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## 8. Byzantine, Sassanian and Islamic glass in the Collection of Classical Antiquities of the National Museum in Prague

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With Pls. 27–29

**Abstract:** After the collapse of the Roman Empire the production of glass continues in the east in the line with the Roman tradition; Sassanian workshops produce most of all thick walled vessels from a cut glass (facet or linear cut); also, the glass industry thrives already in the first years of the Islamic rule; in addition to the decorative motives known from the earlier time period – not only new shapes appear (e.g. omom, ewers with a beak-like a spout), but also new decorative elements like spirals, arcades, arches, circles, etc. In the collection of the ancient glass of the National Museum there are several fully preserved and fragmentary vessels from this period.

**Keywords:** National Museum Prague; Byzantine; Sassanian; Islamic glass; Mold-blown glass; facet-cut glass

The collection of classical antiquities of the National Museum at its beginnings grew unsystematically – mostly through occasional gifts from people who travelled to the Mediterranean; a few individual items were acquired by transfers a few individual items are claimed to be from the old collections of some regional museums in the Czech Republic. The majority of the old acquisitions are registered without any specific record about the way how they were obtained. One can speak about a systematic building of the collection only after the establishment of a specialized classical antiquity section in the year 1969, but even in this case the acquisitions were limited by the offers. The acquisitions of glass happened in the form of single pieces, a bigger collection was obtained from František Zapletal, from the castle collection in Brandýs nad Labem and lastly from the collection of Bedřich Forman which was created in the eastern Mediterranean, as it is attested – among others – by its composition.<sup>1</sup>

The fall of the Roman Empire influenced also the glass production, however, much more in Europe than in the Near East. Even though virtually there were no changes in the production process, the workshops in the west produce a limited amount of glass when it comes both to the number of the shapes and decoration techniques. Only trailing and mold-blowing survive, while gilding and all kinds of cutting and intending disappear. Even the glass blown into a mold has no longer a complex decoration; most of the time it is only ribbing. Trailing maintained its position and continued to be used with the same dexterity as demonstrated by the Roman glass-makers.

The situation was different in the Near East, where the fall of the Roman Empire had no significant effect on the glass production. Syrian glass continued to be produced even after the collapse of the Roman Empire; the regions under the sphere of influence of the Byzantine

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and Sassanian Empires (226 – 641 AD) continued to thrive and the glass produced had its stylistic origin in the production in the Roman Empire; it became – in a certain sense – a link leading to the boom of the glass production in the Islamic period. Namely, the Byzantine undecorated or just simply decorated table and kitchenware is reminiscent of the Roman glass produced before the year 400 AD. Even the provincial town like Sardis yielded a great amount of glass intended for the local market and perhaps also for export. From the shapes the most frequent ones are the stemmed goblets on a foot with an U-shaped or bell-shaped bowl; salvers; bottles of various shapes are the most often found vessels; their variations can have oval or globular body and their neck can be cylindrical or a flaring funnel – a type popular in the east in late and post-Roman times – and a bottle with applied spiral thread wound around its conical neck. Further, they are vessels with a mold-blown ribbed decoration; this pattern was achieved by inflating a paraison in a ribbed mold and after removal expanding it so that the gather could be twisted to create spiral ribs. Such a method of decoration was frequent in the late Roman period. The Sassanian glassmakers excelled – above all – in the production of a thick-walled cut glass (facet or linear cut) which had originated in the tradition of the late Roman faceted glass. Fragments of such glass were found in Iraq and Iran. The most typical shape is a hemispheric bowl decorated with honeycomb facets; few such bowls were exported in antiquity as far as Japan. The Sassanian workshops worked for the members of the ruling dynasties for whom they made luxurious cut vessel from a colorless glass, which were supposed to compete with the more expensive crystal, while the capital city of Ctesiphon was certainly not the only center of production. The same applies also to the glass from the treasure of St. Mark's Basilica in Venice – brought to the city after the plunder of Constantinople in the year 1204 AD, and about which is much disputed: whether it was produced in the capital city of the Byzantine Empire or whether it is of a Sassanian provenance. Beside the cut glass also common tableware was produced – these were vessels with tooled decoration and glass blown into a mold.

