

Facts and Artefacts Art in the Islamic World

Festschrift for Jens Kröger on his 65th Birthday



EDITED BY

ANNETTE HAGEDORN AND
AVINOAM SHALEM

Facts and Artefacts
Art in the Islamic World

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Wadad Kadi

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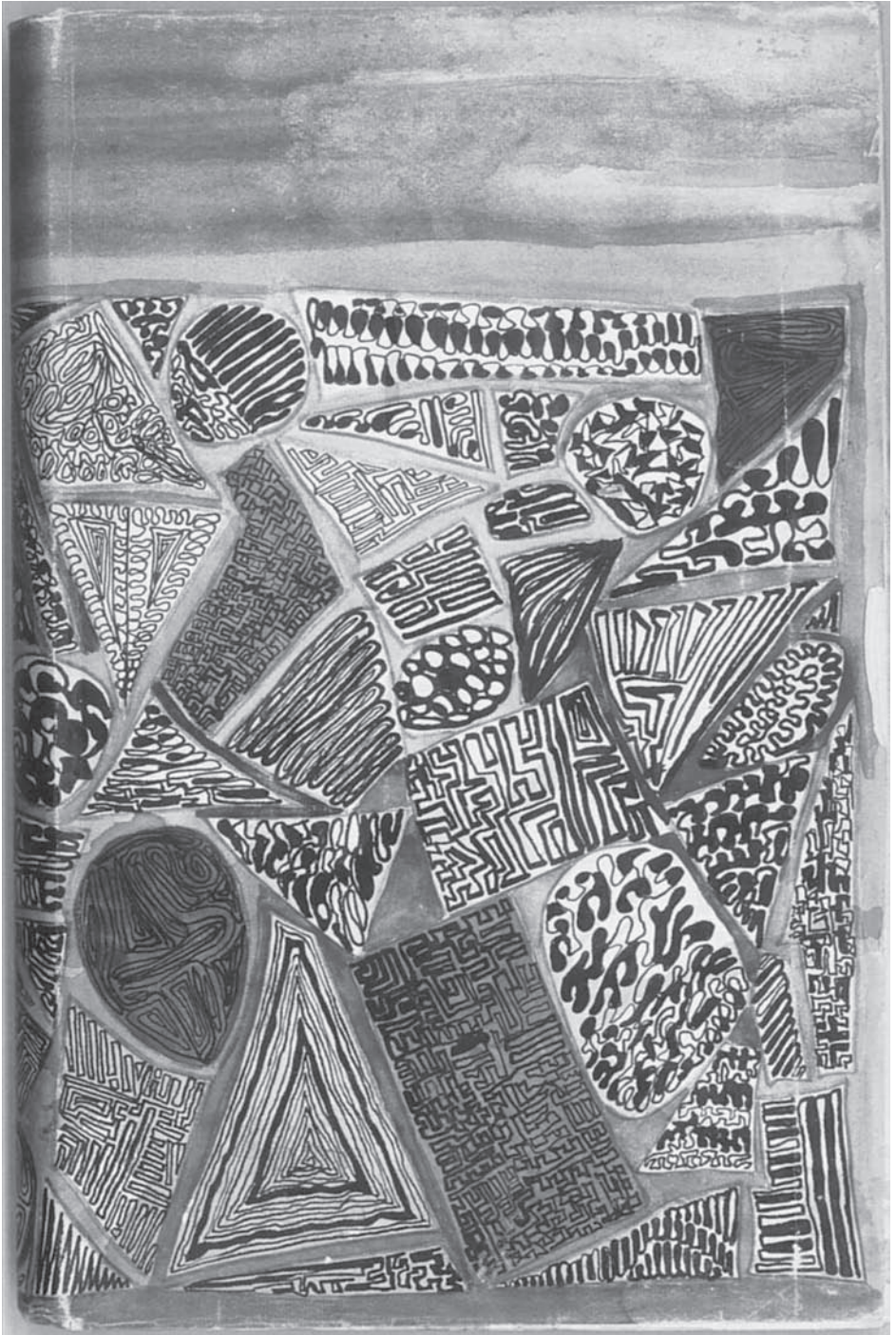
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Jens Kröger, watercolour and ink drawing, 1960.

INTRODUCTION AND ACKNOWLEDGEMENTS

The genesis of this book was a conversation between the two editors of this Festschrift in 2003. In fact it was the idea of Annette Hagedorn, who suggested, or rather insisted, that both of us should carry out this project. We both agreed that a scholar such as Jens Kröger absolutely deserves some form of concrete recognition. Our invitation to honour Jens Kröger with a Festschrift immediately met with great enthusiasm by numerous scholars, who rapidly responded and were very happy to express their gratitude by sending us their articles. This Festschrift is evidence of the appreciation, respect and esteem that many colleagues have for Jens Kröger. It is a tribute to his scholarship and personality. Our chief thanks go therefore to the authors and to Gerhild Kröger-Hachmeister, who kindly provided us with the dynamic and forceful watercolour depicted on the cover of this book.

The Festschrift includes twenty-five articles written by different international experts on Islamic art and other specialists of central and south Asian art. The wide-ranging contributions and the special focus on the so-called 'art of the object' mirror Jens Kröger's own interest. It is no wonder that eight articles in this book discuss objects made of glass and rock crystal, seven articles focus on objects made of metal and ivory and six articles are devoted to painting and the art of the book. But also his main interest in architecture and architectural decoration is clearly reflected in this Festschrift.

The generosity of several institutions and persons made this dream become reality. We would like to express our thanks to the Iran Heritage Foundation in London, the Society of Friends of Islamic Art and Culture (Gesellschaft der Freunde Islamischer Kunst und Kultur) in Munich, to Christian Erber (Engineering Consultancy) in Munich, and to Reza Bonakdar (Bonakdar Carpet Culture) in Fürth. Their financial support was a tremendous help in bringing this book into its final form.

The Festschrift has been almost three years in the making, and its completion would not have been possible without the help of further colleagues and friends. We are most grateful to John M. Simons who did the excellent and hard work of translating the German articles into English. We would also like to thank Finbarr Barry

Flood, who helped us to edit the several articles written by non-English speakers, and to Nadia Lawrence for her meticulous work as copy editor and especially for her excellent editorial suggestions. We are especially grateful to the help provided by Theo Margelony and Christine Brennan from the Department of Medieval Art and The Cloisters in The Metropolitan Museum of Art, who were always ready to help during the editorial work done in New York in 2006. Particular thanks go also to Eva-Maria Troelenberg and Mirela Ljevaković, PhD candidates in Islamic art, and Andrea Lerner from the Department of Art History of the University of Munich who helped us with great patience at the very last phase of the editorial work, helping in the most tiring job of double checking and the making of the last editorial corrections of the manuscript.

We were fortunate to work with Brill's editor, Trudy Kamperveen, and would like to express our thanks to Wadad Kadi, the chief editor of *Islamic History and Civilization*, who accepted this Festschrift to be published in the series. We would like also to thank the anonymous reader for the valuable suggestions.

The editors, Annette Hagedorn and Avinoam Shalem

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Regina Hickmann	Stefan Weber
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NOTE ON TRANSLITERATION

The spelling of foreign words and terms and the use of transliterated characters follow the system used in the *Encyclopaedia of Islam* (or that of the *International Journal of Middle East Studies*) with the following modifications: foreign words that have entered the language or have a generally recognised English form are anglicised, *j* replaces *ǰ* and *q* replaces *ḳ*. Since the papers in this volume are by scholars from a wide range of disciplines and fields of research, the use of transliterated characters is restricted only to the specific words and terms chosen by the contributors to be transliterated.

JENS KRÖGER: AN ACADEMIC PROFILE

Born on 21 April 1942, Jens Kröger lived in Cairo and Teheran as a schoolboy and thus became acquainted with the Islamic world at a very early age. After finishing his exams in a German boarding school in 1964 he began to study art history and archeology in Hamburg under the tutelage of Ulf Jantzen and in 1966 moved to Berlin with the intention of graduating in Islamic art history, choosing Berlin because of the presence there of the Museum of Islamic Art, which at that time was under the direction of Klaus Brisch.

Graduating in European art history because not even in Berlin was then a course offered in Islamic art history, he completed his studies with a dissertation on Sasanian stucco, which, thanks to Rainer Michael Boehmer, was published in 1982 and which provided an overview of the hitherto known Sasanian and Sasanian-influenced early Islamic stucco. Gerhild Kröger-Hachmeister's drawings added a congenial visual translation to the work. In order to collate for this work the stucco finds from the Ctesiphon excavations which had been transferred to Baghdad, Berlin, London and New York, study trips were necessary which led to the development of contacts with numerous museums in Europe, America and the Near East and with their academic staff, which were to prove invaluable for later projects. Stucco remained a field of interest in the years that followed, leading finally in 2000 to the participation in an excavation campaign in Merv. Preoccupation with Sasanian motifs and their modification in Islamic times resulted in reflections on the Sasanian pair of wings and the split-palmette, or developments in the stylisation of vine-grape motifs.

