Chapter 5

Roman Period Glass Unguentariums at the Hacibektas Veli Archeology Museum[1]

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Abstract

The aim of this study is to examine the glass unguentariums from the Roman Period in Hacibektas Veli Archeology Museum in terms of technique and form. The glass unguentariums in Hacibektas Veli Archeology Museum are classified as tube, bulbous, conical and candelabra. There are 12 glass unguentariums from the Roman Period in total in the museum. 11 of them were brought to the museum by purchasing; One of them was found around Suluca Karahöyük and brought to the museum. Of the glass unguentarium, 6 are tubular in shape, 1 are candelabra in shape, 3 are bulbous in shape and 2 are conical in shape. The lengths of tubular unguentariums vary between 9.1 cm and 13.4 cm; The length of the candelabra-shaped unguentarium is 13 cm, the length of the bulbous-shaped unguentarium is between 10.3 cm and 17.6 cm, and the length of the conical unguentarium is 9.3 cm. Glass unguentariums consist of dark green, colorless transparent, pale green, light green, light blue-green, blue-green colors. The earliest glass unguentarium belongs to the middle of the 1st century AD, and the latest glass unguentarium is dated to the 3rd century AD.

INTRODUCTION

Unguentariums, which are generally used as burial gifts, were used in a wide area starting from the end of the 4th century BC until the 7th century AD. Although unguentariums have been used to store various materials, they are frequently encountered in necropolis areas. It is thought that unguentariums were used for this purpose and the tears were collected and

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left in the grave to show how much sadness was felt for the deceased after the death of the deceased as a tribute to those who died in the necropolis areas. Glass is a substance that has been used in different forms and techniques for thousands of years. The earliest glass forming technique was the inner mold technique, which was later developed with the free blowing technique. While glass was a material used by the rich class until the Hellenistic Period, glass became a cheaper material with the new inventions of glass masters in this period. In the Roman Period, both the addition of experience and the invention of the free blowing technique made progress in glass in every sense. With the discovery of the free blowing technique, glass ceased to be a luxury product and has now been widely used in daily life. With the invention of the free blowing technique, the popularity of glass vessels began to be used everywhere within the borders of the Roman Empire. The earliest form are tubular unguentariums produced by the free blowing technique. Tubular unguentariums have been seen since the middle of the 1st century AD. Along with the free blowing technique, another form seen after the 1st century AD is the candelabra-shaped unguentariums. Apart from these forms, there are also bulbous, conical and pear-shaped unguentariums. There are 12 glass unguentariums from the Roman Period in Hacibektas Veli Archeology Museum, of which 6 are tubular in shape, 1 are candelabra in shape, 3 are bulbous in shape and 2 are conical in shape.

Unguentarium Terminology and Usage

Unguentariums, which emerged in daily use as well as grave gifts, represent an important ceramic group of the ancient world. It is a ceramic group that is frequently encountered in archaeological excavations and helps in the dating of the studied area. Since they are frequently found as grave finds; While defining the unguentarium, a definition is made by taking into account the find place. The term Unguentarium began to be used by the French archaeologists[3] who had excavated in Carthage in the early 20th century[4]. Unguentarium is also called the tear bottle as well as the scented oil containers[5]. It can also be called unguentarium *lacrymaria* or *lacrymatorium*, *balsamaria*, *olfactorium*[6].

3 Gaucker 1915, 514.

4 Baldıran 1998, 335.

5 Stern 2008, 291; Thompson 1934, 473.

6 Anderson-Stojanovic 1987, 106.

Unguentariums were used to store various perfumes[7] and oils[8]; However, despite the differentiation of usage areas[9], it is frequently encountered in necropolis areas[10]. The fact that the find places are necropolis places belonging to the Hellenistic and Roman Periods gives us information about the unguentariums. It is thought that tears were collected and left in the grave to show how much sadness was felt for the deceased after the deceased as a tribute to those who died in the necropolis areas and used for this purpose[11].

Emergence and Spread of the Unguentarium Form

Unguentariums, which are generally found in burial areas, albeit few in residential areas, are found in archaeological excavations[12]. We do not have certain information about the exact place and time of emergence of unguentariums, which we encounter so frequently. Since it is frequently encountered in many necropolis areas in the Aegean and Mediterranean, it is difficult to determine where and how they emerged[13]. Although it is not known exactly from which form it developed[14], it is thought to have emerged as a continuation of the dwarf lekythos[15]. It is known that unguentariums emerged in the 4th century BC and continued to exist in different forms until the 7th century AD[16]. As the origin of the Unguentariums, L. Forti reveals Ampurias, the 5th century BC settlement in Spain[17]. The burial finds at Ampurias include the early and classical form of the unguentariums; however, the fact that it is found in these examples and not seen outside of this settlement makes the situation a bit difficult[18]. H. Thompson suggests that it may be east-centered[19]; he argued that this center could be the origin of the settlement of Alexandria in Egypt; but there is no evidence to support Thompson's suggestion[20]. Another person who claims that the

7 Daremberg and Saglio 1963, 591.

8 Thompson 1934, 335.

9 Türker 2005, 311-312.

10 Saraçoğlu 2011, 3.

11 Young 1951, 268-269.

12 Baldıran 1998, 335-336.

13 Saraçoğlu 2011, 4; Hayes 1971, 246.

14 Khairy 1980, 85.

15 Camilli 1999, 24 et. al.

16 Özahanlı and Fırat 2011, 9.

