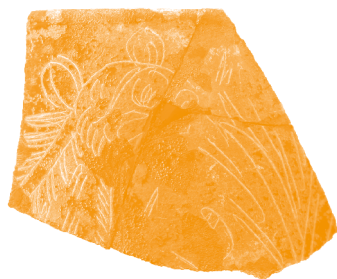


# Zoomorphic motifs on early Islamic scratch-engraved glass from Alexandria: a case study



**Abstract:** The two pieces of scratch-engraved glass presented in this article, one with lion and the other with camel imagery, are to date the only examples of animal representations executed in this technique that are known from the archaeological excavation of the Kom el-Dikka site in Alexandria (Egypt). As such, they contribute significantly to the still very small assemblage of scratch-engraved glass with zoomorphic themes from the Islamic world, so far made up of altogether no more than seven fragments, including these two. The shards come from cylindrical cups, a popular form in use in the Early Islamic period, dated to the 8th–9th centuries.

**Keywords:** scratch-engraved glass, zoomorphic motifs, lion, camel, Alexandria

Kom-el-Dikka in Alexandria is an archaeological site where early Islamic scratch-engraved glass is very well represented. The collection, one of the largest of this category of glass published to date, made up of about 80 fragments, has already been discussed in the *Journal of Glass Studies* (Kucharczyk 2009), with extensive references to similarly decorated fragments from other Egyptian sites, such as Fustāt/Old Cairo, Tebtynis, and al-Ṭūr and Rāya on the Sinai Peninsula, and many sites outside Egypt, including among others Bet Shean, Caesarea,

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Al Mina, Nippur, Nessana, Nishapur. Outlying finds, like the examples from the crypt of the Famen Temple in China, show the distances this decorated glass could travel in its time. To judge by the evidence of the scratch-engraved glass assemblage from Kom el-Dikka, the technique was, next to the tonged technique,<sup>1</sup> one of the most favored ways of decorating glass in Alexandrian workshops of early Islamic times.

The technique was simple and was performed mainly on open vessels, including cylindrical cups or beakers and plates, very rarely on bottles. It was usually applied to coloured glass, most commonly dark blue, although purple or dark green were also an option because the decoration shows up better on a dark background. The decoration on an overwhelming majority of finds from Kom el-Dikka is relatively uncomplicated, inscribed within vertical or horizontal bands which accommodate floral and geometric patterns. The repertoire of motifs includes stylized flowers and trees, small triangles, trapezoids, large and small squares and rectangles,

circles and semicircles, ovals, as well as “stars”, cross- and diagonal hatching, and various lines. The stylistic homogeneity, workmanship and simplicity of the decoration seems to indicate local production. Some fragments with decoration of a certain degree of elaboration, particularly those with finely executed stylized foliate motifs, could be of Syro-Palestinian origin.

All of the fragments of scratch-engraved glass were found during the excavation of a large Islamic burial ground that existed on the site from the late 8th/9th century through the 12th (Majcherek 2001: 23–28; 2002: 32–37; 2005: 18–19; Mahler 2021: 26–31) [Fig. 1]. They come from mainly well-stratified burial levels, dated to the 9th–10th centuries, offering relatively sound chronological evidence. However, in view of complicated site stratigraphy, resulting from numerous later pits and disturbed layers, some pieces may be residual and are actually of 8th-century date, while others originated from fairly vague archaeological contexts in the upper layers of the dump and lack a stated provenance.

- 1 Fragments with tonged decoration—more than 250 pieces—make up the largest group of early Islamic decorated glass in the Kom el-Dikka assemblage. The tonged technique, also described as impressing or pincering, was introduced during the Umayyad period and became widespread in Abbasid times. This quick and economical working process was introduced most probably by Egyptian glassmakers and subsequently distributed to other locations (Carboni 2001: 261–271; Whitehouse 2014: 129–156). In this technique, vessels, including mostly bowls or cups, rarely bottles, were decorated with an implement resembling a pair of metal tongs while the glass was still slightly soft. The two ends of the instrument bearing a carved motif were clamped several times around the circumference of the vessel, producing decoration of varying levels of complexity. A few basic geometrical motifs were used in various combinations: straight, diagonal and curved lines, lines with minute indentations, dashes, ellipses, triangles, rhomboids, diamonds, concentric circles with or without a central boss, multipetaled rosettes and stylized palmettes. More intricate examples, which are not numerous, included zoomorphic images and Arabic inscriptions. The motifs are usually set at regular intervals, but occasionally they overlap or are unevenly spaced. The decoration is often distorted and appears in low relief due to subsequent freeblowing.