After completing his studies, Jens Kröger worked on a cataloguing assignment financed by the Stiftung Volkswagenwerk under the guidance of Marie-Luise Zarnitz as part of a project of "loose-leaf catalogues of Islamic art", for which he dealt with the unpublished glass and later with different groups of unpublished objects in the collection of the Museum of Islamic Art in Berlin. This work was presented to the public in 1986 in the exhibition "Verborgene Schätze".

On advice from Richard Ettinghausen, given in the late nineties, he then began a revision of the glass finds from the excavations in Ctesiphon with financial support from the German Research

Foundation. Due to his appointment to the staff of the Museum of Islamic Art in Berlin in 1985 and his subsequent responsibilities for museum work, this catalogue has not yet been completed. His activities with regard to the glass finds from the Ctesiphon excavations led to a request from Charles K. Wilkinson for him to write the catalogue of the glass finds from the American excavations in Nishapur, which was published in 1995. A series of essays followed, which attempted to illustrate the meaningfulness of dated finds of Islamic glass in China for Islamic glass art.

His duties at the museum, together with the acquisition of works of art under the museum's directors Klaus Brisch, Michael Meinecke, Volkmar Enderlein and Claus-Peter Haase, and the foreground task of handling works of art from the museum's collection for national and international exhibitions entailed a preoccupation with numerous pieces of art and led to work on Islamic pottery, carpets and the art of Islamic books. In 1986 Jens Kröger participated with personal commitment on the acquisition of miniatures and manuscripts from the Sarre collection, which awakened his interest in those people who had played decisive roles in the establishment of Islamic art history and eventually led to a paper on the border decoration in a 16th century Persian manuscript from the Sarre collection in 2004. Over the years this interest which had been aroused in 1986 resulted in papers on Ernst Diez, Kurt Erdmann, Ernst Herzfeld, Ernst Kühnel, Carl Johan Lamm and Friedrich Sarre as well as on the origins of the Museum of Islamic Art.

Although not appointed to the staff of the Museum of Islamic Art until 1985, he had been associated with the museum in both halves of the city, in both Dahlem and the Pergamon Museum, since 1968. This resulted in a profound intimacy not only with the works of art but also with the people and the history of the museum. For 25 years Jens Kröger was the contact person for students and academics from many countries in Europe and the United States as well as the Islamic world and the Far East. In his modest, friendly and quiet way he helped with the development of ideas for a great number of topics. Whenever asked, the editors received from him information on Islamic ivory works and Islamic metalwork.

The Berlin museum's involvement in the internet presentation "Discover Islamic Art" within the framework of the "Museums With No Frontiers" project led from 2002 onward to a cooperation between European collections of Islamic art and Islamic countries in

the Mediterranean region. As the representative of the Berlin collection he was called upon to make a contribution towards promoting a deeper understanding of the Islamic civilisation and Europe, not only in museums but also within the internet community.

For many years Jens Kröger was an institution at the Museum of Islamic Art. In the transitional period during the unification of Germany after 1989 he championed the merging of the collections of Islamic art in Berlin, which were divided between the eastern and western parts of the city. No wonder he was described on his 60th birthday by Claus-Peter Haase as the “Soul of the Museum”.

JENS KRÖGER'S LIST OF PUBLICATIONS

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1978

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GLASS, ROCK CRYSTAL AND GLYPTIC ART

WHAT THE BASKET CONTAINED:
SOME DATABLE GLASS BOTTLES FROM THE EASTERN
ISLAMIC WORLD

KJELD VON FOLSACH, COPENHAGEN

The study—and especially the dating—of medieval Islamic glass in particular and glass in general, is hampered by the fact that the material cannot be dated with the aid of scientific methods; there is no parallel to C-14 or thermoluminescence dating, which make it easier to determine the chronology of organic materials and pottery.

The chemical composition of a number of old glass objects has been analysed in recent decades, and when results of this work are collected in a database, they can help indicate whether a particular piece is modern or whether it can, with a certain degree of probability, be assigned to a specific historical period or geographical area. The method is still fraught with uncertainties, however.¹ One can only hope that these scientific analyses will prove truly fruitful once there is a sufficiently large body of data on commercially excavated objects (without a confirmed provenance) that can be compared with data on archaeological material.

It is naturally also possible to study ageing phenomena and traces left by tools and production processes on each piece of glass. All these aids would help point in some direction, albeit without yielding more concrete, positive results in themselves in most cases.

An increasing number of well-made forgeries have appeared on the art market in recent years. Although some of these pieces have fortunately been identified as forgeries, the concern remains that some might sooner or later find their way into reputable collections and the established corpus of Islamic glass. All this makes glass one of the most difficult fields in Islamic art.

Glass forgeries are often the most spectacular types, with impressive decorations or unusual shapes. At the other end of the scale is glass for everyday use that is almost anonymous; although the probability is great that these pieces are authentic, this type of glass

¹ See e.g. Henderson 1995 or Brill 2001.

is difficult to localise and date because the pieces are so simple and universal in shape and decoration.

For the most part, glass experts consequently find themselves in a situation that was common in most other fields of art history in the first half of the twentieth century. They are obliged to rely on archaeologically dated material, on style and production techniques, as well as on their own experience and common sense. Today, glass experts too can take recourse in scientific methods of study, the results of which are, however, still fairly meagre.

Jens Kröger, whose long career as a museum man and a scholar we celebrate in this Festschrift, has provided a survey of official excavations in the Middle East in his book on glass finds from Nishapur. He noted that the published material is not very extensive and is further marred by the fact that often only the most spectacular pieces have been brought to light.² The book on Nishapur differs precisely in this respect by covering everything, including undecorated, unpretentious utility glass, bottles and jars.

The seven little glass bottles (fig. 1) published in the present article have no stylistic features that clearly reveal their age or provenance, nor were they discovered in an official archaeological dig. They were, however, found under conditions and together with other pieces that make it possible to date and localise them with quite a large degree of certainty.

The entire find (fig. 2) comprises ten brightly coloured wooden boxes (The David Collection, 89a–j/2003), two containers of ivory and a lacquer-like substance (The David Collection, 89k–l/2003), seven little glass bottles (The David Collection, 89m–s/2003), four wooden daubers (The David Collection, 89t–x/2003), and the basket (The David Collection, 89y/2003) that held all the other pieces.

The basket and its contents were supposedly found at the end of the 1990s in the borderland between northern Afghanistan and southern Uzbekistan and thus share a putative provenance with a number of lacquered and/or painted wooden objects that were found in dry caves in this area and have mostly been dated to the 11th to 12th centuries.³

One of the boxes (89a) and the basket (89y) were C-14 tested. According to Jan Heinemeier, head of the Department of Physics

² Kröger 1995, pp. 3–9.

³ Folsach 2003, cat. nos. 1–7.

and Astronomy, University of Aarhus, the combined result—with a sixty-eight per cent certainty and assuming that they were made at more or less the same time—gives a dating between 1150 and 1260, which on average is slightly later than that of the other published wooden objects.⁴

At the time of acquisition, both the basket and its contents were badly soiled, covered among other things by a greyish-white powder that came from one or more of the wooden boxes. However, all items are very well preserved, and the glass has hardly any traces of weathering. Nearly all the boxes and bottles contained various powders, pulverised plant material, and more or less petrified substances, as if they all belonged to the same ‘home apothecary’—if that indeed is what it was.⁵ There is consequently every indication that the seven glass bottles are contemporary with the rest of the material and can be dated to the range given above.

With regard to shape, the four bottles that end in a ball-like knob are unusual and especially noteworthy (m, n, q and r). Like the clear bottle (o), these four cannot stand unaided and must have required some kind of individual holder or a rack for several bottles, like test tubes in a modern laboratory. In a rack, the knob and solid base would serve as a useful counterweight to the hollow body, a design familiar from certain types of glass lamps.⁶

The shape brings to mind the antique *alabastron* and perhaps especially the *amphoriskos*, but lacks the handles that were normally found at the neck or extended from it to the shoulders.⁷ The type is, however, rare or in any case has rarely been published in Islamic contexts. C. J. Lamm’s pioneering work *Mittelalterliche Gläser* (1930) does not feature a single example, even though the type without a knob at the base is represented.⁸ Curiously enough, three years ear-

⁴ The box, AAR-9639. Result: 855 ± 39 calibrated age 68.2% probability 1150–1255 AD.

The basket, AAR-9638. Result: 825 ± 41 calibrated age 68.2% probability 1180–1260 AD.

⁵ Six of the different powders were analysed by Professor Steen Honoré Hansen, Danish University of Pharmaceutical Sciences; two of them are organic and four mineral. Based on these analyses, nothing can be said with certainty about use, but a ‘home apothecary’ cannot be excluded.

⁶ Lamm 1928, pl. IV, no. 145; *idem*, 1930, pl. V, no. 2.

⁷ See e.g. Auth 1976, pp. 34–39.