17 Forti 1962, 143 et. al.

18 Baldıran 1998, 336; Anderson-Stojanovic 1987, 105.

19 Thompson 1934, 473.

20 Baldıran 1998, 336.

unguentariums originated in Egypt is Westholm. Made of terracotta and various materials in Egypt; he claimed that there were vessels similar in form to the unguentarium[21]. Hayes is the person who claims that the place of emergence of unguentariums may be in Jordan geography. Although Hayes suggested that it may have emerged in this region due to the preservation and transportation of oils and the transportation of holy waters[22], he stated that the origin in his later studies was Western Anatolia[23]. Guz-Zilberstein, originating from the Aegean Region[24]; Talcott, on the other hand, claimed that the place of origin was Cyprus[25]. Åström, on the other hand, claimed that the origin was Continental Greece[26]. Although the exact place of their emergence is not known, we see very well that unguentariums originated from Syria to Spain; From Egypt to Greece; It is located in a very wide spread area from Anatolia to Cyprus[27]. Unguentariums have been found in many ancient settlements in Anatolia, such as Ephesos[28], Knidos[29], Stratonikeia[30], Tralleis[31], Labraunda[32], Kelenderis[33], Klaros'ta[34], Patara[35].

Definition and Historical Development of Glass

Glass is a transparent and homogeneous substance shaped by human hands and formed by molten raw materials found in nature[36]. Glass, when defined broadly, is an inorganic substance in a state of continuous transition with the liquid state and of a similar composition, but with such a high viscosity as a result of cooling in the molten state that it can practically be considered hard[37].

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21 Vessberg 1956, 74 et. al.
22 Hayes 1971, 246.
23 Hayes 1992, 209.
24 Guz-Zilberstein 1995, 304.
25 Sparkers and Talcott 1970, 191.
26 Åström 1964, 187 et. al.
27 Saraçoğlu 2011, 4.
28 Gassner 1997, 99.
29 Dottwerweich 1999, 89 et. al.
30 Baldıran 1998, 337-341.
31 Ölmez 2000, 27 et. al.
32 Hellström 1965.
33 Zoroğlu 1986.
34 Taştemür 2007, 60.
35 Baybo 2003, Drawing 10, no. 53.
36 Tavukçu 2007, 146.
37 Kılıç 1995, 4.

Glass is formed by melting basic materials such as silicon dioxide, potassium carbonate, sodium carbonate and calcium carbonate at high temperature. In the production of the glass we use today, approximately 72% silica, 15% soda or potash, 13% lime; in crystal glass, it consists of approximately 48% silica, 24% soda and potash, 28% lead oxide[38]. Approximately the same materials and ratios were used in glass productions made in the ancient period.

It has long been accepted that the first glass vases were made in Egypt; however, studies have shown that glass making originated in Mesopotamia[39]. When the first glass finds were examined, they appeared in Sumerian cities such as Eshuna and Eridu[40]. The beginning of glass art in Egypt is thought to be during the Thutmosis III Period[41]. It is determined that the glass vessels were made in the Hurri-Mitanni region of Mesopotamia in the middle of the 2nd millennium BC[42]. It has been determined that glass beads and cast small ornaments are produced in Mycenae, Chios and Crete other than Mesopotamia and Egypt[43]. Many empires and states were destroyed by the great migration movements that took place at the end of the Bronze Age[44]. With this great activity and destruction, glass production and trade declined[45]. The progress of glass continued to decline until the 8th century BC[46]. After the 8th century BC, glass production and trade started to revive again. Cold cutting, molding and molding techniques continued to evolve[47]. Glass produced by the molding method dating to these centuries, the earliest examples found in the Gordion P. Tumulus are given, and this tradition shows that it lasted until the Achaemenid (6th century BC) Dynasty Period. Cast glass works can be observed in all lands under Persian influence[48].

In the 6th century BC Greece became an important center for glass vessels produced by the internal molding technique[49]. Rhodes became the production center of glass containers produced with the inner molding

38 Yağcı 1993, 12-13; Özgümüş 2000, 4.

39 Çakmakçı 2008, 40.

40 Öztürk 2003, 69; Barag 1985, 35; Yağcı 1998, 29.

41 Atik 2004, 51.

42 Barag 1985, 36; Özet 1998, 11.

43 Atik 2004, 51; Yağcı 1998, 31.

44 Çakmakçı 2008, 41.

45 Atik 2004, 51.

46 Öztürk 2013, 19.

47 Öztürk 2003, 70.

48 Yağcı 1998, 40; Atik 2004, 52.

49 Küçükpazarlı 2006, 7.

technique[50]. It is thought that the East has an influence on Rhodes being an important center. Rhodes may have exported these glass vessels from Mesopotamia, or Mesopotamian craftsmen may have worked in Rhodes[51]. Alabastron, aryballos, oinochoe and amphoriskos vessels were produced with the internal molding technique[52].