Two fragments from this collection preserve decoration without parallel in the excavated site material, but also in the body of published scratch-engraved glass to date. This decoration consists of animal images, a camel and a lion, fragmentary in both cases. The latter piece was found already after the *Journal of Glass*

*Studies* publication, while the zoomorphic decoration on the former was not recognized as a camel at the time (Kucharczyk 2009: 44, Fig. 1:8). Both were identified during current studies of the material in preparation for a forthcoming publication of the early Islamic glass assemblage from the Kom el-Dikka site.

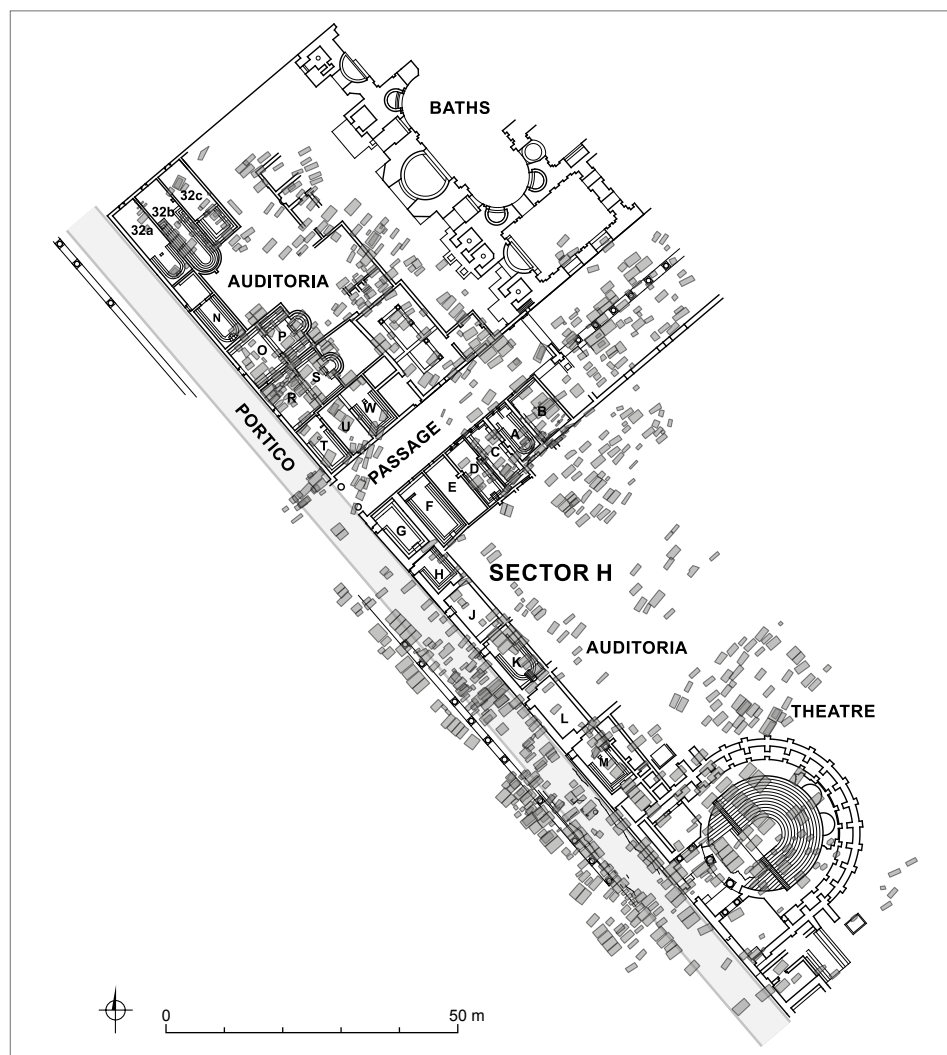


Fig. 1. Early Islamic cemetery (so-called Upper Necropolis phase) at the Kom el-Dikka site in Alexandria; outlines of graves shown against the plan of late antique architecture (PCMA UW | drawing compilation R. Mahler, G. Majcherek)

## FRAGMENT WITH A CAMEL IMAGE

The fragment (Kom el-Dikka, Reg. No. 2866) is part of the vertical wall of a cup, about 4.00 cm high, curved in at the bottom. The preserved width of the piece is about 5.00 cm, constituting roughly 20% of the vessel circumference. The piece was blown of blue glass, with many minute spherical bubbles left inside it. No weathering of the surface was observed.

