



JOURNAL OF ANCIENT HISTORY AND ARCHAEOLOGY

Institute of Archeology and Art History of
Romanian Academy Cluj-Napoca
Technical University Of Cluj-Napoca



Journal of Ancient History and Archaeology

DOI: <http://dx.doi.org/10.14795/j.v10i1>

ISSN 2360 266x

ISSN-L 2360 266x



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No. 10.1/2023

CONTENTS

STUDIES

ANCIENT HISTORY

Ruslan A. TSAKANYAN

THE NAIRIAN CAMPAIGN OF TUKULTI-NINURTA I (1242-1206 BC) IN THE CONTEXT OF THE CONQUESTS IN THE FIRST THREE YEARS OF HIS REIGN 5

Ana HONCU, Rada VARGA

ARCGIS FOR MAPPING VETERAN SETTLEMENTS IN THE PROVINCE OF UPPER MOESIA 10

ARCHAEOLOGY

Stanislav GRIGORIEV

ABSOLUTE CHRONOLOGY OF THE EARLY BRONZE AGE IN CENTRAL EUROPE, MIDDLE BRONZE AGE IN EASTERN EUROPE, AND THE "2200 EVENT" 22

Murat KAYA, Gül KAYA

THE LOCATION OF KUŞŞARA CITY IN ANATOLIA IN THE 20TH CENTURY B.C. 47

Mohsen HEYDARI DASTENAEI, Mohsen DANA

DETERMINING THE OPTIMAL SETTLEMENT LOCATING OF ANCIENT SITES USING TOPSIS MULTI-CRITERIA DECISION MODEL: A CASE STUDY: ESTABLISHMENTS IN MOUNTAINOUS AREAS OF NORTH KHORASAN, NORTHEAST IRAN 52

Ioan STANCIU

EARLY SLAVS' PRODUCTION AND SUBSISTENCE ACTIVITIES CASE STUDY – THE AREA OF THE UPPER TISZA RIVER BASIN (CA. SECOND HALF OF THE 6TH CENTURY – FIRST HALF OF THE 7TH CENTURY AD) 68

ARCHAEOLOGICAL MATERIAL

Libin XIE

STUDY ON THE FRONTIER OF EARLY ROMAN EMPIRE FROM THE PERSPECTIVE OF HANDICRAFT INDUSTRY 118

Dan George ANGHEL, Ovidiu OARGĂ

A LEAD-GLAZED *ATRAMENTARIUM* DISCOVERED AT APULUM 125

Ovidiu ȚENȚEA, Ioana MANEA, Alexandru RAȚIU

THE GLASSWARE FROM MĂLĂIEȘTI ROMAN FORT AND BATH 145

Akın TEMÜR, Özkan ÖZBILGIN

GLASS UNGUENTARIA FROM SAMSUN MUSEUM 163

ARCHAEOLOGICAL TOPOGRAPHY

Ionuț MAICAN, Anca TIMOFAN, Cristian FLORESCU, Călin ȘUTEU, Constantin-Irinel GREȘIȚĂ

THE ROLE OF TOPOGRAPHY AND PHOTOGRAMMETRY IN CONNECTING ARCHAEOLOGICAL VESTIGES. DOCUMENTING THE THERMAE OF LEGIO XIII GEMINA FROM APULUM 182

Alberto BERMEJO MELÉNDEZ, Javier BERMEJO MELÉNDEZ, Francisco MARFIL VÁZQUEZ, Juan Manuel CAMPOS CARRASCO

PORT TOPOGRAPHY IN ATLANTIC AND MEDITERRANEAN HISPANIA 194

NUMISMATICS

Cristian GĂZDAC

IN-OUT AND NEAR. PATTERNS OF HOARDING IN PRE-, DURING- AND POST-ROMAN DACIA. THE BENEFITS OF USING A LARGE DATABASE – COIN HOARDS OF THE ROMAN EMPIRE PROJECT (CHRE) 222

Design & layout:
Petru Ureche

Studies

ARCHAEOLOGICAL MATERIAL

GLASS UNGUENTARIA FROM SAMSUN MUSEUM

Abstract: Unguentaria, with distinct functional designations and believed to have descended from different forms such as the alabastron, lekythos, and ampulla, were manufactured of terracotta in the Hellenistic Period. The early specimens have a bloated and spindle-shaped center section. During the Early Imperial Period, a variety of glass samples of unguentaria were produced, especially with the extensive use of the glass-blowing method. While tubular, candlestick, and spool-shaped samples were prevalent in the initial stage, the subsequent procedure resulted in the formation of variants of these shapes. The Samsun Museum houses a significant number of glass artifacts. This study looks at unguentaria that were added to the Samsun Museum's collection by salvage excavation, purchase, or confiscation, and which are assumed to be grave discoveries because the majority of them were discovered intact. The artifacts are essential for understanding the political, commercial, and cultural structure of the time period during which they were produced and used, within the context of archaeological evidence. It also assists us in determining whether or not the production of glass artefacts existed. As it turns out, the artifacts analysed in this context were created in comparable fashions, as a result of the prevalent cultural understanding of the time, throughout a broad region governed by the Roman Empire. Consequently, it is believed that the region had commercial interactions with the cultures of the Eastern Mediterranean. Since no evidence of a glass furnace or glass manufacture has been discovered in Samsun or its environs, it is possible that the artifacts were imported rather than produced locally. Nevertheless, it seems improbable that Amisos, one of the most established and significant coastal cities of the region throughout the Ancient Period, or Neoklaudiopolis, an ancient city in its proximity, remained oblivious to glass manufacture, a lucrative economic raw material.

Keywords: *Glass, Unguentarium, Samsun Museum, Glass Production, Ancient Glass*

Akın TEMÜR

Ondokuz Mayıs University
akintemur@yahoo.com

Özkan ÖZBILGIN

Aydın Archeology Museum
ozkanobilgin@gmail.com

DOI: 10.14795/j.v10i1.810

ISSN 2360 – 266X

ISSN–L 2360 – 266X

Unguentarium¹, derived from the Latin words “unguent” and “unguenta,” meaning “ointment, oil, or fragrance of beauty” (perfume), are also referred to as *lacrimarium*, *lacrimarium*, and *balsamarium* in relation to their functions and contents². Although the vessel form is thought to have been derived from alabastron, lekythos or ampulla forms in the early periods, it is not known clearly³. Although its typical size ranges from 8 to 20 cm, there are specimens with dimensions ranging from 4-5 cm or 20 to 30 cm⁴. During the Hellenistic period, it was

¹ AKKURNAZ 2016, 172.

² ANDERSON-STOJANOVIĆ 1987, 106.

³ ANDERSON-STOJANOVIĆ 1987, 106; ROTROFF 2006, 138; EISENMENGER 2003, 195.

⁴ ANDERSON-STOJANOVIĆ 1987, 106.

made from terracotta in the shape of a spindle with a bloated centre⁵; however, during the Early Imperial Period, its many forms were manufactured of glass⁶. These are descended from the three basic unguentarium forms: spool-shaped, candelabrum-shaped, and tubular⁷. Functionally, it has a broad range of uses. It is believed to have been used in daily life to store liquids such as perfume, oil, and ointment, to preserve liquids such as honey or vinegar when necessary⁸, to transport various liquids from sacred sites⁹, and, while unlikely, to preserve the tears of bereaved people¹⁰. It is typically discovered in graves¹¹. Two explanations are suggested: unguentaria were either left as a gift to the graves as a tear bottle to show respect to the deceased, or as a perfumed oil bottle to emit pleasant odours¹².

The Samsun Museum now houses 40 unguentaria that were acquired through salvage excavation, confiscation, or purchase. All of them were free-blown and then sculpted using a variety of implements. The majority of the pieces are undecorated and with a range of earthy tones, including brown, yellow, turquoise, blue, and green. The artefacts' walls range in size from 0.1 to 0.3 cm in diameter, 1.2 to 3.9 cm in rim diameter, and 6.5 to 18+ cm in height. The unguentaria in the Samsun Museum are categorised into eight subheadings based on their shape: spherical, pear-shaped, conical body, onion-bodied, bell-shaped, candelabra-shaped, tube-shaped, and cylindrical. Unguentaria are generally dated between 1-3 AD, when they were widely used¹³.

1. SPHERICAL UNGUENTARIUM

Even though its shape resembles the body of a bottle with a broken neck, it is more likely that these are containers with a very small neck and no neck. It has been suggested that the liquid it carries is a type of wine combination. The form is manufactured of colourless, translucent, or very slightly greenish glass. Some of them are decorated with an opaque white spiral ring. The form that evolved in the first part of the 1st century AD is not believed to have been utilised in the 2nd century AD¹⁴.

There is one spherical unguentarium acquired for the Samsun Museum via purchase (cat.no. 1). The vessel has a spherical body without a neck and a wide ring rim; its base is somewhat concave, and it is turquoise in colour. It has a height of 6.5 cm, a wall thickness of 0.2 cm, and a rim diameter of 3.4 cm. Isings¹⁵ noted that these sort of vessels, referred to as "form 10" in her study, appeared in the first half of the 1st century AD and were manufactured using the blowing technique. A specimen in the Hermitage Collection excavated from a grave in the Pantikapaion Necropolis was dated to the 1st century AD¹⁶, and its source of origin

was identified as Italy or the western side of the Empire. Numerous artefacts, the majority of which are grave finds, were used as examples in the aforementioned research, and all of them were dated to the 1st century AD. In accordance with the provided evidence and examples, the artefact in question was dated to the 1st century AD.

2. PEAR-SHAPED UNGUENTARIUM

This is the earliest type of the form, and its body is half as tall as its overall height. It is manufactured with thin walls. Isings noted that the earliest examples were discovered in houses or graves dating to the 1st century AD in Locarno, Pompeii, Herculaneum, Siphnos, Dura Europos, and Priene, and that there are also examples dated to the third century BC and recommended that Karanis examples be dated to the 3rd century AD at the latest¹⁷. Extensive use of the form in nearly the entirety of the Roman Empire during the 1st century AD, as well as active production and use in the Syria-Palestine region and the survival of specimens from Cyprus, illustrate the form's widespread use¹⁸.

The Samsun Museum obtained one unguentarium with a pear-shaped body (cat.no. 2) via purchase. After being pulled out and folded in, its rim is rounded in the form of a wide ring. The neck is narrow and cylindrical. The carination is clearly visible. Its body is pear-shaped and half its height. The base is slightly concave and rounded. The blue specimen is 11.4 cm in height, has a wall thickness of 0.1 cm, and a rim diameter of 2 cm. Thus the specimen in question is dated to the 1st century AD based on the examples provided in these studies and the information provided about its shape.

The pear-bodied unguentaria are identified as "form 28a" by Isings¹⁹ and dated to the second half of the 1st century AD, two specimens in the Royal Ontario Museum²⁰ to the second half of the 1st century AD, one specimen in the Carnegie Museum²¹, one in the Hüseyin Kocabaş Collection²² and one in the Türkiye Şişe Cam Fabrikaları collection²³ are dated to the 1st century AD, a similar specimen in the Tire Museum²⁴ to the third quarter of the 1st century AD, one in the Sivas Museum²⁵ to the 1st-2nd centuries and those on in The Silifke Museum²⁶ to the 1st century AD.