With the destruction of Persepolis by Alexander the Great in 331 BC, the glass works in the treasury of the palace were seized[53]. With the acquisition of glass works, a revival and renewal process has begun in glass art[54]. During this period, the internal molding technique continued[55]. Important glass production centers in the Hellenistic Period are Syria's coastline and Alexandria[56]. During this period, Alexandria glassmakers had the skill and knowledge to produce mosaics and to put a gold plate "sandwich gold-glass" between two layers of glass.[57] The most important representatives of the Hellenistic Period glass art are the tomb finds called "Canosa Group Artifacts"[58]. The Canosa Group are glass vessels next to metal, terracotta and stone artifacts found during excavations in the Canosa (*Canusium*) Necropolis on the Adriatic Sea coast in southeastern Italy[59]. Beginning from this period, glass began to gain importance as a more attractive and colorful alternative, especially against silver dinnerware and goblets. It is seen that the glassware allegedly produced in Syria and Alexandria is spread over a wide area that includes Italy, Southern Russia and Asia Minor[60].

Glass in the Roman Period

In the 1st century BC, glass art began to gain importance in Rome. The Roman Period glass industry was established with the experience of Hellenistic Period Glass manufacturers[61]. In the middle of the 1st century BC, an important step was taken in glass production and the blowing

50 Çakmakçı 2008, 41; Öztürk 2003, 70.
51 Atik 2004, 52.
52 Yağcı 1993, 40-41.
53 Öztürk 2003, 70; Atik 2004, 53.
54 Yağcı 1993, 43.
55 Atik 2004, 54.
56 Çakmaçı 2008, 41.
57 Atik 2004, 54.
58 Yağcı 1993, 43.
59 Dal 2009, 45.
60 Atik 2004, 54; Özet 1998, 12.
61 Atik 2004, 55.

technique was discovered[62]. By applying this method, the glass pellet taken to the tip of the blowing rod is blown into the mold or freely, and a great progress has been made in glass production[63]. After this age, glass containers were made more easily and quickly[64]. Roman glass is simple and functional. Early specimens are vibrantly colored, late specimens are less colorful and more transparent[65]. Productions of Roman glassware included luxury items, tableware, and perfume bottles[66]. Apart from the production of daily goods, the Romans also used glass in mosaics, panels and exterior decorations[67]. With Rome dominating many parts of Europe, glass art and production spread to the farthest corners of the Empire[68].

Roman glass art, which reached its peak in glass art, entered a stagnation period with the collapse of Western Rome in the 5th century AD; but later on, the glass industry started to revive and continued in the Byzantine Period[69].

Glass unguentariums produced during the Roman Period are divided into various forms such as tube, candlestick, bulbous, conical, pear-shaped and reel-shaped[70].

Tubular Glass Unguentariums

The simplest form among Roman glass vessels are the tubular unguentariums. This form has been found in many centers of the Roman Empire[71]. They have wide rims formed by folding, cylindrical necks and pyriform bodies, and the bottoms can be flat, slightly concave or round-convex enough to allow the unguentarium to stand[72]. The shape of the rim of the tube-shaped unguentariums differs locally[73]. Tubular unguentariums have an average height of 10-15 cm and[74] are made of untinted glass in

62 Özgümüş 2000, 13; Öztürk 2003, 70.
63 Lightfoot and Arslan 1992, 5 et. al.; Küçükerman 1985, 54.
64 Atik 2004, 55.
65 Çakmakçı 2008, 42.
66 Atik 2004, 56-57.
67 Lightfoot and Arslan 1992, 6.
68 Haggard 1962, 14; Yağcı 1993, 50.
69 Öztürk 2013, 23; Yağcı 1993, 56-57.
70 Öztürk 2003, 71.
71 Öztürk 2003, 72.
72 Vessberg 1952, 140
73 Yağcı 1993, 132.
74 Taştemür 2007, 60.

natural green and blue tones[75]. Isings, states that the earliest examples of tube-shaped unguentariums came from Ventimiglia during the Julius-Claudian Period and that such unguentariums were seen in many centers after the middle of the 1st century AD[76].

When we look at the artifacts U1-U5, it is seen that they have wide rims, cylindrical necks and piriform bodies formed by folding, and their bottoms are flat, slightly concave or rounded convex enough to not allow the unguentarium to stand. Similar works of art can be found in Tire Museum[77], Karanis[78], Royal Ontario Museum[79], Yüksel Erimtan Collection[80], Bodrum Underwater Archeology Museum[81], Sinop Museum[82] and Klaros'ta[83]. In the light of similar examples, tube-shaped unguentariums numbered U1-U5 were examined within the Isings form 8 group and this form was dated to the 1st century AD.

When we look at the works numbered U6, the everted rim is folded inwards. It has a long neck with tool notch marks, a small conical body and a small concave bottom with noble marks. Similar works of art can be found in Tire Museum[84], Royal Ontario Museum[85] and Bodrum Underwater Archeology Museum[86]. In the light of similar examples, the tube-shaped unguentarium Isings was examined within the form 8 group and this form was dated to the end of the 1st century AD and the beginning of the 2nd century.

Candlestick Shaped Glass Unguentariums

Candlestick-shaped unguentariums have flattened rims, long and cylindrical necks after being folded inwards. The most prominent feature is that it is longer than the body[87]. In some specimens, the cylindrical neck expands slightly from top to bottom, or the neck and body meet at a

75 Yağcı 1993, 132.
76 Isings 1957, 24.
77 Gürler 2000, 32, Pic. 18.
78 Harden 1936, 278.
79 Hayes 1975, 161.
80 Lightfoot and Arslan 1992, 172, Cat. No.107.
81 Özet 1996, 73, No. 39a.
82 Temür and Eker 2019, 17, Cat. No.3.
83 Taştemür 2007,,60.
84 Gürler 2000, 29, Pic. 12.
85 Hayes 1975, Fig. 20, No.263.
86 Özet 1996, 135, No.90.
87 Taştemür 2007, 62.

knuckle. Candlestick-shaped unguentariums are divided into sub-headings as: 1- Convex spherical bodies 2- Triangular bodies 3- Disc-bodied 4- Bell-bodied 5- Pear-shaped bodies 6- Cylindrical bodies 7- Concave bodies[88]. The bottoms of candlestick-shaped unguentariums are mostly concave. They are made of uncoloured, natural greenish or bluish glass. They are unadorned, with a height of about 10 cm to 20 cm. They are made in the free blowing technique[89].

