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*Glass Vessels Decorated with Christian Symbols
from Alexandria*

The expansion of Christianity, already well advanced in the beginning of the Fourth century AD, acquired a new impetus following the edict of Milan. It soon became so rapid and profound that it changed not only the religious constitution of the society, but also affected various aspects of daily life. The thorough transformation of the society resulted among others in an ever-increasing demand for new consumer goods, better responding to the new tastes and widely accepted religious symbolism. This trend is apparent in the case of *instrumenta domestica*, in which the presence of Christian themes became particularly popular.

There was practically not a sphere of art or craftsmanship from which Christian motifs were excluded. They can be found among others on lamps,¹ and frequently, mostly stamped, used on pottery. All the main groups of Late Roman tablewares show their strong presence on a variety of forms. Commonly attested on vessels manufactured in North Africa (ARS), Asia Minor (LRC) and Cyprus (CRS), they are also present on Egyptian pottery.² Likewise, they appeared on various types of metalware.³ Bronze cross stamps were used for sealing vessels containing wine, oil and medical ointments, as well as to mark the eulogia bread, which was given to believers after the service.⁴ By no means was the glass industry immune to these trends and it soon started to apply the new symbols in vessel decoration.

The excavations at Kom el Dikka in Alexandria yielded five glass pieces ornamented with Christian motifs. They represent *crux monogrammatica* and simple Latin crosses. They occur on mould blown vessels and on stamped appliqués. Though their number in the huge glass assemblage is small, these objects are of considerable interest, as they expand our knowledge of the distribution and chronology of glass with such decoration. Moreover, they are one of a kind among the published findings from Alexandria. The overall scarcity of such objects among finds at Kom el-Dikka and elsewhere in the Alexandrian region may be taken as evidence against their local production. However, one cannot entirely exclude the possibility that they were regional products. A few facts speak in favour of this. The first one is the colour of the glass. All fragments under discussion were made of green and

¹ For lamps with the cross motif from the excavations at Kom el-Dikka see: J. MLYNARCZYK, *Terracotta Mould-Made Lamps in Alexandria (Hellenistic to Late Roman Period)*, [in:] J.-Y. EMPEREUR (Ed.), *Commerce et Artisanat dans l'Alexandrie Hellénistique et Romaine, Actes du Colloque d'Athènes organisé par le CNRS, le Laboratoire de céramologie de Lyon et L'École française d'Athènes 11–12 décembre 1988*, Athènes 1998, pp. 348–350, Fig. 22a-b and other parallels from the site, in particular no. 53.

² For examples found in Alexandria, see: M. RODZIEWICZ, *La céramique romain tardive d'Alexandrie, Alexandrie I*, Varsovie 1976, Figs 14–17, 22; ID., *Les habitations romaines tardive d'Alexandrie à la lumière des fouilles polonaises à Kom el-Dikka, Alexandrie III*, Varsovie 1984 [= *Habitations*], Pl. 36.123, 128–130. Also J.W. HAYES, *Late Roman Pottery. A Catalogue of Roman Fine Wares*, London 1972, pp. 271–281, Figs 54–57; pp. 363–368, Figs 78–79; pp. 371–386, Fig. 84.

³ M.C. ROSS, *Catalogue of the Byzantine and Early Mediaeval Antiquities in the Dumbarton Oak Collection I*, Washington D.C. 1962 [= *Catalogue*], silver dishes: Pl. XIX, Nos 16–17; bronze lamps: Pl. XXV, Nos 32, 37; Pl. XXVI, No. 31; Pl. XXVII, No. 34.

⁴ K. WEITZMAN, *Age of Spirituality. Late Antique and Early Christian Art, Third to Seventh century. Catalogue of the exhibition at The Metropolitan Museum of Art, November 19, 1977, through February 12, 1978*, New York 1979 [= *Age of Spirituality*], p. 628, Nos 565–566.

yellowish-green glass. It is the typical colour for glass of the Late Roman/Early Byzantine period not only for the Kom el-Dikka site,⁵ but also for the nearby sites, like Marea⁶ and Marina el-Alamein.⁷ It is reasonable to assign them to the local glass workshops, the more so as the Kom el-Dikka site was recognized as the area of primary and secondary glassmaking.⁸ The presence of a large Christian community in Alexandria and adequately high market demand additionally substantiate their possible local manufacture.

