

GLASS VESSELS EXHIBITED IN THE BÖLGE MUSEUM—ADANA

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From April 11 to May 1, 1980 I had the opportunity to study the ancient glass vessels on exhibit in the Bölge Museum at Adana.

After having verified the inventory numbers of circa one hundred vessels which I sketched in the summer of 1979, I drew and described all remaining vessels on display, excepting one bowl of reticella glass and sixteen core-glass vessels of the Greek and Hellenistic periods. Wherever it was possible, the inventory or acquisition numbers were identified, including those of the core-glass vessels. I did not study the numerous glass beads, bracelets and other objects in the museum.

The total number of glass vessels displayed in the Bölge Museum is ca 500-550. Of these, I photographed about 400 pieces, on 87 slides, representing almost all shapes displayed. As the museum was closed for the public during the period of my stay (on account of the damage caused by the flood, end of March), I was able to arrange the glass in more or less coherent groups of vessels for this purpose, so that the photographs provide a typological survey of the glass on exhibit.

My thanks are due to the Turkish Government, represented by Çetin Anlağan of the General Directorate of the Department of Antiquities and Museums in Ankara, for permission to study and photograph the ancient glass in Adana and the director of the Bölge Museum, Mr. Metin Pehlivan. I am especially grateful to the archaeologists Mr. Rıfat and Mrs. Ayşe Ergeç for their assistance during my stay. Various workmen helped me during these days of whom I should like to mention the name of Mr. İbrahim Sınaç. Thanks to the kindness and organization of the museum's staff. I was able to continue my work not only weekdays, but also during weekends and on national holidays. A grant from the Netherlands Organization for Pure Research (ZWO) enabled me to carry out this project.

PROVENANCE OF THE GLASS IN ADANA

Most of the glass vessels in the Bölge Museum were acquired from local dealers, most of whom are small merchants operating in a limited area: Tufan Güvel, Ali Baştürk, Mustafa Gül, Ömer Konak and Ahmet Güzel are said to collect antiquities in the neighbourhood of Kadirli (ancient Flaviopolis) and Kozan (ancient Sisium) on the borders of the Cilician plain, north-east of Adana.

Şahin brothers collect their material in Osmaniye, on the border of the Cilician plain, east of Adana. Mehmet Ertaş collects in Misis (ancient Mopsuestia) ca. 25 km. east of Adana; Rıza Kayak collects in Yumurtalık (ancient Aegai) on the coast, south-east of Adana. Some dealers, however, like the Soydan brothers, Kemal Dilmaç, Fethi Toplar and Süleyman Fındık, are said to operate on a larger scale, covering the whole ancient Cilicia and occasionally, even other parts of Turkey such as the region of Urfa in East Turkey or Antalya in Pamphylia.

But, as far as information goes, none of the dealers bringing glass to the Adana Museum is known to operate on an international scale. We may therefore safely assume that the glass in this museum was unearthed in Turkey, most of it presumably in Cilicia. The area around Adana and, especially, the north-eastern part of the Cilician plain are the most probable findspots for the glass exhibited in the museum. However, the possibility of some objects having been unearthed in Cyprus should be investigated.

The fact that all, or nearly all of the glass housed in the Bölge Museum in Adana was discovered in Turkey is of the utmost importance for our knowledge of the distribution of Roman glass in the ancient world, illustrating in particular the shapes in use in ancient Cilicia. Glass was manufactured in this area at some period (s) in antiquity, as is indicated by some lumps of glass shown to me during a short visit to the site of Misis.

CORE-GLASS

Of the core-glass, the most interesting pieces are the following: a dark blue oinochoe decorated with yellow and turquoise threads which may have been unearthed in the neighbourhood of Kadirli (ancient Flaviopolis) as it was acquired from Mustafa Gül. It has a small yellow knob on the lower attachment of the handle, a feature which is characteristic of

the products of Rhodes¹, it can be dated 5th century B.C. Although the name of Flaviopolis suggests a Roman town, Greek objects have been discovered near the site of the ancient town.