⁸ Lamm 1930, e.g. pl. II, no. 1; pl. IV, no. 47; pl. XII, no. 5; pl. XXIX, nos. 3–4; pl. XXXII, nos. 5–7; pl. XLVII, nos. 1–4.

lier, the same author had published three “Tränenfläschchen” from excavations in Samarra that are quite closely related to the bottles in the David Collection,⁹ and in 1935, he published three more that were called ‘Syro-Egyptian type 5th-7th cent’.¹⁰ A polychrome bottle with a bulge on the neck and a knob at the base, but with an angular body, and attributed to Iran in about the 9th century was sold at Christie’s in 1999.¹¹ A slightly different, more compact, but related bottle was excavated in Nishapur and dated to the 9th to 10th centuries.¹² This bottle, in turn, has yet another relative in the Seattle Art Museum that has been assigned to 9th/12th-century Iran.¹³ Three related bottles from the Khalili Collection have been published recently. They all have the same basic shape with flared neck and a ball-like knob with a pontil mark, but one has a flattened body and the two others have additional trail decoration.¹⁴ The first two have been ascribed to Syria, 7th to 10th centuries, and the last to the eastern Mediterranean or Iran, 10th to 12th centuries.

Most everyday utility glass is manufactured as cheaply as possible and most often from a greenish or yellowish glass mass. The little group of bottles in the David Collection also has representatives of these colours (p, s and n), but moreover includes rarer ones, such as clear, manganese purple, and light blue (o, m, q and r), and it is striking that each bottle differs in colour from the others. In his book on glass excavated in Nishapur, Jens Kröger writes that clear glass and yellowish and greenish tones are by far the most common in this locale, that blues are rare, and that manganese purple and dark brown are not found at all.¹⁵

Another group of glass objects that has been known for many years, but has only appeared in earnest on the art market in the past decade, is also quite colourful. These are glass medallions with impressed decoration. Stefano Carboni has lately provided the most comprehensive presentation of these pieces in his publication on

⁹ Lamm 1928, pl. III, nos. 83, 85 and 87.

¹⁰ Lamm 1935, pl. IX, litra d–e, and pl. XVIII, litra a.

¹¹ Christie’s London 12/10–1999, *Islamic, Indian and Armenian Art and Manuscripts*, lot no. 321.

¹² Kröger 1995, no. 104. The bottle is described as possibly blown in a mould.

¹³ For an illustration of this bottle see *Journal of Glass Studies*, 10, 1968, p. 183, no. 19. The bottle is described as blown in a mould.

¹⁴ Goldstein 2005, nos. 55, 67 and 291.

¹⁵ Kröger 1995, p. 21.

glass in the al-Sabah Collection in Kuwait. According to Carboni, the first published medallions were excavated in Uzbekistan in the palace ruins in Old Termez (Tirmidh) near the border to Afghanistan in the 1930s, but many have appeared since.¹⁶ A number of the medallions contain the names of well-known Ghaznavid and Ghurid princes and atabegs and can with certainty be dated to the 12th century—at the latest to the 1180s.¹⁷

All the colours of the glass bottles in the David Collection, and others as well, are represented among the medallions, including dark brown, which—according to Kröger—like manganese purple was absent in Nishapur. Since the putative geographic provenance and the dating of the medallions, the bottles and the wooden boxes in the David Collection are more or less in agreement, it is probable that both groups of colourful glass can be attributed to one or more local centres of manufacture in present-day Afghanistan or southern Uzbekistan, centres that were active at least in the 12th century, and perhaps up to the advent of the Mongols in the 1220s.

As noted, not all the contents of the nineteen bottles and boxes have been analysed; it is nevertheless probable that the pieces belonged to a home apothecary. Each container differs in shape, colour or decoration from the others—an amazing variety that might have made it easier for the owner to avoid confusing their contents.

Catalogue

Bottle. The David Collection 89m/2003

H: 6.8; max. diam.: 2.7 cm.

Afghanistan or Uzbekistan, second half of 12th century.

Darkish manganese purple glass with a number of small bubbles.

Blown, tooled, and worked on the pontil.

Flared neck, round shoulders, and tapering body ending in a ball-like knob with a pontil mark.

Still contains a nearly petrified greyish-white powder.

Bottle. The David Collection 89n/2003

Max. h: 9.1; max. diam.: 3.2 cm.

¹⁶ Carboni 2001, p. 272.

¹⁷ Carboni 2001, p. 275.

Afghanistan or Uzbekistan, second half of 12th century.
 Yellowish glass with a few traces of manganese purple and a number of small bubbles. Blown, tooled, and worked on the pontil.
 Flared neck, round shoulders, and tapering body ending in a small ball-like knob with a pontil mark.
 Still contains a white powder and has a simple stopper of coarse, felt-like paper.

Bottle. The David Collection 89o/2003

H: 9.2; max. diam.: 3.3 cm.

Afghanistan or Uzbekistan, second half of 12th century.
 Clear glass with a very slight yellowish tone and many small and large bubbles. Blown, tooled, and worked on the pontil.
 Long, slightly flared neck, straight, slanting shoulders, and tapering body ending in a flat point with a pontil mark.
 Still contains traces of a brownish powder and has a simple stopper of coarse, un-dyed, tabby-woven cotton cloth.

Bottle. The David Collection 89p/2003

H: 5.6; max. diam.: 5 cm.

Afghanistan or Uzbekistan, second half of 12th century.
 Yellowish green glass with many small and large bubbles. Blown, tooled, and worked on the pontil.
 Flared neck, straight, slanting shoulders, and tapering round body ending in a flat base with a pontil mark.
 Still contains a greyish powder and has a stopper covered with a striped textile woven from orange, dark brown and beige cotton thread. The stopper has a tassel.

Bottle. The David Collection 89q/2003

H: 6.9; max. diam.: 2.3 cm.

Afghanistan or Uzbekistan, second half of 12th century.
 Pale manganese purple glass with many small and large bubbles. Blown, tooled, and worked on the pontil.
 Flared neck with a bulge near the round shoulders and tapering body ending in a ball-like knob with a pontil mark.
 The bottle is empty.

Bottle. The David Collection 89r/2003

Max. h: 7.7; max. diam.: 2.5 cm.

Afghanistan or Uzbekistan, second half of 12th century.

Light blue to turquoise glass with a number of small bubbles. Blown, tooled, and worked on the pontil.

Flared neck with a bulge near the round shoulders and tapering body ending in a small ball-like knob with a pontil mark.

Still contains a grey powder and has a simple stopper of coarse, felt-like paper.

Bottle. The David Collection 89s/2003

Max. h: 3.7; max. diam.: 2.5 cm.

Afghanistan or Uzbekistan, second half of 12th century.

Light green glass with a number of bubbles. Blown, tooled, and worked on the pontil.

Straight neck, round shoulders and near-cylindrical body with a flat base with a pontil mark.

Still contains a yellowish-grey powder and has a simple stopper of coarse, felt-like paper with traces of a black inscription.

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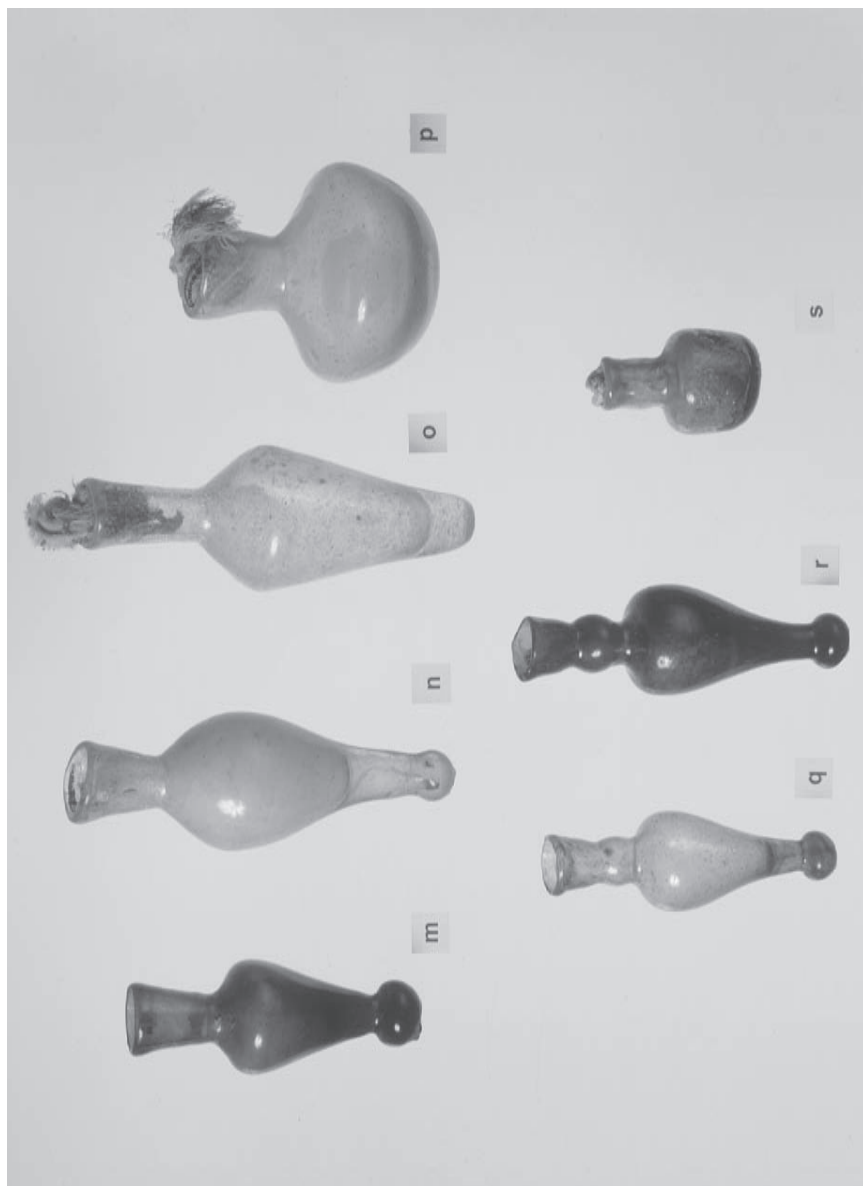


Fig. 1. Seven glass bottles. The David Collection, Copenhagen, inv. nos. 89m-s/2003, (photo: Pernille Klemp).