With the rise of a powerful political regroupment, also a new heyday in the history of the ancient glass comes about. During the caliphate the last and, in many respects, a famous phase in the history of the development of the ancient glass takes place. The armies of the faithful were taking over huge territories which belonged to the Byzantine and Sassanian Empire. The last Sassanian ruler was defeated in the year 630 AD; the first Islamic dynasty was the Umayyad, which founded Cairo and it was followed by the Abbasids, who chose Bagdad as the center of their empire. Late Sassanian and early Islamic glass, i.e. from the end of the 6<sup>th</sup> to the 8<sup>th</sup> century AD, seems to be uniform, belonging to common everyday objects which are difficult to date without contextual information. The glass industry thrived already in the first centuries of the Islamic rule. In the 8<sup>th</sup> century AD glass workshops were set up in Egypt and Syria, Mesopotamia and Iran. The excavations at Samarra (a city north of Baghdad) and at Nishapur (a city in the province of Khurasan), and at Fustat near Cairo – all bear witness to it. The Abbasid Caliphs in Baghdad and the Fatimids in Cairo began to support cultural activities to a great extent. There was an extensive migration of workers and movement of products all over the empire – what contributed to the creation of a rather universal style. Islamic glass on the one hand employs decorative motives known from the earlier period, but at the same it brings a new set of shapes and ornament patterns. Vessels are cut and engraved with motifs such as facets, geometric and vegetable ornaments, animals, etc. Cut glass around 1000 often competed with rock crystal. In the 10<sup>th</sup> and 11<sup>th</sup> century AD the vessels with a snake-thread decoration reappear; these reflect the indirect connection to the Roman glass. Likewise, this is also attested by some patterns blown into a mold – beside the ribbed decoration, the honeycomb pattern frequently appears. Further, there are spirals, arcades, arches, circles and almond-shaped patterns. The greatest mastery was demonstrated by the enamelled and gilded glass. The Islamic glassmakers also reintroduced the technique of



the mosaic glass – often used in the late Hellenism and at the beginning of the Roman period, and only rarely in the later period. From the 9<sup>th</sup> century AD on this technique is used to produce vessels and small panes for wall decoration.

The Mongolian invasion around 1400 AD ended a production spanning few millennia in this area, and the center of it was again transferred to the West, mainly to Venice, where another rebirth of the production takes place.

## Catalogue

### *Bottle with a flaring funnel neck (Pl. 27:1)*<sup>2</sup>

H10-5199. An acquisition of unknown origin. H. 14.1 cm, max. diam. 8.8 cm, base 5.5 cm, rim 5 cm. Medium thick, yellow-greenish translucent glass. Fine bubbles, in various places roughened surface. The base in the middle bent inwards, globular body, flaring funnel neck opening – where it merges into the body – it is slightly narrowed. The length of the neck is approximately of the same height as that of the body. The rim is cut straight and rounded. Intact. Eastern Mediterranean, 4<sup>th</sup>–5<sup>th</sup> century AD.

The type was popular in the East from the late Roman period; characteristic trait is oval body or more or less round, convex base and a neck having a funnel-like upper part. The neck reaches approximately the same height as the body. The rim is usually not folded, but rounded off by reheating. The bottom without a pontil-mark.

Cf. HAYES 1975, no. 311 with faint ribbing; SALDERN 1980, no. 481 – greenish glass, from the context of the 5<sup>th</sup> century AD; BARKÓZCI 1996, n. 273.

### *Miniature bottle with a faceted cut (Pl. 27:2)*

H10-7956. Formerly in the Bedřich Forman collection. H. 5.9 cm, max. diam. 4.8 cm, diam. of rim 2.6 cm, base 1.2 cm. Green-bluish thick-walled glass. Straight base, globular body, straight shoulder, slightly flaring funnel-like neck. On the body two rows of concave oval facets – each having 13 facets, arranged in a honeycomb pattern. The rows are separated at the top and bottom by a shallow cut groove. On the shoulders in one spot, a small piece is chipped off. Islamic glass, 8<sup>th</sup>–10<sup>th</sup> century AD.