The decoration, as preserved, shows a fragmentary scene with an animal and some geometric motifs [Fig. 2]. The animal is seen in profile, striding right. The legs—the two front legs survive—suggest a walking motion. The neck is long, raised and drawn back. The motif in front of it is large, elongated and pointed; it is difficult to interpret. The space between the animal and this large geometric element is filled with four hatched circles. The scene, organized in a continuous horizontal band, is set off with two carelessly scratched roughly parallel horizontal lines at the bottom. Descending from them are two groups of short vertical lines alternating with hatched semicircles.

Considering the physical characteristics of the animal image—first, the neck curving back in a characteristic way and the beginning of a hump—one is led to believe that this could be a depiction of the Arabian camel, a single-humped dromedary (*Camelus dromedarius*). The Kom el-Dikka fragment is thus the only known attestation of a camel image being depicted on scratch-engraved glass.

Camel depictions on glass include a single-humped Arabian camel on a mallet-shaped bottle of colourless glass with cut decoration, from the collection

of the Museum of Islamic Art in Qatar (GL.514.2009) (*Unseen Treasures* 2010: 20). This intact specimen from the 10th century, most probably of Iranian origin, has a truncated conical neck with a flange rim, and shallow sloping shoulder. The wall is straight, tapering towards the bottom. The neck, shoulder, and wall are all decorated in relief. The wall is occupied by a broad band of ornament that consists of four single-humped camels, portrayed walking in line, as if in caravan mode.

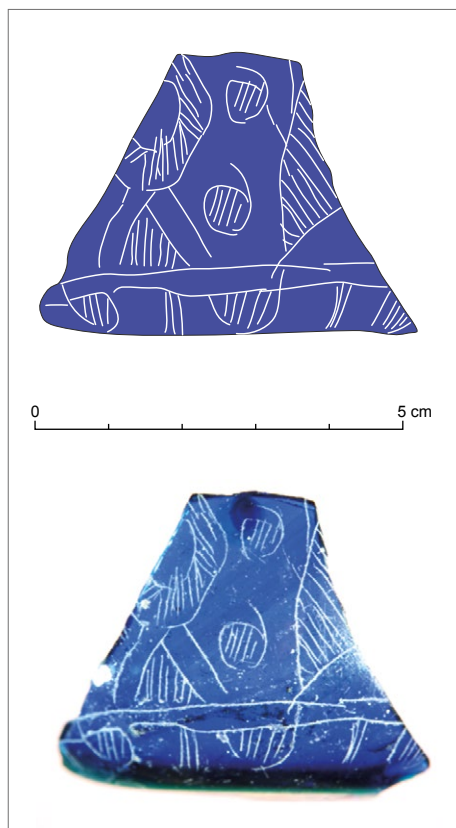


Fig. 2. Glass cup fragment with scratch-engraved decoration in the form of a camel (Kom el-Dikka, Reg. 2866) (PCMA UW | drawing M. Momot, photo W. Jerke)

## FRAGMENT WITH A LION AND VEGETAL MOTIF

The fragment, which was reassembled from three pieces (Kom el-Dikka; FReg. 169/08), has been identified as part of the wall (0.2 cm thick) of a cup. It is almost vertical, slightly bulging, finishing in a thickened and fire-polished rim (diameter approximately 7.5 cm). The surviving fragment is about 3.3 cm high and 4.6 cm wide (calculated as roughly 20% of the circumference). The vessel was blown of deep blue glass, with some minute bubbles. The surface is heavily weathered, resulting in a milky-white film, heavy peacock iridescence, and extensive pitting.

The preserved decoration shows the upper part of an animal facing a vegetal motif [Fig. 3]. In spite of the fragmentary state, the animal is easily identified as a male lion. It is shown in profile, facing right, head raised in almost frontal view. The top of the head is rounded, the muzzle elongated, the jaw squarish and flattened with no mouth discernible. The close-set eyes are unnaturally large, the left one squarish with three short diagonal slashes, the right one slightly elongated, filled with a curved line. Curled lines mark the nostril, while closely set



Fig. 3. Glass cup fragment with a scratch-engraved motif of a lion and a vegetal element (Kom el-Dikka, FReg. 169/08) (PCMA UW | drawing E. Kulicka, M. Momot, photo R. Kucharczyk)

double-wavy lines on the forehead imitate folds of the skin. The large, slightly pointed, rounded ears are pricked up, accentuated by double lines. A series of curls across the neck articulate the mane, along with some short and long strokes running almost horizontally from the neck. The body hair is marked by three groups of short parallel strokes.