MOULD-BLOWN VESSELS WITH CHRISTIAN SYMBOLS

Two fragments of vessels with mould blown decoration are attested in our glass collection. The common element is *crux monogrammatica*, composed of the Latin cross combined with the Greek letter *rho* (P). It occurs on the underside of the bases of these vessels. None of the two bases show evidence of a pontil mark, which suggests that the vessels were moulded and subsequently tooled while still attached to the blowpipe. The crosses at the bottom, which bear no signs of seams, further suggest that a single-element mould was used to produce the motif. The first fragment was found during excavations in sector U, located west of the Theatre Portico.⁹ The glass finds collected there constitute two separate assemblages, one dating to the First through Third century AD, and the other – to the Late Roman/Early Byzantine period. The latter, which consists mainly of various types of simple specimens for domestic use, as bowls and beakers, bottles, jugs and jars, is distinguished by a fragment of the lower part of a mould blown, very thin-walled vessel, with flaring out walls and a circular base (**Fig. 1.1**). The vessel was blown of pale green glass with few very small spherical bubbles. Very little has remained of the decoration, which may perhaps be interpreted as a herringbone pattern and vertical row of circular bosses, all in low relief. The bosses may have formed a border for the design, which was apparently organized in rectangular panels. The most interesting is its flat, circular base which features a *chrysmos*, also in low relief (Diam. of the base 3 cm). The context dates the vessel to the second half of the Fourth- to early Fifth century. The most startling, however, is the presence of an identical motif on the base of a head-flask from Karanis.¹⁰

⁵ R. KUCHARCZYK, Late Roman/Early Byzantine Glass from the Auditoria on Kom el-Dikka in Alexandria, *PAM* XVII, 2007, pp. 45–53; EAD., Glass from Area F on Kom el-Dikka (Alexandria), *PAM* XIX, 2010, pp. 56–70; EAD., Glass from Area F on Kom el-Dikka (Alexandria), Excavations 2008, *PAM* XX, 2011, pp. 58–79.

⁶ EAD., Glass finds from the Baths and Saqiyah, [in:] H. SZYMAŃSKA, K. BABRAJ (Eds), Marea I. Byzantine Marea. Excavations in 2000–2003 and 2006, *Biblioteka Muzeum Archeologicznego w Krakowie* IV, Kraków 2008, pp. 129–143.

⁷ KUCHARCZYK, *PAM* XIX, pp. 56–70; EAD., *PAM* XX, pp. 58–79.

⁸ RODZIEWICZ, Habitations, pp. 239–243, 246–247, and 437–439; KUCHARCZYK, *PAM* XIX, pp. 56, 60, 66.

⁹ For the plan of sector U see G. MAJCHEREK, Excavations in Alexandria in 1990–1991, *PAM* III, 1992, pp. 5–14, Fig. 1.

¹⁰ D. HARDEN, Roman Glass from Karanis Found by the University of Michigan Archaeological Expedition in Egypt 1924–1929, *University of Michigan Studies, Humanistic Series* 41, Ann Arbor 1936 [= Karanis], p. 214 n.1, Pl. XVIII, 629.

It is very likely that the fragment from Kom el-Dikka comes from a basket-handled jar with a handle attached to either side of the rim. It might be similar to the mould blown hexagonal basket-handled jar adorned with a diamond and herringbone pattern from the Newark Museum.¹¹ A related example is part of the Constable-Maxwell Collection. Here, a hexagonal bucket-shaped jar is ornamented with Christian symbolic designs.¹² Another parallel is a hexagonal jar from Hippos-Sussita, Israel. However, its moulded decoration contains no religious symbols. Next to the geometrical patterns there appear two human faces.¹³