Fig. 2. The entire find: ten wooden boxes, two containers of ivory and lacquer, seven glass bottles, four wooden daubers, and a basket. The David Collection, Copenhagen, inv. nos. 89a-y/2003, (photo: Pernille Klemp).

FATIMID OR NOT FATIMID? THAT IS THE QUESTION:
SOME NOTES ON TWO DISHES IN THE TREASURY
OF SAN MARCO IN VENICE*

ERNST J. GRUBE, LONDON

The happy occasion of a Festschrift for Jens Kröger provides me with an opportunity to announce the planned publication of a corpus of Islamic rock crystal carvings on which I have been working for many years. It allows me to offer two examples of entries in this catalogue and, at the same time, it permits me to set straight an issue which has been weighing rather heavily upon me ever since the unfortunate publication of the catalogue to the Venice exhibition on Islamic art in Italian collections, in 1993.¹

“Unfortunate”, not only in the sense that the original catalogue texts, which I had written in English, had been incompetently translated into Italian (and had entirely to be retranslated, by Alberta Fabris Grube, for which no acknowledgment was ever made); but also because some rather serious mistakes crept into the final version of the catalogue, which—the authors never having received final proofs with the illustrations in place—were not discovered until after the catalogue was printed, at which time the damage was already done. As the English edition of the catalogue, in which corrections could have been made, was originally promised but never materialised, I found myself in the unenviable position of finding a serious mistake in one section of my contribution: the substitution, for one object in the Treasury,² of another, rather dubious, piece;³ this substitution was made by the editor of the exhibition catalogue. With one exception,⁴ no one seems to have commented on the piece illustrated;

* Editors’ note: This article has not been edited according to the guidelines of this Festschrift but rather published in the specific form it was forwarded to the editors, as requested by Ernst Grube.

¹ *Eredità dell’Islam, Arte islamica in Italia*, edited by Giovanni Curatola, exhibition catalogue, Venice 1993, Silvana Editoriale, Milano, 1993 (henceforth: *Venice Exh.* [1993]).

² *Venice Exh.* (1993), No. 53; *San Marco Tesoro* (1971), cat. no. 126, inv. no. 102.

³ *San Marco Tesoro* (1971), cat. no. 127, inv. no. 106.

⁴ See Rosanna Bianco, in *Federico II, immagine e potere*, (catalogue of an exhibition)

thus, not much harm appears to have been done. Nonetheless, the fact remains that anyone who may consult the exhibition catalogue will still find the wrong object illustrated and may not notice, as was in fact the case with Miss Bianco, that it is not the piece discussed in the text.

But now, especially in a short offering to honour an old friend and a highly respected colleague in the field, one who is particularly known for the admirable precision of his work, it is time to set the record straight. This seems especially urgent, with the plan for a corpus publication of all medieval Islamic rock crystals now in preparation.

I take this opportunity, therefore, to present two entries from this corpus, this time with the correct texts accompanying the correct objects (illustrations):

Venice, Tesoro di San Marco, inv. no. 102. (Fig. 1, A&B)

A Rock Crystal Dish

Cut and carved rock crystal

Egypt, 4th/10th century

Diameter: 201 mm; height: 53 mm

Bibliography: Pasini, *San Marco Tesoro I* (1885), p. 93; Lamm, *Gläser I* (1930), p. 207 (brief note in comment to no. 73.3); A. H. Christie, "Two Rock-Crystal Carvings of the Fatimid Period", *Ars Islamica*, 9, 1942, pp. 166-168, and fig. 1; Erdmann, "Bergkristallarbeiten" (1940), p. 138, fig. 20; Roman Ghirshman, *Iran*, Paris, 1954, p. 335, and pl. 46b; Erdmann, in *San Marco Tesoro* (1971), pp. 115-116, cat. no. 126, pl. CII (with the wrong identification of the object illustrated on the left, since, in fact, it is the piece illustrated on the right which is cat. no. 126); Gabrieli & Scerrato (1979), fig. 588; Alcouffe, in *San Marco Treasury* (1984), pp. 214-215, cat. no. 30, called "Abbasid, 9th-10th century (?)" ; *Venice Exh.* 1993, pp. 143-144, cat. no. 53 (with wrong illustration of Tesoro, inv. no. 106, instead of inv. no. 102); *Vienna Exh.* 1998-1999, pp. 131-132, cat. no. 104.

The small dish, standing on a fairly pronounced and slightly splayed base, is carved on the outside with a single floral scroll that circles

edited by Maria Stella Calo Mariani and Raffaella Cassano, Bari, 1995, p. 482, cat. no. 7.3, although she did not notice that the piece illustrated was not the piece described in the Venice exhibition catalogue.

around the centre of the dish. It has a rimless, gently outward-curving profile and stands on a fairly high base. The scroll has a set of half-palmette leaves that are fully articulated with an indication of the inward curling of the leaf, and sharply pointed ends, most of them accompanied by a short trumpet-shaped attachment at the point where the leaves spring from the stem. The surfaces of the leaves are incised as if to indicate the veins, and despite the basically abstract form of the scroll with its alternately inward- and outward-pointing leaves, there is a considerable amount of feeling for the true appearance of such leaves in their natural forms.

This small dish has been identified as Persian work, or as Egyptian work under strong Persian influence.(1) The leaf-form of the scroll appears, however, in a very similar manner on a number of Fatimid objects,(2) and there seems very little reason not to attribute the object to the early Fatimid period.

Notes

(1) Erdmann, in *San Marco Tesoro* (1971), pp. 115-116, cat. no. 126.

(2) See the small jar in the Keir Collection, published by Pinder-Wilson as "Egypt, second half of the 10th century", in *Keir Coll.* (1988), pp. 301-303, R. 10, and colour plate 61; the small flacon in the Treasury of Essen Cathedral, see Lamm, *Gläser I* (1930), pp. 209-210, no. 5, and II (1929), pl. 75,5, and Johanna Zick-Nissen, in *Osiris, Kreuz und Halbmond, Die drei Religionen Ägyptens*, (catalogue of an exhibition: Landeshauptstadt Stuttgart, Kestner-Museum Hannover), Mainz, 1984, no. 196, and colour plate p. 213, dated first half 4th/10th century; or the small bottle in the al-Sabah Collection in Kuwait, in *London Exh.* 1976, p. 126, no. 106, dated late 4th/10th-early 5th/11th century.

Venice, Tesoro di San Marco, inv. no. 106. (Fig. 2)

A Small Dish

Origin and date uncertain

Diameter: 119 mm; height: 2 mm

Bibliography: Pasini, *San Marco Tesoro I* (1885), p. 93; Lamm, *Gläser I* (1930), pp. 206-207, notes to pl. 73.3, and II (1929), pl. 73.3; *San Marco Tesoro* (1971), p. 116, cat. no. 127; Gabrieli & Scerrato (1979), fig. 589.

Alcouffe appears to accept this second small dish in the Treasury of San Marco(1) as rock crystal of Fatimid workmanship; it should be noted, however, that Erdmann(2) gives neither a date nor a clear attribution but calls it "forse arte occidentale sotto influo islamico".

I see from my notes, made after a discussion with Kurt Erdmann in 1962 in Venice, and with the object in hand, that he suspected it to be a modern glass substitute. Scerrato⁽³⁾ illustrates it as rock crystal but calls it “lavorazione di incerta classificazione”, which clearly reflects Erdmann’s opinion.

Since then, the piece has been erroneously illustrated in the catalogue of the Venice Exhibition of 1993, where it was substituted, by the editor of the catalogue, for the proper piece.⁽⁴⁾ There seems to be little question that the piece is not rock crystal but glass and that it is of later date.