The second piece is a vertically ribbed alabastron with yellow thread decoration on a black ground: This vessel was formed on a metal rod. As the vessel was sold to the museum by Ali Baştürk, it may have been discovered in a tomb in the north-eastern part of the Cilician plain. In that case, it was an ancient import into this part of Turkey, as the vessel belongs to a distinct group of kohl-tubes, most of which were found in north-west Iran and northeast Turkey. A specimen related to the bottle in Adana was excavated in Cyprus. This group of kohl-tubes appears to have been produced somewhere in north-west Iran; datable parallels suggest a 5th century B.C. date for this group².

Another vessel of opaque dark blue (blackish) glass, exhibited together with the core-glass in case 17a, was made in the same technique. It is however, of a much later date: end of 4th-5th century A.D. Similar vessels have been discovered in Syria, e.g. at Homs (ancient Emesa³). These vessels, likewise, are assumed to have served as kohl containers. (Kohl is the Arab word for eye-black)

MOULD-FORMED GLASS

The museum has a number of late Hellenistic moulded bowls, both of the plain type with horizontal grooves on the interior⁴ and of the type with 'tooled', more or less slanting ribs⁵. These bowls are well known

¹ Th. E. Haevernick, Beiträge zur Geschichte des antiken Glases V. Kleine Beobachtungen technischer Art. in: Jahrbuch des Römisch-Germanischen Museums Mainz 7, 1960, 56-58; reprinted in: Th. E. Haevernick, Beiträge zur Glasforschung 1981, 88-90.

² D.P. Barag, Rod-Formed Kohl-Tubes of the Mid-First Millennium B.C., in: Journal of Glass Studies 17, 1975, 23-36: Group IIB.

³ S. Abdul Hak, Contribution d'une découverte archéologique récente à l'étude de la verrerie syrienne à l'époque romaine, in: Journal of Glass Studies 7, 1965, 26-34, esp. p. 27-28 and Fig. 2 (right)-dated too early.

⁴ D. Grose, The Syro-Palestinian Glass Industry in the Later Hellenistic Period, in: MUSE (Annual of the Museum of Art and Archaeology of the University of Missouri, Columbia) 13, 1979, 54-67, esp. p. 63-64 and Figs. 8-11: Group D, linear-cut bowls. The three main varieties present in the Museum in Adana. For other finds from Turkey of A. von Saldern, Ancient and Byzantine Glass from Sardis, 1980, p. 6-7, nos. 6-14.

⁵ G.D. Weinberg, Hellenistic Glass from Tel Anafa in Upper Galilee, in: Journal of Glass Studies 12, 1970, 17-27: bowls with tooled ribs.

from various findspots in the eastern Mediterranean, including Anamur in Rough Cilicia. Like the bowls excavated at Anamur, most specimens in Adana are amber coloured. Bowls of this type can be dated mid 1st century B.C.-mid 1st century A.D.

There are four ordinary ribbed bowls, all more or less bluish green, both with and without interior grooves. The type was made from the end of 1st century B.C. to 1st century A.D., both in the eastern Mediterranean and in Western Europe⁶, where they are particularly numerous. The bowls in Adana seem to be 1st century A.D.

BLOWN GLASS

Other 1st century A.D. types of bowls which are known both from the western and from the eastern Mediterranean are the so-called "zarte Rippenschalen"⁷ (Fig. I, 4-5). It is remarkable that all the examples in Adana are pale green and blue, whereas those from western findspots are more frequently brightly coloured and decorated with opaque white threads. These bowls were no longer moulded but blown. Some of the examples in Adana have a ground rim (Fig. I.4) others an unworked rim (Fig. I.5).

There is a good number of small perfume bottles, many of them pleasingly coloured (Fig. 2). The coloured bottles are characteristic for early Roman blown glass (notably from the end of the 1st century B.C. until ca 70 A.D.) and continue the colourful, pre-blown glass which was fashionable in the Hellenistic period. One small, colourless amphorisk (Fig. 3.9) may imitate vessels of rock crystal, such as were excavated in Augustan tumulus at Kayseri in central Anatolia⁸. Similar vessels of rock crystal have been found in North Italy.

⁶ C. Isings, *Roman Glass from Dated Finds*, 1957. From 3A. Other examples from Turkey: von Saldern 1980 (see above, note 4) p. 11-12, nos 27-41. On the Eastern Mediterranean production: E.M. Stern, *Ancient Glass at the Fondation Custodia (Collection Frits Lugt)* Paris, 1977, 25-30.