Another base with *crux monogrammatica* excavated at Kom el-Dikka came from a very thin walled vessel, most probably a cylindrical bottle (**Fig. 1.2**). The vessel was blown of pale green glass with few very small spherical bubbles. Unfortunately, only its concave base is preserved and nothing can be said about the decoration of the vessel if it ever existed (Diam. of the base 3.5 cm). The cross has arms flaring at the ends, three of unequal length at top and sides, and one longer arm at the bottom, all in low relief. The curved line of a mirror image letter P (viewed from the outside) is incomplete. The best comparisons for our cross are found on several mould-blown bottles outside Egypt. This small assemblage contains specimens from Beth Shean,¹⁴ and Arycanda in northeast Lycia.¹⁵ In the latter case a *chrysmos*, which is also at the centre of the base, is surrounded by an inscription bearing the name “Philinos”. Excavations at this site yielded yet another fragment of a base with a large Maltese cross.¹⁶ All the base marks from Arycanda were found in a late Fourth- to early Fifth century context. It has been suggested that the vessels from Arycanda were either made locally or came from other sites in western Asia Minor. What is more interesting is that their Egyptian, or more specifically Alexandrian origin is also not to be excluded. However, till now this supposition does not seem to find any corroboration in the glass material from Alexandria. Most probably of Eastern Mediterranean origin are several square base mouldings, including *crux monogrammatica*, excavated in Croatia.¹⁷ Glass bottles decorated with moulded Christian motifs are noticeably scarce in Egypt. Apart

¹¹ S.H. AUTH, *Ancient Glass in the Newark Museum*, Newark 1976 [= Newark], p. 81 No. 86 – Sixth century.

¹² The Constable-Maxwell Collection of Ancient Glass. Auction catalogue, Sotheby Parke Bernet & Co, London, 4–5 June 1979 [= Constable-Maxwell], p. 178, lot. 317 – Sixth century.

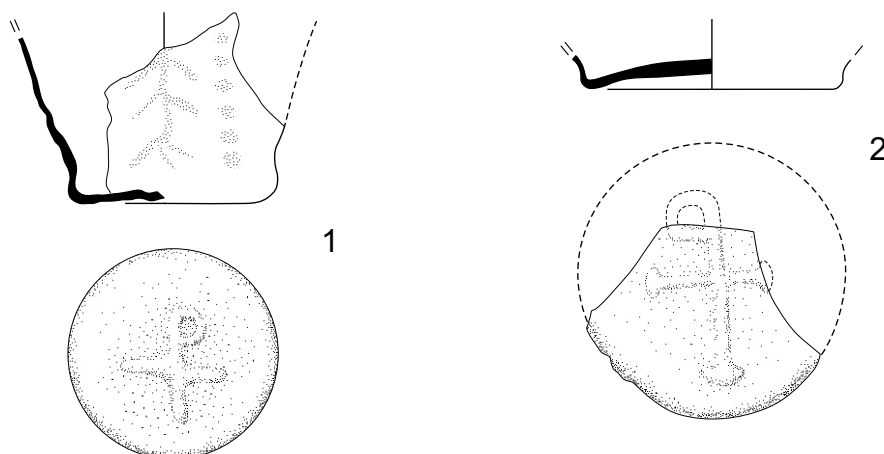
¹³ V. MESISTRANO, Area above the East City Gate (EGT), [in:] A. SEGAL *et al.* (Eds), *Hippos-Sussita: Eight Season of Excavations*, July 2007, Haifa 2007, p. 16, Fig. 21a.

¹⁴ S.J. FLEMING, *Late Roman Glass at the University of Pennsylvania Museum: a photo essay*, *Expedition* 39.2, 1997, pp. 30–31, Fig. 11a, b: plain, square-sided specimen – mid to late Fourth century. See also a hexagonal bottle with flat base depicting, in relief, a flower or cross with thickened arms in the Israel Museum: Y. ISRAELI, *Ancient Glass in the Israel Museum, The Eliahu Dobkin Collection and Other Gifts*, Jerusalem 2001 [= E. Dobkin Coll.], p. 244, No. 321.

¹⁵ A.T. TEK, *Prismatic Glass Bottles with Greek Inscriptions from Arycanda in Lydia*, *AnnAIHV* 15, (New York-Corning 2001) Nottingham 2003, pp. 83–84, Fig. 1.3.

¹⁶ *Ibid.*, p. 83, Fig. 1.1.