A technical analysis will hopefully prove its provenance and date; the only reason why it is included in this corpus publication is that it appears already in the literature as a rock crystal piece with various attributions. A Venetian copy of this piece was even exhibited in an exhibition of Islamic art in Cairo in 1969, identifying the original, in Venice, as “Fatimid 5th/11th century”.⁽⁵⁾

Notes

(1) In *San Marco Treasury* (1984), p. 15, no. 30, fig. 30a.

(2) In *San Marco Tesoro* (1971), p. 116, cat. no. 127, and pl. CII (with the wrong identification of the object illustrated on the right while cat. no. 127 is actually illustrated on the left).

(3) Gabrieli & Scerrato (1979), fig. 589.

(4) *Venice Exh.* (1993), pp. 144-145, cat. no. 53.

(5) *Islamic Art in Egypt, 969-1517*, Exhibition Cairo, April 1969, section Loan Objects, No. X.

When the two pieces are compared side by side, there seems little question that the first (Tesoro inv. no. 102) (figs. 1 A&B) is the “real thing” and the second (Tesoro inv. no. 106) (fig. 2) a dubious, if curious, object the true nature of which still needs further scrutiny. So it would be a great pleasure if Jens would find the time, some day soon, to have a look at it and give me his verdict.

With all good wishes from a grateful friend!

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Fig. 1A. Rock crystal dish, Venice, Treasury of San Marco, inv. no. 102.



Fig. 1B. Side view of object in fig. 1A.



Fig. 2. Small dish, Venice, Treasury of San Marco, inv. no. 106.

AN EMERALD OF GLASS
THE EMERALD OF CHARLEMAGNE AT MITTELZELL,
REICHENAU

INGEBORG KRUEGER, BONN

As a by-product of my research in high lead glass—which in many cases is conspicuous by its bright emerald green colour—I began to collect material on emeralds of glass. The topic has turned out to have many very interesting aspects, far too many to touch on in one short article. So for my paper in honour of Jens Kröger I have picked out one example: the famous Emerald of Charlemagne in the church treasury of Mittelzell, Reichenau.¹

First, a short description: the Emerald is a thick slab of transparent bluish-green glass; it contains a few thin redbrown streaks and small dark inclusions but is otherwise very clear, with few bubbles. The shape is irregular, maximum length c. 63.5 cm, maximum width c. 34 cm, thickness varying between 2.5 and 5 cm. The weight is said to be c. 13 or 14 kg, it could be checked only together with its frame: 17 kg. Most of the outer edges are original, rounded, only at three corners bits have broken off. The slab is diagonally broken and has a few more cracks. The original underside (now the face) is plane (fig. 1). It may have been polished, but is nowadays dull and scratched, with a lot of graffiti (e. g. names, initials, years and a few sketches). The present underside (fig. 2) is uneven, has a diagonal ‘bulge’ (with partly sharp edges) and approximately at right angles to the outer rims (and to the ‘bulge’) appear many very thin parallel fissures (from shrinking while cooling?). This side, too, shows a lot of graffiti.²

¹ This article can only be a short preliminary report. A more detailed paper discussing some further aspects shall follow.

² I am very grateful to many colleagues from several institutions who made it possible that the ‘Emerald’ could be studied, helped with the examination and gave permission to publish the results: Alfons Weißer, Manfred Müller (Katholisches Münsterpfarramt Reichenau); Peter Schmidt-Thomé, Dagmar Zimdars, Barbara Volkmer (Regierungspräsidium Freiburg, Referat Denkmalpflege); Judit Zöldföldi, Otto Wölbart (Regierungspräsidium Stuttgart, Landesamt für Denkmalpflege, Ref.

In a well-known guide book of the eighteenth century, Johann Georg Keyßler's *Neueste Reisen durch Deutschland, Böhmen, Ungarn, die Schweiz, Italien und Lothringen* (Hanover 1740, ²1751, ³1776), the author gives a detailed description of this famous object, illustrates it with a simplified drawing, and mentions all the essential ingredients of the full-blown legend (fig. 3): namely, it is a very large emerald (surpassing even the Sacro Catino in size, as Keyßler writes later, describing the sights of Genoa), it was a gift from Charlemagne and, because of its enormous value, it is kept securely and in the utmost secrecy.³

Soon afterwards, in more enlightened times, the material of our Emerald, as well as that of many other famous large 'emeralds', including the Sacro Catino, was recognised as "simply glass".⁴ From the early nineteenth century the so-called Emerald of Charlemagne was more or less disdained and at best regarded as a curiosity because of its impressive size and age.⁵ In 1909 a truly fantastic hypothesis was proposed by Hermann Thiersch: he was convinced that this slab of glass was deliberately shaped and represented part of a hind leg from one of the huge glass crabs which, according to Arabic legends, were included in the foundations of Pharos near Alexandria.⁶ This is clearly impossible and has never been seriously discussed. But on the other hand Thiersch's description and the illustration in his book are based on personal examination and, as it happens, are better than all the others published so far (fig. 4).

A new and more important idea had been brought up by Franz Xaver Kraus in 1887.⁷ He suggested en passant that the green glass slab at Mittelzell, the so-called Emerald of Charlemagne, could "perhaps" be identical with the green mirror which was put "on" an altar in the church of Mittelzell by Abbot Witigowo (985-997), according

Restaurierung/Bauphysik); Karl Hans Wedepohl (Abt. Geochemie am Zentrum für Geowissenschaften, Universität Göttingen), Kurt Mengel (Technische Universität Clausthal-Zellerfeld).

³ Keyßler ²1751, p. 14 ("Großer Smaragd"), p. 321 ("Große Schüssel aus Smaragd").

⁴ Zahlten 1995, pp. 129-130.

⁵ See for example: Pahl 1811, pp. 292-293; Schönhuth 1836, p. 32, n.*.

⁶ Thiersch 1909, pp. 248-250.

⁷ Kraus 1887, p. 330: "... die Aufstellung eines die Eintretenden oder Vorübergehenden zeigenden grünen, goldumrahmten Spiegels auf einem Altar inmitten des Gotteshauses (V.417-427)—vielleicht des noch erhaltenen, früher für einen echten Smaragd gehaltenen, angeblich von Karl d. Gr. geschenkten Steines ...".

to the eulogistic poem by the Reichenau monk Purchart. In a more correct reading of Purchart's verses—the mirror is described not standing “on” an altar but included in a golden antependium in front of an altar (see below)—this identification was adopted by the authors of recent publications without question.⁸

The setting of the so-called Emerald of Charlemagne as a mirror in the centre of a golden antependium, at the end of the 10th century would be a unique and most remarkable thing. Is this identification possible and plausible?

Before Keyßler's book, the Emerald of Charlemagne is documented several times: in inventories of the church treasury, in letters (concerning, for example, its evacuation in times of war) and in some other contexts.⁹ As far as I could find, it is first mentioned in an inventory of 1547: “Item 1 grosser ingemachter schmarakt” (Item 1 large enclosed / framed emerald).¹⁰ This is repeated, with slightly different spelling, in another inventory from 1560 and a third, undated one, probably also from the 16th century.¹¹ In all these inventories the Emerald appears in a rather prominent position, among the reliquaries and relics, directly after the large shrines and before the Jar from the Wedding at Cana.

Taking a step back in time, we come to the detailed chronicle of the Abbey Reichenau written by Gallus Öhem between c. 1496 and 1508¹²—and, strangely, in that chronicle the Emerald is missing! It

⁸ Schroth 1962, p. 12; Haevernick 1973, p. 110; Berschin and Staub 1992, pp. 16; 20; Erdmann 1993, p. 52; Siebenmorgen 2002, p. 20; Hiller-König and Müller 2003, p. 16.

⁹ I am very grateful to Jutta Krimm-Beumann, Generallandesarchiv Karlsruhe, who helped me to find (and sometimes read) relevant documents and to obtain photocopies. The ‘Emerald’ is mentioned (for example) in: GLA 96/740; 96/742; 96/743; 96/744 (large coloured drawing of the ‘Emerald’, 18th century); 94/746; 96/749; 96/750; 96/751; 96/756.

¹⁰ GLA Karlsruhe 96/740. At the end of this inventory an older one is mentioned which seems to be not preserved (at least not in Karlsruhe). The frame indicated in this inventory can't be the present one with its 17th-century-style ornament. For an emerald of immense value one would expect a richer frame than this very simple one which probably dates from the time when the ‘Emerald’ had been found to be glass. (Keyßler in his guide book describes a red wooden frame.)

¹¹ GLA Karlsruhe 96/756 (inventory of 1560, p. 3, no. 44: “Item ain grosser eingemachter schmarackt”; 96/749 (inventory without date), fol. 2 v: “Item ain grosser eingefasster schmarackt”).

¹² Brandi 1893. Gallus Öhem, who had been priest at Radolfzell in the 1480s, stayed in the abbey of Reichenau during the time of Abbot Martin von Weißenburg (1491-1508) and wrote his chronicle of the abbey on this abbot's suggestion.

is not mentioned among the various gifts and donations presented to the abbey by many persons, including Charlemagne. Nor is it listed among the relics and reliquaries, where it might be included, in a similar position to that in the later 16th century inventories, particularly as Charlemagne had been canonised in 1165. The omission of the Emerald (of Charlemagne) in Gallus Öhem's chronicle suggests that neither he nor earlier authors, on whose works his chronicle is based, knew anything about a huge emerald presented by Charlemagne.