3. TUBULAR UNGUENTARIUM

There are four tube-shaped unguentaria (cat.no. 3-6) in the Samsun Museum. Two of them were confiscated, while the other two (cat.no. 4, 6) were added to the museum's inventory during the salvage excavations. One of the specimens (cat.no. 4) uncovered during salvage excavations was located in an ancient burial chamber inside the limits of Amisos (Ilkadim) and the other (cat.no. 6) was found

⁵ TEKCAM 2011, 238.

⁶ HAYES 1975, 42.

⁷ SONMEZ 2015, 736.

⁸ ROTROFF 2006, 137; AKKURNAZ 2016, 173.

⁹ EISENMENGER 2003, 195.

¹⁰ ANDERSON-STOJANOVIĆ 1987, 106.

¹¹ SONMEZ 2015, 735.

¹² ANDERSON-STOJANOVIĆ 1987, 106; SONMEZ 2015, 735.

¹³ ERTEN YAĞCI 1993, 132-133, 143.

¹⁴ ISINGS 1957, 25-26.

¹⁵ ISINGS 1957, 25-26, form 10.

¹⁶ KUNINA 1997, 322-324, cat.no. 356.

¹⁷ ISINGS 1957, 42.

¹⁸ ERTEN 2018, 153.

¹⁹ ISINGS 1957, 41-42, form 28a.

²⁰ HAYES 1975, 52, 151, res. 107, 625.

²¹ OLIVER 1980, 80, res. 91.

²² AKAT/FIRATLI/KOCABAŞ 1984, 24, res. 76.

²³ CANAV 1985, 46, cat. no. 45.

²⁴ GURLER 2000, 35, res. 24.

²⁵ ATILA 2015, 162-163, 170, cat.no. 9, fig. 3/9.

²⁶ ERTEN 2018, 120-121, 192-193, cat.no. 44, 74.

during excavations in the ancient city of Neoklaudiopolis (Vezirkopru). The desired colours were green, brown and turquoise. Tones of green, brown and turquoise were favoured as hues. Their height ranges from 8.1 to 11.4 cm, their wall thickness ranges from 0.1 to 0.2 cm, and their rim diameters range from 1.2 to 2.1 cm. Two distinct groupings are distinguished based on the form characteristics.

In group (A), there is one unguentarium with a tubular form (cat.no. 3). Isings²⁷ labelled this type "form 8." It has a pulled-out and folded-in ring-shaped rim, a short cylindrical neck, a long cylindrical body, and a rounded base. The transition from neck to body is marked by a visible shoulder. The green specimen has a height of 11.4 cm, a rim diameter of 2.1 cm, and thin walls. Isings provided detailed information about this type of tubular unguentaria, stating that it had a longer body than its neck, that the base part could be rounded or flattened, that it was produced in bluish green or green tones, that it was one of the most common forms of the 1st century AD, that it could be found almost everywhere after the middle of the 1st century, and that the latest known specimen is dated to the 2nd century AD in the Este-North Necropolis²⁸. An specimen of this type in the Royal Ontario Museum²⁹ is dated to the second half of the 1st century AD. The three specimens in the Hüseyin Kocabaş collection³⁰ have not been assigned a date. One specimen in the collection of Yüksel Erimtan³¹ is dated to the 1st century AD, two specimens in the Tire Museum³² are dated to the late 1st to early 2nd century AD, and six specimens in the Silifke Museum³³ are dated to the 1st century AD. The specimens in these studies share similarities with the group (A). Based on the given information and examples of the form, the artefact in question is dated to the 1st century AD.

In group (B), there are three tubular unguentaria (cat. no. 4-6). Isings³⁴ referred to this type as "form 27". It has a long, narrow, cylindrical neck with a rounded ring rim that is pulled out and folded in. It has a drop-shaped body and an oval, rounded base. They are coloured brown or turquoise. Their height ranges between 7.1 and 8.4 cm, their walls are between 0.1 and 0.2 cm thick, and their rim diameters are between 1.2 and 1.8 cm. Referring to this type of tube-shaped unguentarium in his study, Isings indicated that this form was derived from "form 8," that it arose during the late stages of the Nero-Flavianus period, and that its use lasted until the 4th century A.D.³⁵. The Royal Ontario Museum³⁶ houses a specimen of this type, which is dated to 1st century A/D. No date has been assigned to a specimen in the collection of Türkiye Şişe Cam Fabrikaları³⁷. One specimen in the Yüksel Erimtan Collection³⁸ is dated to the 2nd half of the

1st century AD to the 4th century AD, while another in the Corning Museum³⁹ is dated to the 1st century AD to the 3rd century AD. Two specimens in the Tire Museum⁴⁰ are dated to the 1st century AD, while a comparable specimen in the Sivas Museum⁴¹ is dated to the 1st -3rd centuries AD, and one of the two specimens⁴² in the Silifke Museum is dated to the 1st AD and the other to the 1st and late 1st century AD.⁴³ The specimens in these studies are remarkably comparable to those of the group (B). In addition, one of the two specimens, which are excavation finds (cat.no. 4) is dated to the 1st century AD in the museum's inventory. The specimens in group (B) are also dated to the 1st century AD based on the similarity of the specimens in the studies, the information provided about the form, and the possibility that the date recorded in the museum inventory was evaluated alongside the other artefacts discovered during the salvage excavation in question⁴⁴.

4. BELL-BODIED UNGUENTARIUM

The bell-bodied unguentarium can be found almost everywhere, although it was developed mainly in eastern settlements. The form has a long neck in most specimens but short-necked types can also be seen. Numerous specimens discovered in graves are dated to the centuries 1-3 AD⁴⁵. The Samsun Museum acquired thirteen bell-bodied unguentaria (cat.no. 7-19) through confiscation or purchase. When form characteristics are considered, bell-bodied unguentaria are divided into two groups, owing to differences in body structures and height/body ratios.

Group (A) contains 12 specimens (cat.no. 7-18). They feature a projecting, pulled out and folded-in rim that is ring-shaped or carinated. They feature long, narrow, cylindrical necks and bell-formed bodies with a "S" profile that extend somewhat towards the base. The bases of the specimens are concave shaped. Other than the item (cat.no. 9) with a slightly slanted vertical groove ornamentation that extends from the rim to the base, no other exemplar is ornamented. The primary characteristic of the pieces in this category is the absence of a carination between the neck and the body. In addition to these characteristics, the ratio of body length to total length divides the works into two categories. In A1 type (cat.no. 7-12), the ratio of body length to overall length ranges between one-third and one-fourth. The artefacts range in height from 11,4 to 14,9 cm, have walls between 0.1 and 0.2 cm thick, and have rim diameters between 1,8 and 2,4 cm. In type A2 (cat.no. 13-18), the length of the body is half of the entire length. The height ranges from 8-12.3 cm. The wall dimensions are identical as type 1. The diameter of the rim varies between 1.5 and 3.5 cm. The majority of the specimens have green tones. There are, however, specimens with coffee, blue, and turquoise colours. Although Isings

²⁷ ISINGS 1957, 24, form 8.

²⁸ ISINGS 1957, 24.

²⁹ HAYES 1975, 151, fig. 20/630.

³⁰ AKAT/FIRATLI/KOCABAŞ 1984, 24, res. 71-72.

³¹ LIGHTFOOT/ARSLAN 1992, 44, cat.no. 11.

³² GURLER 2000, 28-29, cat. no. 10-11.

³³ ERTEN 2018, 112-117, 124-125, 200-201, 206-207, cat.no. 40-42, 46, 78, 81.

³⁴ ISINGS 1957, 41, form 27.

³⁵ ISINGS 1957, 41.

³⁶ HAYES 1975, 152, fig. 20/631.

³⁷ CANAV 1985, 45, cat. no. 41.

³⁸ LIGHTFOOT/ARSLAN 1992, 172, cat.no. 107.

³⁹ WHITEHOUSE 1997, 145-146, cat. no. 244.

⁴⁰ GURLER 2000, 32-33, cat.no. 18-19.

⁴¹ ATILA 2015, 162, 170, cat.no. 8, fig. 2/8.

⁴² ERTEN 2018, 184-185, cat.no. 70.

⁴³ ERTEN 2018, 182-183, cat.no. 69.

⁴⁴ It was unknown whether the tomb included any further specimens. Consequently, it is presented as hypothetical.

⁴⁵ ISINGS 1957, 97-98.

refers to these bell-shaped unguentaria as “form 82” based on their body shape, the A1 group is referred to in the literature as “form 28b” and the A2 group is referred to as “form 28a” based on their body/height ratio.⁴⁶ He noted that this form, which he named among artefacts from the 2nd century AD, emerged in the second half of the 1st century AD⁴⁷ and indicated that “form 28b” was utilised for a longer period of time (1st-4th centuries AD) than the other forms.⁴⁸ In another investigation, he dated comparable artefacts to the middle of the 1st century AD and the beginning of the 2nd century AD⁴⁹. A specimen from the Royal Ontario Museum⁵⁰, a comparable specimen from the Carnegie Museum⁵¹, a specimen from the Corning Museum catalogue⁵², and a specimen from the Eskişehir Museum⁵³ are dated between the 1st and 2nd century AD. A specimen in the Hermitage collection⁵⁴ is dated to the 2nd half of the first century AD, although several specimens in the Pergamon Museum⁵⁵ are dated to 1st-2nd century AD. A comparable specimen at the Silifke Museum⁵⁶ is dated to the 1st century AD and is believed to be unique to Anatolia. In addition to these, there are also different types in the Yüksel Erimtan Collection⁵⁷ and the Tire Museum⁵⁸ which are dated to the 2nd-3rd centuries AD. The specimens from the aforementioned research share several form traits with the group (A) specimens in the Samsun Museum. Taking into account this resemblance and the information provided, the specimens in group A1 group are dated to the 1st and 2nd centuries AD, while those in group A2 are dated to the 2nd century AD.

There is one piece (cat.no. 19) in group (B). It features a long, narrow and cylindrical neck, and an outwardly pulled rim, pulled out and folded inside, straightened on the top. The body of the artefact, which has a conspicuous carination at the transition to the body, is in the shape of a bell, beginning abruptly at the end of the carination and spreading into a modest “S” profile at the base. It features a base with a modest concavity. The artefact is 16.9 cm in height, it has a wall thickness of 0.3 cm, and a rim diameter of 2.5 cm. Isings⁵⁹ identifies this type as “form 82a1” and, based on surviving specimens, he dates its usage to the end of the 1st century AD and the beginning of the 3rd century AD. Three Royal Ontario Museum specimens⁶⁰ are dated to the 2nd and 3rd century AD. Three specimens from the Carnegie Museum⁶¹, two examples from the Türkiye Şişe Cam Fabrikaları Collection⁶², and a specimen from the Tire Museum⁶³ are dated to the second century after Christ. Four

comparable artefacts at the Pergamon Museum⁶⁴ are dated to the 2nd and 3rd centuries AD. The specimens from the cited research are similar to those in group (B). Therefore, the artefact in question is dated to between the 2nd and 3rd centuries AD.