¹⁷ A. LARESE, *Osservazioni sui vetri della Croazia*, *Rivista di Archaeologia* 22, 1998, pp. 66–77, in particular: p. 69, Cat. No. 127, pp. 129–130 – second half of the Fourth century; I. FADIĆ, *Žigovi kriptograma i križa na dnu kvadratičnih staklenih vrčeva*, *Opuscula Archaeologica*, XXIII–XXIV, 1999–2000, pp. 191–192, T. 1–2, Nos 1–5 – Second–early Fourth century. On the base No. 2, assigned to the end of the Second–early Fourth century, there is a cross that closely resembles the Kom el-Dikka example.



1. Mould blown vessels with Christian symbols (Drawing and digitalizing: E. Kulicka, M. Momot).

from the one from Karanis listed above and the specimen with moulded design on the bottom which includes a recessed cross and four quadrant bosses between its arms offered by the Ray Winfield Smith Collection,¹⁸ they came to light at Istabl Antar, Fustat. Various types of crosses with circular bosses between the arms appeared on the underside of the bases of hexagonal and cylindrical bottles. Interestingly, this small assemblage, apparently of local origin, had been assigned to the Seventh–Eight century.¹⁹ To this very short list we could add few examples of square bottles bearing cross-like motifs found in western provinces, although they are as a rule of an earlier date. They include a square base with a large cross with flared arms stored in the archaeological museum in Rabat,²⁰ and a base with a circle enclosing a small cross reported from Spain.²¹ The latter resembles finds from a few sites in Britain.²² It is to be noted that Christian symbols also appear on other vessels than mould blown prismatic and cylindrical bottles. Quite a number of bases of cups/bowls with such symbols came to light on a few sites in southern France: in Marseille, Digne, Saint-Blaise, Gardanne and Eyguières. They represent various cross designs: an

¹⁸ Glass from the Ancient World, the Ray Winfield Smith Collection, Corning Museum of Glass, Corning, N.Y. 1957, pp. 202–203, No. 401 – about Fifth–Sixth century.

¹⁹ D. FOY, L'héritage antique et byzantin dans la verrerie islamique: exemples d'Istabl Antar – Fostat, *AnIsl* 34, 2000, pp. 155–156, Figs. 5a-b, 6.2-3.

²⁰ Id., Marques sur verres decouvertes dans le Maghreb, [in:] D. FOY, M.-D. NENNA (Eds), Corpus des signatures et marques sur verres antiques, Aix-en-Provence 2006 [= Corpus], p. 360, Pl. 1.MAG-M15 – late First–early Second century.

²¹ J. PRICE, Mould-blown and impressed designs and names on vessels in Spain, [in:] FOY, NENNA, Corpus, pp. 283–284, 288, Pl. 1.E-CAR.003 – probably late First–Second century.

²² D. CHARLESWORTH, Roman square bottles, *JGS* VIII, 1966, p. 34, Fig. 12 – late Second– or early Third century; H.E.M. COOL, J. PRICE, Roman Vessel Glass from Excavations in Colchester, 1971–85, *Colchester Archaeological Report* 8, 1995, pp. 188, 194, Fig. 11.9.2149.

equilateral cross,²³ a combination of a large cross occupying the centre of a base and crosslets positioned between its arms,²⁴ and finally a *christogram*.²⁵ These vessels, which apparently represent the output of local glasshouses, were produced in the Fifth–Sixth century. The closest parallels to these examples are to be found in material coming from a few sites in northern France and Britain.²⁶ The cross motif can also be seen on bowls with cracked-off rims and mould blown relief ornaments, which are characteristic for the Fourth–Fifth century. On the specimens recently published from Crimea, the common honeycomb pattern is interrupted with crosses appearing under the rim. These vessels are most probably of Syrian origin.²⁷