On the other hand, the glass of the Emerald is old, according to its composition (see below), and it is extremely unlikely that it was acquired by the monastery later than Gallus Öhem's chronicle, at a time when the abbey had long lost its importance and was fighting hard to keep its independence.¹³ Most probably the Emerald is connected with the prime early years of Reichenau, that is before the 11th century. If the huge Emerald had been kept at Reichenau for hundreds of years without being famous and widely known (and without being sold or pawned in times of need) there is only one explanation: it must have lived there 'incognito', under another name. In other words, in the beginning, as later, following the early 19th century, it was known to be a slab of glass. It will have been broken at some time and put away, and may have been more or less forgotten. At some time in the first half of the 16th century it must have been rediscovered and—bona fide or wishful thinking?—declared to be an emerald of superlative size.

Large 'emeralds' were great attractions in other treasuries—most of all the Sacro Catino at Genoa, which was an extremely important relic as well as being thought to be made of one single large emerald.¹⁴ In his book on minerals (*De natura fossilium libri X*, 1546)

¹³ Baier 1925, pp. 231-243.

¹⁴ Cf. note 4. Several formerly famous large 'emeralds' in church treasuries are long lost, for example the alleged knife-handle of Emperor Otto I which was included in a monstrance at Magdeburg (Agricola 1546, 289 [162]), or the "manubrium aspergilli" at Freising which Beatrix of Burgundy, wife of Emperor Friedrich Barbarossa, donated around 1160 (Meichelbeck 1724, p. 356; Braun 1932, p. 589); or the hanging bowl in the shape of a melon at Mainz, described in a source of 1253 (Bischoff 1967, p. 53; Haevernick 1973, pp. 116-117). Preserved in its original context and thus datable to c. 870 is the 'emerald' on the lid of the Servatius-reliquary at Quedlinburg (Kötzsche 1992, pp. 52-58; Peter 1998-99, pp. 53-92). This emerald of glass is considerably smaller than the one at Reichenau (14.9 x 2.9 cm) but a good parallel as to its early date and the history of its evaluation.

Agricola mentions several such big “emeralds”, but not (yet) the one at Reichenau.¹⁵ To own such an extremely large emerald must have seemed greatly to enhance the reputation of the abbey during the hard times in the first decades of the 16th century, before the monastery lost its independence and was incorporated into the bishopric of Konstanz in 1540. So the glass slab was framed and included in the church treasury and shown to visitors from that time on, as testified by the graffiti (fig. 5).¹⁶ Most probably the legend that the Emerald was a gift from Charlemagne came into being at the same time. The first written evidence for this legend, as far as I could find, dates only from around 1730-40, but by then it must have had a long oral tradition. In his (unprinted) annals of the abbey, the monk Januarius Stahel records for the year 813 that Charlemagne donated “Ulm” (which is well documented) and adds casually “together with the emerald which weighs 27 $\frac{3}{4}$ pounds ...” (for which he gives no evidence, assuming that it is well known).¹⁷

Objects alleged to be presents from Charlemagne are numerous; several of them were evidently made long after his lifetime, some may be from Carolingian times, but none can be connected with him beyond doubt, since written sources hardly ever describe individual presents to and from Charlemagne.¹⁸

There are miracle stories (composed in the 10th century) which describe how three of the most important relics came to Reichenau—all of them during the time of Charlemagne and from oriental countries: the “bones of St Mark”, the “Holy Blood relic”, and the “Jar from the Wedding at Cana”.¹⁹ There is no such story about the Emerald (at least not preserved), however when—as indicated—the broken glass slab was promoted to emerald, it would be only natural

¹⁵ Agricola 1546, p. 289 [162].

¹⁶ The graffiti would need closer examination by some expert—the earliest year among the inscriptions is 1594, but probably some of the initials are also from the 16th century.

¹⁷ GLA Karlsruhe 65/1098, “Annalium Monasterii B.M.V. & Marci Evang. in Augia divite. O.S.B. ab anno Christi 724 usque ad 1540 inclusive ...”, p. 22: “A.C. 813. A.90. Carolus Magnus donat Hettoni II. ejusque augiensi coenobio Ulmam, unà cum Smaragdo, in pondere habente libras 27 et tres libellas, qui computabatur ad pretium sexcenties mille florenum ...”. This passage was quoted by Schönhuth 1836 (cf. note 5) and from Schönhuth in more recent literature.

¹⁸ See among others Shalem 1996, pp. 38-43; Aachen 2003, passim.

¹⁹ Klüppel and Berschin 1974, pp. 115-117 (Berschin).

to place its acquisition at the same time as that of the other relics and to connect it with Charlemagne, the abbey's most famous patron.

Now back to the suggestion that the Emerald might be identical with the green mirror in an antependium which Abbot Witigowo had made for the main altar in the *Münster* of Reichenau in the seventh year of his office (991/92). Purchart of Reichenau, an eye-witness, writes about that antependium as follows:²⁰

Ut mos est tabulam cui tunc prefecerat unam.
 Fulgentem solidis auri de mole talentis.
 Per cuius medium speculum patet ecce serenum.
 Quod pariter uiridis uitrei manet atque coloris.
 In quo quisque suum ualet apte cernere uultum.
 Si quis in aecclesiam gratitur uel peruis ipsam.
 Coram se pronus naturae poscit ut usus.
 Ecce retro positum. rutilat spectabile totum;

These verses have been translated and interpreted in slightly different ways,²¹ but the main message is clear: in the centre of this antependium was a mirror (which reflected the faces of people entering the church and anything behind them) and this mirror was green and vitreous. Would it have been feasible to include the later Emerald, that very heavy and large slab of glass, vertically in an antependium?

If Witigowo's lost antependium was of similar size and construction as the famous one from Basle (now in Paris)²² it would be possible. The slab could have been fixed within a thick panel of wood behind the golden front which might also have covered parts of the irregular shape, showing just a rectangle. And when polished and placed before a dark background the glass would indeed reflect like a mirror.²³

Precious antependia were fairly normal ("... ut mos est ...") before the 13th century, as long as the priest used to stand behind, not before the altar, thus partially obscuring its front. According to con-

²⁰ Berschin and Staub 1992, pp. 54-57.

²¹ Schroth 1962, p. 11; Haevernick 1973, p. 110.

²² Golden Antependium, donated to the *Münster* at Basle 1019; now Paris, Musée National du Moyen Âge, Thermes et Hôtel de Cluny; golden front on panel of cedar wood. H: 120, W: 177 cm, panel 10 cm thick.—Braun 1924, II, pp. 96-97; Suckale-Redlefsen 2001.

²³ It still does reflect even in its present dull state—which made photographing difficult.

temporary descriptions they were often made of gold or silver and embellished with precious stones, enamel and/or figures in relief, usually with Christ (enthroned or standing) in the middle, sometimes with the Virgin Mary. Never, except in Purchart's verses, do we find a mirror mentioned as the centrepiece of an antependium!²⁴ Abbot Witigowo may, however, have had good reasons to chose such a unique ornament for that antependium.

The large green glass slab in this place would comprise various meanings. It could be seen as a huge precious stone, though not a natural but an artificial one: an emerald of glass. Imitations of precious stones made of coloured glass were generally rated lower than 'real' gems (or despised as fakes) but in objects for clerical use they were accepted as substitutes as long as they had the right colour and transparency.²⁵

Within descriptions of emeralds there is one topos often repeated since Pliny the Elder's *Natural History* (book XXXVII, c.16): those which are flat reflect images as mirrors do ("Quorum vero corpus extentum est, eadem qua specula ratione supini rerum imagines reddunt" or in the words of Isidorus: "Cujus corpus si extentum fuerit, sicut speculum, ita imagines reddit").²⁶

This was very probably familiar to the monks of Reichenau in Witigowo's time (as it was still to Agricola in the 16th century²⁷), and so for them the large flat emerald (of glass) in the antependium represented not only a gem but also a mirror (and it was mentioned as such by Purchart).

The mirror as well as the emerald were charged with deep if rather vacillating meanings, and an emerald-mirror comprised the potential of both ideas.²⁸ In this case, considering its position, it will have been relevant that mirror and emerald could both symbolise either Christ or Mary; as already mentioned, the centre of the antependium is exactly the place where Christ is normally represented, or sometimes Mary.

²⁴ Braun 1924, II, pp. 90-97.

²⁵ See for example Jülich 1986-87, p. 112. Already in 811, in an inventory of the Benedictine monastery at the Staffelsee, are mentioned a large cross of gold and silver and a gilded reliquary "cum gemmis vitreis" (Bischoff 1967, pp. 90-91).

²⁶ Isidorus Hispalensis (Isidore of Seville), *Etymologiarium liber XVI*, c. VII.