⁷ Th. E. Haevernick and W. von Pfeffer, *Zarte Rippenschalen*, in: *Saalburg Jahrbuch* 17, 1958, 76-91; reprinted in: Haevernick 1981 (see above, note 1) XI-XXV, esp. p. XIV. Undecorated bowls, like those in Adana are rare. A few were unearthed in Sardis, of von Saldern 1980 (see above, note 4) p. 13, nos. 42-43.

⁸ A. Oliver Jr. in: *American Journal of Archaeology* 79, 1975, 166 (finds from Kayseri).- A. Frova, *Una necropoli romana a Mercallo dei Sassi (Varese)*, in: *Sibirium* 4, 1958-59, 9-16.- H.P. Bühler, *Antike Gefäße aus Edelsteinen*, 1973.

Indented beakers are one of the most characteristic types represented in the museum at Adana (Fig.4). The excellent state of preservation of some of them makes it likely that they were discovered in tombs. Many of these beakers have a characteristic dull black layer of weathering which sometimes disappears during the process of washing. The glass is almost always paper-thin and extremely light. The beakers are frequently made of clear, colourless glass which is of a very good quality.

The common type with a rim diameter more or less equal to the height, always has a rounded rim, thickened in flame. Below the rim there are frequently three or four revolutions of thin, similar coloured glass thread melted into the surface. The body of the beaker is often near square, owing to four more or less regularly placed circular or oval indentations⁹.

A few indented beakers are tall, this type occurs both with rounded rim (Fig.4.1) and with ground rim (Fig.4.2). There is only one example of squat indented beaker, with a rim wider than the height (Fig.4.3). This specimen has a ground rim.

The great similarity between the beakers with rounded rim and those with ground rim makes it probable that the different ways of finishing the rim (i.e. rounding it in flame or grinding it after the vessel had cooled off) are due to the technique favoured by the workshop producing these vessels rather than the difference in chronology. The products from the workshop (s) producing with a rounded rim seem to have been preferred by the inhabitants of ancient Cilicia. I do not think that in the case of the beakers in Adana there was any difference in their function, according to the way the rim was finished. I tried drinking from a tall beaker with a ground rim and it was not less comfortable than drinking from one with a rounded rim. In fact, drinking must have been a perilous action with either type, owing to the extreme thinness of the glass.

Decoration with indentations is characteristic of blown glass and must have been invented before 79 AD., as indented vessels were discovered in Pompei¹⁰. Indented beakers with and without a thread below the rim are

⁹ E.M. Stern, *Antikes Glas in der Südtürkei*, in: *Glastechnische Berichte* 57 (5), 1984, 132-139, esp. p. 135 and Fig. 3.

¹⁰ Isings 1957 (see above, note 6), Form 32. -Cf L.A. Scatozza Hörich, *I vetri romani di Ercolano*, 1986, 40, nos. 67-68, Pls. XIV and XXVIII for examples from Herculaneum, destroyed by the same eruption of Vesuvius.

known from a number of findspots in the Mediterranean, but they seem to have been especially common in Cyprus¹¹ and in Tunisia¹². In Cyprus the glass is said to be paper-thin, as it is in Cilicia. The thin beakers from Cyprus differ however in that they usually have an unworked or ground rim; they are dated to ca 220-end of 3rd century A.D. The finishing of the rim of the beakers excavated in Tunisia (Tipasa) is not described, but from the illustrations it appears to be rounded in flame or ground. The finds from Tipasa¹² can not be closely dated; they range from the end of the Ist to the early 3rd century A.D. The type is not frequent in the Syro-Palestinian area. The numerous indented beakers in Adana may, therefore represent a local product.

Decoration with a series of indentations occurs also on other shapes, as is shown by various flasks (Fig.5), unguentaria and a bowl; a number of them said to have been unearthed at Yumurtalik (ancient Aegae). The small jar from Kadirli resembles jars made in Palestine during the 4th-early 5th century A.D.¹³.

