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## TWO FAKE GLASS AMPHORISKOI FROM SAMSUN

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### Abstract

The glass, which is accepted to have gotten on the stage of history towards the end of the 3rd millennium BC, has had a unique production technique in each period. The amphoriskoi discussed in this study were manufactured by core-forming -a production technique adopted as of the mid-2<sup>nd</sup> millennium BC. After the 6th century BC, core-forming technique of the eastern Mediterranean passed to Greek Art, and made a progress traceable until the Roman Period. In this study, an attempt is made to determine whether the abovementioned amphoriskoi are fake or genuine through comparison with samples from the period in terms of form and decoration.

**Keywords:** Samsun, Amphoriskos, Eastern Mediterranean, Greek Art, fake glass object, core formed, sandcore technique, core technique.

### 1. Pointed-bottom Amphoriskos (Fig. 1a, 1b; Draw. 2):

**Weight:** 76.6 gr.

**Height:** 16 cm.

**Width:** 3.8 cm.

**Rim Diameter:** 2.7 cm.

**Lip Thickness:** 8.5 cm.

**Description:** A black frit, round rim ridged exterior, high neck, high ovoid body, pointed bottom, and two-handle amphoriskos made by core-forming technique. The rim and handles were attached later on. The brim is white, and the neck is wrapped with white, yellow, and orange diagonal glass fibers. The body is equipped with yellow, white, and orange feather patterns going down to the bottom. There are some fractures on the neck, shoulder, and body besides some wear traces on the surface.

### 2. Footed Amphoriskos (Fig. 2a, 2b; Draw. 3):

**Weight:** 68.1 gr.

**Height:** 10.7 cm.

**Width:** 4.7 cm.

**Rim Diameter:** 2.9 cm.

**Lip Thickness:** 0.8 cm.

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**Description:** A black frit, round rim ridged exterior, long neck, long ovoid body, tripod, and three round handle (extending to the belly by zigzagging) amphoriskos made by core-forming technique. The rim handles, and tripod were attached later on. The brim is wrapped with white fiber. The body is equipped with yellow, white, and orange feather patterns going down to the bottom. One of the handles is broken. There are wear traces from place to place on the surface.

The amphoriskoi, whose catalog information is provided above, were among the works discovered through illegal excavations. After the above-mentioned amphoriskoi had been captured by the security units, they were examined within the scope of expertise performed by the 1st Criminal Court of First Instance of Samsun. It has nothing to do with any surface survey or excavation.

Samsun has been one of the most important settlements of the Black Sea Region in terms of economic and cultural characteristics since the Mesolithic era. Maintaining its importance for a long period of time witnessing the Greek, Roman, and Byzantine rules, Samsun took a crucial role concerning the trade relations between the Black Sea and the Mediterranean world. However, unfortunately, the region was not searched enough, and was destroyed as a result of intense illegal excavations. It is interesting that people arrested for illegal actions leading to the said destruction process, which started as a result of the dream to be rich immediately, had also fake works with them. It is a known fact that fake work production gained momentum throughout the world after the second half of the 19th century (Özyiğit, 1988: 411; Özyiğit, 1989: 239). In Turkey, fake work production has accelerated especially in recent years. Most of these fake works are high-value coins like gold and silver, but there are other fake works, too. In this study, we examine two amphoriskoi made of glass.

Amphoriskoi can be defined as small amphorae designed to store perfumes or other similar cosmetic products. There are two ways of determining whether the above-mentioned amphoriskoi are fake or genuine. The first is a dating method called spectrographic analysis that is based on the principle of scintillation of the energy inside a material through heating of the material. The second way is "Style Criticism". In the present study, it is tried to understand whether the works are fake or genuine by use of the second method. Before proceeding to the examination, we should give brief information about production technique of the amphoriskoi and glass.