Faceted cut enjoyed in the Sassanian period great popularity, namely when it comes to hemispherical bowls. Its popularity continues also in new shapes, for example – a small vessel with a flaring funnel-like neck, globular body and flat base. The production of such vessels continued also in the Islamic period, when the Islamic armies conquered the region under the sphere of the Sassanian influence. Cut glass continues to be popular, namely from the 9<sup>th</sup> century at Islamic locations. Bottles with a funnel-like neck decorated with traditional shallow round facets, arranged in a honeycomb-shaped decoration, are found in both in Sassanian and Islamic contexts, in various shades from almost colorless up to a turquoise blue color.

A small bottle with two rows of a round faceted cut cf. SCHLICK-NOLTE 2002, V-75; a similar small bottle SALDERN 1974a, n. 761; SALDERN 1974, n. 412 with two rows of facets, n. 413 with three rows of facets; SALDERN 1980, no. 154, the same motif in more rows, facets also on the neck, 9<sup>th</sup>–10<sup>th</sup> century AD; ROFFIA 1993, n. 444; Ancient world 1957, no. 581 – facets in two rows; WHITEHOUSE 2010, no. 58, facets in three rows; HONEY 1946, pl. 14C.

We find the honeycomb motif also on the vessels of similar and identical shape – however, made by blowing into a mold cf. SALDERN 1974, n. 282, where this motif appears – beside the body – also on the neck of the vessel; LAMM 1935, 21D; a vessel of the same shape, blown into a mold with *Senkrechtes Rippenmuster* see SALDERN 1974, n. 281. A small bottle of a similar shape with a body cut to bold, squared, oval fields, with central oval in

<sup>2</sup> Photos of objects were taken by Lenka Káchová, Helena Svobodová and Andrea Waldhauserová. The drawings are by Andrea Waldhauserová.



relief cf. DUSENBERY 1971, Fig. 62. A motif of a circle or oval in a hexagon appears in the Islamic glass after a long time period, some vessels with this motif are dated as far as the 12<sup>th</sup> century AD.

*Squat bottle (Pl. 27:3)*

Inv. no. H10-960. Purchased from František Zapletal. H. 11.4 cm, diam. of rim 3 cm, max. diam. 14.5 cm, base 5.7 cm. Translucent green glass with bubbles. Free-blown, Round body, compressed from the top, the base bent markedly inward with a pontil mark, short cylindrical neck with rounded rim flattened from the top. Intact. Inside brown weathering. Late Sassanian or early Islamic, 3<sup>rd</sup>–7<sup>th</sup> century AD.

The bottles of this specific type are generally marked as Sassanian (WHITEHOUSE 2005, 17), or post-Sassanian. They were made of a thick-walled glass, they differ slightly with respect to their size and the shape of the body, which can be more round or squat. All of them have short cylindrical neck and wider horizontal rim flattened from the top. They were made from green, brown and very dark – almost black – glass. Typical is the formation of the broad horizontal rim, which is folded inward, flattened from the top and has a small opening in the middle. They are wide spread in a large area; they have been found for example in Usais in Syria (the 1<sup>st</sup> half of the 8<sup>th</sup> century AD), in Beth She'an in Israel, where they are dated to the 8<sup>th</sup> century AD (SCHLICK-NOLTE 2002, 106). Virtually an identical little vessel was found in Susa (LAMM 1931, Pl. LXXVIII). Another cf. WHITEHOUSE 2005, no. 2, translucent dark green glass, 3<sup>rd</sup>–7<sup>th</sup> century AD; DUSENBERY 1971, Fig. 52, 3<sup>rd</sup>–4<sup>th</sup> century AD, similar SCHLICK-NOLTE 2002, V-71 – smaller dimensions, more flattened body, 7<sup>th</sup>–8<sup>th</sup> century AD; OLIVER 1980, n. 231, round body; SALDERN 1974, n. 336 *Fadendekor*, n. 367 – a rather round body.