5. CONICAL-BODIED UNGUENTARIUM

There are 10 conical-bodied unguentaria (cat.no. 20-29), acquired by the Samsun Museum through purchase or confiscation. Although predominately green, some of the turquoise and yellow-coloured artefacts have brown or beige deterioration. Their heights varies and range between 11,2 to 18⁽⁺⁾ cm. They range in wall thickness from 0.1 to 0.3 cm and in rim diameter from 2 to 3.9⁽⁺⁾ cm. Except for one specimen with a single row of grooves encompassing the neck and body from the rim to the base, there is no decorated specimen. According to their form features, with conical-bodied unguentaria are categorised into three groups.

There is one conical-bodied unguentarium (cat.no. 20) in group (A). Isings classifies this form as “form 82a1” based on its body characteristic.⁶⁵ The artefact, which lacks a rim, has a long, cylindrical neck that extends towards the body, a concave-shaped body with wide and rounded lines, a rounded base, and a flat bottom. The carination mark at the transition from the neck to the body is slightly visible. Due to its fracture, its actual height and rim diameter are unknown, despite the fact that its preserved height is 18 cm. It has a wall thickness of 0,2 cm. In his study, Isings listed this type of conical-bodied unguentaria among the forms of the 2nd century AD, however, he identified its emergence with the 1st century AD⁶⁶.

A comparable specimen from the Royal Ontario Museum⁶⁷ is dated to between 100 and 150 AD. Three examples at the Carnegie Museum⁶⁸ are dated to the 1st and 2nd centuries AD, while two specimens in the Agora of Athens⁶⁹ are dated to the 2nd century AD or the second half of the 2nd century AD, depending on their context. Considering the similarities with the specimens in these studies and the fact that some of them are context finds, the specimen of group (A) is dated to the interval between the 1st-2nd centuries AD.

Group (B) consists of four conical-bodied unguentaria (cat.no. 21-24). Based on the body-to-length ratio, Isings identifies this type as “form 28a.”⁷⁰ The carination traces in the transition from the neck to the body of the artefacts, which demonstrate the form traits of a rounded and smoothed rim pulled out and folded inwards, cylindrical neck, conical body, and flat base, are visible. The specimens are all green. They range in height from 11.2-12.2 cm, having wall thickness between 0.2 and 0.3 cm, and rim diameters between 3.3 and 3.9 cm. The cat.no. 31 specimen, in contrast to the other specimens, has a wheel-cut groove ornamentation. Harden⁷¹

⁴⁶ ISINGS 1957, 42-43, 97, form 28a-b, form 82.

⁴⁷ ISINGS 1957, 96-97.

⁴⁸ ISINGS 1957, 42-43.

⁴⁹ ISINGS 1971, 8-9, 45, figs. 1/5, 1/6.

⁵⁰ HAYES 1975, 152, 185, fig. 20/633.

⁵¹ OLIVER 1980, 79, no. 90.

⁵² WHITEHOUSE 1997, 135, cat.no. 220.

⁵³ OLCAY 2001, 153-154, no. 14.

⁵⁴ KUNINA 1997, 325-326, cat.no. 365.

⁵⁵ ATILA/GURLER 2009, 43, 95, cat.no. 53, 54, 155.

⁵⁶ ERTEN 2018, 190-191, cat.no. 73.

⁵⁷ LIGHTFOOT/ARSLAN 1992, 87-88, cat.no. 43-44.

⁵⁸ GURLER 2000, s. 62-63, cat.no. 78-79.

⁵⁹ ISINGS 1957, 97-98, form 82a1.

⁶⁰ HAYES 1975, 75, 174, 204, fig. 9/261, 262, 263.

⁶¹ OLIVER 1980, 82-83, nos. 99, 103, 104.

⁶² CANAV 1985, 50, cat.no. 58, 59.

⁶³ GURLER 2000, 60, cat.no. 74.

⁶⁴ ATILA/GURLER 2009, 96-97, cat.no. 156-159.

⁶⁵ ISINGS 1957, 97-98, form 82a1.

⁶⁶ ISINGS 1957, 96-98.

⁶⁷ HAYES 1975, 125, 179, fig. 14/490.

⁶⁸ OLIVER 1980, 81, no. 96-98.

⁶⁹ WEINBERG/STERN 2009, 128, no. 241-242, Pl. 22/241, 242.

⁷⁰ ISINGS 1957, 42, form 28a.

⁷¹ HARDEN 1936, s. 273, Pl. XX/805, Class XIII-Type B.

investigated this type of conical-bodied unguentarium under the name “Class XIII-Type B.” Isings⁷², claims that this was the earliest type and that it emerged in the second half of the 1st century AD in his study, and he provides specimens demonstrating that the artefact was used during the 1st and 3rd centuries AD. In a different study, he dated a comparable specimen to the 1st century AD⁷³. Two specimens from the Royal Ontario Museum⁷⁴ are dated to the 1st century AD, a specimen from the Carnegie Museum⁷⁵ to the 1-2 centuries AD, two specimens in the Türkiye Şişe Cam Fabrikaları collection⁷⁶ to the end of the 1st century and beginning of the 2nd century AD, four specimens in the Yüksel Erimtan collectio⁷⁷ to the 2nd century AD, three specimens mentioned in his study entitled “Glass Vessels in Ancient Greece”⁷⁸ to the 1st century AD, two specimens from the Hermitage collection⁷⁹ to the third quarter of the 1st century AD, two specimens from the Corning Museum⁸⁰ to the 1-2 centuries AD and a specimen found at the Agora of Atina⁸¹ to the beginnings of the 2nd century AD, and it was also stated that the artefact belongs to 50-200 based on the context. In addition to these, the Sivas Museum⁸² houses an specimen from the 1st to 3rd century AD. The specimens are dated to the late 1st or early 2nd century AD, as the examples cited in these studies are essentially comparable to those in group (B) and some specimens are context finds.

In group (C) there are five conical-bodied unguentaria (cat.no. 25-29). Their body height is at least one-fifth of their entire height, and Isings⁸³ classifies them as “form 82b2” based on the form characteristic. They feature a rounded, by pulling out and folded in, and flattened everted rim, a long, thin, cylindrical and tapering neck, a conical body, and a concave base. There is a little conspicuous protrusion at the rim of the artefacts that can be employed as a spout. Artefacts with yellowish, turquoise, or green hues range in height from 11.6 to 15 cm, wall thickness from 0.1 to 0.2 cm, and rim diameters from 2.2 to 2.3 cm. This type of conical-bodied unguentaria is classified by Morin-Jean⁸⁴ as “shape 24” and by Harden⁸⁵ as “Class XIII-Type H.” Isings⁸⁶ reminds that this type, which he included among the forms of the 2nd century AD in his study, first arose in the 1st century AD, although the majority of examples be dated to a later time.

In a separate investigation, he dates an identical grave discovery to the 2nd century AD⁸⁷. A specimen in the Royal Ontario Museum⁸⁸ is dated to the early 2nd-3rd centuries AD,

two similar specimens in the Hüseyin Kocabaş collection⁸⁹ to the 2nd century AD, three specimens in the Yüksel Erimtan collection⁹⁰ to the 2nd-3rd centuries AD, a similar specimen in the Corning Museum⁹¹ to between 1st-4th centuries AD and a similar specimen in the Tire Museum⁹² is dated to the end of the 1st century AD and the beginning of the 2nd century AD. A comparable specimen in the Sivas Museum dates to between the 1st-3rd centuries AD⁹³. In general, it is believed that this kind has been in use for a longer duration than the others. Considering the similarities between the specimens in the aforementioned studies to the examples in group (C), the specimens are dated to the 2nd or 3rd century AD.

6. CYLINDRICAL-BODIED UNGUENTARIUM

There is one cylindrical-bodied unguentarium (cat.no. 30) that was acquired by the Samsun Museum via purchase. In general, the form features a rounded broad ring rim pulled out and folded in, a long, narrow, cylindrical neck that extends toward the body, a flattened shoulder, a cylindrical body, and a high concave base. The transition between the neck and body is marked by a pronounced carination. The overall length is one-third the length of the body. The desired color is a yellow-brown hue. It has a 16 cm height, a 0,1cm wall thickness, and a 3,1cm rim diameter.

Isings, who also examined cylindrical-bodied unguentaria in his research, referred to this kind as “form 82a1,” ranked it among the forms of the second century AD, and provided specimens from the 1st to 3rd centuries AD⁹⁴. Similarly, three comparable examples at the Corning Museum⁹⁵ are dated to the late 1st-3rd centuries AD. In terms of form characteristics, the specimens in these studies are remarkably close to those in the museum’s collection. Based on the facts and examples provided concerning the form, the artefact is dated to the 1st-3rd centuries AD.

7. CANDLESTICK-BODIED UNGUENTARIA

There are two candlestick-bodied unguentaria (cat. no. 31-32), which were acquired by the Samsun Museum through purchase. Artefacts in green and yellow colors have rounded rims pulled out and folded in, long, thin and cylindrical necks narrowing toward the body, flattened candlestick body and high concave base. One of the artefacts misses a rim. The other specimen has a height of 12.5 cm, a wall thickness of 0.2 cm and a rim diameter of 1.8 cm. The preserved height of the broken specimen is 13.1 cm and its wall thickness is 0.1 cm. Isings, who also dealt with candlestick-bodied unguentaria in his study, referred to this type as “form 82a2” and stated that it is one of the most common unguentaria, that it may have emerged at the end of the 1st century AD, but the majority of examples are dated

⁷² ISINGS 1957, 42.

⁷³ ISINGS 1971, 64, 98, fig. 15/5.

⁷⁴ HAYES 1975, 125, Plt. 32/487, 488.

⁷⁵ OLIVER 1980, 82, no. 101.

⁷⁶ CANAV 1985, 50, kat.no. 56, 57.

⁷⁷ LIGHTFOOT/ARSLAN 1992, 80-83, kat.no. 36-39.

⁷⁸ WEINBERG/MCCLELLAN 1992, 115-116, nos. 79/2923, 2926, 2928.

⁷⁹ KUNINA 1997, 206, 324-326, res. 178, cat.nos. 361-362.

⁸⁰ WHITEHOUSE 1997, 133, cat.nos. 214, 215.

⁸¹ WEINBERG/STERN 2009, 128, Pl. 22/239.

⁸² ATILA 2015, 163, 170, cat.no. 12, fig. 3/12.

⁸³ ISINGS 1957, 99, form 82b2.

⁸⁴ MORIN-JEAN 1922-23, 77, form 24.

⁸⁵ HARDEN 1936, 279, Plt. XX/840, Class XIII-Type H.

⁸⁶ ISINGS 1957, 96, 99.

⁸⁷ ISINGS 1971, 66, fig. 15/15.

⁸⁸ HAYES 1975, 72, fig. 8/237.

⁸⁹ AKAT/FIRATLI/KOCABAŞ 1984, 56, 26, res. 54b, 55c.

⁹⁰ LIGHTFOOT/ARSLAN 1992, 84-86, kat.no. 40-42.

⁹¹ WHITEHOUSE 1997, 156, cat.no. 267.

⁹² GURLER 2000, 63, kat.no. 80.

⁹³ ATILA 2015, 163, 170, cat.no. 16, fig. 5/16.

⁹⁴ ISINGS 1957, 97-98, form 82a1.

⁹⁵ WHITEHOUSE 1997, 150-151, cat.nos. 253-255.

to later years, and provided evidence that the artefacts were in use until the 4th century AD⁹⁶.