Candlestick shaped unguentariums are one of the most common types in Roman glassmaking. Candlestick shaped unguentariums are assumed to be used in homes because they are not suitable for carrying. With its long neck structures, it provides less spillage of various oils and cosmetic liquids; It is also believed that with this structure, it prevents the evaporation of the substance inside. These glass vessels were used extensively between 1st-3th centuries AD[90].

When we look at the works numbered U7, the smooth mouth is folded inwards and outwards and is shaped with a tool. It has a long cylindrical neck, a bell-shaped body and a concave bottom. Similar works of art can be found in Tire Museum[91], Royal Ontario Museum[92], Karanis[93], Sinop Museum[94], Bodrum Underwater Archeology Museum[95], Labranda[96], Limburg[97], Sivas Museum[98] and Yüksel Erimtan Collection[99]. In the light of similar examples, the candelabra-shaped unguentarium Isings form 82 U7 was studied in the A1 group and this form was dated to the between 2nd-3th centuries AD**.**

Bulbous Shaped Glass Unguentariums

This type of unguentarium is called "*bulbous*" in the literature because its body shape resembles that of an onion. It has a protruding mouth, a thin and long cylindrical neck, a bulbous body and a flat bottom. Unguentariums

88 Vessberg 1956, 163-164.
89 Yağcı 1993, 143.
90 Yağcı 1993, 143-144.
91 Gürler 2000, 53, Pic. 59.
92 Hayes 1975, Fig. 18, No. 577.
93 Harden 1936, Pl. XX, No. 799.
94 Temür and Eker 2019, 90, Cat. No.76.
95 Özet 1996, 126, No.83.
96 Hellström 1971, 53, Pl.29/2.
97 Ising1971, 64-66.
98 Atilla 2015, 176, Fig. 5, No.15.
99 Lightfoot and Arslan 1992, 87, Cat. No.43.

with this form have slightly protruding lips, cylindrical form, long neck, bag belly and flat base without base.

When we look at the works numbered U8-U10, they have wide rims formed by folding, cylindrical necks, onion-shaped body and flat bottom. Similar works of art can be found in Sinop Museum[100], Bodrum Underwater Archeology Museum[101], Yüksel Erimtan Collection[102], Royal Ontario Museum[103], Patara[104], Labraunda[105], Elaiussa Sebaste[106] and Uşak Museum[107]. In the light of similar examples, artifacts numbered U8-U10 were examined in the literature under the name "*bulbous*" in the Isings form 26 A group due to their resemblance to the onion form, and this form was dated to the between 1st-2nd centuries AD.

Conical Body Glass Unguentariums

These types of unguentariums are among the vessel forms commonly seen in the Eastern and Western lands of the Roman Empire in the 1st century AD. These vessels, which are widely produced and used in the Syria-Palestine Region; Cyprus is also known for its examples[108]. It is included in the Isings Form 28a group, as the body heights are half of the entire height of the container. The form takes shape with the combination of folded mouth structures and cylindrical necks to the body with a knot.

When we look at the artifacts U11-U12, they have folded mouth structures, a cylindrical neck, a conical body and a flat base. Similar works of art can be found in Sinop Museum[109], Yüksel Erimtan Collection[110], Neapolis[111], British Museum[112], Bodrum Underwater Archeology Museum[113], Tire

100 Temür and Eker 2019, 28-33, Cat. No.14, 18, 19.
101 Özet 1996, 57, No.24.
102 Lightfoot and Arslan 1992, 41, Cat. No.8.
103 Hayes 1975,129.
104 Baybo 2003, Drawing 10, no. 53.
105 Helström 1971, pl. 29, no. 2.
106 Güray 2011, 264, Fig.6. 1,8.
107 Çakmaklı 2007, 92, No.15.
108 Aydın Tavukçu and Avli 2022, 573.
109 Temür and Eker 2019, 51-61, Cat. No.37-47.
110 Lightfoot and Arslan 1992, 81, Cat. No.37.
111 Aydın Tavukçu and Avli 2022,584, Img.1, Cat. No. 2-5.
112 Barag 1985, 95, Pl. 15, no. 125.
113 Özet 1998, 113-117, No.73a-75b.

Museum[114] and Bergama Museum[115]. Works in the light of similar examples was dated to the between 1st-3th centuries AD.