*Fragment of bowl (Pl. 27:4)*

Inv. no. H10-8232. An acquisition of unknown origin. H. 4.2 cm, diam. 9 cm. Thick-walled green-yellowish glass, here and there strongly iridescent. Blowing spirals. The fragment comes from a bowl with a flat base and vertical walls. Islamic glass, 9<sup>th</sup>–10<sup>th</sup> century AD. Bowls of this type are free-blown, then they were finished by tooling, as attested by numerous traces on their walls. Most often they are made from a colorless glass with green or yellow tinge. Other colors also appear – e.g. greenish-blue and light blue. The base is usually thicker. A few relatively intact bowls of this type were found in Nishapur (KRÖGER 1995, 42, nos. 1–6), which are examples of the wide range of utilitarian vessels. Bowls vary according to their shape, size, type and quality of glass. They have straight rim, which was in most cases smoothed by fire polishing. Some have a rim folded outward. The base can be almost plain or with a kick. The diameter of the base is usually twice as big as is the height of the walls or even bigger. Beside Nishapur, these bowls are known from other excavations; those from Samarra are of a better quality. None is known from the Sassanian period, probably it is a type brought to Iran from Mesopotamia (KRÖGER 1995, 41).

Other bowls of this type cf. SALDERN 1974, nos. 354–356; LAMM 1935 pl. 10, I and K; RICKE 1995, nos. 59–61.

*Small bottle of blue glass (Pl. 27:5)*

H10-3840. Formerly in the castle Kynžvart collection. H. 8.9 cm, bulge 3.3 cm, rim 2.5 cm. Translucent blue glass. Pointed base, broken off at the end, ovoid body, cylindrical neck with a hollow ring in the middle, flaring funnel-like irregular rim. Irregular lumps of glass are smelted on the neck and around the base. Intact. Without corrosion. Islamic, 9<sup>th</sup>–10<sup>th</sup> century AD.



Characteristic bulge around the neck is typical for many small bottles from the Islamic period with ovoid body which ends in an evenly cut off tip; they are vessels without decoration or with a pattern blown into a mold.

Identical small bottle without decoration cf. ROFFIA n. 452, green-bluish glass, 9<sup>th</sup>–12<sup>th</sup> century AD, *sul fondo grumo di vetro applicato*; similar KRÖGER 1995, no. 116 (9<sup>th</sup>–10<sup>th</sup> century AD); small ovoid bottle blown into a mold with vertical ribs, bulge on neck, irregular, flaring rim.

*Miniature bottle (Pl. 28:6)*

H10-7951. Formerly in the Bedřich Forman collection. H. 5.8 cm, bulge 4.5, diam. of the rim 1.8 cm, diam. of the base 4 cm. Translucent greenish glass. Slightly hollowed base, broad cylindrical body, straight shoulders, long neck with bulging outward, under the rim hollow ring, the rim turned outward. On the neck below the ring and on the shoulders there are fine ribs in relief – on the shoulders radiating in a spoke-like manner. Chipped off on the rim, inside rusty crust. Miniature bottles appear from the Sassanian period on and they are also common in the Islamic period. They are usually from a very thin glass, either colorless or in all possible shades of light green or green with a yellow tinge. They were closed probably with cotton stoppers, in order to prevent cracking of the neck. They differ both in their size – the smallest one found in Nishapur was 2.7 cm high, while the biggest one almost 7 cm (KRÖGER 1995, 63), and in their shape; so their mass production is suggested. Because they were made of a very thin glass, they were not suitable for transport and they were produced locally as cheap utilitarian goods.

A less frequent type – similar miniature bottle see KRÖGER 1995, no. 86, 9<sup>th</sup>–10<sup>th</sup> century AD; LAMM 1935, pl. 20 H, small bottle of a similar shape but of a bigger size, fluted on the neck and on the shoulders, 12<sup>th</sup>–14<sup>th</sup> century AD.

*Mold-blown bottle with ornamental decoration (Pl. 28:7)*

Inv. no. H10-7947. Formerly in the Bedřich Forman collection. H. 9 cm, max. diam. of body 5.2 cm, base 3.8 cm, rim 2.5 cm. Greenish translucent glass. Base slightly convex inward. Octagonal body – with rounded edges – widens on a straight line towards the neck. Straight shoulder. Slightly, flaring funnel-like neck becomes narrow in the area where it merges with the shoulders. Irregular rim. Molded decoration in relief on the body: two and two wide panes with diamond patterns and zigzag line – always separated with a couple of vertical ribs. Uneven base and shoulder, asymmetrically placed neck. Almost all the surface is covered with a light brown crust. Intact. Iran, 10<sup>th</sup>–12<sup>th</sup> century AD.