This type of candlestick-bodied unguentaria is dated to the 2nd century AD in the study entitled "Roman Glass in Limburg"⁹⁷, three of five similar specimens from the Royal Ontario Museum⁹⁸ are dated to the 2nd early 3rd century AD and the others⁹⁹ to the second half of the 2nd century AD, two specimens in the Hüseyin Kocabaş collection¹⁰⁰ to the 2-3 centuries AD, two similar specimens in the Türkiye Şişe Cam Fabrikaları collection¹⁰¹ are dated to the 2nd century AD, three examples in the Tire Museum¹⁰² date to the second half of the 2nd century AD, one specimen in the Sivas Museum¹⁰³ is dated to the 1st-3rd centuries AD, and one comparable specimen in the Silifke Museum¹⁰⁴ is dated to the 3rd-4th century AD. Considering the information about their form and specimens of similar characteristics, the artefacts are dated to the 2nd or 3rd century AD.

8. ONION-BODIED UNGUENTARIA

There are eight onion-bodied unguentaria (cat.no. 33-40) in the Samsun Museum. As colours, green, yellow, cream, turquoise, and brown were favoured. All artefacts with a height between 8.2 and 17 cm and a rim diameter between 1.9 and 3.5 cm feature thin wall thickness (0.1 cm). The works are separated into two categories based on their form features.

In group (A) there are six onion bodied unguentaria (cat.no. 33-38). According to body-to-height ratio, Morin-Jean¹⁰⁵ classified this type as "form 39," Harden¹⁰⁶ as "Class IX-Type B-1a1," and Isings¹⁰⁷ as "form 101" or "form 28a." They feature a rounded ring, a flattened, pulled out broad or left flat rim, a cylindrical neck narrowing toward the body and a spherical body. Three instances have a concave (cat.no. 35-36, 38) bottom, while the others have a rounded (cat.no. 33-34, 37) bottom. Due to the extreme corrosion and limestone layer, the rims of two pieces (cat.no. 36 and 38) cannot be precisely measured, nor can their form be comprehended. While most of them lack a clear carination at the neck-to-body transition, cat.no. 33 has a conspicuous carination placed towards the center of the neck. The artefacts range in height from 8.2 to 15.3 cm, and their rim diameters range from 2 to 3.3 cm.

Isings¹⁰⁸ categorised this onion-bodied unguentarium as belonging to the 3rd century AD and included samples from the 2nd to 4th centuries AD. Nevertheless, he asserts that the form was also used as an unguentarium, and he dates the specimens he provides to the 2nd or 3rd century

A.D.¹⁰⁹ In a different publication, he dates three comparable specimens to the 3rd and 4th centuries AD¹¹⁰. Three specimens from the Royal Ontario Museum¹¹¹ date to the second half of the 1st century AD, one to the 1st-2nd century AD, and one to the 3rd century AD. The specimen from the Hüseyin Kocabaş Collection¹¹² has not been assigned a date. Two of the four specimens in the Yüksel Erimtan Collection¹¹³ belong to the first or second century AD, but no date has been assigned to the remaining two. One specimen from the Hermitage collection¹¹⁴ is dated to the late 1st-early 2nd century AD, a similar specimen from the Corning Museum¹¹⁵ is dated to the late 1st-early 2nd century AD, and one of the three specimens from the Tire Museum¹¹⁶ is dated to the 2nd and 3rd centuries AD, and the others to the 3rd century AD. The specimens in these research are similar in form to the specimens of group (A). The fact that the samples are commonly dated to a wide period between the 1st and 4th century AD makes it challenging to date group (A) specimens. The artefacts, however, are dated to the early 2nd-late 3rd century AD based on the emergence, development, and distribution of the form, as well as the range of the period it was used. There are two onion bodied unguentaria in group (B) (cat.no. 39-40). This type was categorized as "form 28b" by Isings¹¹⁷ according to body-height ratio. Even though one of the examples (cat.no. 39) has a flawed rim, it features a wide, cylindrical, long neck that widens towards the body, an onion-shaped spherical body, and a rounded, somewhat concave base. There is no obvious carination at the transition from neck to body. It is 10,4 cm in length and 1,9 cm in rim diameter. The other sample (cat.no. 40) features a rounded pulled out and folded in and flattened everted rim, a long, cylindrical neck widening toward the body, an onion shaped spherical body, and a high concave base. The transition between the neck and body is marked by a pronounced carination. It has a height of 17 cm and a rim diameter of 3,5 cm. Except for the body-to-height ratio, when the samples of the (B) group are compared to those of the (A) group, no significant differences are seen. The most noticeable change is that their necks are longer. Therefore, the form comparison examples provided for group (A) also apply to group (B). Consequently, when the aforementioned studies are analyzed, the specimens of group (B) are dated to the 3rd century AD in light of the existence of obviously comparable examples and the developmental stages of the form.

CONCLUSION

Examining the glass unguentaria at the Samsun Museum, they are subdivided into eight types on the basis of their form and technical attributes and evaluated individually. Overall, all of them were produced by free

⁹⁶ ISINGS 1957, 98, form 82a2.

⁹⁷ ISINGS 1971, 66, fig. 15/15.

⁹⁸ HAYES 1975, 74, 75, fig. 9/256, 259, 264.

⁹⁹ HAYES 1975, 128, 130, figs. 15/510, 16/532.

¹⁰⁰ AKAT/FIRATLI/KOCABAŞ 1984, 20, res. 54/c, d.

¹⁰¹ CANAV 1985, 51, kat.no. 60, 61.

¹⁰² GURLER 2000, 59-61, kat.no. 72-73, 75.

¹⁰³ ATILA 2015, 163, 170, cat.no. 15, fig. 5/15.

¹⁰⁴ ERTEN 2018, 28-29, kat.no. 5.

¹⁰⁵ MORIN-JEAN 1922-23, 90-91, form 39.

¹⁰⁶ HARDEN 1936, 209, Pl. VIII/600, Class IX-Type B-1a1.

¹⁰⁷ ISINGS 1957, 42, 119, forms 28a and 101.

¹⁰⁸ ISINGS 1957, 119-120.

¹⁰⁹ ISINGS 1957, 120.

¹¹⁰ ISINGS 1971, 10, 67, figs. 1/13, 15/24, 16/25.

¹¹¹ HAYES 1975, 53, 127, Pls. 9/111-113, 16/501.

¹¹² AKAT/FIRATLI/KOCABAŞ 1984, 33, res. 105.

¹¹³ LIGHTFOOT/ARSLAN 1992, 41-42, 176-178, kat.no. 8-9, 111, 113.

¹¹⁴ KUNINA 1997, 325-326, no. 368.

¹¹⁵ WHITEHOUSE 1997, 127, cat.no. 201.

¹¹⁶ GURLER 2000, 54, 59, 80, kat.no. 62, 71, 98.

¹¹⁷ ISINGS 1957, 42-43, form 28b.

blowing technique. It was also found that, despite the rarity of decorative work, only groove ornamentation was employed. The entire discovery of the artefacts, which are believed to be replicas of metal or ceramic vessels based on their form features, indicates that these are grave discoveries. As a matter of fact, salvage excavations uncovered two of the objects, one in a chamber grave within the borders of Amisos and the other in the borders of Neoklaudiopolis Ancient City. In addition, the fact that similar artefacts were reported to be grave discoveries in the pertinent research, the detection of many illegal excavation pits during the surface investigations¹¹⁸ carried out in the region, as well as the fact that the eastern slope of Oymağaç Hoyük/Nerik is reported to have served as a cemetery during the Hellenistic and Roman periods¹¹⁹, support this idea and provide, in a sense, an answer to the question of where the artefacts may have been discovered. In addition, the fact that the items are dated to the 1st to 3rd centuries AD coincides with the political organization of the region.

That they are of Syrian-Palestinian, Cypriot or in general Eastern Mediterranean origin and developed by spreading from these regions is the consequent of dominant cultural understanding despite the fact that similar specimens can be seen in other geographies. Therefore, the prevalence of similar specimens of the artefacts throughout a vast geographical area is linked to the dominant Roman culture of the period. There are no clear data as to whether the artefacts at the museum are commercial products or locally made. However, the lack of indigenous manufacturing evidence suggests that these were commercial products. In light of comparable cases from previous investigations, it can be concluded that this trade was performed indirectly without a clear route. There are also other indications that the aforementioned commercial activity took place on land and sea. The data gathered from the Uluburun and Gelidonya Shipwrecks, dated to the 14th to 13th centuries BC. as early period artefacts, indicate that glass, like many other raw materials, was employed as a commercial product.¹²⁰

The discovery¹²¹ of luxury glass artefacts among exported products in the Antikythera Shipwreck from the Late Hellenistic Period and the numerous glass candlestick specimens of the Early Byzantine Period in the Sinop Museum¹²² discovered underwater in a solid pithos are also significant in demonstrating that the glass trade was also conducted by sea. The lack of any finds as to local production, in addition to all these data on commercial activity, is truly astounding. In the absence of production data, the lack of a thorough excavation on the late eras of the region plays a significant role. Given the region's lengthy history and the city's location as a port, it is indisputable that glass, a crucial raw material for commerce, has not been produced. It is fair

to expect that future excavations will discover additional information regarding the local production of glass, so eliminating this doubt.

¹¹⁸ TEMUR *et alii* 2019, 81-102; 2022, 145-166; TEMUR/YIGITPASA 2020, 619-654.

¹¹⁹ CZICHON/YILMAZ 2014, 340.

¹²⁰ BASS 1986a, 269-269; 1986b, 294; BASS *et alii* 1967, 14, 133, 164; PULAK 1988, 1, 35; 1998: 202; TEK 2005, 111; NICHOLSON *et alii* 1997, 143-153; NİRAKA/NICHOLSON *et alii* 1998, 22.

¹²¹ WEINBERG 1965, 30-39; WEINBERG/MCCLELLAN 1992, 28-33; ERTEN YAĞCI 1993, 45; EKER 2014, 39; 2017, 19.

¹²² TEMUR 2018, 236.