Conclusion

After its discovery, glass has been used in the construction of various objects and has evolved continuously based on thousands of years of tradition. Roman glass art spread over a wide geography from east to west. The diversity of forms in Roman glass is remarkable. Unguentariums constitute the densest group in this diversity. With the invention of the blowing technique, glass was produced in different forms and cheaply. With the facilitation of production, there has been an intense increase in Roman glass. The main subject of the research is the glass unguentariums in the Hacibektas Veli Archeology Museum. The choice of glass unguentariums as the subject of study is that glass, like other objects, has an intense usage area from the past to the present. The aim is to identify the glass unguentariums belonging to the Roman Period in the Hacibektas Veli Archeology Museum and to group these artifacts according to their forms and place each group in its own chronological order. While making this arrangement, a detailed description was made in the catalog and a proper chronology was tried to be created by comparing with similar works. Since the glass unguentariums in the Hacibektas Veli Archeology Museum were brought to the museum by purchasing in various years, a chronological dating was made by comparing these artifacts with their similar ones. For this reason, the works discussed in the study were evaluated within the general periods.

The form of the unguentariums in the Hacibektas Veli Archeology Museum and the diversity of these forms will enable us to have an idea about the glass unguentariums of the Cappadocia Region and their interaction with other regions, albeit partially, with the typology we have created chronologically.

CATALOG

Cat. No. U1

Museum Inv. No: 1394

Arrival at the Museum: Purchase

Dimensions: H. 13.4 cm **D. M.** 3.5 cm **D. B.** 1.3 cm

114 Gürler 2000, 34-35.

115 Atila and Gürler 2009, 40, Cat. No. 48.

Colour: Dark green

Description: Mouth part is broken. Cylindrical neck and round convex bottom.

Date: 1st century AD

Similar: Gürler 2000, 32, Pic. 18; Harden 1936, 278; Hayes 1975, 161; Lightfoot and Arslan 1992, 172, Cat. No.107; Özet 1996, 73, No. 39a; Temür and Eker 2019, 17, Cat. No.3; Taştemür 2007, 60.

Cat. No. U2

Museum Inv. No: 1406

Arrival at the Museum: Purchase

Dimensions: H. 9.1 cm **D. M.** 1.3 cm **D. B.** 0.5 cm

Colour: Colorless transparent

Description: It has a folded wide rim, a cylindrical neck and a rounded convex bottom.

Date: 1st century AD

Similar: Gürler 2000, 32, Pic. 18; Harden 1936, 278; Hayes 1975, 161; Lightfoot and Arslan 1992, 172, Cat. No.107; Özet 1996, 73, No. 39a; Temür and Eker 2019, 17, Cat. No.3; Taştemür 2007, 60.

Cat. No. U3

Museum Inv. No: 1341

Arrival at the Museum: Purchase

Dimensions: H. 11.3 cm **D. M.** 2 cm **D. B.** 4 cm

Colour: Pale green

Description: It has a wide rim formed by folding, a cylindrical neck and a rounded convex bottom.

Date: 1st century AD

Similar: Gürler 2000, 32, Pic. 18; Harden 1936, 278; Hayes 1975, 161; Lightfoot and Arslan 1992, 172, Cat. No.107; Özet 1996, 73, No. 39a; Temür and Eker 2019, 17, Cat. No.3; Taştemür 2007, 60.

Cat. No. U4

Museum Inv. No: 1338

Arrival at the Museum: Purchase

Dimensions: H. 12 cm **D. M.** 2 cm **D. B.** 1 cm

Colour: Pale green

Description: It has a wide rim formed by folding, a cylindrical neck and a rounded convex bottom.

Date: 1st century AD

Similar: Gürler 2000, 32, Pic. 18; Harden 1936, 278; Hayes 1975, 161; Lightfoot and Arslan 1992, 172, Cat. No.107; Özet 1996, 73, No. 39a; Temür and Eker 2019, 17, Cat. No.3; Taştemür 2007, 60.

Cat. No. U5

Museum Inv. No: 1435

Arrival at the Museum: Purchase

Dimensions: H. 10.5 cm **D. M.** 1.6 cm **D. B.** 1.4 cm

Colour: Light green

Description: It has a folded wide rim, a cylindrical neck, a transitional knot from the neck to the body, and a rounded convex bottom.

Date: 1st century AD

Similar: Gürler 2000, 32, Pic. 18; Harden 1936, 278; Hayes 1975, 161; Lightfoot and Arslan 1992, 172, Cat. No.107; Özet 1996, 73, No. 39a; Temür and Eker 2019, 17, Cat. No.3; Taştemür 2007, 60.

Cat. No. U6

Museum Inv. No: 1390

Arrival at the Museum: Purchase

Dimensions: H. 9.8 cm **D. M.** 1.6 cm **D. B.** 1.4 cm

Colour: Pale green

Description: It has a wide rim formed by folding, a cylindrical neck, a transition from the neck to the body, and a flat bottom.

Date: End of 1st century AD, beginning of 2nd century AD

Similar: Gürler 2000, 29, Pic. 12; Hayes 1975, Fig. 20, No.263; Özet 1996, 135, No.90.

Cat. No. U7

Museum Inv. No: 1392

Arrival at the Museum: Purchase

Dimensions: H. 13 cm **D. M.**3.2 cm **D. B.**7 cm

Colour: Pale green

Description: The smooth mouth structure is folded inward and outward and shaped with tools. It has a long cylindrical neck, a bell-shaped body and a concave bottom.

Date: 2nd-3th centuries AD

Similar: Gürler 2000, 53, Pic. 59; Hayes 1975, Fig. 18, No. 577; Harden 1936, Pl. XX, No. 799; Temür and Eker 2019, 90, Cat. No.76; Özet 1996, 126, No.83; Hellström 1971, 53, Lev.29/2; Ising 1971, 64-66; Atilla 2015, 176, Fig. 5, No.15; Lightfoot and Arslan 1992, 87, Cat. No.43.