The back of the neck and the chest are shown in outline; two groups of short strokes appear near the chest and one above a plant. The lion appears to be sniffing at the plant composed of a vertical stem with radiating twigs or leaves, indicated by long and short, densely spaced lines, and with a bud or flower between them.

## PARALLELS AND TENTATIVE RECONSTRUCTION

The reconstruction of the decoration is compromised by the meager preservation of the vessel body in both cases and the lack of any direct parallels in the published corpus of scratch-engraved glass. It is highly probable that more than one camel or lion were represented, separated by elements of some kind, but it is not possible to determine how many exactly. Not in the case of the camel anyway; the lion fares better.

The decoration in the case of the lion image probably consisted of a frieze of animal figures and vegetal motifs. Two different hypothetical compositions should be considered, based on representations of lions on cut glass and rock-crystal vessels from the 10th–11th centuries. The first variant of the composition has three lions sitting in line, from left to right, between them a vegetal motif [Fig. 4 top]. Known examples depict lions one after the other, but walking, as on two facet-and linear-cut mallet-shaped bottles. One of them is the so-called “Sphinx Bottle”, from the cargo of an early 11th-century shipwreck off the coast of Turkey at Serçe Limani (Cullen and Lledó 2009: 191, 197–203, Fig. 16-4. DR 154) [Fig. 5a]. Another very good analogy are the figures

of lions on a bottle from a glass cache found at Şabra al-Manşūriyya near Qairouan, where the animals are depicted in the same position. The vessel is dated to the end of the 10th–early 11th century (Foy 2020: 89–90, 95–96, Fig. 36. Sb22, thought to be made either in Tunisia or in the Syro-Palestinian region) [Fig. 5b]. On these vessels, the lions alternate with a star- or palm-like motif, respectively. An amber-coloured linear-cut beaker, the so-called “Lion Tumbler”, also from Serçe Limani, shows two lions walking, one in front of the other, from right to left, but with no decorative motifs between them (Kitson-Mim Mack 2009: 64–67, Fig. 4-11. BK 87 and Fig. 4-12. BK 87, Color pl. 10, and three other fragments with incomplete figures of lions) [Fig. 5c].

In the second compositional variant, the frieze could contain two pairs of heraldically sitting lions with a vegetal motif between them [Fig. 4 bottom]. The best parallels for such a composition are provided by the decoration of rock-crystal ewers, made about the year 1000, and generally attributed to workshops in Fatimid Cairo. One of them, housed in the treasury of San Marco in Venice, is carved with a couple of lions sitting on

either side of an arabesque, a complex design of palmettes and scroll- and stem-work, and a dedicatory inscription to the Fatimid Caliph al-'Aziz Bi'llāh (975–984: 216–219; Inv. No. 124), while another one,

the Francis Mills Ewer in the Keir Collection, displays a couple of hunting cheetahs restrained by link-chains, sitting on either side of a foliate design (Morero et al. 2017: 119–120, Fig. 2).

## DATE AND PROVENANCE OF THE VESSELS

The fragment with a camel image is a surface find, hence undatable by its archaeological context. In turn, the broken fragment with a lion representation was found during the exploration of the Islamic cemetery occupying the site in the 11th–12th centuries (the so-called Upper Necropolis phase; Majcherek 2001; 2002). The complex stratigraphic situation of the cemetery, marked by numerous successive burials,

robbing pits, etc., makes the chronology of individual layers and accompanying finds difficult to establish and often far from precise. The fragments with a lion and a vegetal motif were found in Sector H [see Fig. 1], in the Islamic burial horizon excavated directly behind auditorium F (one of the 22 late antique lecture halls, the only such remains of an ancient academic institution uncovered to date; for the results of the Pol-

