 cm, base diam. 5.5 cm, height: 4.5cm.

   Form: Stern 1995, Type 2; AR 30.1; Lazar 2.2.1.

   Publication: unpublished.

2. Truncated conical beaker with almond boss decoration on the walls, on the base a stylised flower with six petals, mould-blown, naturally coloured glass.

   Dim: rim diam. 6.4 cm, height 11.5 cm, inv. no. 602.

   Form: AR 33.1; Lazar 3.1.1.

   Publication: Fadić (1982, 124, sl. 3, 53).

3. Fragment of a rim and a wall of the beaker with vegetal decoration and visible vertical seam, yellowish glass, mould-blown.

   Dim.: 4 x 3.6 cm; inv. no. 863.

   Form: var. AR 31.

   Publication: Fadić (1982, 124, sl. 3, 54).

Free blown glass

1. Globular ribbed bowl with cut-off rim made of naturally coloured glass with a bluish tinge (zarte Rippenschale).

   Dim: height 6.8 cm, inv. no. 158, 592.

   Form: Is 17; Lazar 2.3.1.

   Publication: Fadić (1982, 117, sl. 3, 48).

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Summary

The arrival of the Romans in the 2nd century BCE marked the beginning of a completely new era for Osor. Together with other areas of Kvarner, Osor began another rich epoch of its splendid past. Material culture indicates that it played an important role in the Romanisation of the northern Adriatic. Osor (Apsorus) was granted the status of a *municipium* and developed into a Roman city. The article focuses on selected glassware finds from the Archaeological Collection Osor, Lošinj Museum. The exact provenance of the finds is not known; most probably, they were discovered in a Roman necropolis west of the Apsorus. Among the excavated material exhibited in the museum, early products of Roman glassmaking stand out.

Why are we focusing on glass, and what do these finds reflect?

In the 1st and 2nd centuries BC, the Hellenistic states of the Mediterranean were conquered by the Romans and incorporated into the Roman State. This opened cultural and social influences and exchanges, as well as intense development and several innovations in various Roman crafts, including glassmaking. No period better illustrates the remarkable diversity of technological practices of this early period than the Augustan era and subsequent decades. Glass finds show a great variety and range in form, colour, decoration and production techniques.

Imports of these products in newly created towns and cities along the Adriatic reflect the economic strength of the population. The presence of glass material made using various glassmaking techniques, as evident in the glass material from Osor, suggests that the settlement had a wide trade network. Most of the early glass ves-

sels were imported from the newly founded glass workshops of central Italy, but some pieces may also have come from the workshops of the Eastern Mediterranean.

The mould-made glasses are represented by a blue and white mosaic ribbed bowl, unfortunately destroyed and disfigured, as it was most probably placed on a pyre with a deceased. The group of coloured fine wares (a plate and a bowl with carinated walls made of deep green glass) was made by mould pressing and is characterised by angular lathe-turned forms, strong colours and very high standards of craftsmanship. Some of the colours, like emerald green, are the inventions of the newly established Roman glass industry, and the angular forms reveal the influence of the contemporary metalware of the Julio-Claudian era.

In the second half of the 1st century, demand and taste for fine glassware dramatically changed. Intense colours were forgotten, and a group of elegant tableware made of colourless glass appeared on the market, often decorated with cut faceted decoration. In the Osor Museum collection, the new group of tableware is represented with a shallow footed bowl with a wide, overhanging rim.

Mould-blowing was the last newly discovered glassmaking technique. Products blown in single and multi-part moulds are represented among the Roman glass material from the 1st to the 5th centuries. However, it is the 1st century in which the greatest range of forms and variety of these vessels can be identified. A finely ribbed shallow bowl, a truncated conical beaker with almond decoration and a fragment of a cup with vegetal decoration represent this group of glass.

The discovery of free-blowing in the 1st century BC caused gradual changes in glassmaking, and society was faced with a rapid spread of cheaper free-blown products. In the course of the 1st century AD, glass became, more or less, a commodity for all. The Zarte Rippenschalen were one of the earliest free-blown products known in all the provinces of the Empire.

The rich and varied glass material, imported from Italic and Mediterranean workshops, shows that Osor played an important role in the process of Romanisation of the northern Adriatic.