Cat. No. U8

Museum Inv. No: 1373

Arrival at the Museum: Purchase

Dimensions: H. 17 cm **D. M.** 3 cm **D. B.** 4 cm

Colour: Light blue-green

Description: It has a folded wide rim, cylindrical neck, bulbous body and flat bottom.

Date: 1st-2nd centuries AD

Similar: Temür ve Eker 2019, 28-33, Cat. No.14, 18, 19; Özet 1996, 57, No.24; Lightfoot and Arslan 1992, 41, Cat. No.8; Hayes 1975,129; Baybo 2003, Drawing 10, no. 53; Helström 1971, pl. 29, no. 2; Güray 2011, 264, Fig.6. 1,8; Çakmaklı 2007, 92, No.15.

Cat. No. U9

Museum Inv. No: 1373

Arrival at the Museum: Purchase

Dimensions: H. 17,6 cm **D. M.** 4 cm **D. B.** 3,5 cm

Colour: Light blue-green

Description: It has a folded wide rim, cylindrical neck, bulbous body and flat bottom.

Date: 1st-2nd centuries AD

Similar: Temür and Eker 2019, 28-33, Cat. No.14, 18, 19; Özet 1996, 57, No.24; Lightfoot and Arslan 1992, 41, Cat. No.8; Hayes 1975,129; Baybo 2003, Drawing 10, no. 53; Helström 1971, pl. 29, no. 2; Güray 2011, 264, Fig.6. 1,8; Çakmaklı 2007, 92, No.15.

Cat. No. U10

Museum Inv. No: 1377

Arrival at the Museum: Purchase

Dimensions: H. 10.3 cm **D. M.**2.8 cm **D. B.** 2.8 cm

Colour: Pale green

Description: It has a folded wide rim, cylindrical neck, bulbous body and flat bottom.

Date: 1st-2nd centuries AD

Similar: Temür and Eker 2019, 28-33, Cat. No.14, 18, 19; Özet 1996, 57, No.24; Lightfoot and Arslan 1992, 41, Cat. No.8; Hayes 1975,129; Baybo 2003, Drawing 10, no. 53; Helström 1971, pl. 29, no. 2; Güray 2011, 264, Fig.6. 1,8; Çakmaklı 2007, 92, No.15.

Cat. No. U11

Museum Inv. No: 1336

Arrival at the Museum: Suluca Karahöyük

Dimensions: H. 9.3 cm **D. M.** 3.6 cm **D. B.** 5.4 cm

Colour: Light blue-green

Description: It has a folded mouth structure, a cylindrical neck, a conical body and a flat base.

Date: 1st-3th centuries AD

Similar: Temür and Eker 2019, 51-61, Cat. No.37-47; Lightfoot and Arslan 1992, 81, Cat. No.37; Aydın Tavukçu and Avli 2022, 584, Img.1, Cat. No. 2-5; Barag 1985, 95, Pl. 15, no. 125; Özet 1996, 113-117, No.73a-75b; Gürler 2000, 34-35; Atila and Gürler 2009, 40, Cat. No. 48.

Cat. No. U12

Museum Inv. No: 1391

Arrival at the Museum: Purchase

Dimensions: H. 9.3 cm **D. M.** - **D. B.** 2.9 cm

Colour: Blue-green

Description: Part of the mouth is broken. It has a folded mouth structure, a cylindrical neck, a conical body and a flat base.

Date: 1st-3th centuries AD

Similar: Temür and Eker 2019, 51-61, Cat. No.37-47; Lightfoot and Arslan 1992, 81, Cat. No.37; Aydın Tavukçu and Avli 2022,584, Img.1, Cat. No. 2-5; Barag 1985, 95, Pl. 15, no. 125; Özet 1996, 113-117, No.73a-75b; Gürler 2000, 34-35; Atila and Gürler 2009, 40, Cat. No. 48.

Abbreviations

Cat. No.: Catalog Number

Cm: Centimeter

H.: Height

D. R.: Diameter of Rim

D. M.: Diameter of Mouth

Ed.: Editor

Fig.: Figur

Pl.: Plate

Pic.: Picture

Img.: Image

Museum Inv. No.: Museum Inventory Number

Bibliography

Anderson-Stojanovic, V. R.(1987). The Chronology and Function of Ceramic Unguentaria. *AJA, 91*, 105-122.

Åström, P. (1964). Two Unguentaria and an Obol. *Opuscula Atheniensia, 7*, 187-190.

Atik, Ş. (2004). *MÖ. I. Binde Anadolu'da Cam Üretimi ve Tasarımı*. Mimar Sinan Güzel Sanatlar University, (Unpublished PhD Thesis), İstanbul.

Atila, C. and Gürler, B. (2009). *Bergama Müzesi Cam Eserleri, Glass Object From Bergama Museum*. İzmir: Çağdaş Matbaa.

Atilla, C. (2015). Roman Glass Vessels in Sivas Museum. *Arkeoloji Dergisi, C.XX*, 161-179.

Aydın Tavukçu, Z. and Avli, A., (2022). Neapolis Nekropolü'nden Cam Eserler. *OÜSOBİAD, 12 (2)*, 569-592.

