THE USE OF GLASS AS ARCHITECTURAL DECORATION IN THE ISLAMIC WORLD

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The exhibition 'Glass of the Sultans', organized by The Corning Museum of Glass and The Metropolitan Museum of Art in 2001, has provided food for thought for many students of glass and Islamic art. This exhibition was intended to provide an assessment of the current knowledge and status of research on Islamic glass. Its title, meant to be captivating for a general audience, was both evocative of the Islamic world and a tribute to the successful 1987 exhibition 'Glass of the Caesars.'

Yet the title may be slightly ambiguous when taken literally, since only a small percentage of surviving artistic glass from the Islamic lands can be identified as made for the ruling or courtly elite. The one type that promptly comes to mind is one that thinks of glass made for the sultans is 13th and 14th-century enamelled and gilded glass, perhaps the greatest achievement of Islamic glassmakers from a technical and technological viewpoint. This is principally because the pictorial surface allows for ample use of calligraphy, which often includes the names of patrons, and the type of glass was clearly favored by the Mamluk rulers. Of the 157 entries in the 'Glass of the Sultans' catalogue, only ten enamelled and gilded pieces, two impressed works, and two moulded objects literally match the title of the exhibition, whereas the remainder can be better understood as glass 'fit for a sultan.'

If, then, we wish to consider 'glass of the sultans' literally, we may need to focus on something other than vessels and other objects, the great majority of which do not carry inscriptions or are not reported to have been in royal hands. Decorative architectural glass found in an archaeological context or still in situ in Islamic palaces and important monuments offers better insights. Thus, it seems appropriate to undertake a survey of decorative flat glass used as window and/or wall or floor ornament in the Islamic world, presupposing that this type was made locally and under the direct supervision of the architects or interior decorators employed by royal or courtly patrons.

IRAQ AND SYRIA, ABBASID PERIOD, 9TH–10TH CENTURIES

One of the earliest and most important interiors with glass decoration is the throne room of the Jawzaq al-Khaqani, the residence of the Abbasid caliph al-Mut'tasim built at Samarra between 836 and 842. Samarra, about 125km north of Baghdad on the Tigris River, was chosen in 836 as the site of a new capital to replace the outgrown earlier one. The new royal city was short-lived, as the court moved back to Baghdad in 892. Nevertheless, it remains a gold mine for archaeologists and historians of Islamic art, since most of its buildings and its layout have survived and were thoroughly excavated and studied in the course of the 20th century. Samarra also fits into a formative period for Islamic art, one that freed itself from the legacy of the past to create a new, purely Islamic artistic language that would influence decorative patterns for centuries to come.

As regards the medium of glass, the subject of a monograph by Carl Johan Lamm, however, there was a curious revival of Roman techniques and ornamental styles in Samarra. This is manifest in geometric compositions for walls or windows created with different materials, such as a panel with glass and mother-of-pearl elements that form a checkerboard pattern within a frame of alternating dots and lines. Overlay or cameo glass, mostly with patches of green glass with simple wheel-cut decoration over a colourless layer, was also a Roman technique practiced at Samarra — or it was at least popular at court, on the evidence of a cup found in the throne room of the Jawzaq al-Khaqani. The most glamorous and colourful example of this revival is the tile covering in fused and sliced cane mosaic that once decorated the wall or perhaps the floor of the throne room. The largest surviving fragment (Fig. 1) allows for a reconstruction of the original dimensions of each tile (c. 160mm square) and for a full appreciation of the dazzling variety of designs and arrangement of colours within similar patterns that were used for this architectural covering. Unfortunately, it is not possible to reconstruct either the extension of the area once covered by these tiles or their exact location within the throne room, but this tiled composition clearly represents one of the most prominent and sensational decorative patterns in the space. Looking at Ernst Herzfeld's reconstruction of the lively painted walls of the throne room, one can picture this space as well as other Samarran royal interiors as a very colourful phase in Islamic art, one that still looks back to, but also distances itself from, the more restrained earlier period.