The best-known glass wares bearing Christian motifs are represented by mould blown octagonal and hexagonal flasks, pitchers, and jugs, as well as jugs additionally adorned with geometric patterns within dotted frames. Sunk-relief designs appearing alongside various types of crosses include concentric lozenges, circles, palm fronds, stylized trees, diamond and herringbone pattern, and also human faces, stylized human figures, as well as fish and birds. It is worth noticing that *crux monogrammatica* does not appear on walls or on bases of these bottles. The bases of these containers exhibit radial lines or rosettes. Vessels depicting Christian, as well as Jewish symbols were studied by Dan Barag.²⁸ He dated the Christian bottles he published to a period ranging from the end of the Sixth- to the beginning of the Seventh century. The presence of crosses suggests that these vessels had religious significance. They are thought to have served pilgrims as religious souvenirs, *eulogiae*, containers of “blessings”, consecrated oil, water, or earth from the Holy Land. Maybe they were used also during Mass, as containers for wine and water.²⁹ Their homogeneity suggests that they probably had a single production centre, with Jerusalem as the most likely candidate. It should be noted that none of these complete vessels come from datable contexts, nothing is also known about their finding place. Vessels of this type are fairly numerous in different private and museum collections.³⁰ It should also

²³ D. FOY, *Le verre de la fin du IV^e au VIII^e siècles en France méditerranéenne : premier essai de typo-chronologie*, [in:] D. FOY (Ed.), *Typologie, Chronologie, Diffusion. Actes des rencontres de l’AFAV, Guiry-en-Vexin, 18-19 novembre 1993, Musée départemental du Val-d’Oise 1995* [= *Typologie*], p. 203, Pl. 12: 121–122.

²⁴ *Ibid.*, pp. 203–204, Pl. 12, Nos 123–130.

²⁵ *Ibid.*, p. 203, Pl. 12, Nos 117–119.

²⁶ *Ibid.*, p. 204.

²⁷ L. GOLOFAST, *Early Byzantine Glass from the Tauric Chersonesos (Crimea)*, [in:] E. LAFLI (Ed.), *Late Antique/Early Byzantine Glass in the Eastern Mediterranean, Colloquia Anatolica Aegea. Acta Congressus Internationalis Smyrnensis II, Izmir 2009*, pp. 303–304, Fig. 1:23-24.

²⁸ For a full discussion and illustration of this type of vessels see: D. BARAG, *Glass Pilgrims Vessels from Jerusalem Pt. I, JGS XII, 1970*, [= *Pilgrim Vessels I*], pp. 35–53; *Id.*, *Glass Pilgrims Vessels from Jerusalem, Pt. II, JGS XIII, 1971*, pp. 45–63.

²⁹ ROSS, *Catalogue*, pp. 82–83, Pl. LIII, No. 97 – although according to Barag, this hypothesis seems unfounded. The large number of complete vessels of this kind could point to their coming from graves where they were used as symbolic funerary offerings, see: BARAG, *Pilgrim Vessels I*, p. 36.

³⁰ ROSS, *Catalogue*, pp. 82–83, Pl. LIII, No. 97; E.B. DUSENBERY, *Ancient Glass in the Collections of Wheaton College, JGS XIII, 1971*, pp. 28–29; AUTH, *Newark*, pp. 82–83; Constable-Maxwell, pp. 180–185, Nos 319–324; A. OLIVER, *Ancient Glass in the Carnegie Museum of Natural History, Pittsburgh 1980*, p. 129, No. 225; D.B. HARDEN, *Glass of the Caesars, Milano 1987*, p. 176, No. 97; E.M. STERN, *Roman Mould-Blown Glass*.

be added that they are very rarely found in controlled excavations. Recently a fragment, too small to be identified with certainty, though it may come from a *eulogia* juglet, came to light at the Kom el-Dikka site, unfortunately from a mixed context. Its mould blown decoration features a palm tree or herringbone motif. Unfortunately the shard does not allow the reconstruction of a complete vessel or its overall decoration.³¹ Among others, such containers had been attested at Jerash,³² Beth She'arim,³³ Bet Shean,³⁴ and quite recently at Hippos-Sussita.³⁵

STAMPED APPLIQUÉS WITH CHRISTIAN SYMBOLS

Like the glass fragments with moulded Christian motifs, also those with stamped decoration are but a few in the collection from Kom el-Dikka. They are represented by three circular appliqué. Such appliqué are usually formed from a glob of molten glass poured on the hot wall of the vessel. The glass disk was then stamped with a die bearing a stamp, thus creating a prominent circular bulge on the inner surface of the vessel. In the case of Kom el-Dikka appliqué, it is impossible to find out to what type of vessel they originally belonged and where they were affixed. By the same token it is also impossible to be precise about their total number and their exact location on the vessel. They could have been fastened to the rim, necks or sides of the bottle or bowl.³⁶ The first appliqué occurs on the small fragment of the sidewall of a vessel (**Fig. 2.1**). It bears a relief ornament in the form of a simple Latin cross with flared arms, decorated with dense diagonal hatches. The identical cross appeared on circular pendants from The Corning Museum of Glass.³⁷ The appliqué was formed from an almost circular disc. The deep stamping produced a bulgy edge (Diam. approx. 2.5 cm). Both the vessel and the stamp were made of the same good quality light green glass, transparent with few small spherical bubbles. The archaeological