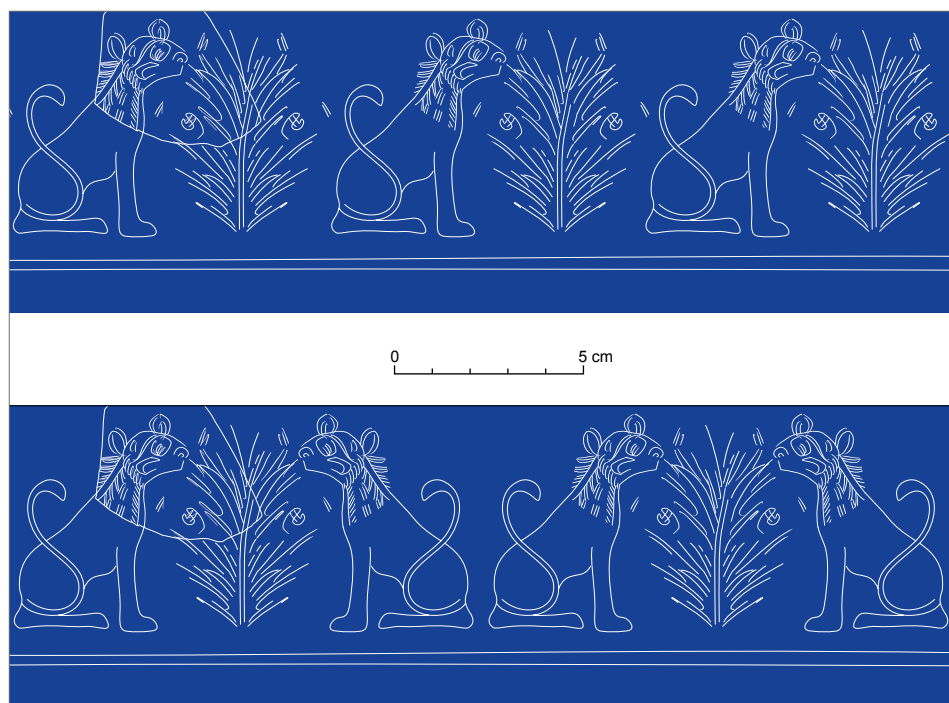


Fig. 4. Two variants of a tentative reconstruction of the decoration of a scratch-engraved glass cup with lion image from Kom el-Dikka, based on a surviving fragment. FReg. 169/08 (PCMA UW | drawing reconstruction M. Momot)