Another characteristic type of vessel which must have been a common gift in Cilician tombs, and may have been produced locally, is a beaker or bowl decorated with a series of pinched ribs one the lower part of the body and continuing toward the base (Fig.1, 1-3). The rim of the vessels is always rounded and thickened in flame and there is a small kick in the base. The glass is usually transparent pale green. Related vessels, with a flaring rim and a coil below, have been excavated in 3rd-mid 4th century A.D. contexts in Palestine¹⁴. Three (imported?) beakers pos-

¹¹ O. Vessberg, *Roman Glass in Cyprus*, in: *Opuscula Archaeologica* 7 (Lund), 1952, 109-165; esp. p. 122 and Pl. III 25-26.

¹² S.Lancel, *Verrerie antique de Tipasa*, 1967, 76-167, nos. 143-163 (illustrated), Pl. VIII.

¹³ Some squat indented flasks and various indented unguentaria in Adana illustrated by Stern 1984 (see above, note 9), 136, Figs. 4-5 (the small jar from Kadirli: Fig. 5, back row, no.5). In Palestine, similar jars were excavated in Beth Govrin, Beth Fajjar, Tell en Nasbeh, Samaria, Beth Shearim, and Beisan; of D.P. Barag, *Glass Vessels of the Roman and Byzantine Periods in Palestine*, 1970, vol. II, Pls. 2.7.9.11.13. A squat indented flask, like the one from Yumurtalik, is illustrated by A. von Saldern, *Glaser der Antike. Sammlung Oppenländer*, 1974, no.627.

¹⁴ D.P. Barag, *Hanita, Tomb XV. Tomb of the Third and Early Fourth Century in: Atiqot (English Series) vol 13, 1978, 28-29, no. 60 and Pl. V with discussion p.30. At least one of the beakers from Hanita and many from Cyprus are associated with lids. In Karanis, one was discovered with two bone pins "stuck vertically into the beaker through a ma-*

sibly resembling those in the Adana museum were excavated in a tomb dated 4th century A.D. in Cologne¹⁵.

The same, transparent pale green glass was used for a number of plain, undecorated beakers with a slight flaring rim, rounded in flame, and without a separate base. This is again an extremely common type which was also blown in clear, colourless glass^{15a}. Two of these colourless beakers are decorated with horizontal bands of finely scratched lines: one has an ordinary rounded rim, the other a ground rim.

Tall beakers with a pushed out tubular base-ring and a slightly flaring, rounded rim are less common than the types discussed above (Fig.6). Their shape is similar to the beakers found in 3rd-mid 4th century contexts in Palestine and Cyprus¹⁶.

Unguentaria with a small, more or less triangular body and a tall neck with a slight downward taper, without a constriction at the base, may have been characteristic for the north east and eastern part of Cilicia (Fig.7, 2-6). All specimens on exhibit are said to have been found near Kadirli and Osmaniye.

However, by far the most common type of unguentarium appears to be that with a squat, triangular body, tall cylindrical neck and broad, folded rim, which may (Fig.8) or may not (Fig.9) have been subsequently flattened. The glass is often 'bottle' green and many specimens are covered with a dull black layer of weathering. The broad, folded brim is known from 2nd century A.D. bottles and unguentaria, and a similar or slightly earlier date may probably be assumed for these unguentaria. The type itself is frequent in Egypt¹⁷ and it is also known from south Rus-

keshift stopper of cloth" so they may have been used as toilet-vases or kohl-jars (D.B. Harden, *Roman Glass from Karanis*, 1936, p. 132, of p. 143, no.365).

¹⁵ O Doppelfeld, *Das Kölner Diatretglas und die anderen Netz - Diatrete*, in: *Gymnasium* 68, 1961, 411, Fig. 2, 7-9. F. Fremersdorf, *Die römischen Gläser mit Schliiff, Bemalung und Goldauflagen aus Köln (Denkmäler des römischen Köln Band VII)* 1967, Pl. 26 (right).

^{15a} Stern 1984 (see above, note 9), p. 137 and Fig.6.

¹⁶ P.B. Bagatti and J.T. Milik, *Gli scavi del Dominus Flevit (Monte Oliveto-Gerusalemme) I, La necropoli del periodo romano*, 1958, p. 146, no.9, Fig. 34, 19 (from Jerusalem). Report of the Dept. of Antiquities, Cyprus, 194-48, Nicosia, p. 52, Fig 21 c from Vassa, Vessberg 1952 (see above, note 11) Pl. 4,2 and 7; Pl. 24, 64.