By extension, it is possible to suggest that small, colourful hemispherical mosaic glass 'bowls', two of which are in the British Museum and the Kuwait National Museum, are instead bosses that were set in plaster walls for decorative purposes. Although they appeared on the market and have never been linked to Samarra or any other archaeological site, the variety of their colours and patterns, especially on the larger object in London (Fig. 2), is similar to that of tile fragments from Samarra, and a similar provenance might be postulated. Both bosses present the same whitish/brownish patina on the interior, which is very different from the polished and brilliant aspect of the concave side. It is possible, therefore, that the interior (that is, the side that would have been slumped over the mould) was not polished.
because it was never meant to be visible. This would explain
their use as decorative bosses rather than as small vessels.13

Glass floor coverings (interpreting the Samarran mosaic
tile fragments as such) were not unknown in the Islamic
world. The National Museum in Damascus houses a number
of fragmentary floor tiles that were found in 1952 in the
reception room of the palace of the Abbasid caliph Harun
al-Rashid at Raqqa (north-eastern Syria), where he resided
between 796 and 808.14 Identical tiles were excavated at
another caliphal residence, the early 9th-century palace of
Qasr al-Hayr al-Sharqi (eastern Syria).15 These tiles are made
of greenish colourless glass and present a smooth, even
side, whereas the other side is uneven and bumpy because it
was meant to be safely and permanently set in plaster. These
colourless tiles from Syria, even more than the mosaic tiles
from Samarra, seem better suited to being walked on (here
as if proceeding on a watery surface) than to being looked
at as a wall panel.

Also of Syrian provenance are a series of small square
tiles in gold sandwich glass decorated with cruciform
patterns (Av. Dim. c. 9mm square), many of which are in
the National Museum in Damascus.16 They have been
associated in particular with the site of Ma‘arrat al-Nu‘man,
situated between Aleppo and Hama in western Syria, and a
dealer has reported that they were used as architectural wall
decoration for a chapel in a 13th-century Christian church
at the same site.17 This supposed Christian provenance,
together with the cruciform pattern, has convinced scholars
that they are examples of Byzantine glass.18 Gold sandwich
glass, however, was a luxury product inspired once again
by Roman prototypes, and it was probably created in Syria
in the 9th or 10th century.19 Very few fragmentary vessels
belonging to this type of glass survive, and there is no reason
to separate these objects from the square tiles mentioned
above in the study of this group, which is homogeneous
from a technical viewpoint and has a common denominator
in the Syrian area. Whether the tiles were made by Muslim,
Christian, or Jewish glassmakers for Christian or Muslim
patrons (the cruciform pattern may also be interpreted as a
simple geometric design20), they belong to the tradition that
developed in Abbasid-ruled Syria roughly at the same time
as the palaces of Raqqa and Samarra.

A group of roundels decorated with figural patterns
impressed on one side has recently become the focus of
closer attention.21 In the 1930s, some of these medallions
were found, together with alabaster gratings, during
evacuations at Old Termeh (Tirmit) in present-day
southern Uzbekistan, near the border with Afghanistan. Thus
it seems most likely that they functioned as colourful window
roundels.22 Five similar objects were acquired by the
Museum of Islamic Art in Berlin in the 1960s23 and many
more have recently surfaced on the market – a total of more
than 80 medallions and fragments.24 This group is extremely
interesting because of its certain provenance (modern
Afghanistan) and the subjects it illustrates.25

Most importantly, some of these objects include
impressed inscriptions that mention the names of two rulers
of the Ghaznavid dynasty (977–1186), as well as that of an
emir of the Ghurids (c. 1011–1215). These royal figures
are Bahram Shah (r. 1117–1157), Khusrow Malik (r. 1160–
1186; Fig. 3), and the emir Shams al-Din Muhammad
Pahlavan (mentioned in the sources in 1181–1182; Fig. 4).26
These names, and the royal or courtly figural designs
associated with them, would have come to life when seen
through transmitted light (that is, when sun or moonlight
shone through the windows of palaces in cities such as...
Ghazna, Tirmidh, Kunduz, and Maymana, most of which are in modern Afghanistan).

The occurrence of royal names is so rare in Islamic glass production that this group must be regarded as one of the most important additions to the field of Islamic glass in recent years, since it provides precise information as to its origin, date, and function in a courtly setting. Small figural or inscriptive stamps including names of Umayyad or Abbasid emirs (8th–9th centuries) attached to the walls of bottles and other vessels may have provided indirect inspiration for the Central Asian window roundels.\(^\text{27}\) Regional creativity and direct patronage, however, must have played the most important role in their making, since they are unique and original in their artistic intent. Without a doubt, these roundels provide the best example of royal and courtly patronage for glass objects before the advent of the Mamluks in Egypt and Syria in the 13th and 14th centuries.