Small bottles of this type decorated with patterns blown into a mold can be found in two versions: with either a rather slim or bulbous body; typical is the flaring funnel-like and often irregular neck and almost straight shoulder.

Cf. SALDERN 1968, no. 67, almost identical, Islamic glass, 10<sup>th</sup>–12<sup>th</sup> century AD, no. 68, vertical ribs, similar shape; SALDERN 1974, n. 318 (*sechskantig*, and different decoration on the body); SALDERN 1980a, nos. 169–170 shape similar – more bulbous body, funnel-like neck, other ornamental decoration: no. 169 double frieze of large circles with raised center, on the shoulder a band of dots; no. 170 four concentric circles alternating with candelabra-like motifs; at lower body a band of raised triangles.

*Mold-blown bottle with a motif of spirals (Pl. 28:8)*

H10-7954. Formerly in the Bedřich Forman collection. H. 10 cm, max. diam. 5.3 cm, diam. of the rim 3.5 cm, base 4.8 cm. Translucent bluish-green glass with tiny bubbles. Cylindrical body with wide slightly hollowed base; almost straight shoulder and cylindrical neck slightly arch-like narrowing towards a wide flat rim. Neck smooth, on the body two horizontal rows of



spirals, the tips of the spirals are missing in the top row. Iridescent glass. Intact, at few places on the surface rusty brown crust. Iran (?), 9<sup>th</sup>–10<sup>th</sup> century AD.

Shape very similar to widespread flasks of a large size circa 17–27 cm with a cylindrical body, long cylindrical neck, often irregular and wide horizontal (plate-like widened) rim. They occur without decoration, with decoration blown into a mold and often also with cut decoration.

Cf. SALDERN 1974, nn. 361–2 bottles undecorated from a light and dark blue glass, large size: KRÖGER 1995, nos. 107–109; LAMM 1935, pl. 16/J – a small bottle from undecorated glass, H. circa 12 cm, similar in shape and size; Ancient World 1957, nos. 552, 555, 557 similar shape, with the exception of no. 557 – large size, cut ornament; JENKINS 1986, no. 29, large bottle with a cut pattern, first half of the 11<sup>th</sup> century AD. For the motifs of spirals on glass blown into a mold see SALDERN 1974, n. 312; LAMM 1935, Pl. 26/A, B, F and on cut glass Pl. 39A.

*Bottle with sunken relief (Pl. 29:9)*

H10-8254. An acquisition of unknown origin. H. 9.9 cm, shoulder 6.4 cm, base 5.3 cm, diam. of the rim 4.6 cm. Translucent glass a slight greenish tinge. Tiny bubbles. Base with slight hollowing at the centre. Cylindrical body slightly widening towards the shoulders. Straight shoulders, a rather short cylindrical neck with rim turned outward. Smooth neck, decoration on the body: in the middle a row of dotted rosettes set in a circle, the bottom row of concentric semicircles with dotted rosettes, in the top row – half of the decoration from the bottom row is repeated. At the base – drop-like formations placed in a circle – with a ring in the middle. In the middle of the base – concentric circles. Intact, small damage inside of the neck. Without corrosion. Islamic, 12<sup>th</sup> century AD (?).

Cf. The closest analogy DUSENBERY 1971, no. 61, small bottle approximately of a similar shape from a clear, greenish glass, mold-blown decoration on the body: raised circles in hexagons, base: sunken relief of eight-petal rosette, surrounded by a plain ring and a circle of concave dots; similar pattern on the base of a small vessel of a different shape LAMM 1935, pl. 23:C.

*Omom (perfume sprinkler) (Pl. 29:10)*

H10-4681. Formerly in the castle Sychrov collection. H. 10.8 cm. Body 4.8 x 6.8 cm. Slightly yellowish iridescent glass with a peeling off layer and a pitted surface. Pushed-up base. Bulbous body slightly flattened, tube-like neck upwards slightly narrowing with two applied snake-like handles. Near East, 12<sup>th</sup>–14<sup>th</sup> century AD. Common shape in the late Islamic glass, often with enameled and gilded decoration.