The First Trough Sixth Centuries, The Toledo Museum of Art, Toledo 1995, pp. 169–192; EAD., Römisches, byzantinisches und frühmittelalterliches Glas, 10 v.Chr. – 700 n.Chr., Ostfildern-Ruit 2001, pp. 322–323, No. 184; Y. ISRAELI, E. Dobkin Coll., pp. 270–282, Nos 360–381.

³¹ KUCHARCZYK, *PAM* XIX, pp. 58–59, Fig. 2.3.

³² P.V.C. BAUR, Glassware, [*in:*] C.H. KRAELING (Ed.), Gerasa: City of the Decapolis, *ASOR*, New Haven 1938, pp. 544–545, No. 101, Pl. CXXI.

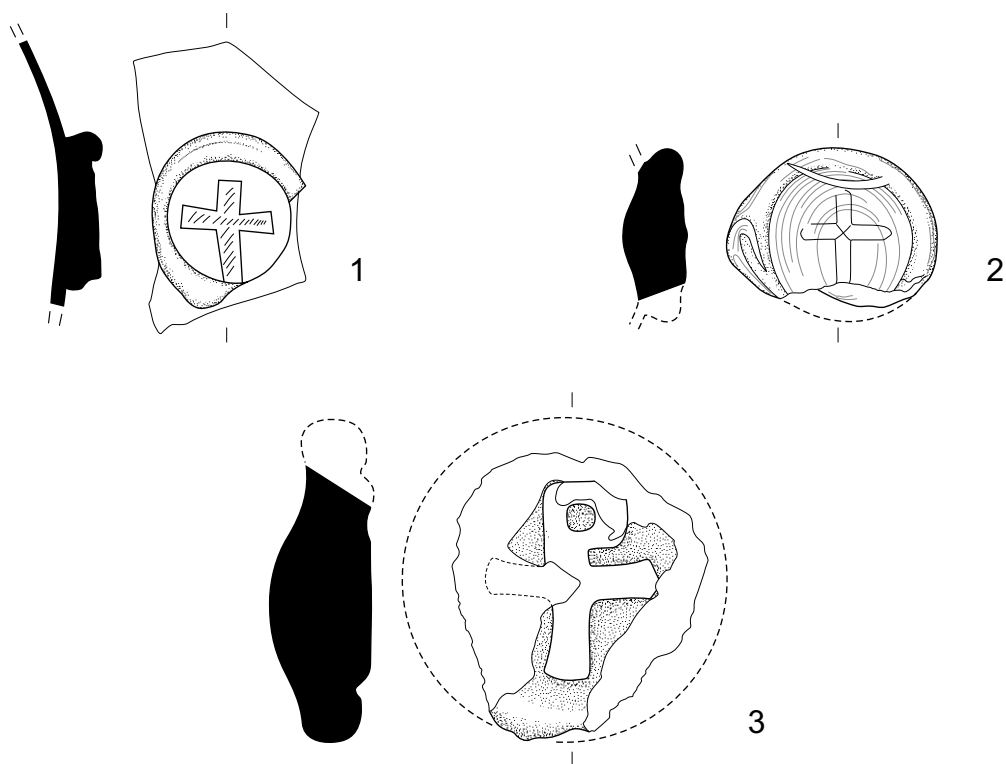
³³ D. BARAG, Glass Vessels, [*in:*] N. AVIGAD (Ed.), Beth She'arim III: Catacombs 12–23, Jerusalem 1976, pp. 206–208, Fig. 99b.

³⁴ S. HADAD, Hexagonal Mold-Blown Bottles from the Byzantine Period at Bet Shean, *JGS* XXXIX, 1997, pp. 198–200, Nos 1–4.