CATALOGUE

Cat.No	1 (Pic. 1)	Inv. No: 2013-65 (A)	Loc: Purchase	Form: Globular Unguentaria	
Dimensions	Diameter: 3,4 cm	Height: 6,5 cm	Width: 7,4 cm	Bottom Diameter: 3 cm	
Color	Turquoise		Technique: Free-blown and tooling		
Description	Transpatent, wide annular rim folded inwards by pulling out and rounded, globular body, slightly concave base. Full, iridescent, rough structure, limestone residue, occasional wear on the surface.				
Counterparts	ISINGS 1957, 25-26, form 10; KUNINA 1997, 322-324, cat.no. 356.				
Date	1st century AD				
Cat.No	2 (Pic. 2)	Inv. No: 2012-8 (A)	Loc: Purchase	Form: Pear-Shaped Unguentaria	
Dimensions	Diameter: 2 cm	Height: 11,4 cm	Wall: 0,1	Width: 3,1 cm	Bottom Diameter: 1,6 cm
Color	Blue		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out and folded in and rounded, narrow, cylindrical neck, pear-shaped body widening downwards, slightly concave bottom. Full, rough structure, limestone residue, occasional wear on the surface.				
Counterparts	ISINGS 1957, 41-42, form 28a; HAYES 1975, 52, 151, res. 107, 625; OLIVER 1980, 80, res. 91; AKAT/FIRATLI/KOCABAŞ 1984, 24, res. 76; CANAV 1985, 46, kat. no. 45; GURLER 2000, 35, res. 24; ATILA 2015, 162-163, 170, cat.no. 9, fig. 3/9; ERTEN 2018, 120-121, 192-193, kat. no. 44, 74.				
Date	1st century AD				
Cat. No	3 (Pic. 3)	Inv. No: 3-23-1988	Loc: Confiscation	Form: Tubular Unguentaria	
Dimensions	Diameter: 2,1 cm	Height: 11,4 cm	Wall: 0,1 cm	Width: 2 cm	Bottom Diameter: - cm
Color	Green		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out and folded in and rounded, short, narrow, cylindrical neck that joins the body, prominent knuckle made by tool compression at the transition to the long body, cylindrical body, rounded bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface.				
Counterparts	ISINGS 1957, 24, form 8; HAYES 1975, 151, fig. 20/630; AKAT/FIRATLI/KOCABAŞ 1984, 24, res. 71-72; LIGHTFOOT/ARSLAN 1992, 44, kat. no. 11; GURLER 2000, 28-29, kat. no. 10-11; ERTEN 2018, 112-117, 124-125, 200-201, 206-207, kat. no. 40-42, 46, 78, 81.				
Date	1st century AD				
Cat. No	4 (Pic. 4)	Inv. No: 2013-124 (A)	Loc: Salvage Excavations/ Chamber Grave (Amisos)	Form: Tubular Unguentaria	
Dimensions	Diameter: 1,2 cm	Height: 8,4 cm	Wall: 0,2 cm	Width: 1,5 cm	Bottom Diameter: - cm
Color	Brown Mottled		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out and folded in and rounded, long, narrow, cylindrical, tapering neck, drop-shaped body, rounded bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface.				
Counterparts	ISINGS 1957, 41, form 27; HAYES 1975, 152, fig. 20/631; CANAV 1985, 45, kat. no. 41; LIGHTFOOT/ARSLAN 1992, 172, kat. no. 107; WHITEHOUSE 1997, 145-146, cat.no. 244; GURLER 2000, 32-33, kat. no. 18-19; ERTEN 2018, 184-185, kat. no. 69-70.				
Date	1st century AD				
Cat. No	5 (Pic. 5)	Inv. No: 2013-201 (A)	Loc: Confiscation	Form: Tubular Unguentaria	
Dimensions	Diameter: 1,8 cm	Height: 8,1 cm	Wall: 0,2 cm	Width: 1,7 cm	Bottom Diameter: 0,8 cm
Color	Turquoise		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out and folded in and rounded, long, narrow, cylindrical neck, drop-shaped body, oval bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface, production traces in vertical groove shape.				
Counterparts	ISINGS 1957, 41, form 27; HAYES 1975, 152, fig. 20/631; CANAV 1985, 45, kat. no. 41; LIGHTFOOT/ARSLAN 1992, 172, kat. no. 107; WHITEHOUSE 1997, 145-146, cat.no. 244; GURLER 2000, 32-33, kat. no. 18-19; ERTEN 2018, 184-185, kat. no. 69-70.				
Date	1st century AD				
Cat. No	6 (Pic. 6)	Inv. No: 2015-42 (A)	Loc: Salvage Excavations/ Chamber Grave (Vezirköprü)	Form: Tubular Unguentaria	
Dimensions	Diameter: 1,4 cm	Height: 7,1 cm	Wall: 0,1 cm	Width: 1 cm	Bottom Diameter: - cm
Color	Turquoise		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out and folded in and rounded, long, narrow, cylindrical neck, drop-shaped body, rounded bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				

Counterparts	ISINGS 1957, 41, form 27; HAYES 1975, 152, fig. 20/631; CANAV 1985, 45, kat. no. 41; LIGHTFOOT/ARSLAN 1992, 172, kat. no. 107; WHITEHOUSE 1997, 145-146, cat.no. 244; GURLER 2000, 32-33, kat. no. 18-19; ERTEN 2018, 184-185, kat. no. 69-70.				
Date	1st century AD				
Cat. No	7 (Pic. 7)	Inv. No: 3-1-1971	Loc: Confiscation	Form: Bell-Shaped Unguentaria	
Dimensions	Diameter: 2 cm	Height: 13 cm	Wall: 0,2 cm	Width: 3,1 cm	Bottom Diameter: 3,6 cm
Color	Yellowish Brown		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out and folded in and rounded, long, cylindrical, tapering neck, bell-shaped body, concave bottom. Full, iridescent, rough structure, occasional wear on the surface,				
Counterparts	HARDEN 1936, plt. XX, res. 799; ISINGS 1957, 42-43, 97, form 28b, form 82; ISINGS 1971, 8-9, 45, fig. 1/5, 1/6; HAYES 1975, 152, 185, fig. 20/633; LIGHTFOOT/ARSLAN 1992, 87-88, kat. no. 43-44; WHITEHOUSE 1997, 135, cat.no. 220; GURLER 2000, 62-63, kat. no. 78-79; OLCAY 2001, 153-154, no. 14; KUNINA 1997, 325-326, cat.no. 365; ATILA/GURLER 2009, 43, 95, kat. no. 53, 54, 155; ERTEN 2018, 190-191, kat. no. 73.				
Date	1st-2nd centuries AD				
Cat. No	8 (Pic. 8)	Inv. No: 10-4-2001	Loc: Purchase	Form: Bell-Shaped Unguentaria	
Dimensions	Diameter: 2,4 cm	Height: 11,4 cm	Wall: 0,2 cm	Width: 2,3 cm	Bottom Diameter: 2,9 cm
Color	Greenish		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out and folded in and rounded, long, narrow, cylindrical, concave neck that narrows and widens towards the body, bell-shaped body, slightly concave bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	HARDEN 1936, plt. XX, res. 799; ISINGS 1957, 42-43, 97, form 28b, form 82; ISINGS 1971, 8-9, 45, fig. 1/5, 1/6; HAYES 1975, 152, 185, fig. 20/633; LIGHTFOOT/ARSLAN 1992, 87-88, kat. no. 43-44; WHITEHOUSE 1997, 135, cat.no. 220; GURLER 2000, 62-63, kat. no. 78-79; OLCAY 2001, 153-154, no. 14; KUNINA 1997, 325-326, cat.no. 365; ATILA/GURLER 2009, 43, 95, kat. no. 53, 54, 155; ERTEN 2018, 190-191, kat. no. 73.				
Date	1st-2nd centuries AD				
Cat. No	9 (Pic. 9)	Inv. No: 12-1-2001	Loc: Purchase	Form: Bell-Shaped Unguentaria	
Dimensions	Diameter: 1,8 cm	Height: 13,6 cm	Wall: 0,2 cm	Width: 3,5 cm	Bottom Diameter: 4,2 cm
Color	Yellowish Green		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out and folded in and rounded, long, narrow, cylindrical, concave neck widening towards the body, conical body, two rows of grooves made by the wheel-cutting technique starting from the rim and continuing slightly diagonally towards the bottom, rounded slightly concave bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	MORIN-JEAN 1922-23, 77, form 23; HARDEN 1936, plt. XX, res. 799; ISINGS 1957, 42-43, 97, form 28b, form 82; ISINGS 1971, 8-9, 45, fig. 1/5, 1/6; HAYES 1975, 152, 185, fig. 20/633; LIGHTFOOT/ARSLAN 1992, 87-88, kat. no. 43-44; WHITEHOUSE 1997, 135, cat. no. 220; GURLER 2000, 62-63, kat. no. 78-79; OLCAY 2001, 153-154, no. 14; KUNINA 1997, 325-326, cat.no. 365; ATILA/GURLER 2009, 43, 95, kat. no. 53, 54, 155; ERTEN 2018, 190-191, kat. no. 73.				
Date	1st-2nd centuries AD				
Cat. No	10 (Pic. 10)	Inv. No: 12-2-2001	Loc: Purchase	Form: Bell-Shaped Unguentaria	
Dimensions	Diameter: 1,9 cm	Height: 14,9 cm	Wall: 0,2 cm	Width: 3,4 cm	Bottom Diameter: 4,4 cm
Color	Brown Mottled		Technique: Free-blown and tooling		
Description	Transpatent, rim that is pulled out and folded in and rounded, long, narrow, cylindrical, concave neck widening towards the body, conical body, edges smoothed, flat bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	HARDEN 1936, plt. XX, res. 799; ISINGS 1957, 42-43, 97, form 28b, form 82; ISINGS 1971, 8-9, 45, fig. 1/5, 1/6; HAYES 1975, 152, 185, fig. 20/633; LIGHTFOOT/ARSLAN 1992, 87-88, kat. no. 43-44; WHITEHOUSE 1997, 135, cat.no. 220; GURLER 2000, 62-63, kat. no. 78-79; OLCAY 2001, 153-154, no. 14; KUNINA 1997, 325-326, cat.no. 365; ATILA/GURLER 2009, 43, 95, kat. no. 53, 54, 155; ERTEN 2018, 190-191, kat. no. 73.				
Date	1st-2nd centuries AD				
Cat. No	11 (Pic. 11)	Inv. No: 2007-122 (A)	Loc: Purchase	Form: Bell-Shaped Unguentaria	
Dimensions	Diameter: 2,3 cm	Height: 11,4 cm	Wall: 0,1 cm	Width: - cm	Bottom Diameter: 3 cm
Color	Blue		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out and folded in and rounded, long, narrow, cylindrical, tapering neck, bell-shaped body, slightly concave bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	HARDEN 1936, plt. XX, res. 799; ISINGS 1957, 42-43, 97, form 28b, form 82; ISINGS 1971, 8-9, 45, fig. 1/5, 1/6; HAYES 1975, 152, 185, fig. 20/633; LIGHTFOOT/ARSLAN 1992, 87-88, kat. no. 43-44; WHITEHOUSE 1997, 135, cat.no. 220; GURLER 2000, 62-63, kat. no. 78-79; OLCAY 2001, 153-154, no. 14; KUNINA 1997, 325-326, cat.no. 365; ATILA/GURLER 2009, 43, 95, kat. no. 53, 54, 155; ERTEN 2018, 190-191, kat. no. 73.				