The glass is a supercooled molecular noncrystalline homogenous mixture that is obtained by including additives such as sodium, calcium and potassium oxide in primary materials like silica, soda and lime in a pot on a furnace. Depending on this mixture, different properties can emerge. In addition, colors can be obtained through inclusion of different metallic oxides (Özet, 1987: 587). The glass was made by core-forming technique, which was the most frequently used technique in the ancient period. Within the scope of this technique, after the mold is attached to a metal bar, it is immersed in the molten frit to be puddled. In this way, main body, rim, handles and bases are formed. At the second stage, the vessel is decorated. For that, fibriform frits of different colors that are prepared in separate pots are used. When the glass fibers are hot, they are adhered onto the surface of the vessel by the help of a rod. Then, they are dressed to be transformed into different forms of patterns. Finally, the core is removed (Başaran, 2000: 63).

Examining the history of this technique, it is seen that the earliest vessels manufactured through core-forming technique were made in the northern Mesopotamia or in the Hurri-Mitanni region in the mid-2nd millennium BC (Strong-Brown, 1976: 11; Zerwick, 1980: 17; Abstract, 1987: 587; Lightfoot-Arslan, 1992: 1; Luckner, 1994: 79; Kunina, 1997: 26-27; Abstract, 1998: 11; Başaran, 2000: 65; Özgümüş,

2000: 11-12). Glass works manufactured in Mesopotamia as well as the production techniques prevalent in the region were moved to other places of Early Bronze Age civilizations within a short period of time (Harden, 1934: 19; Fino, 2001: 19) (Map 1). Among these places, the most important one was Egypt (Lightfoot-Arslan, 1992: 1; Luckner, 1994: 80). It is not definitely known whether this technique was carried to Egypt as a result of the market industry or through captives (Özgümüş, 2000: 12). Although the first source putting into operation the glass industry came from abroad, local masters constituted their unique glassware types within a short time (Lightfoot-Arslan, 1992: 1). It is seen that although glass production diminished in the early 1st millennium BC, it started to revive as of the 9th century BC (Luckner, 1994: 80). It is seen that core-forming technique continued in the 8th-7th century, too (Özgümüş, 2000: 12).

Core-forming technique, which was prevalent in the eastern Mediterranean after the 6th century BC, continued with vessel forms such as alabastron, amphoriskos, aryballos, and oinochoe in the Greek Art (Özgümüş, 2000: 13). In this period, the production center was Rhodes. It is possible that these vessels were produced in Mesopotamia and then exported to Rhodes, but it is also possible that they were manufactured by Mesopotamian masters migrating to Rhodes (Lightfoot-Arslan, 1992: 3). Then, this technique spread to the Mediterranean Region and Black Sea Region. Two centers came to the forefront in the Hellenistic period. One of these centers was the zone created by the cities located along the coast line of Syria, and the other one was Alexandria, the capital of the Ptolemaic Kingdom (Strong-Brown, 1976: 111; Lightfoot-Arslan, 1992: 4). The center became Rome in the 1st century BC (Özgümüş, 2000: 13).

Having revised the development of glass<sup>1</sup>, let's return to amphoriskoi, the main topic of the present study. To understand whether the above-mentioned vessels are fake or genuine, we should compare them with vessels in the ancient periods in terms of form and decoration. It is known that vessels in the form of amphoriskoi were used for a long period from the 6th century BC to the Roman Era. Changes and decoration elements observable on the body structure are one of the instruments that can be used for determining the periods which the above-mentioned amphoriskoi belong to. In this regard, it is required to examine form and decoration properties of amphoriskos samples belonging to different periods. The first sample is an amphoriskos from the Museum of Anatolian Civilizations dated to the 6th-5th century BC (Abstract, 1987: 590) (Fig. 3). The vessel whose handles and the section up from the neck are broken is of a dark blue frit, and has a body narrowing down to the bottom and a small round base. Zigzag decoration is observed below two rows of diagonal yellow band starting at the level of handles. Zigzag decoration is bordered by dull turquoise and dull yellow fibers.