³⁵ I am grateful to Mr. M. Burdajewicz for this information.

³⁶ See also the glass vessels with stamps, dated to the Early Islamic period, and found, among others – at Fustat: cf. G.T. SCANLON, R. PINDER-WILSON, *Fustat Glass of the Early Islamic Period*, London 2001, p. 78, Fig. 37; – at Hammat Gader: cf. A. LESTER, *Islamic glass finds* [*in:*] Y. HIRSCHFELD (Ed.), *The Roman baths of Hammat Gader*, Jerusalem 1997, pp. 432–433, 435–437, Nos 1–5; – and at Bet Shean: cf. S. HADAD, *Islamic Glass Vessels from the Hebrew University Excavations at Bet Shean*, *Qedem Reports* 8, 2005, pp. 25–27, Pls 15–16, Nos 308–316.

³⁷ D. WHITEHOUSE, *Roman Glass in The Corning Museum of Glass*, Vol. III, Corning, N.Y. 2003, [= Corning Mus. III], pp. 25–26, Nos 906 – mid Fourth– to early Fifth century AD.



2. Stamped appliqués with Christian symbols (Drawing and digitalizing: E. Kulicka, M. Momot and S. Maślak).

context dates it to the Fourth–Fifth century. It was found during the exploration of area F located between the cisterns and the theatre, which served as a dumping ground for urban debris and ashes evacuated from the nearby bath in the course of its long functioning. The dense concentration of ashes yielded a rich assortment of glass, mainly common household types of plain, free-blown vessels apparently of local origin.³⁸

The second appliqué also features a stamp in the form of a Latin cross with rounded endings in low relief (**Fig. 2.2**). The object, which has a rounded, low ridge at the edge, is almost complete, only a small part of the bottom edge is missing (Diam. approx. 2.5 cm). It was formed from an almost circular disk of light green, bubbly glass. On the edges there are marks of molten glass flow. The appliqué was attached to a thin walled vessel. The find is unfortunately unstratified. No exact parallels can be offered but it can be most probably assigned to the Fifth–Sixth century AD.

³⁸ For a detailed presentation of glass material from area F, see: KUCHARCZYK, *PAM XIX*, pp. 56–79 and *PAM XX*, pp. 58–71. For a report from the excavations of Area F see: G. MAJCHEREK, *Alexandria. Excavations and preservation work. Preliminary report 2006/2007*, *PAM XIX*, 2010, pp. 35–42 and *Id.*, *Alexandria Kom el-Dikka. Excavations and Preservation work. Preliminary report 2007/2008*, *PAM XX*, 2011, pp. 37–53.

The appliquéés with stamped Christian motifs still attached to the vessel's wall are reported extremely rarely. A circular stamp with a monogram attached to the rim of a conical bowl or bottle was excavated at Sardis.³⁹ In turn, from Beyrouth came a circular pad with a cross monogram attached to the vessel's very thin wall. From this site there is yet another interesting piece, apparently a handle with a projecting thumb rest, which features an impressed cross with arms of equal length. Unfortunately, nothing can be said about the vessels to which these fragments originally belonged.⁴⁰

The third appliqué shows a partially preserved *crux monogrammatica* in high relief (**Fig. 2.3**) (Diam. approx. 4 cm). It was made of low-quality bubbly yellowish-green glass. Although our example comes from an unstratified context, it can be assigned to the same period as those from The Corning Museum of Glass, to the Fourth–Sixth century, based on similarities.⁴¹ The state of preservation of our appliqué does not permit to note whether the monogram was in a beaded surround, in similarity with all other examples of this type, including three specimens housed in The Corning Museum of Glass. To these examples we may add another identical piece from the collection of Robert Pereire in Madrid.⁴² Another parallel is offered by the British Museum collection. It is interesting to note that the latter, described as a glass seal, was said to have originated from Alexandria.⁴³ A valuable addition to these appliquéés are items found at auctions: Christie's,⁴⁴ and Bonhams.⁴⁵ It must be noted that all the presented appliquéés with *crux monogrammatica* were made of glass in various shades of green. Striking similarities between the mouldings on all these examples make one wonder if they could have originated from the same place, perhaps indeed from Alexandria? It seems that such appliquéés could be originally attached to a side of a bowl, similarly to a pottery bowl from Rome, decorated with a horizontal row of four medallions stamped with a *christogram*.⁴⁶