Date	1st-2nd centuries AD				
Cat. No	12 (Pic. 12)	Inv. No: 2013-75 (A)	Loc: Purchase	Form: Bell-Shaped Unguentaria	
Dimensions	Diameter: 1,8 cm	Height: 11,4 cm	Wall: 0,2 cm	Width: 3,4 cm	Bottom Diameter: 3,9 cm
Color	Green		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out and folded in and rounded long, narrow, cylindrical, tapering neck, conical body, concave bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	HARDEN 1936, plt. XX, res. 799; ISINGS 1957, 42-43, 97, form 28b, form 82; ISINGS 1971, 8-9, 45, fig. 1/5, 1/6; HAYES 1975, 152, 185, fig. 20/633; LIGHTFOOT/ARSLAN 1992, 87-88, kat. no. 43-44; WHITEHOUSE 1997, 135, cat.no. 220; GURLER 2000, 62-63, kat. no. 78-79; OLCAY 2001, 153-154, no. 14; KUNINA 1997, 325-326, cat.no. 365; ATILA/GURLER 2009, 43, 95, kat. no. 53, 54, 155; ERTEN 2018, 190-191, kat. no. 73.				
Date	1st-2nd centuries AD				
Cat. No	13 (Pic. 13)	Inv. No: 3-18-1988	Loc: Confiscation	Form: Bell-Shaped Unguentaria	
Dimensions	Diameter: 2,1 cm	Height: 10,7 cm	Wall: 0,1 cm	Width: 2,2 cm	Bottom Diameter: 2,3 cm
Color	Light Green		Technique: Free-blown and tooling		
Description	Transpatent, wide rim that is pulled out and folded in and rounded, long, cylindrical, tapering neck towards the body, bell-shaped body gradually widening towards the bottom, concave bottom. Broken (rim), iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	ISINGS 1957, 42-43, 97, form 28a, form 82; ISINGS 1971, 8-9, 45, fig. 1/5, 1/6; HAYES 1975, 152, 185, fig. 20/633; OLIVER 1980, 79, no. 90; LIGHTFOOT/ARSLAN 1992, 87-88, kat. no. 43-44; GURLER 2000, 62-63, kat. no. 78-79; ATILA/GURLER 2009, 43, 95, kat. no. 53, 54.				
Date	2nd century AD				
Cat. No	14 (Pic. 14)	Inv. No: 3-22-1988	Loc: Confiscation	Form: Bell-Shaped Unguentaria	
Dimensions	Diameter: 1,5 cm	Height: 9,1 cm	Wall: 0,1 cm	Width: 2,3 cm	Bottom Diameter: 1,9 cm
Color	Green		Technique: Free-blown and tooling		
Description	Ring rim that is pulled out and folded in and rounded, narrow, cylindrical tapering neck towards the body, bell-shaped body, slightly concave bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	ISINGS 1957, 42-43, 97, form 28a, form 82; ISINGS 1971, 8-9, 45, fig. 1/5, 1/6; HAYES 1975, 152, 185, fig. 20/633; OLIVER 1980, 79, no. 90; LIGHTFOOT/ARSLAN 1992, 87-88, kat. no. 43-44; GURLER 2000, 62-63, kat. no. 78-79; ATILA/GURLER 2009, 43, 95, kat. no. 53, 54.				
Date	2nd century AD				
Cat. No	15 (Pic. 15)	Inv. No: 3-25-1988	Loc: Confiscation	Form: Bell-Shaped Unguentaria	
Dimensions	Diameter: 3,5 cm	Height: 12,3 cm	Wall: 0,2 cm	Width: 5,8 cm	Bottom Diameter: 5,5 cm
Color	Greenish		Technique: Free-blown and tooling		
Description	Transpatent, rounded, flattened top, wide rim folded in by pulling out, long, cylindrical, neck widening towards body, groove-like tool mark on neck, bell-shaped body, high concave bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface, rim structural deterioration.				
Counterparts	ISINGS 1957, 42-43, 97, form 28a, form 82; ISINGS 1971, 8-9, 45, fig. 1/5, 1/6; HAYES 1975, 152, 185, fig. 20/633; OLIVER 1980, 79, no. 90; LIGHTFOOT/ARSLAN 1992, 87-88, kat. no. 43-44; GURLER 2000, 62-63, kat. no. 78-79; ATILA/GURLER 2009, 43, 95, kat. no. 53, 54.				
Date	2nd century AD				
Cat. No	16 (Pic. 16)	Inv. No: 10-5-2001	Loc: Purchase	Form: Bell-Shaped Unguentaria	
Dimensions	Diameter: 2,2 cm	Height: 8 cm	Wall: 0,1 cm	Width: 2,8 cm	Bottom Diameter: 3,3 cm
Color	Yellowish Green		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out and folded in and rounded, cylindrical, tapering neck towards body, semi-pronounced knuckle made by tool compression at the transition to body, bell-shaped body widening downwards, concave bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	ISINGS 1957, 42-43, 97, form 28a, form 82; ISINGS 1971, 8-9, 45, fig. 1/5, 1/6; HAYES 1975, 152, 185, fig. 20/633; OLIVER 1980, 79, no. 90; LIGHTFOOT/ARSLAN 1992, 87-88, kat. no. 43-44; GURLER 2000, 62-63, kat. no. 78-79; ATILA/GURLER 2009, 43, 95, kat. no. 53, 54.				
Date	2nd century AD				
Cat. No	17 (Pic. 17)	Inv. No: 2007-100 (A)	Loc: Purchase	Form: Bell-Shaped Unguentaria	
Dimensions	Diameter: 2,1 cm	Height: 11,2 cm	Wall: 0,1 cm	Width: - cm	Bottom Diameter: 3,6 cm

Color	Green		Technique: Free-blown and tooling		
Description	Semi transparent, ring rim that is rolled out, folded inwards, smoothed top, with a spout., narrow, cylindrical, tapering neck, knuckle made by tool compression at the transition to the body, bell-shaped body, concave bottom. Broken (rim, neck and body), restored, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	ISINGS 1957, 42-43, 97, form 28a, form 82; ISINGS 1971, 8-9, 45, fig. 1/5, 1/6; HAYES 1975, 152, 185, fig. 20/633; OLIVER 1980, 79, no. 90; LIGHTFOOT/ARSLAN 1992, 87-88, kat. no. 43-44; GURLER 2000, 62-63, kat. no. 78-79; ATILA/GURLER 2009, 43, 95, kat. no. 53, 54.				
Date	2nd century AD				
Cat. No	18 (Pic. 18)	Inv. No: 2007-108 (A)	Loc: Purchase	Form: Bell-Shaped Unguentaria	
Dimensions	Diameter: 1,7 cm	Height: 8,5 cm	Wall: 0,2 cm	Width: 3,5 cm	Bottom Diameter: 2,7 cm
Color	Turquoise		Technique: Free-blown and tooling		
Description	Transparent, rim that is pulled out and folded in and rounded, narrow, cylindrical, convex neck that widens and narrows towards the body, bell-shaped body, high concave bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	ISINGS 1957, 42-43, 97, form 28a, form 82; ISINGS 1971, 8-9, 45, fig. 1/5, 1/6; HAYES 1975, 152, 185, fig. 20/633; OLIVER 1980, 79, no. 90; LIGHTFOOT/ARSLAN 1992, 87-88, kat. no. 43-44; GURLER 2000, 62-63, kat. no. 78-79; ATILA/GURLER 2009, 43, 95, kat. no. 53, 54.				
Date	2nd century AD				
Cat. No	19 (Pic. 19)	Inv. No: 7-1-1973	Loc: Purchase	Form: Bell-Shaped Unguentaria	
Dimensions	Diameter: 2,5 cm	Height: 16,9 cm	Wall: 0,3 cm	Width: 6 cm	Bottom Diameter: 6,8 cm
Color	Yellowish Green		Technique: Free-blown and tooling		
Description	Transparent, rim that is pulled out, folded inwards and straightened top, long, narrow cylindrical neck, tool trace on neck, bell-shaped body, concave bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	HARDEN 1936, Res. 799; ISINGS 1957, 97-98, form 82a1; HAYES 1975, 75, 174, 204, fig. 9/261, 262, 263; OLIVER 1980, 82-83, no. 99, 103, 104; CANAV 1985, 50, kat. no. 58, 59; GURLER 2000, 60, kat. no. 74; ATILA/GURLER 2009, 96-97, kat. no. 156-159.				
Date	2nd-3th centuries AD				
Cat. No	20 (Pic. 20)	Inv. No: 6-6-1991	Loc: Purchase	Form: Conical Unguentaria	
Dimensions	Diameter: - cm	Height: 18+ cm	Wall: 0,2 cm	Width: 8 cm	Bottom Diameter: 6,3 cm
Color	Green		Technique: Free-blown and tooling		
Description	Transparent, long, narrow, cylindrical, widening neck towards body, conical body, rounded flat bottom. Broken (rim and neck), iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	ISINGS 1957, 97-98, form 82a1; HAYES 1975, 125, 179, fig. 14/490; OLIVER 1980, 81, no. 96-98; WEINBERG/STERN 2009, 128, no. 241-242, plt. 22/241, 242.				
Date	1st-2nd centuries AD				
Cat. No	21 (Pic. 21)	Inv. No: 3-17-1988	Loc: Confiscation	Form: Conical Unguentaria	
Dimensions	Diameter: 3,3 cm	Height: 11,4 cm	Wall: 0,2 cm	Width: 5 cm	Bottom Diameter: 4 cm
Color	Green-Cream		Technique: Free-blown and tooling		
Description	Transparent, wide rim that is pulled out, folded in and rounded, with a straightened top, cylindrical, slightly narrowing neck towards the body, prominent tool trace on the neck, conical shaped body, inclined from the rim to the bottom, encircling the neck and body, single row of grooves made with the wheel-cut technique, rounded flat bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	HARDEN 1936, 273, plt. XX/805, Class XIII-Type B; ISINGS 1957, 42, form 28a; ISINGS 1971, 64, 98, fig. 15/5; HAYES 1975, 125, plt. 32/487, 488; OLIVER 1980, 82, no. 101; CANAV 1985, 50, kat. no. 56, 57; LIGHTFOOT/ARSLAN 1992, 80-83, kat. no. 36-39; WEINBERG/MCCLELLAN 1992, 115-116, no. 79/2923, 2926, 2928; KUNINA 1997, 206, 324-326, res. 178, cat.no. 361-362; WHITEHOUSE 1997, 133, cat.no. 214, 215; WEINBERG/STERN 2009, 128, plt. 22/239; ATILA 2015, 163, 170, cat.no. 12, fig. 3/12.				
Date	late 1st-2nd centuries AD				
Cat. No	22 (Pic. 22)	Inv. No: 3-24-1988	Loc: Confiscation	Form: Conical Unguentaria	
Dimensions	Diameter: 3,9 cm	Height: 12,2 cm	Wall: 0,3 cm	Width: 5,4 cm	Bottom Diameter: 4,2 cm
Color	Green-Cream		Technique: Free-blown and tooling		
Description	Transparent, wide rim that is folded inwards and rounded, smoothed out, cylindrical, widening neck towards body, prominent tool trace on neck, conical body, rounded flat bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				