²⁷ Agricola 1546, 289 [163].

²⁸ Meier 1977, p. 486.

Replacing Christ, the mirror would represent an exemplary mirror of perfection, truth and virtue, in which man should see or control himself and strive to emulate. It might also remind him that he can perceive the glory of God only indirectly, as in a mirror.²⁹

As a symbol for Mary the mirror may have indicated that She is both an image of God and an example or mirror of virtue. The mirror as her epithet and attribute had been familiar since early Christian times, the main tertium comparationis being that of purity (“speculum sine macula”).³⁰

Like the mirror, the emerald also could be symbolic of Christ or Mary.³¹ Here the meaning was derived mainly from the emerald’s colour; the green stands for vegetation, vitality and immortality and is paralleled to faith, hope or Christ. The colour and transparency of the emerald are also compared to water and linked with purity and chastity (of Mary, among others). It seems, however, that the symbolism relating emeralds with Mary became popular mainly from the 13th century onwards, whereas earlier authors mention the emerald mostly in connection with Christ.³²

We can’t know for sure how Abbot Witigowo and his contemporaries saw the green mirror in this antependium. It is tempting to relate it to Mary. She was, after all, the patroness of the whole island of Reichenau and of the *Münster*, and the frontale was meant for her altar within that church. On the other hand, Christ was the usual central figure of an antependium and the emerald mirror would be a natural replacement or substitute for him.

The golden antependium with the green mirror is never mentioned again, as far as I could find. Most probably it shared the fate

²⁹ 1 Corinthians 13, 12 and 2 Corinthians 3, 18. For the importance of these verses as “an ur-text for the notion of God made visible in a mirror” during the Middle Ages, see Hancock 1988, pp. 91-92. Christ as an exemplary mirror: Grabes 1973, pp. 75-76.

³⁰ Salzer 1967, pp. 337-339.

³¹ Schreiner 1967, pp. 41-48; Meier 1977, pp. 486-488.

³² Apropos the connection between Christ—emerald (and mirror): a new type of “vera icon” of Christ—in profile—came up around 1500, deriving (according to the inscription on a medal) from an emerald with authentic portraits of Our Lord and Salvator and St Paul. This emerald had been presented to Pope Innozenz VIII by Sultan Bayezid II, whose predecessors had kept it with great care. So here the authentic images are kept “impressae” in an emerald which functioned like a “mirror with a memory” (as Oliver Wendell Holme said about the daguerrotype). Cologne 2005, p. 136 (with former literature).

of almost all the other frontalia made of precious metal: they were melted down in hard times, during a famine or to liquidate debts or to make other purchases. At that point the green mirror would have lost its context and meaning as symbol for Christ or Mary and as *gemma vitrea*, and it was probably also damaged. What was left was a large green glass slab, broken and chipped, no longer an emerald mirror with symbolical value, and not yet a solitaire emerald and alleged gift from Charlemagne having enormous monetary value.³³

A small sample of the 'emerald' could be analysed.³⁴ It was found to be soda-lime-glass of a composition very similar to that of glass finds from Carolingian contexts in several locations (for example, Paderborn, Fulda, Lorsch, Zalavar ...), that means made with mineral soda (natron) in the old Roman tradition, but containing slightly less of this soda and slightly more lime than Roman glass. This peculiarity indicates that it was made in post-Roman times but not later than the 9th or 10th century, when natron had fallen out of use and been replaced by soda ash from beach or desert plants.³⁵

It can be safely assumed that there was glassworking in most of the large monasteries of Carolingian and Ottonian times (and earlier). In many cases there is evidence for it either from written sources or

³³ Gallus Öhem evidently had no personal knowledge of that antependium and no suspicion that the large green glass slab (if he ever saw that) might have been part of it. He paraphrases Purchart's verses in a misleading way: "... Er buwet och enmitten in der kilchen ain altar, daruff satz er ain tafel von rottem gold, vast kostlich in der och ain blawer spiegel was, darinn sich ain jettlicher in die kilchen komende ersehen und nach art siner gestalt erkennen mocht ..." (Brandt 1893, p. 76). That means he is thinking of a golden retabel on an altar, with a blue mirror.

³⁴ The analysis was done by electron microprobe (K. Mengel, Clausthal-Zellerfeld), for comments on the result I am grateful to K.H.Wedepohl:

SiO ₂	70,10%
TiO ₂	0,21
Al ₂ O ₃	1,82
Fe ₂ O ₃	0,90
MnO	0,02
MgO	0,63
CaO	9,84
Na ₂ O	15,10
K ₂ O	0,23
P ₂ O ₅	0,04
Cl	0,64
PbO	0,05

(CuO, Sb below sensitivity).

³⁵ Wedepohl 2003 and 2005 (with earlier literature).

³⁶ For written sources see for example Rademacher 1933, pp. 3-4, 23. Archaeo-

from archaeological finds.³⁶ On the other hand it is still unknown where the raw glass was produced that was re-melted in the monastic glass workshops and worked into window glass, glass vessels and maybe other objects (enamel, *gemmae vitreae*, glass tiles, etc.). Was it imported from tank furnaces in Syria, Palestine or Egypt or from other Mediterranean countries? Or was it produced somewhere in the north-west of the Frankish empire?

For Reichenau there are so far no finds from archaeological excavations which prove that there was glassworking at the abbey during its golden age up to the 11th century.³⁷ But in comparison with other contemporary monasteries, and given the outstanding standard of art and applied arts at Reichenau (mural paintings, book illumination, goldsmith's works ...), glassworking could have been known there, too. And there is written evidence that supports this assumption. This is a letter which the abbot of the Benedictine abbey of Corvey wrote to (probably) Walafrid Strabo at Reichenau around 839, asking him to send "Matheum vitrearium" to teach the monks at Corvey how to make beautiful windows ("... summe fenestre exemplar ostendet ...").³⁸ So there will have been a glass workshop at Reichenau, and I think that our emerald might have been cast there, using chunks of imported raw glass.

Considering the shape and appearance of the Emerald of Charlemagne, it was most probably neither imported as raw glass in this form³⁹ nor brought to Reichenau as a precious gift; raw glass was

logical finds proving glassworking at monasteries or close to churches in Carolingian and Ottonian times are meanwhile known from many sites in several countries, for example from Paderborn, Corvey, Lorsch and Fulda in Germany, from Jarrow and Wearmouth in England, from St. Denis in France, from San Vincenzo al Volturno and Farfa in Italy. For literature see Paderborn 1999 and Wedepohl 2003 and 2005.

³⁷ There were excavations during the 1930s and 1970s in a few places northeast of the church but most of the area of the old abbey is not excavated. For the results of recent investigations by radar see Schmidt-Thomé and von der Osten-Woldenburg 2005.

³⁸ Zeumer 1886, pp. 370-371, ep. 13. This passage has been noted before, see Wentzel 1970, p. 371 (interpreting "vitrearius" as glass painter, for stained glass) and dell'Aqua 2001, p. 97 (in connection with glass wall tiles found at Corvey, interpreting "vitrearius" as glassworker in general).

³⁹ H. Wentzel supposed that the "Klotz" (block) of green glass at Reichenau might have been made at Byzantium and been given to the abbey by some member of the Ottonian imperial family as raw material for window glass (of a special green). Wentzel 1972, pp. 81-82.

not cast in large slabs but traded in irregular chunks or lumps (for common sorts of glass) or in rounded ‘cakes’ or tesserae (especially for coloured glass). And the ‘Emerald’ looks far too imperfect to be an important gift (or acquisition); its irregular shape and the many fissures indicate that it was rather the result of an experiment, not perhaps quite successful but nevertheless preserved on site.

There are a lot of unanswered questions concerning the early life of the ‘Emerald’ at Reichenau. What was the intention or commission of the glassworkers who managed to pour the contents of a rather large crucible on to a smooth surface?⁴⁰ Was the slab meant to be a huge flat emerald (of glass) from the very beginning? If so, why is the glass material just ordinary glass, slightly tinged by 0.9 % iron oxide (coming with the sand), without any deliberately added colorant (copper oxide or Roman green tesserae)? Being so large, was it perhaps intended as the mensa of an altar, an “emerald altar”, as described among the mirabilia of Rome?⁴¹ Was the imperfect green glass slab later adapted as a mirror in Witigowo’s antependium or was it especially made for that purpose?

Neither emerald real nor gift authentic, the large Emerald of Charlemagne at Reichenau remains a unique piece of great historical value.

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⁴⁰ Crucibles with a volume/capacity of c. 6 l = c. 15 kg glass melt were calculated from fragments found at Paderborn, Fulda and Zalavar (Wedepohl 2003, p. 149); this corresponds rather well with the weight of the ‘Emerald’ at Reichenau.

⁴¹ Ibn Khurradadhbih 1889, pp. 87-88, 115. The author (b. 820 or 825, d. 911 AD) describes among the marvels of Rome a huge church and, within, a very large altar with a mensa of emerald, supported by golden statues with eyes of rubies. (Lamm 1930, p. 159, mentions other legendary tables of emerald.)