Circular glass stamps function not only as appliquéés on the vessels, but also exist independently as glass weights. They were intended as standards for testing the weight of coins. The majority of them were used to weigh the solidus and its fractions. The most typical are glass weights stamped with crosses or cross monograms. Such objects had been

³⁹ A. VON SALDERN, *Ancient and Byzantine Glass from Sardis, Archaeological Exploration of Sardis* 6, Cambridge Mass.-London 1980 [= Sardis], p. 90, Pl. 28.673 – perhaps late Fourth or Fifth century.

⁴⁰ S. JENNINGS, *Vessel Glass from Beirut. Bey 006, 007, and 045, Berytus, Archaeological Studies*, XLVIII–XLIX, 2004–2005, 2006, p. 199, Fig. 8.14:7–8 – Fifth/Sixth centuries.

⁴¹ D. WHITEHOUSE, *Roman Glass in The Corning Museum of Glass II*, Corning, N.Y. 2001, pp. 235–236, Nos 818–820.

⁴² J. PHILIPPE, *Le monde byzantine dans l'histoire de la verrerie, V^e–XVI^e siècle*, Bologna 1970, p. 42, Fig. 17.

⁴³ O.M. DALTON, *Catalogue of early Christian antiquities and objects from the Christian East in the Department of British and mediaeval antiquities and ethnography of the British Museum*, London 1901, p. 138, No. 710.

⁴⁴ www.christies.com/LotFinder/custom/lot_details_Multilanguage.aspx?intObjectID=4169176, auction on 29 October 2003, lot No. 138.

⁴⁵ www.artfact.com/auction-lot/a-byzantine-green-glass-seal-1-c-de652503b6, auction on 5 October 2011, lot No. 230, also described as a glass seal.

⁴⁶ WEITZMAN, *Age of Spirituality*, p. 569, No. 506 – mid Fourth century.

reported from Turkey.⁴⁷ A similar glass weight was also found at Capernaum.⁴⁸ They are also present in many museum glass collections, among others in the British Museum,⁴⁹ and the Corning Museum of Glass.⁵⁰ An interesting group of glass discs is made up of circular spindle whorls with coloured inlaid cross. Described as pierced buttons, they have been reported from Karanis,⁵¹ and Kharga Oasis.⁵² Similar objects are in the Corning Museum of Glass.⁵³ Six other examples stored in the Benaki Museum should also be cited.⁵⁴

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⁴⁷ VON SALDERN, Sardis, pp. 89–90, Pl. 28: 667–669; Ephesus – I am grateful to Susanne Metaxas for this information. For other Turkish sites see: Ü. CANAV, Ancient Glass Collection, Documentation and Information Center, Istanbul 1985, p. 91, Nos 151–153.

⁴⁸ V. TZAFERIS, Excavations at Capernaum I. 1978–1982, Winona Lake 1989, Pl. 2.d; Fig. 72.71 – with a *Chi-Rho* monogram. I am grateful to Yael Gorin Rosen for this information.

⁴⁹ CH. ENTWISTLE, Byzantine Weights, [*in:*] A.E. LAIOU (Ed.), The Economic History of Byzantium. From the Seventh Through the Fifteenth Century, Washington D.C 2002, pp. 613–614, Fig. 11.

⁵⁰ WHITEHOUSE, Corning Mus. III, pp. 35–37, Nos 935–939 – Fifth to Seventh century.

⁵¹ HARDEN, Karanis, pp. 295–296, Nos 937–944.

⁵² G.A. EISEN, Button Beads with Special Reference to Those of the Etruscan and Roman Periods, *AJA* 20.3, 1916, p. 307.

⁵³ WHITEHOUSE, Corning Mus. III, pp. 55–56, Nos 978–979 – First to Fifth century.

⁵⁴ CH. CLAIRMONT, Catalogue of Ancient and Islamic Glass. Benaki Museum, Athens 1977, p. 20, No. 62a, Pl. VI: 62a.