Fig. 4 Medallion. Afghanistan, late 12th century. The al-Sabah Collection, Dar al-Atwar al-Islamiyyah, Kuwait National Museum, inv. no. LNS 378 G; photo: Bruce White © Kuwait National Museum toward Mecca and including the mihrab (prayer niche), presents the most elaborate decoration of the interior. It features a set of roughly rectangular and circular glass tiles set into the plaster at regular intervals, forming decorative rows and arches (Fig. 5).

A close look at these tiles, which have roughly cut edges to provide a grip on the stucco, reveals that they are painted on the reverse with unfired black, green, and pale brown pigments, so that the colours are sandwiched between the plaster and the glass surfaces (Fig. 6). This is an almost unique variation of verre églomisé and a successful solution because the few tiles that are left in situ retain their pigments, and their simple yet effective vegetal patterns are clearly visible against the off-white background. Several tiles shown in the photograph of the qibla wall published by Lamm in 1927\(^\text{28}\) are now missing, and more had fallen off by the time I first visited the mausoleum in 1989. As regrettable as their loss may be, the available fragments afford a closer analysis of these interesting objects. The glass is greenish colourless with frequent minute void bubbles, and its composition is a typical soda–lime– silica with relatively high amounts of magnesium and potassium.\(^\text{29}\) The technique used was very likely that of broad glass, by which the bubble is elongated to a cylinder that, after the two ends are removed, is cut lengthwise and then flattened. This was also confirmed by the observation that no bull’s-eye typical of crown glass was visible on any of the tiles in situ.\(^\text{30}\) Broad glass, a simpler method than crown glass, developed in the early Christian era and was commonly used in Roman times by the 2nd century AD.\(^\text{31}\) The tiles of the mausoleum in Cairo are the first to be reported as having been made with this technique in the Islamic world. This observation, however, may simply be due to the lack of examination and study of window glass recovered from several archaeological sites in the Islamic world.\(^\text{32}\)

The painted glass tile decoration of Ibn Sulayman’s mausoleum is a unique example in the Islamic world that

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**EGYPT, MAMLUK PERIOD, LATE 13TH CENTURY**

A little-known mausoleum in the heart of medieval Cairo provides an interesting example of high-level patronage that made use of glass as architectural decoration. Hidden away in an alley near the gigantic complex of Sultan Hasan opposite the Citadel, the mausoleum of Ahmad ibn Sulayman al-Rifai stands in a corner in an enclosure known as a ribat (a hospice of the religious order of the Rifai'i). Part of the structure is extant.\(^\text{33}\) This small mausoleum (each side is c. 3.2m in length), is datable to about 1291, according to the wooden cenotaph that occupies most of its floor area and reveals the year of Ahmad ibn Sulayman’s death.\(^\text{34}\) Compared with the unassuming, undorned domed exterior, the interior is luxuriously decorated. It is covered in carved plaster and wood, including the entire surface of its high dome. The qibla wall, or the side of the room oriented

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**Fig. 3** Medallion. Afghanistan, c. 1160–1187. The al-Sabah Collection, Dar al-Atwar al-Islamiyyah, Kuwait National Museum, inv. no. LNS 365 G; photo: Bruce White © Kuwait National Museum
has no direct inspiration, and it was not imitated in later monuments. An intriguing possible parallel is a fragment from the staircase of a marble pulpit made for the church of San Giovanni Fuorcivitas in Pistoia (c. 1270). This decoration, executed in true verre églomisé with gold and black designs, is composed of small, elongated tiles. Although it is probably the work of Italian glassmakers, its composition is inspired by Islamic geometric patterns. It is unlikely, therefore, that it provided a model for the Cairo monument of 1291, since both decorations may be seen as the product of artistic trends circulating around the Mediterranean at that time.

Closer to home, similar patterns and shapes on painted walls are rare but not unprecedented. The wall paintings of the hammam (bath) of Abu Sur'ud in Cairo (11th century or earlier) display similar rows of elongated six-sided tiles that include vegetal patterns. Further away, but returning to that gold mine that is Samarra to complete the circle I started to draw at the beginning of this paper, colourful painted plaster designs and geometric compositions there are closely related to the glass tiles of Cairo’s mausoleum.

CONCLUSION

This paper was intended to highlight the wide range of architectural decoration in the Islamic world at different places and times – decoration that can be unmistakably attributed to royal, courtly, or religious patronage. Although it is both geographically and chronologically widespread, it is a rare occurrence in Islamic glass, one that provides food for thought. It also adds a new dimension in the interpretation of the social status of glass before the advent of Ayyubid and Mamluk patronage and its sponsorship of enamelled and gilded glass in the 13th and 14th centuries.