Another sample discovered in Milas is dated to the 5th-4th century BC (Abstract, 1998: 37) (Fig. 4). The vessel, which is of light blue frit, has a napiform body and two small handles. The neck has no decoration, but the body part is equipped with yellow and turquoise glass yarns and zigzag decorations.

An eastern Mediterranean amphoriskos (Luckner, 1994: 83) dated to the 4th century BC held in the Chicago Museum appears with a body structure that is very different from those of the samples from the 6th-5th century BC (Fig. 5). The napiform body was replaced by an opaque, black color, and ovoid body structure with a vertical high handle and knob bottom. Opaque black color was used on the body of the vessel, and yellow was applied on the handles. While the shoulder, neck, and bottom were equipped with yellow glass fibers having a parallel course, feature patterns turning into parallel lines in the upper and lower section were applied onto the body section. A pair of horizontal handles attached to the body was frequently observed in vessel forms such as Alabastron, Aryballos, and Amphoriskos as of the early samples (Luckner, 1994: Fig.59).

Another sample is the two-handle amphoriskos dated to the 2nd-1st century BC (Lightfoot-Arslan: 1992, 28) (Fig. 6). This amphoriskos has a dark blue-green, opaque black ovoid

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<sup>1</sup> For development of the glass by regions, see Neuburg, Frederic (1962). *Antike Glas*, Darmstadt.

body, a long cylindrical neck, a vertical handle extending from the neck towards the brim, and a base with a knob bottom. The vessel is basically equipped with a decoration consisting of horizontal opaque yellow fiber on the neck and shoulder and a white glass yard starting from the lower section of the shoulder and extending down to the bottom in the form of a feature pattern<sup>2</sup>.

A similar sample is a vessel discovered in Stratonikeia (Abstract, 1998: 38) (Fig. 7). The eastern Mediterranean vessel dated to the 2nd-1st century BC is of black frit, has a round rim ridged exterior, a long neck, and an apparent shoulder. The vessel has a high ovoid body, a knob base, and a perpendicular handle extending from the shoulder to the rim. The rim, handles, and the bottom section were annexed later on. The neck of the vessel is equipped with yellow and white glass fibers having a parallel course. The body is wrapped with white and yellow fibers, and dressed in the form of features. This pattern ends by transforming into white parallel lines on the lower section of the body.

Similar properties are observed in two amphoriskoi (Tait, 1995: 44) in the British Museum dated to 150-50 BC (Fig. 8, 9). These amphoriskoi (Harden, 1968: 24; Harden, 1981: 33) are assumed to have been produced in one of the ateliers in Syria, Palestine, or in the neighboring countries. The first one of these amphoriskoi is from Amathus (Fig. 8). It is of black frit. It has a round rim ridged exterior, a high neck, an ovoid body, a knob bottom, and handles ridged upward that extend from the shoulder to the rim. It has the same body structure with the previous sample except for handles ridged upward. Another remarkable difference is that handles and the bottom section are amber in this sample unlike the previous sample where the handles and the bottom section are of black frit as is the body. The body is wrapped with white and yellow fibers and dressed in the form of feathers. However, white parallel fibers cover a broader area and extend down to the bottom. The pother amphoriskos (Fossing, 1940: 121-122; Harden, 1968: 23) (Fig. 9) has a more swollen body of dark blue frit. There is a difference in the decoration, too. The body of this amphoriskos contains white and turquoise color fibers instead of yellow and white glass fibers. In addition, it is observed that wavy feather pattern, which has been seen in the previous samples, has become more apparent.