Povzetek

Prihod Rimljanov v 2. stoletju pr. n. št. je za Osor pomenil začetek nove dobe. Skupaj z drugimi območji Kvarnerja je začel novo bogato obdobje svoje sijajne preteklosti. Materialna kultura kaže, da je imel pomembno vlogo pri romanizaciji severnega Jadrana. Osor (Apsorus) je dobil status municipija in se razvil v rimsko mesto. Članek se osredotoča na izbrane najdbe stekla iz Arheološke zbirke Osor Lošinjskega muzeja. Natančen izvor najdb ni znan; najverjetneje so bile odkrite v rimski nekropoli zahodno od Apsorja. Med izkopanim materialom, razstavljenim v muzeju, posebej izstopajo zgodnji izdelki rimskega steklarstva.

Zakaj se osredotočamo na steklo in kaj odražajo te najdbe?

V 1. in 2. stoletju pr. n. št. so Rimljani osvojili helenistične države Sredozemlja in jih vključili v rimsko državo. To je omogočilo kulturne in družbene vplive ter izmenjave, intenziven razvoj in številne inovacije v različnih rimskih obrteh, vključno s steklarstvom. Nobeno obdobje ne ponazarja izjemne raznolikosti tehnoloških praks tega zgodnjega obdobja bolje kot avgustejska doba in naslednja desetletja. Steklene najdbe kažejo veliko raznolikost in razpon v obliki, barvi, okrasih ter proizvodnih tehnikah.

Uvoz teh izdelkov v novonastala mesta ob Jadranu odraža gospodarsko moč prebivalstva. Prisotnost steklenih izdelkov, ki so bili izdelani z uporabo različnih steklarskih tehnik izdelave, kot priča stekleni material iz Osorja, kaže, da je imelo naselje razvejano trgovsko mrežo. Večina zgodnjih steklenih posod je bila uvožena iz novoustanovljenih steklarskih delavnic v osrednji Italiji, vendar so nekateri kosi morda prišli tudi iz delavnic vzhodnega Sredozemlja.

V kalupih narejeno posodje zastopa modro-bela rebrasta skodelica iz mozaičnega stekla, žal močno poškodovana v ognju, saj je bila najverjetneje položena na pogrebno grmado skupaj s pokojnikom. Fino namizno posodje iz obarvanega enobarvnega stekla intenzivnih barv (krožnik in skodelica) je bilo izdelano z oblikovanjem v kalupih, njegova značilnost pa so ostre linije, dodelane na stružnici, intenzivne barve in visoka kakovost izdelave ter obrtnega znanja. Nekatere barve, kot npr. smaragdno zelena, so izum novoosnovane