Counterparts	HARDEN 1936, 273, plt. XX/805, Class XIII-Type B; ISINGS 1957, 42, form 28a; ISINGS 1971, 64, 98, fig. 15/5; HAYES 1975, 125, plt. 32/487, 488; OLIVER 1980, 82, no. 101; CANAV 1985, 50, kat. no. 56, 57; LIGHTFOOT/ARSLAN 1992, 80-83, kat. no. 36-39; WEINBERG/MCCLELLAN 1992, 115-116, no. 79/2923, 2926, 2928; KUNINA 1997, 206, 324-326, res. 178, cat.no. 361-362; WHITEHOUSE 1997, 133, cat.no. 214, 215; WEINBERG/STERN 2009, 128, plt. 22/239; ATILA 2015, 163, 170, cat.no. 12, fig. 3/12.				
Date	late 1st-2nd centuries AD				
Cat. No	23 (Pic. 23)	Inv. No: 3-29-1988	Loc: Confiscation	Form: Conical Unguentaria	
Dimensions	Diameter: 3,5 cm	Height: 11,7 cm	Wall: 0,2 cm	Width: 5,3 cm	Bottom Diameter: 4 cm
Color	Green-Brown		Technique: Free-blown and tooling		
Description	Transpatent, wide, tubular rim that is a flattened top, folded in and rounded out by pulling out, cylindrical, widening neck towards body, prominent tool trace on neck, conical body, rounded flat bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	HARDEN 1936, 273, plt. XX/805, Class XIII-Type B; ISINGS 1957, 42, form 28a; ISINGS 1971, 64, 98, fig. 15/5; HAYES 1975, 125, plt. 32/487, 488; OLIVER 1980, 82, no. 101; CANAV 1985, 50, kat. no. 56, 57; LIGHTFOOT/ARSLAN 1992, 80-83, kat. no. 36-39; WEINBERG/MCCLELLAN 1992, 115-116, no. 79/2923, 2926, 2928; KUNINA 1997, 206, 324-326, res. 178, cat.no. 361-362; WHITEHOUSE 1997, 133, cat.no. 214, 215; WEINBERG/STERN 2009, 128, plt. 22/239; ATILA 2015, 163, 170, cat.no. 12, fig. 3/12.				
Date	late 1st-2nd centuries AD				
Cat. No	24 (Pic. 24)	Inv. No: 2007-105 (A)	Loc: Purchase	Form: Conical Unguentaria	
Dimensions	Diameter: 3,3 cm	Height: 11,2 cm	Wall: 0,2 cm	Width: 4,8 cm	Bottom Diameter: 3,8 cm
Color	Green		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out and folded in and rounded, long, narrow, cylindrical neck, prominent knuckle made by tool compression at the transition to the body, conical body, flat bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	HARDEN 1936, 273, plt. XX/805, Class XIII-Type B; ISINGS 1957, 42, form 28a; ISINGS 1971, 64, 98, fig. 15/5; HAYES 1975, 125, plt. 32/487, 488; OLIVER 1980, 82, no. 101; CANAV 1985, 50, kat. no. 56, 57; LIGHTFOOT/ARSLAN 1992, 80-83, kat. no. 36-39; WEINBERG/MCCLELLAN 1992, 115-116, no. 79/2923, 2926, 2928; KUNINA 1997, 206, 324-326, res. 178, cat.no. 361-362; WHITEHOUSE 1997, 133, cat.no. 214, 215; WEINBERG/STERN 2009, 128, plt. 22/239; ATILA 2015, 163, 170, cat.no. 12, fig. 3/12.				
Date	1st-2nd centuries AD				
Cat. No	25 (Pic. 25)	Inv. No: 3-2-1971	Loc: Purchase	Form: Conical Unguentaria	
Dimensions	Diameter: 2,1 cm	Height: 15 cm	Wall: 0,2 cm	Width: 3,7 cm	Bottom Diameter: 3,7 cm
Color	Yellowish		Technique: Free-blown and tooling		
Description	Transpatent, rim folded inwards by pulling out, rounded, flattened top, long, cylindrical, concave neck narrowing and widening towards the bottom, conical body, concave bottom. Full, rim structural deterioration, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	MORIN-JEAN 1922-23, 77, form 24; HARDEN 1936, 279, plt. XX/840, Class XIII-Type H; ISINGS 1957, 99, form 82b2; ISINGS 1971, 66, fig. 15/15; HAYES 1975, 72, fig. 8/237; AKAT/FIRATLI/KOCABAŞ 1984, 56, 26, res. 54b, 55c; LIGHTFOOT/ARSLAN 1992, 84-86, kat. no. 40-42; WHITEHOUSE 1997, 156, cat.no. 267; GURLER 2000, 63, kat. no. 80; ATILA 2015, 163, 170, cat.no. 16, fig. 5/16.				
Date	2nd-3th centuries AD				
Cat. No	26 (Pic. 26)	Inv. No: 5-14-2000	Loc: Purchase	Form: Conical Unguentaria	
Dimensions	Diameter: 2,3 cm	Height: 11,9 cm	Wall: 0,2 cm	Width: - cm	Bottom Diameter: 3,6 cm
Color	Turquoise		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out and folded in and rounded, long, narrow, cylindrical, tapering neck towards body, conical body, high concave bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	MORIN-JEAN 1922-23, 77, form 24; HARDEN 1936, 279, plt. XX/840, Class XIII-Type H; ISINGS 1957, 99, form 82b2; ISINGS 1971, 66, fig. 15/15; HAYES 1975, 72, fig. 8/237; AKAT/FIRATLI/KOCABAŞ 1984, 56, 26, res. 54b, 55c; LIGHTFOOT/ARSLAN 1992, 84-86, kat. no. 40-42; WHITEHOUSE 1997, 156, cat.no. 267; GURLER 2000, 63, kat. no. 80; ATILA 2015, 163, 170, cat.no. 16, fig. 5/16.				
Date	2nd-3th centuries AD				
Cat. No	27 (Pic. 27)	Inv. No: 12-1-1999	Loc: Purchase	Form: Conical Unguentaria	
Dimensions	Diameter: 2,2 cm	Height: 12,8 cm	Wall: 0,1 cm	Width: - cm	Bottom Diameter: 3,7 cm
Color	Green		Technique: Free-blown and tooling		
Description	Transpatent, a rounded and straightened rim that is folded inwards by pulling out, long, narrow, cylindrical, tapering neck towards body, conical body, high concave bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	MORIN-JEAN 1922-23, 77, form 24; HARDEN 1936, 279, plt. XX/840, Class XIII-Type H; ISINGS 1957, 99, form 82b2; ISINGS 1971, 66, fig. 15/15; HAYES 1975, 72, fig. 8/237; AKAT/FIRATLI/KOCABAŞ 1984, 56, 26, res. 54b, 55c; LIGHTFOOT/ARSLAN 1992, 84-86, kat. no. 40-42; WHITEHOUSE 1997, 156, cat.no. 267; GURLER 2000, 63, kat. no. 80; ATILA 2015, 163, 170, cat.no. 16, fig. 5/16.				

Date	2nd-3th centuries AD				
Cat. No	28 (Pic. 28)	Inv. No: 13-1-1999	Loc: Purchase	Form: Conical Unguentaria	
Dimensions	Diameter: 2,2 cm	Height: 11,6 cm	Wall: 0,2 cm	Width: - cm	Bottom Diameter: 3,6 cm
Color	Green		Technique: Free-blown and tooling		
Description	Transpatent, ring rim with a spout, folded inwards, rounded and straightened by pulling out. long, narrow, cylindrical, tapering neck towards body, conical body, slightly concave bottom.. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	MORIN-JEAN 1922-23, 77, form 24; HARDEN 1936, 279, plt. XX/840, Class XIII-Type H; ISINGS 1957, 99, form 82b2; ISINGS 1971, 66, fig. 15/15; HAYES 1975, 72, fig. 8/237; AKAT/FIRATLI/KOCABAŞ 1984, 56, 26, res. 54b, 55c; LIGHTFOOT/ARSLAN 1992, 84-86, kat. no. 40-42; WHITEHOUSE 1997, 156, cat.no. 267; GURLER 2000, 63, kat. no. 80; ATILA 2015, 163, 170, cat.no. 16, fig. 5/16.				
Date	2nd-3th centuries AD				
Cat. No	29 (Pic. 29)	Inv. No: 2007-123 (A)	Loc: Purchase	Form: Conical Unguentaria	
Dimensions	Diameter: 2 cm	Height: 13,5 cm	Wall: 0,1 cm	Width: - cm	Bottom Diameter: 3,2 cm
Color	Turquoise		Technique: Free-blown and tooling		
Description	Transpatent, ring rim with a spout, folded inwards by pulling out and rounded, long, narrow, cylindrical, slightly concave neck that narrows and widens towards the body, conical body, traces of production from the rim to the bottom, slightly concave bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	MORIN-JEAN 1922-23, 77, form 24; HARDEN 1936, 279, plt. XX/840, Class XIII-Type H; ISINGS 1957, 99, form 82b2; ISINGS 1971, 66, fig. 15/15; HAYES 1975, 72, fig. 8/237; AKAT/FIRATLI/KOCABAŞ 1984, 56, 26, res. 54b, 55c; LIGHTFOOT/ARSLAN 1992, 84-86, kat. no. 40-42; WHITEHOUSE 1997, 156, cat.no. 267; GURLER 2000, 63, kat. no. 80; ATILA 2015, 163, 170, cat.no. 16, fig. 5/16.				
Date	2nd-3th centuries AD				
Cat. No	30 (Pic. 30)	Inv. No: 2013-71 (A)	Loc: Purchase	Form: Cylindrical Unguentaria	
Dimensions	Diameter: 3,1 cm	Height: 16 cm	Wall: 0,1 cm	Width: 4,7 cm	Bottom Diameter: 4,6 cm
Color	Yellowish Brown		Technique: Free-blown and tooling		
Description	Ring rim that is pulled out and folded in and rounded, long, narrow, cylindrical neck widening towards body, prominent knuckle made by tool compression at the transition to the body, flattened shoulder, cylindrical body, high concave bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	ISINGS 1957, 97-98, form 82a1; WHITEHOUSE 197, 150-151, cat.no. 253-255.				
Date	1st-3th centuries AD				
Cat. No	31 (Pic. 31)	Inv. No: 10-3-2001	Loc: Purchase	Form: Candlestick Unguentaria	
Dimensions	Diameter: 1,8 cm	Height: 12,5 cm	Wall: 0,2 cm	Width: 4,5 cm	Bottom Diameter: 5,3 cm
Color	Greenish		Technique: Free-blown and tooling		
Description	Transpatent, rim that is pulled out and folded in and rounded, long, narrow, cylindrical, tapering neck towards body, candelabra-shaped body, rounded high concave bottom. Full, iridescent, rough structure, occasional wear on the surface,				
Counterparts	ISINGS 1957, 98, form 82a2; ISINGS 1971, 66, fig. 15/15; HAYES 1975, 74, 75, 128, 130, fig. 9/256, 259, 264, fig. 15/510, fig. 16/532; AKAT/FIRATLI/KOCABAŞ 1984, 20, res. 54/c, d; CANAV 1985, 51, kat. no. 60, 61; GURLER 2000, 59-61, kat. no. 72-73, 75; ERTEN 2018, 28-29, kat. no. 5.				
Date	2nd-3th centuries AD				
Cat. No	32 (Pic. 32)	Inv. No: 12-3-2001	Loc: Purchase	Form: Candlestick Unguentaria	
Dimensions	Diameter: - cm	Height: 13,1 cm	Wall: 0,1 cm	Width: 6 cm	Bottom Diameter: 5 cm
Color	Yellowish		Technique: Free-blown and tooling		
Description	Transpatent, long, narrow, cylindrical, widening neck towards body, flattened, candelabra-shaped body, slightly concave bottom. Broken (rim), iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	ISINGS 1957, 98, form 82a2; ISINGS 1971, 66, fig. 15/15; HAYES 1975, 74, 75, 128, 130, fig. 9/256, 259, 264, fig. 15/510, fig. 16/532; AKAT/FIRATLI/KOCABAŞ 1984, 20, res. 54/c, d; CANAV 1985, 51, kat. no. 60, 61; GURLER 2000, 59-61, kat. no. 72-73, 75; ERTEN 2018, 28-29, kat. no. 5.				
Date	2nd-3th centuries AD				
Cat. No	33 (Pic. 33)	Inv. No: 3-9-1988	Loc: Confiscation	Form: Bulbous Unguentaria	
Dimensions	Diameter: 2 cm	Height: 8,2 cm	Wall: 0,1 cm	Width: 4,3 cm	Bottom Diameter: - cm
Color	Light Green		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out, folded inward, rounded and straightened, cylindrical, concave neck narrowing and widening towards body, tool trace on the lower part of the neck, spherical body, round bottom. Full, iridescent, rough structure, occasional wear on the surface,				