Now, an attempt will be made to examine the amphoriskoi we have in terms of body and decoration elements in the light of these samples dated to the periods between the 6th and 1st centuries BC:

### 1. Pointed-bottom Amphoriskos:

**Body:** The amphoriskos has an ovoid body, a pointed-bottom form, and a pair of s-shaped handles. Comparing this body structure with samples from the 6th-5th century BC (Fig. 3,4), it is seen that samples from that period mostly have a sloping napiform body structure narrowing backward, and have two small handles. These amphoriskoi have a knob base or button base (Akat-Firatlı-Kocabaş, 1984: 19). In the samples from the 4th century BC (Fig. 5), the napiform body is replaced by a high neck and ovoid body. Bottom sections are mostly napiform. Another change observed in this period is that small handles are replaced by a pair of perpendicular handles extending from shoulder to the lip. This is a body structure continuously repeated in the amphoriskoi of the Hellenistic period (Rohde, 1980: 154) (Fig. 6-9). In the light of these samples, it can be easily seen that especially the bottom section and handles of the amphoriskos examined within the scope of the present study have a structure very different from the works of the said period. It is seen that the said amphoriskos does not match with any sample.

**Decoration:** In the amphoriskos examined within the scope of the present study, brim is white, and the neck is wrapped with white, yellow, and orange glass fibers taking a diagonal

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<sup>2</sup> This pattern is called by different researchers as feather, yarn pattern, and wave pattern (motif).

course. Yellow, white, and orange feature pattern<sup>3</sup> going down to the bottom is dominant on the body. Looking at the above-mentioned samples, it is seen that mostly zigzag pattern was used in the early samples (Rohde, 1980: 149-151) and feature pattern was used more commonly in the later periods. On the other hand, we frequently see both patterns in the eastern Mediterranean origin amphoriskoi and other similar small vessels as of the mid-2nd millennium. Here, the primary difference arises from the colors used in decoration. Most of the above-mentioned samples had a decoration consisting of white and yellow glass fibers, but this amphoriskos has a decoration made up of orange, white, and yellow color combination. Furthermore, color tones are not the same, either.

## 2. Footed Amphoriskos:

**Body:** This amphoriskos has an ovoid body with a high neck. Just like the first sample, this sample has a rim ridged exterior. Here, s-shaped handles, which are observed in the previous sample, are replaced by three round handles. These handles extend to the belly by zigzagging. The most remarkable point observed in this vessel is the tripod which seems to be quite improvised. This body structure seems to have an unusual design when compared to other samples. As a matter of fact, ovoid body and round rim ridged exterior, which we have seen in the first sample, correspond to a property that could be seen in the early periods, too. However, no structure similar to handle structure of this amphoriskos is encountered among other samples. In addition, none of the samples has a tripod as the one with this amphoriskos, which is understood to have been attached later on. Deformations on the exterior surface of the body seem very artificial in this sample. They are more realistic in the first sample.

**Decoration:** It is seen that both samples have similar characteristics in terms of decoration. The body of this amphoriskos is of black frit as is that of the first sample. There is no decoration on the neck area. The shoulder area includes a line of white and yellow glass fibers having a diagonal course. The body area is equipped with glass patterns having yellow, white, and orange feather patterns, which appear to be continuation of the handles, starting from the bottom section of the zigzags and extending down to the bottom. As mentioned in the previous sample, feather pattern is a property visible in the comparison samples. However, colors used in the feather pattern seen in both amphoriskoi do not correspond to samples from the said period.

## Conclusion

Comparing the sample amphoriskoi from the early periods (6th century BC) to the late periods (1st century BC) with the amphoriskoi under examination in the present study, it can be easily seen that our amphoriskoi do not have the characteristics of the samples from the said periods in terms of form or decoration. Based on all findings of the study, it is concluded that both amphoriskoi are fake.