The most memorable example of royal benefaction remains the mosaic tiling from the throne room of the Jawzaq al-Khaqani in Samarra, which is symbolic of caliphal Abbasid patronage, of the legacy of imperial Rome, of the public display of luxury, and of artistic creativity.

I enjoy thinking that these fragmentary tiles once belonged to a mosaic floor rather than to a wall panel. The experience of walking in front of the throne area on the
smooth, cold, multicoloured glass floor must have been awe-inspiring and extraordinary — similar yet so different from setting foot on a reassuringly warm carpet with minute floral patterns, such as 18th-century Mughal Indian examples.38 Whether it was a floor covering or a wall revetment, however, this millefiori mosaic composition stands out as the best case in point for ‘glass of the sultans.’

ENDNOTES


39 Carboni and Whitehouse [note 1], cat. nos. 114–117, 119, 124, 129, 130, 132, and 134 (enamelled); 50 and 51 (impressed); and 13 and 14 (moulded).


4 Carboni and Whitehouse [note 1], cat. nos. 114–117, 119, 124, 129, 130, 132, and 134 (enamelled); 50 and 51 (impressed); and 13 and 14 (moulded).


7 Carboni and Whitehouse [note 1], cat. nos. 62 and 63. See also ed. Hugh Tait, Glass: 5,000 Years, New York: Harry N. Abrams, 1991, 124, fig. 156; Carboni [note 3], cat. no. 7b.

8 I am grateful to Kirsty Norman for discussing this matter with me and offering this suggestion.

9 These tiles are on display in a case devoted to glass found at Raqqā. The largest fragment is described and illustrated in M. Abu-l-Faraj al-Ush, Musée National de Damas, Damascus: Direction Générale des Antiquités et des Musées, 1976, 175, fig. 79.


11 The most detailed study to date on this group of tiles is a short article by Joseph Philippe, ‘Les plaquettes byzantines à décor crudefire doré’, Journal of Glass Studies, 17, 1975, 97–100.

12 Ibid., 99; Tait [note 12], 147, fig. 189.

13 Mostly following the attribution of Philippe [note 16], reiterated in idem, Glass: History and Art from the Beginnings until Today, Liège: Eugène Wahle, 1982, 24, fig. 53.


15 Although he maintains his Byzantine attribution for the gold sandwich glass tiles, Philippe [note 16], 98, fig. 1) also compares their design with a decorative band painted on the wall of a 9th-century palace in Raqqā.

16 This group is discussed in Carboni [note 3], 272–81, cat. no. 73a–s.

17 Henry Field and Eugene Prostov, ‘Excavations in Uzbekistan, 1937–1939’, Ars Islamica, 9, 1942, 143–50, esp. 145, figs. 11–14. In his review of Carboni [note 3], Michael Rogers (‘Translucent Beauty’, Cloudbound Magazine, October 10, 2001) remarks (n. 9) that ‘the discs were not in an alabaster, but in a stucco frame or grille. The sense of alabastro, the standard Russian term for “marble stucco”, was evidently unfamiliar to the authors of their first publication in the West. It must be pointed out, however, that one of the two authors, the American Henry Field (b. 1902), would hardly have made such a mistake.


19 Most of the major roundels are in Kuwait’s al-Sahab Collection and Tariq Rajab Museum. The most complete list, now probably outdated, is in Carboni [note 3], cat. no. 73a–e.

20 Many subjects betray a Sassanian iconography that is probably one of the main motivations for the creation of these objects. Ghaznavid rulers sought dynastic legitimation, looking back at the history of Iran. See Carboni [note 3], esp. 275–6.

21 Field and Prostov [note 22], 145; Carboni and Whitehouse [note 1], cat. nos. 50 and 51; Carboni [note 3], cat. no. 73a–e.


24 Gaston Wiet, Répertoire chronologique d’épigraphie arabe, 22, Cairo: Institut Français d’Archeologie Orientale du Caire, 1944, no. 4941.


26 EDs elemental analysis was performed by Mark T. Wypyski, Objects Conservation Department, The Metropolitan Museum of Art, in December 1992.

27 Crown glass was made by blowing a bubble, transferring it to the pontil, cutting it open, rotating it, and spreading it into a large, slightly convex disk. The central boss, or bull’s-eye, was left where the pontil had been attached.

28 This process allowed for a flatter surface than that of crown glass. See Donald B. Harden, ‘Domestic Window Glass, Roman, Saxon and Medieval’, in ed. E. M. Jope, Studies in Building


Herzfeld [note 10], pl. 46.


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