¹⁷ C.C.Edgar, *Catalogue Général des Antiquités Egyptiennes du Musée du Caire, Graeco-Egyptian Glass*, 1905 (reprint 1974), p.150, Pl. VIII. Harden 1936 (see above, note 14), 265, Type A and nos. 797-802, Pls. X and XX.- D.Dunham, *The West and South Ce-*

sia¹⁸. This type of unguentarium was probably produced in various parts of the eastern Mediterranean.

In the tombs excavated at Anavarza, tall drop-shaped unguentaria of near colourless glass were common (Fig. 10, 5-8). There are no other examples of this type on exhibit in the museum at Adana, and according to Mr. Rifat Ergeç, the type is not known from other findspots in Cilicia. The bottles from Anavarza are said to have been found with 2nd century A.D. coins, but the finds from Anavarza can not be dated closely as the tombs were in use for several generations. A similar bottle, of unknown provenance, is on exhibit in the museum of Alanya (Pamphylian coast). All other parallels known to me were excavated in Greece and in the Aegean where they are often pleasingly coloured and decorated in a typically 1st century A.D. fashion¹⁹. Perhaps the unguentaria from Anavarza were imported from the Aegean.

Quite characteristic are the miniature 'jars' (Fig. II). Six or seven more or less distinct types can be distinguished, one of which, with a conical body occurred at Anavarza (Fig. 12, 3-4). Related miniature jars were excavated in north-western Europe; one from Cologne, was associated with a coin of the emperor Trajan²⁰. These little jars are assumed to have contained unguents.

Large, squat cylindrical bottles with one, usually finely 'combed' handle are well represented in the museum's collection. They are all made of clear, more or less colourless glass and seem to have been free blown in spite of the fact that there is a marked bulge at the shoulder. More than half of them are decorated with horizontal bands of finely scratched lines. Most bottles have a characteristic type of rim folded outward, downward, upward and outward. This rim type was especially popular in the 2nd

meteries at Meroe. The Royal Cemeteries of Kush vol. V 1963, p. 143, no. 23.1-289, Fig. 107 h, i.

¹⁸ M.N. Saginasvili, Glassware from the Cemetery of Urbnis. Catalogue, Tbilisi 1970, nos. 61-153 passim; B.N. Arakelian, G.A. Tratsian and G.D. Khachatryan, The Glass of Ancient Armenia, Yerevan 1969, nos. 20-24.

¹⁹ E.g. *Archaiologikon Deltion* 21, 1966 B2, p. 408, Pl. 437 from a Roman tomb in Herakleion, Crete.-Vessberg 1952 (see above, note 11) Pls. IX, 30 and XX, 2 from Cyprus.

²⁰ F. Fremersdorf, Das naturfarbene sogenannte blaugrüne Glass, *Denkmäler des römischen Köln* Band IV, 1958, Pl. 94, N 990/992. Other varieties of mini-jars in Adana illustrated by Stern 1984 (see above, note 9), Fig. 8.

century A.D. and appears to have been made only in the eastern part of the Mediterranean²¹.

ISLAMIC GLASS

Amongst the Roman glass, some Islamic vessels are displayed. Most of the Islamic pieces are shown on Fig. 13 and Fig. 14. The mould-blown jug from Tarsus (Fig. 13,3) is difficult to date. It is an exceptionally fine piece, in best Roman tradition. In fact, the scenes blown in relief on its body are more Roman than Islamic in conception. It is the angular, low set handle which makes me propose an Islamic date for this jug.

IMPORTED GLASS (from Syria, Egypt, and possibly the Aegean)

There are four sprinklers with an inner "diaphragm" at the base of the neck. (Fig. 15,2).

The small ones have a mould-blown decoration on the body; the seams of the two-part mould being clearly visible. One of these bottles is said to have been found in the neighbourhood of Kadirli. The large sprinkler, with a zigzag thread between rim and shoulder is said to have been found in Nizip, near Gaziantep, which is not far from the Syrian border from where sprinklers must originally have been imported²². Although the type itself dates from before 267 A.D. (the destruction of Dura Europos) the examples in Adana seem to be 4th century A.D.