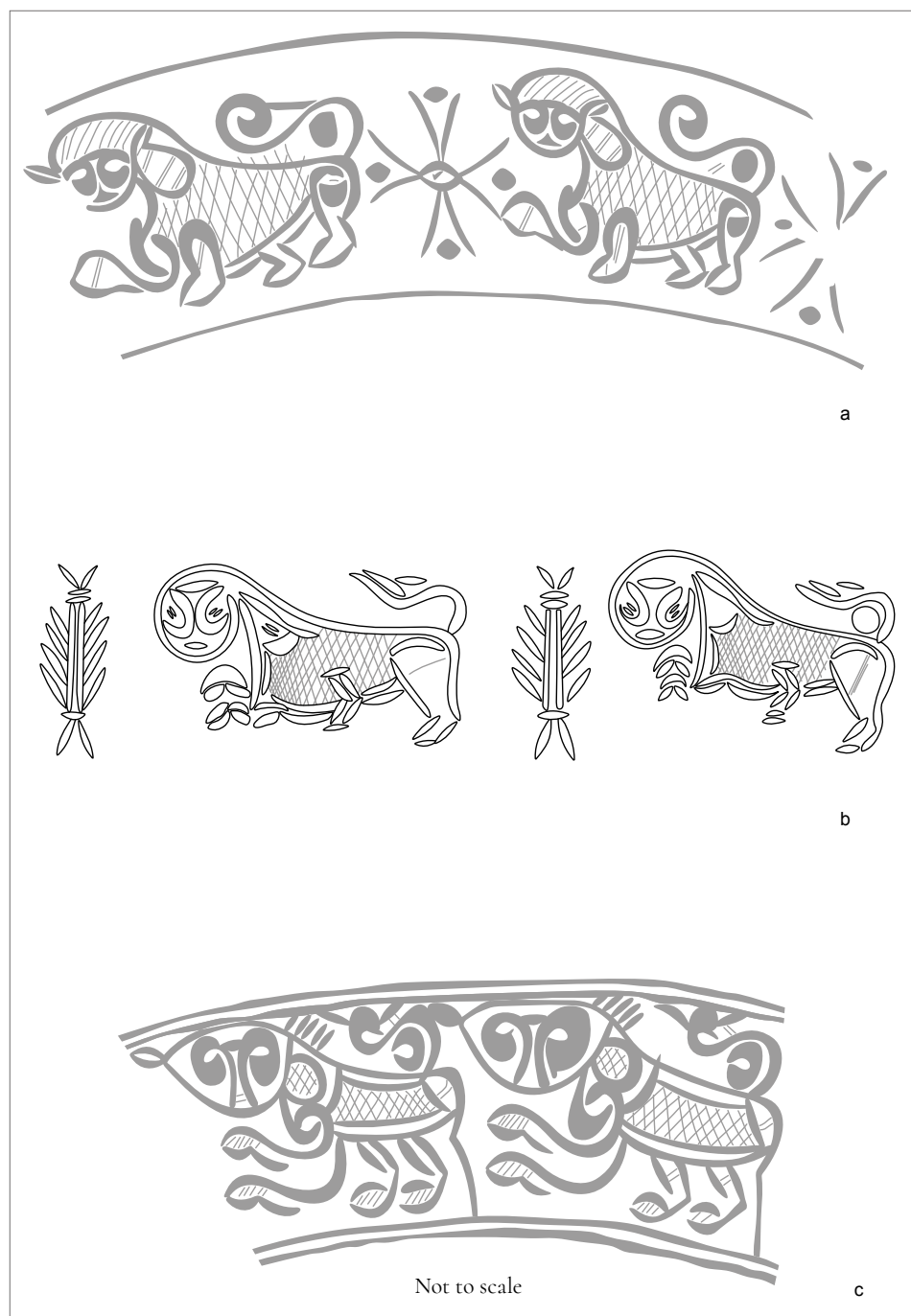


Fig. 5. Lion imagery on glass vessels: a – bottle from Serçe Limani; b – bottle from Sabra al-Mansūriyya; c – beaker from Serçe Limani (After: a – Cullen and Lledó 2009: Fig. 16-4. DR 154; b – Foy 2020: Fig. 36. Sb22; c – Kitson-Mim Mack 2009: Fig. 4-12. BK 87 | drawing M. Momot) (not to scale)

ish expedition from the Polish Centre of Mediterranean Archaeology University of Warsaw see, e.g., Majcherek 2007; 2010). The Islamic stone-built cist tombs and random grave-pit internments were made in a layer of ash and slag yielding pottery mostly of 10th–11th century date. The glass, however, ranges in date from the 4th century to the 10th. Considering the shape of the cups, typical of drinking vessels of 8th–9th-century date, as well as the scratch-engraved technique characteristic of this period, the fragment should be dated most plausibly to the 8th–9th centuries.

One of the issues raised by the discovery of these two fragments is their origin. It is tempting to link these frag-

ments with Alexandria, since the city's well-established glass industry was still vibrant in the early Islamic period, as indicated by the evidence from Kom el-Dikka.<sup>2</sup> However, considering the quality of the design in both cases, standing in stark contrast to the rather sketchy drawing and noticeably crude incising of the scratched decoration on an overwhelming majority of fragments from Kom el-Dikka, it could well be that the two vessels were products not of the Alexandrian industry, but rather a more broadly understood Egyptian or Syro-Palestinian work, in similarity to most of the published examples of scratch-engraved glass.

## ZOOMORPHIC MOTIFS ON EARLY ISLAMIC SCRATCH-ENGRAVED GLASS

Despite the wealth of animal imagery on early Islamic glass vessels, including both real (birds and quadrupeds) and fabulous creatures (harpies, griffins, senmurvs, sphinxes), executed in a range of techniques, zoomorphic representations are extremely rare on scratch-engraved glass. Only seven fragments with such motifs are attested from the Islamic world, and the repertoire is limited to birds (4) and a griffin-like animal, and just one case of a fish. One of the images is difficult to identify.

Two large confronted, long-tailed birds, separated probably by a thick stem, appear on the interior of the base

of a large brown dish or bowl from the al-Sabah Collection, Kuwait (LNS 56 KG) (Carboni 2001: 81, No. 17d; 9th century, either Syrian or Mesopotamian provenance). In my view, these are peacocks, because their long feathery tails are tipped with characteristic “peacock’s eyes”. The interior of the base of a large blue plate in the Israel Museum, Jerusalem (Brosh 2003a: 363, No. 490 [85.16.193], 9th century) bears a bird image that is most like a standing peacock with spread tail. A bird is shown in front of a plant, and a head of a bird with part of a stem and leaflike motifs

2 Glass constitutes one of the largest groups of finds in the excavated material from this period. It was ubiquitous in everyday life, occurring as tableware, vessels for storage and serving, cosmetic or medicinal containers, lighting devices, and windowpanes. The local origin of an overwhelming majority of glass vessels is strengthened by their simple shape, poorer workmanship, and natural bluish-green glass fabric of noticeable low quality.

can be seen on two fragments of deep blue cups from the Corning Museum of Glass (Whitehouse 2010: 19, 26, Nos 9 [CMOG 51.1.110] and 25 [CMOG 51.1.111], 8th–9th centuries).