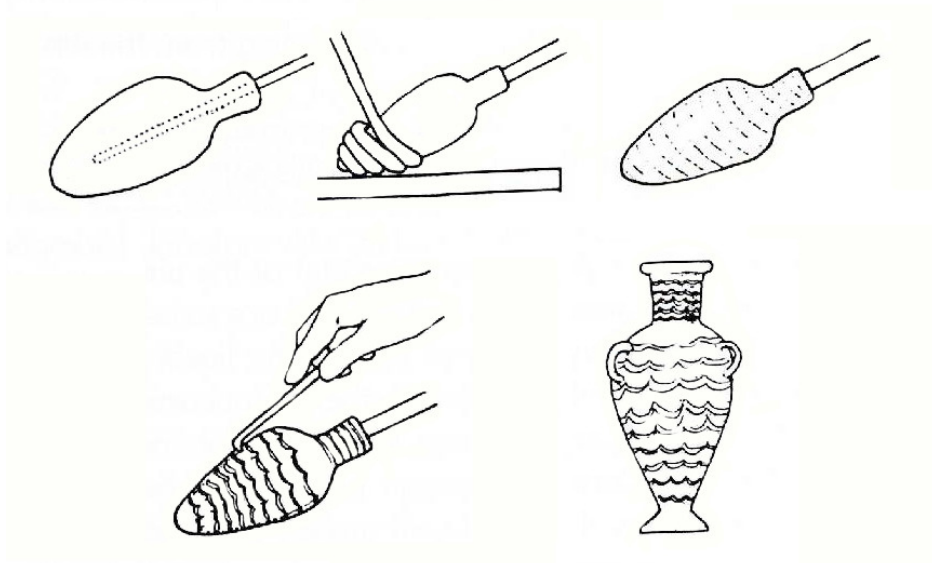
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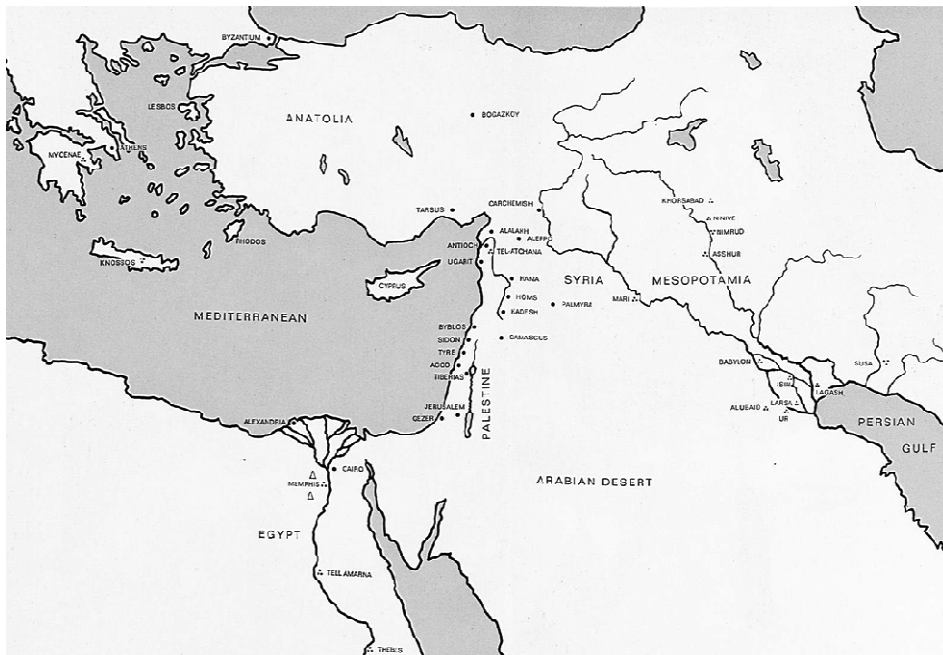
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<sup>3</sup> This feature pattern observed on the body of the amphoriskos has a history dating back of the mid-2<sup>nd</sup> millennium BC. The earliest samples are from the Egyptian Art. Nolte, 1971: 167, Fig.1.

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Draw. 1: Core Formed



Map 1: Distribution of Glass



Fig. 1a



Fig. 1b



Fig. 2a



Fig. 2b





Draw. 2



Draw. 3



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9