Two cylindrical bottles with a broad, folded brim (Fig. 16, 1-3) are likewise products of a Syrian glasshouse²³. They may be dated 2nd-mid 3rd century A.D. A number of these vessels were discovered together in a tomb of an apothecary in Oum (Syria). The bottles may have originally contained medicines. A third specimen, from Bahçe (near Osmaniye) has a slightly different rim and may be 3rd century A.D. All these bottles are blown of very light glass.

One of the beads excavated at Anavarza (Fig. 17) is decorated with minute coloured mosaic squares (checker-bead), like those produced at Gemaiyemi in the Nile delta. This bead may have been imported from Egypt, therefore. Parallels have been excavated in a mid 1st century A.D.

²¹ Stern loc. cit. Fig.9.

²² Stern 1977 (see above, note 6), p.95-99.

²³ Stern loc. cit. p. 77-80.

tomb at Meroe in Sudan, and in a tomb dated to the era of Domitia-Hadrian in Yugoslavia²⁴.

The drop-shaped unguentaria excavated at Anavarza have already been discussed above, where it was suggested that they could have been ancient imports from the Aegean.

CONCLUSIONS:

Before commenting on the glass shapes represented in the museum's display, I would like to stress the fact that I did not see the glass in the museum's depot (mostly recent acquisitions of the years 1973/74 and later). The glass in the depot is stored in boxes and I had no time to unpack them. Therefore, the following remarks are necessarily of a preliminary nature and they may have to be revised to some extent when the objects in the depot will have been made available for study. Likewise, it seems necessary to complete this first survey of ancient glass in Cilicia by examining the glass in the museums at Erdemli and Tarsus.

Surprisingly little 'Byzantine' glass of the 6th-7th century A.D. is exhibited in the museum at Adana. This is the more strange in view of the fact that bases of 6th-7th century 'wine glasses' are frequently found in Cilicia (e.g. at Misis, where they were shown to me by the inhabitants and in the neighbourhood of Kadirli, where they are to be seen at the dealer's). There is only one 'wine glass' on exhibit in Adana (Fig 18,2) Perhaps this phenomenon may be explained by the fact that these vessels were not given as tomb gifts.

Another surprising fact is that there are no vessels with a base-ring of pinched toes²⁵, a 3rd century A.D. type which occurs quite frequently at Anamur and Rough Cilicia.

The absence of tall, cylindrical bottles with one handle and the small number of square bottles with one handle and a mould-blown design on the base (Fig. 14-19) is also surprising. Perhaps this may again be explai-

²⁴ W.M.F. Petrie, *Tanis II, Nebesheh (AM) and Defenneh (Tahpanes)*, London 1988, p. 43 (material from Gemaiyemi). D.Dunham, *Royal Tombs at Meroe and Barkal. The Royal Cemeteries of Kush* vol. IV, 1957, 121, Fig. 80 and Pl. LXVI-L.-J. Mikulcic, *Ancient Glass from the East Necropolis of Scupi*, in: *Materijali XI* (1976) 206, Pl.IV 385 (Yugoslavia).

²⁵ C.Clairmont, *The Glass Vessels, The Excavations at Dura-Europos, Final Report IV, Part V*, 1963, 50-51.

ned by the fact that these vessels were not commonly used as tomb gifts, whereas most of the glass in the museum of Adana was presumably discovered in tombs.

A few types which may certainly be regarded as ancient imports from other glass centres in the eastern Mediterranean have already been discussed above. On the other hand, it would seem that some of the types, represented in the museum of Adana by large numbers may have been produced in Cilicia the indented beakers, possibly to be dated 2nd-3rd century A.D., beakers or bowls decorated with a series of pinched ribs (ca. 220-mid 4th century A.D.) and undecorated beakers with a slightly flaring rim which are the same fabric and may, therefore, be contemporary with the beakers with pinched ribs. The tall necked unguentaria with squat triangular body (2nd century A.D.) may likewise have been made locally, as well as the unguentaria with a small, more or less triangular body which can not yet be dated.

Therefore, I should like to suggest as a working hypothesis the possibility that glass may have been worked in Smooth Cilica during the 2nd-mid 4th century A.D.

Adana, May 2, 1980