Cf. SALDERN 1980a, no. 192; OLIVER 1980, no. 270, without handles and major size no. 269; SALDERN 1974, nn. 383–384; DUSENBERY 1971, no. 65 (fig. 64).

*Pitcher with a ringlet on the neck (Pl. 29:11)*

H10-7959. Formerly in the Bedřich Forman collection. H. 9.9 cm, bulge 5.3 cm, diam. of the base 3.1 cm. Thick-walled, bottle green translucent glass. Annular foot. Baggy body with the maximal bulge at the base, continuous curve of the body, there is hollow ringlet on the neck. Flaring orifice with pointed spout. Little handle of oval cross-section at the top with a rest for thumb protruding above the rim, lengthwise segmented by fine grooves and where it is attached to the body widened. On the neck and major part of the body – up to the bulge – there are fine radiating slanted grooves. A rather big part of the rim is missing. Near East, 10<sup>th</sup>–12<sup>th</sup> century AD.

Cf. SALDERN 1974, n. 302; later versions see LUKENS 1965, nos. 13–14 with a body at the bottom part with a sharp break and applied decoration.



**Pitcher (Pl. 29:12)**

H10-7958. Formerly in the Bedřich Forman collection. H. 7.5 cm, bulge 4.1 cm, diam. of the base 2.8 cm. Greenish thin-walled glass. Annular foot, continuous curve of the body with maximal bulging at the bottom part, curved neck with a flaring orifice with beak-like shaped spout. On the bulging – remains of a handle segmented lengthwise by fine grooves. Pontil-mark, handle broken-off, big part of the body is missing. Near East, Iran, 7<sup>th</sup>–9<sup>th</sup> century AD. In both cases (inv. no. H10-7958 and 7959) they are miniatures, of a frequent type in Islamic glass with pear-shaped body and rim with a beak-like spout and a handle with a rest for thumb; some small pitchers have a hollow ring on the neck. The shape is reminiscent of Sassanian vessels. There are various versions also in the decoration; this type existed until the 12<sup>th</sup> century AD.

Cf. RICKE 1995, no. 56 without decoration; from a greenish glass; SALDERN 1974, nn. 386–7; JENKINS 1986, no. 14; Ancient World 1957, no. 560 – bottle with ornamental cutting on the body.

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1 Bottle with a funnel-like flaring neck. H10-5199.



2 Miniature bottle with a faceted cut. H10-7956.



4 Fragment of a bowl. H10-8232.



3 Squat bottle. H10-960.



5 Small bottle of blue glass. H10-3840.

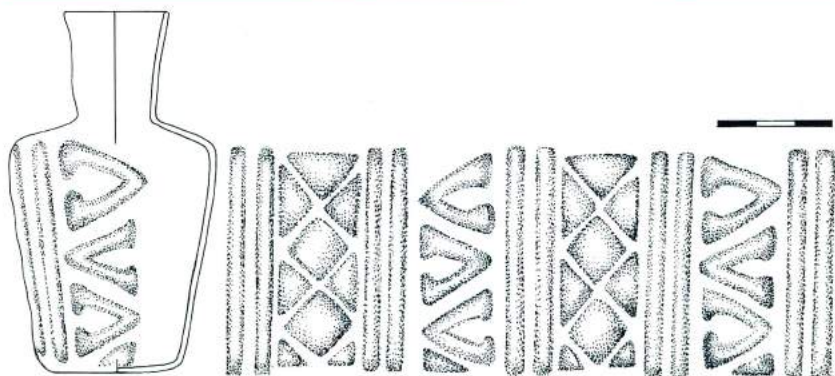




6 Miniature bottle. H10-7951.



7 Mold-blown bottle with a motif of spirals. H10-7954.



8 Mold-blown bottle with ornamental decoration. H10-7947.





9 Bottle with sunken relief. H10-8254.



10 Omom (perfume sprinkler). H10-4681.



11 Pitcher with a ring on the neck. H10-7959.



12 Pitcher. H10-7958.