Baldıran, A. (1998). Stratonikeia'dan Unguentariumlar. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 4*, 335-356.

Barag, D. (1985). *Catalogue of Western Asiatic Glass in the British Museum*, *Vol. I*. London.

Baybo, S. (2003). *Patara Kazılarından (1989-2001) Ele Geçen Cam Eserler*. Akdeniz University, (Unpublished Master's Thesis), Antalya.

Camilli, A. (1999). Ampullae. Balsamari Ceramicidietá Ellenistica e Romana. Rom: Fratelli Palombi Editori.

Çakmakçı, Z. O. (2008). *Örnekler Işığında Bizans Asia'sında Cam Sanatı.* Ege University, (Unpublished PhD Thesis), İzmir.

Dal, Y. (2009). *Roma Döneminde Anadolu'da Cam*. Adnan Menderes University, (Unpublished Master's Thesis), Aydın.

Daremberg, C. and Saglio, E. (1963). *Dictionnairedes Antiquités Grecques et Romaines*.

Dottwerweich, U. (1999). Unguentarien mit kuppelförmiger Mündungaus Knidos. U. Mandel- R. Özganv.d. (ed.), *Knidos-Studien, Band 1*, 89-102.

Forti, F. (1962). Gli Unguentari del Primo Periodo Ellenistico. *RendNap37*, 143-157.

Gassner, V. (1997). *Das Südtor der Tetragonos-Agora. Keramikund Kleinfunde*. FiE XIII 1.

Gaucker, P. (1915). *Nécropolés Puniques de Carthaga1-2*. Paris.

Guz-Zilberstein, B. (1995). The Typology of The Hellenistic Coarse Wareand Selected Loci of The Hellenistic and Roman Periods. (in *Excavations at Dor, Final Report Volume* I B, *Areas A and C: The Finds,* Ed. A Belfer-Cohen, A. Ben –Tor, Y. Tsafrir), Jarusalem.

Güray, Ç. G. (2011). Elaiussa Sebaste'nin Roma Dönemi Cam Buluntuları. *Adalya XIX*, 233-266.

Gürler, B. (2000). *Tire Müzesi Cam Eserleri.* Ankara: Kültür Bakanlığı Yayınları.

Haggard, R. G. (1962). *Glass and Glassmakers.* New York: Roy Publishers.

Harden, D.B. (1936). *Roman Glassfron Karanis Found by University of Michigan Archaeological Expedition in Egypt, 1924-1929*. Michigan.

Hayes, J. W. (1971). A New Type of Early Christian Ampulla. *BSA, 66*, 243-248.

Hayes, J. W. (1975). *Roman and Pre-Roman Glass in The Royal Ontario Museum*. Toronto: Royal Ontario Museum.

Hayes, J. W. (1992). *Excavations at Saraçhane in İstanbul 2, The Pottery*. Princeton.

Hayes, J. W. (1997). *Handbook of Mediterranean Roman Pottery.* London.

Hellström, P. (1965). *Pottery of Classicaland Later Date Terracotta Lamps and Glass,* Labraunda Vol. II, Part 1.

Isings, C. (1957). *Roman Glass From Dated Finds.* Djakarta.

Khairy, N. I. (1980). Nabataean Piriform Unguentaria. *Bulletin of The American Schools of Oriental Research, No. 240*, 85-91.

Kılıç, A. C. (1995). *Cam Üretiminde Üfleme Yöntemiyle Biçimlendirme*. Dokuz Eylül University, (Unpublished Master's Thesis), İzmir.

Küçükerman, Ö. (1985). *Cam Sanatı ve Geleneksel Türk Camcılığından Örnekler.* Ankara: Türkiye İş Bankası Kültür Yayınları.

Küçükpazarlı, N. (2006). *Konya Arkeoloji Müzesi'nde Bulunan Roma Çağı Cam Eserleri.* Selçuk University, (Unpublished Master's Thesis), Konya.

Lightfoot, C. S. and Arslan, M. (1992). *Anadolu Antik Camları: Yüksel Erimtan Koleksiyonu*, Ankara: Ünal Ofset.

Ölmez, F. (2000). *Tralleis Nekropolünden Bir Mezar ve Buluntuları*. Adnan Menderes University, (Unpublished Master's Thesis), Aydın.

Özet, A. (1998). *Dipten Gelen Parıltı.* Ankara: T.C. Kültür ve Turizm Bakanlığı Geleneksel El Sanatları / Anıtlar ve Müzeler Genel Müdürlüğü Yayınları.

Özgümüş, Ü. (2008). *Anadolu Camcılığı*. İstanbul: Pera Yayıncılık ve Kitapçılık.

Özhanlı, M. and Fırat, M. (2011). Side Unguentariumları Işığında Dinin Kapların Kullanım Alanları Üzerindeki Etkileri. *SDÜ Fen Edebiyat Fakültesi Sosyal Bilimler Dergisi, Vol. 23,* 7-30.

Öztürk, N. (2003). Çankırı Müzesi'nde Bulunan Erken Roma Dönemi'ne Ait Bir Grup Cam Eser. *Atatürk Üniversitesi Güzel Sanatlar Fakültesi Sanat Dergisi*, *Vol. 4*, 69-84.

Öztürk, N. (2013). *Erzurum Müzesi Cam Eserleri.* Erzurum: Mega Ofset.

Saraçoğlu, A. (2011). Hellenisticand Roman *Unguentaria* from The *Necropolis* of Tralleis. *Anatolia 37,* 1-42.