Counterparts	MORIN-JEAN 1922-23, 90-91, form 39; HARDEN 1936, 209, plt. VIII/600, Class IX-Type B-1a1; ISINGS 1957, 42, 119, form 28a, form 101; ISINGS 1971, 10, 67, fig. 1/13, 15/24, 16/25; HAYES 1975, 53, 127, plt. 9/111-113, 16/501; AKAT/FIRATLI/KOCABAŞ 1984, 33, res. 105; LIGHTFOOT/ARSLAN 1992, 41-42, 176-178, kat. no. 8-9, 111, 113; KUNINA 1997, 325-326, no. 368; WHITEHOUSE 1997, 127, cat.no. 201; GURLER 2000, 54, 59, 80, kat. no. 62, 71, 98.				
Date	early 2nd- late 3th centuries AD				
Cat. No	34 (Pic. 34)	Inv. No: 3-13-1988	Loc: Confiscation	Form: Bulbous Unguentaria	
Dimensions	Diameter: 2,5 cm	Height: 9,9 cm	Wall: 0,1 cm	Width: 5,8 cm	Bottom Diameter: - cm
Color	Yellowish		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out and folded in and rounded, cylindrical, slightly concave neck narrowing and widening towards body, spherical body, rounded bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	MORIN-JEAN 1922-23, 90-91, form 39; HARDEN 1936, 209, plt. VIII/600, Class IX-Type B-1a1; ISINGS 1957, 42, 119, form 28a, form 101; ISINGS 1971, 10, 67, fig. 1/13, 15/24, 16/25; HAYES 1975, 53, 127, plt. 9/111-113, 16/501; AKAT/FIRATLI/KOCABAŞ 1984, 33, res. 105; LIGHTFOOT/ARSLAN 1992, 41-42, 176-178, kat. no. 8-9, 111, 113; KUNINA 1997, 325-326, no. 368; WHITEHOUSE 1997, 127, cat.no. 201; GURLER 2000, 54, 59, 80, kat. no. 62, 71, 98.				
Date	early 2nd- late 3th centuries AD				
Cat. No	35 (Pic. 35)	Inv. No: 3-14-1988	Loc: Confiscation	Form: Bulbous Unguentaria	
Dimensions	Diameter: 2,2 cm	Height: 10,7 cm	Wall: 0,1 cm	Width: 6,5 cm	Bottom Diameter: 4 cm
Color	Greenish		Technique: Free-blown and tooling		
Description	Transpatent, ring rim that is pulled out and folded in and rounded, long, cylindrical widening neck towards body, bulbous body, rounded slightly concave base. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	MORIN-JEAN 1922-23, 90-91, form 39; HARDEN 1936, 209, plt. VIII/600, Class IX-Type B-1a1; ISINGS 1957, 42, 119, form 28a, form 101; ISINGS 1971, 10, 67, fig. 1/13, 15/24, 16/25; HAYES 1975, 53, 127, plt. 9/111-113, 16/501; AKAT/FIRATLI/KOCABAŞ 1984, 33, res. 105; LIGHTFOOT/ARSLAN 1992, 41-42, 176-178, kat. no. 8-9, 111, 113; KUNINA 1997, 325-326, no. 368; WHITEHOUSE 1997, 127, cat.no. 201; GURLER 2000, 54, 59, 80, kat. no. 62, 71, 98.				
Date	early 2nd- late 3th centuries AD				
Cat. No	36 (Pic. 36)	Inv. No: 3-15-1988	Loc: Confiscation	Form: Bulbous Unguentaria	
Dimensions	Diameter: 3,3 cm	Height: 10,3 cm	Wall: 0,1 cm	Width: 6,8 cm	Bottom Diameter: 4 cm
Color	Yellowish Cream		Technique: Free-blown and tooling		
Description	Transpatent, two-stage rim pulled out and folded in, cylindrical, widening neck towards body, bulbous body, rounded slightly concave bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	MORIN-JEAN 1922-23, 90-91, form 39; HARDEN 1936, 209, plt. VIII/600, Class IX-Type B-1a1; ISINGS 1957, 42, 119, form 28a, form 101; ISINGS 1971, 10, 67, fig. 1/13, 15/24, 16/25; HAYES 1975, 53, 127, plt. 9/111-113, 16/501; AKAT/FIRATLI/KOCABAŞ 1984, 33, res. 105; LIGHTFOOT/ARSLAN 1992, 41-42, 176-178, kat. no. 8-9, 111, 113; KUNINA 1997, 325-326, no. 368; WHITEHOUSE 1997, 127, cat.no. 201; GURLER 2000, 54, 59, 80, kat. no. 62, 71, 98.				
Date	early 2nd- late 3th centuries AD				
Cat. No	37 (Pic. 37)	Inv. No: 3-40-1988	Loc: Confiscation	Form: Bulbous Unguentaria	
Dimensions	Diameter: 2,5 cm	Height: 15,3 cm	Wall: 0,1 cm	Width: 7,7 cm	Bottom Diameter: - cm
Color	Bluish Green		Technique: Free-blown		
Description	Transpatent, wide rim left flat, long, cylindrical, tapering towards body, sloping (faulty) neck due to manufacturing, spherical body, rounded bottom. Full, iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	MORIN-JEAN 1922-23, 90-91, form 39; HARDEN 1936, 209, plt. VIII/600, Class IX-Type B-1a1; ISINGS 1957, 42, 119, form 28a, form 101; ISINGS 1971, 10, 67, fig. 1/13, 15/24, 16/25; HAYES 1975, 53, 127, plt. 9/111-113, 16/501; AKAT/FIRATLI/KOCABAŞ 1984, 33, res. 105; LIGHTFOOT/ARSLAN 1992, 41-42, 176-178, kat. no. 8-9, 111, 113; KUNINA 1997, 325-326, no. 368; WHITEHOUSE 1997, 127, cat.no. 201; GURLER 2000, 54, 59, 80, kat. no. 62, 71, 98.				
Date	early 2nd- late 3th centuries AD				
Cat. No	38 (Pic. 38)	Inv. No: 2007-103 (A)	Loc: Purchase	Form: Bulbous Unguentaria	
Dimensions	Diameter: - cm	Height: 8,8+ cm	Wall: 0,1 cm	Width: 5,5 cm	Bottom Diameter: 4 cm
Color	Bright Yellow		Technique: Free-blown and tooling		
Description	Cylindrical, widening neck towards body, bulbous body, rounded base, highly concave bottom. Broken (neck and body), iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	MORIN-JEAN 1922-23, 90-91, form 39; HARDEN 1936, 209, plt. VIII/600, Class IX-Type B-1a1; ISINGS 1957, 42, 119, form 28a, form 101; ISINGS 1971, 10, 67, fig. 1/13, 15/24, 16/25; HAYES 1975, 53, 127, plt. 9/111-113, 16/501; AKAT/FIRATLI/KOCABAŞ 1984, 33, res. 105; LIGHTFOOT/ARSLAN 1992, 41-42, 176-178, kat. no. 8-9, 111, 113; KUNINA 1997, 325-326, no. 368; WHITEHOUSE 1997, 127, cat.no. 201; GURLER 2000, 54, 59, 80, kat. no. 62, 71, 98.				

Date	early 2nd- late 3th centuries AD				
Cat. No	39 (Pic. 39)	Inv. No: 3-11-1988	Loc: Confiscation	Form: Bulbous Unguentaria	
Dimensions	Diameter: 1,9 cm	Height: 10,4 cm	Wall: 0,1 cm	Width: 4,6 cm	Bottom Diameter: 2,8 cm
Color	Brown		Technique: Free-blown and tooling		
Description	Transpatent, rim that is pulled out and folded in and rounded, long, thin, cylindrical neck, bulbous body, concave bottom. Full, iridescent, rough structure, occasional wear on the surface, rim closed due to manufacturing defect.				
Counterparts	MORIN-JEAN 1922-23, 90-91, form 39; HARDEN 1936, 209, plt. VIII/600, Class IX-Type B-1a1; ISINGS 1957, 42, 119, form 28a, form 101; ISINGS 1971, 10, 67, fig. 1/13, 15/24, 16/25; HAYES 1975, 53, 127, plt. 9/111-113, 16/501; AKAT/FIRATLI/KOCABAŞ 1984, 33, res. 105; LIGHTFOOT/ARSLAN 1992, 41-42, 176-178, kat. no. 8-9, 111, 113; KUNINA 1997, 325-326, no. 368; WHITEHOUSE 1997, 127, cat.no. 201; GURLER 2000, 54, 59, 80, kat. no. 62, 71, 98.				
Date	3th century AD				
Cat. No	40 (Pic. 40)	Inv. No: 2013-69 (A)	Loc: Confiscation	Form: Bulbous Unguentaria	
Dimensions	Diameter: 3,5 cm	Height: 17cm	Wall: 0,1 cm	Width: 7,8 cm	Bottom Diameter: 5,4 cm
Color	Green		Technique: Free-blown and tooling		
Description	Rim that is pulled out and folded in and rounded, long, narrow, cylindrical widening neck towards body, prominent knuckle made by tool compression at the transition to the body, bulbous body, high concave bottom. Broken (rim), iridescent, rough structure, limestone residue, occasional wear on the surface,				
Counterparts	MORIN-JEAN 1922-23, 90-91, form 39; HARDEN 1936, 209, plt. VIII/600, Class IX-Type B-1a1; ISINGS 1957, 42, 119, form 28a, form 101; ISINGS 1971, 10, 67, fig. 1/13, 15/24, 16/25; HAYES 1975, 53, 127, plt. 9/111-113, 16/501; AKAT/FIRATLI/KOCABAŞ 1984, 33, res. 105; LIGHTFOOT/ARSLAN 1992, 41-42, 176-178, kat. no. 8-9, 111, 113; KUNINA 1997, 325-326, no. 368; WHITEHOUSE 1997, 127, cat.no. 201; GURLER 2000, 54, 59, 80, kat. no. 62, 71, 98.				
Date	3th century AD				

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PICTURES



Pic. 1



Pic. 2



Pic. 3



Pic. 4



Pic. 9



Pic. 10



Pic. 11



Pic. 12



Pic. 13



Pic. 14



Pic. 15



Pic. 16



Pic. 17



Pic. 18



Pic. 19



Pic. 20



Pic. 21



Pic. 22



Pic. 23



Pic. 24



Pic. 25



Pic. 26



Pic. 27



Pic. 28



Pic. 29



Pic. 30



Pic. 31



Pic. 32



Pic. 33



Pic. 34



Pic. 35



Pic. 36



Pic. 37



Pic. 38



Pic. 39



Pic. 40