A griffin-like monster appears on a fragment of a large blue plate or dish in the Nasser D. Khalili Collection (Kröger 2005: 145, 152–153, Cat. 169 [GLS 239A] and Cat. 170 [GLS 239B], 8th–9th centuries,

from Syria-Palestine, probably Syria). Another fragment of the same kind of vessel bears the image of an animal that is not easily identified.

Last but not least, a fish with densely cross-hatched body is depicted in right profile on a fragment of a greenish-brown base in the collection of the Benaki Museum, Athens (39/2; Clairmont 1977: 76, No. 252, Pl. XX).

## CONCLUSIONS

Images of a camel and a lion on early Islamic scratch-engraved glass are hardly a surprise considering these animals' vital role in Islamic iconography. They are portrayed in an astonishing variety of artistic media and techniques, ranging from glass and ceramics, through furniture, textiles, carpets, and metalwork, to a variety of stone, wood and ivory carvings, not to mention miniature paintings and manuscripts.

Why would have these two animals been portrayed in particular? Camels are emblematic animals of the desert landscape, and have often been referred to from Islamic times—not without reason—as “ships of the desert,” or even more

emphatically in Arabic, as a “Gift from God” (*ata'Allah*). Egypt, the Arabian Peninsula and the Middle East as a whole are the native habitat of the dromedary and traditional lifestyles in these regions would never have developed without this multi-purpose animal (Bulliet 1975). Even today, camels provide the desert people with an array of products: meat and milk for food, leather, hair and wool for ropes, tents, blankets and coats, and dry dung as fuel. The animals' adaptation to harsh desert conditions and their propensity for long-distance travel made them highly valued as pack animals, particularly along the caravan trade routes.<sup>3</sup> Even to-

- 3 Camels as pack animals were also depicted, next to horses and donkeys, in the form of animal-shaped glass flasks made in Syria from about the 6th century to the 8th. Figures of standing animals carry atop their backs tubular glass tubes, single, double, or quadruple, intricately decorated with trailed threads and multiple handles, forming an openwork “cage”. These specimens, often called “dromedary flasks”, were used to store kohl, perfume or oils, and other expensive substances. They are very rarely reported from Egyptian sites (three fragments have been published from Fustāt; see Foy 2001: 154–155, Fig. 7: 3–4). Many of these animal-shaped flasks are preserved in museum and private collections worldwide: Metropolitan Museum of Art, New York, see Carboni and Whitehouse 2001: 112–113, No. 32 (1999.145), Syria, 7th–8th centuries; *Catalogue of the Constable-Maxwell collection* 1979: No. 352; Eliahu Dobkin Collection, see Brosh 2003b: 338, No. 441, 8th century; *Ancient glass from the Shlomo Moussaieff collection* 2016: 74, No. 303, about 7th–9th centuries, and No. 303, about 6th–8th centuries; Nasser Khalili Collection, see Goldstein 1995: 40–41, Nos 18 (GLS 597) and 19 (GLS 598), probably Syria, 7th–9th centuries.

day entire desert cultures depend on this animal. The camel remains an important part of some local economies, lifestyle and folklore in large parts of Africa and throughout the Middle East, and also in Egypt. The camel market in Shalateen, where Sudanese herders bring their camels to sell to Egyptian traders, is a good example [Fig. 6].

Regarding the lion, it was portrayed as a universal symbol of power, majesty and royalty (Adey 1993).

Considering the wide variety of animal depictions on various media during the early Islamic period and the significant number of published scratch-engraved glass, the very limited presence of zoomorphic images on this category of glass is undoubtedly surprising. The finds from Alexandria contribute to the vocabulary of zoomorphic themes on scratch-engraved glass and provide fresh information regarding its distribution and origin.

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Fig. 6. Camel market in Shalateen on the Red Sea coast, near the border with Sudan (Photo R. Kucharczyk)

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