Sparkers, B. and Talcott, L. (1970). *Black and Plain Ware of the Sixth, Fifth, and Fourth Centuries B.C.*,The Athenian Agora XII. Princeton.

Stern, K. B. (2008). *Inscribing Devotion and Death: Archaeological Evidence for Jewish Populations of North Africa*. Brill.

Taştemür, E. (2007). *Klaros Cam Eserleri*. Trakya University, (Unpublished Master's Thesis), Edirne.

Tavukçu, Z. A. (2007). Parion Güney Nekropolü'nden Bir Grup Cam Eser. *Atatürk Üniversitesi Güzel Sanatlar Fakültesi Dergisi, Vol. 12*, 145-161.

Temür, A. and Eker, F. (2019). Sinop Müzesi Cam Eserler Kataloğu. Ankara: Akademisyen Kitabevi.

Thompson, H. A. (1934). Two Centuries of Hellenistic Pottery. *Hesperia 3*, 311-480.

Türker, A. Ç. (2005). Myra'da Aziz Nikolaos'un Yağ Kültüyle İlişkili Seramik Kaplar. *Adalya VIII*, 311-328.

Vessberg, O. and Westholm, A. (1956). *The Hellenistic and Roman Periods in Cyprus*. The Swedish Cyprus ExpeditionVol. IV, Part 3, Stockholm.

Wessberg, O. (1952). Roman Glass in Cyprus. *Opus.Ath*.,*7*, 109-161.

Yağcı, E. E. (1998). M.Ö.II. Binde Anadolu'da Cam. *OlbaI*, 29-44.

Young, R. S. (1951). An Industrial District of Ancient Athens. *Hesperia: The Journal of the American School of Classical Studies at Athens, Vol. 20, No. 3*, 135-288.

Zoroğlu, L. (1986). Kelenderis Mezar Buluntuları. *AnadoluAraş X*, 455-466.

Plate 1

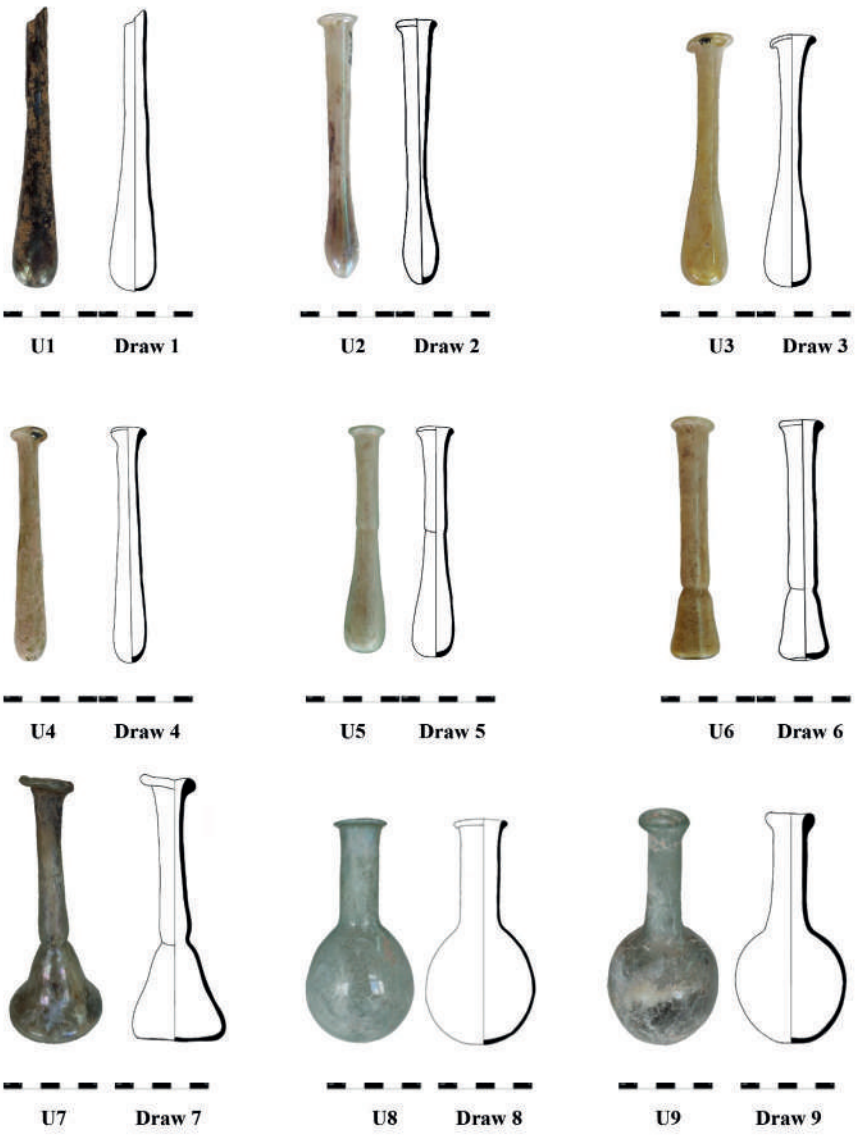
U1 Draw 1
U2 Draw 2
U3 Draw 3
U4 Draw 4
U5 Draw 5
U6 Draw 6
U7 Draw 7
U8 Draw 8
U9 Draw 9

Plate 2