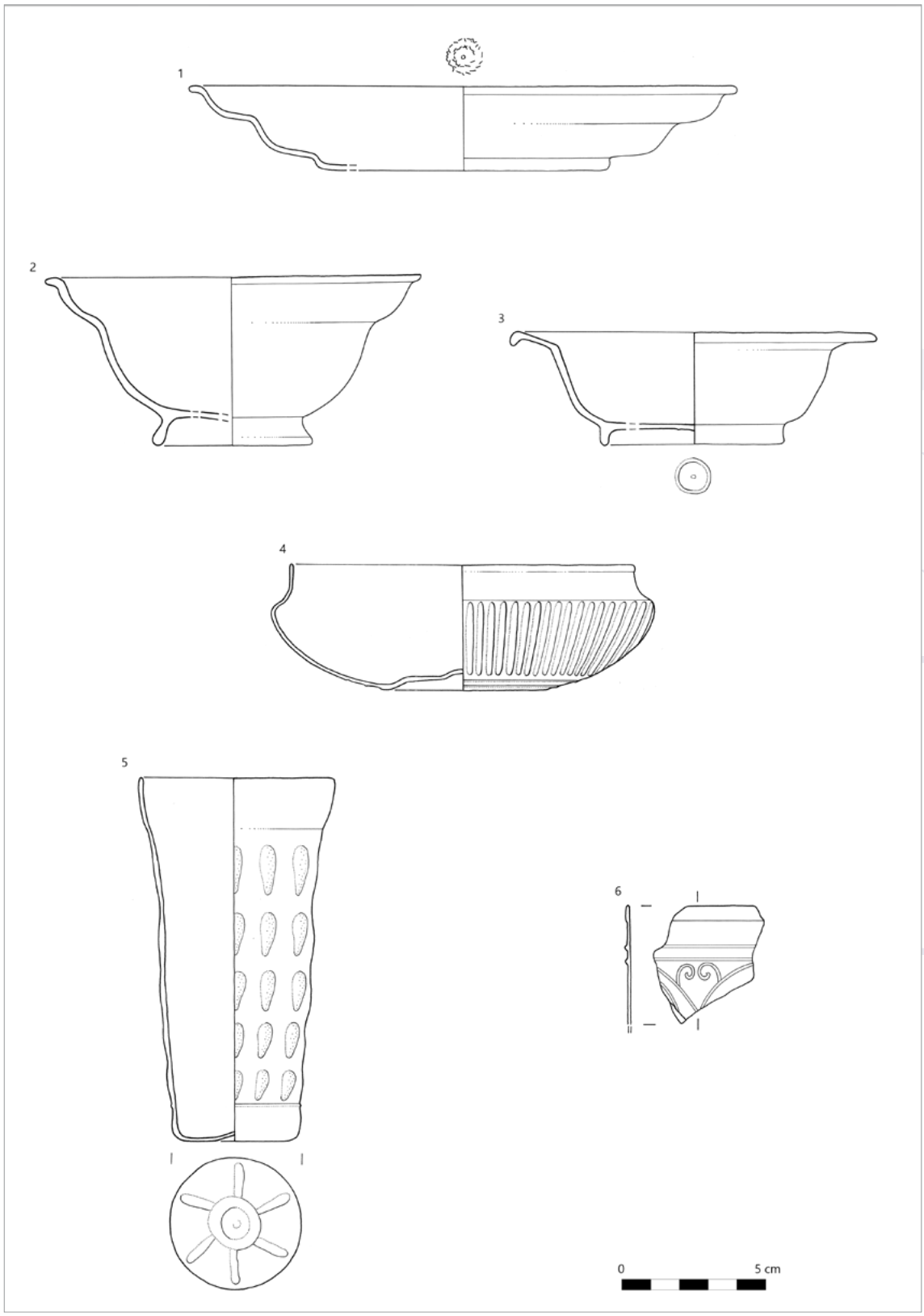
rimske steklarske industrije, ostre linije pa odražajo tudi vpliv sočasnega kovinskega izdelka iz julijsko-klavdijske dobe.

V drugi polovici 1. stoletja sta se povpraševanje in okus za fino stekleno posodje dramatično spremenila. Intenzivne barve so bile pozabljene, na trgu se je pojavila skupina elegantnega namiznega posodja iz brezbarvnega stekla, pogosto okrašena z vrezanim fasetiranim okrasom. V zbirki Lošinjskega muzeja je nova skupina namiznega posodja zastopana s plitvo skodelico na prstanasti nogi s širokim ustjem z navzdol zapognjenim robom.

Pihanje v kalup je bila zadnja novoodkrita tehnika izdelave stekla. Izdelki, pihani v enodelnih in večdelnih kalupih, so zastopani med rimskim steklenim materialom od 1. do 5. stoletja. Vendar je v 1. stoletju mogoče opaziti največjo raznolikost oblik in okrasja teh posod. To skupino stekla predstavljajo plitva skodelica s fino narebrenim ostenjem, visoka konična čaša z mandljevim okrasom in odlomek čaše z rastlinskim okrasom.

Odkritje tehnike prostega pihanja v 1. stoletju pr. n. št. je povzročilo postopne spremembe v proizvodnji stekla, družba pa se je soočila s hitrim širjenjem cenejših izdelkov, izdelanih s tehniko prostega pihanja. V 1. stoletju n. št. je steklo postalo bolj ali manj blago za vse. Male kroglaste skodelice z rebri (t. i. *Zarte Rippenschalen*) so bile eden najzgodnejših pihanih izdelkov, ki so bili razširjeni v vseh provincah cesarstva.

Bogati in raznoliki stekleni izdelki, uvoženi iz italskih in sredozemskih delavnic, odražajo, da je Osor igral pomembno vlogo v procesu romanizacije severnega Jadrana.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