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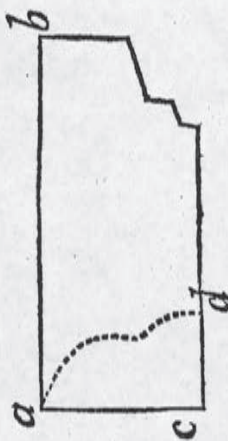
Fig. 1. The 'Emerald of Charlemagne', face, original underside. Glass, cast, in wooden frame. Treasury of the *Münster* at Reichenau-Mittelzell, inv. no. K-64-9-2 (photo: Barbara Volkmer).



Fig. 2. The 'Emerald of Charlemagne', present underside (photo: Barbara Volkmer).

14 IV. Brief. Beschreibung des Bodensees,

Das Kloster zu Reichenau ist wohl gebauet, und insonderheit daseibst der große Smaragd, welchen Karl der Große dahin verehret hat, merkwürdig. Es kostet aniso einige Mühe, ihn zu sehen, nachdem das Kloster vor vier Jahren bestohlen worden, und der Pater Prior, zu mehrerer Sicherheit dieses Schatzes, selbst wenigen Ordensbrüdern wissen läßt, wo er verwahret liegt. Man hielt meine Gesellschaft lange auf, bis man diesen Stein in des Priors Kammer gebracht, allwo er uns gezeigt wurde. Der Prior versicherte, daß er erst in der Nacht von ihm allein an seinen Ort zurück gebracht würde, und wechselte man auch mit diesem Plaze um, damit desto weniger jemand dahinter kommen möge. Er ist in einen rothen hölzernen Rahm eingefasset, größer als ein gewöhnlicher Soliant, wiegt acht und zwanzig und drey Viertel Pfunde, und sollen von Juwelirern für jedes Pfund fünfzig tausend Gulden geboschen worden seyn. Seine Dicke ist von zween Zollen und die Figur folgende:



Wo der Stein am längsten ist, nämlich in der Diagonallinie c - b, trägt er viertelhalb Mannspannen aus, a bis c ist anderthalb Spanne. Von a bis d ist ein Sprung oder Risse: auch sind etliche Anfangsbuchstaben von Namen auf den Stein gefriselt, welches man heut zu Tage billig nicht mehr leidet.

Fig. 3. Description of the 'Emerald of Charlemagne' in: Johann Georg Keyßler: *Neueste Reisen durch Deutschland, Böhmen, Ungarn, die Schweiz, Italien und Lothringen*, neue und vermehrte Auflage, Hanover 1751.

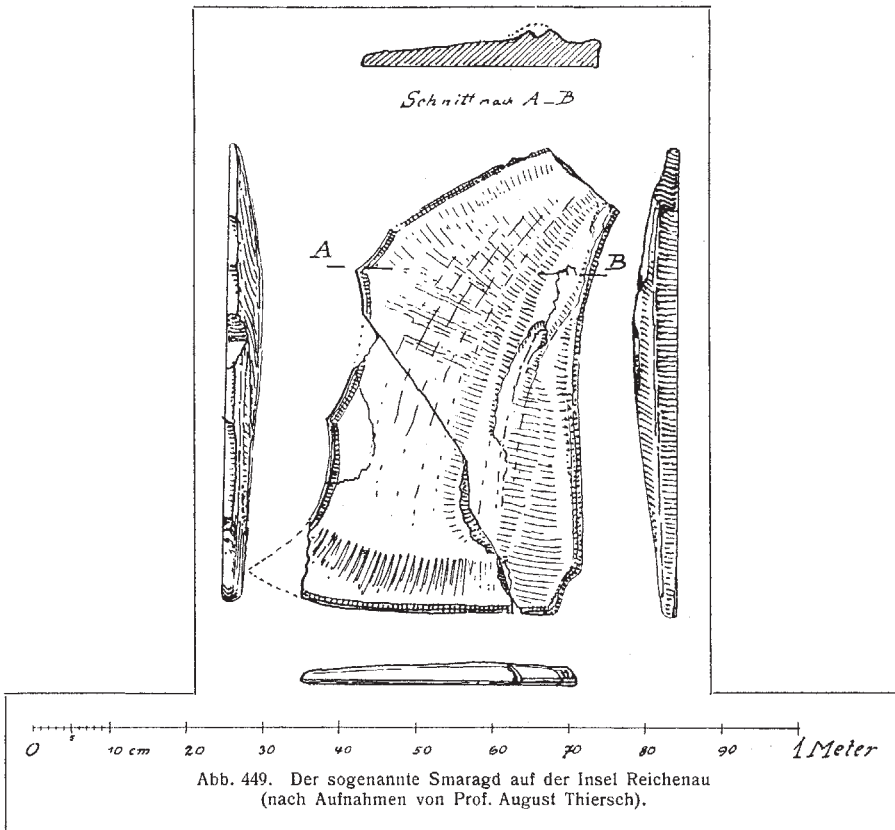


Fig. 4. Illustration of the 'Emerald of Charlemagne' in: Hermann Thiersch: *Pharos. Antike, Islam und Occident*, Leipzig and Berlin 1909, p. 248.

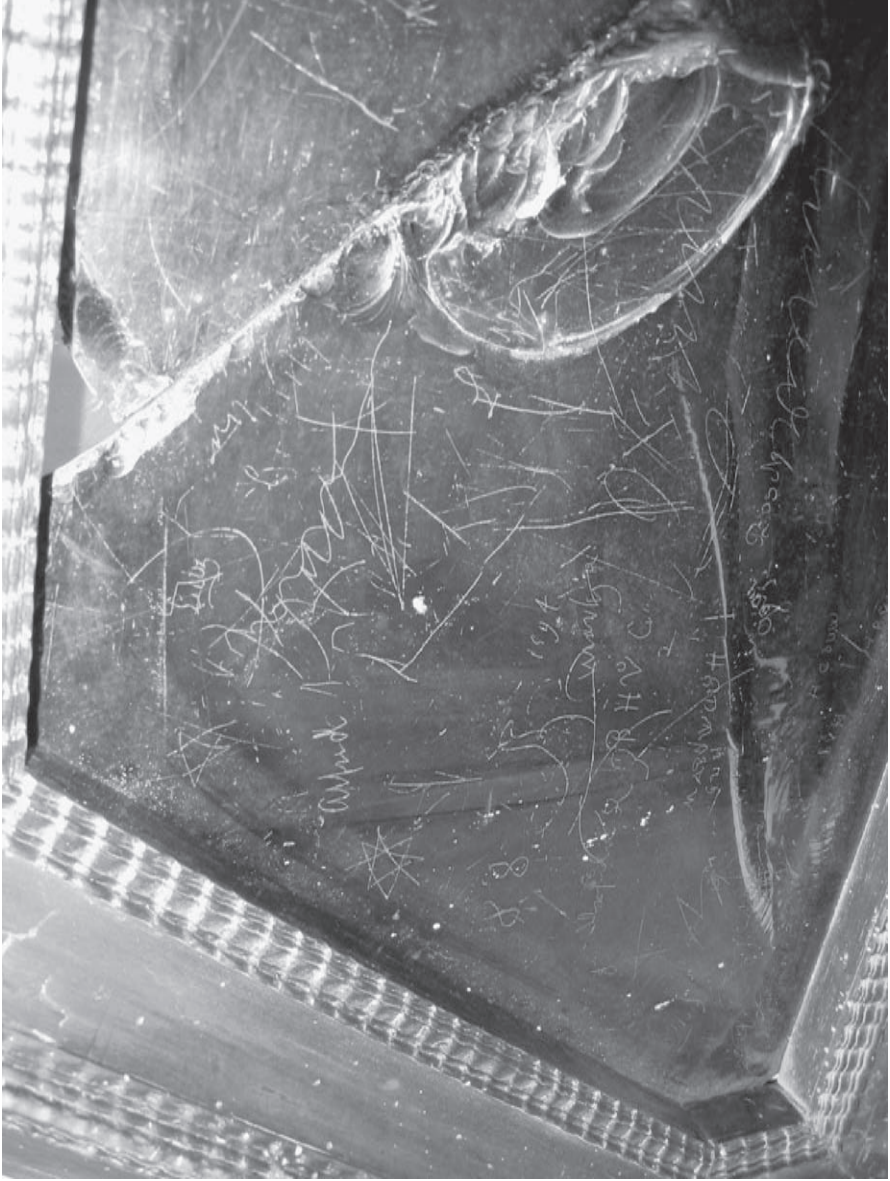


Fig. 5. Detail with graffiti on the 'Emerald of Charlemagne'. Treasury of the *Münster* at Reichenau-Mittelzell (photo: Judith Zöldföldi).

THE SACRIFICE OF ISAAC REVISITED:
ADDITIONAL OBSERVATIONS ON A THEME
IN SASANIAN GLYPTIC ART

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I. *Introduction*

Of all the Old Testament narratives that have been translated into pictorial form, the near-sacrifice by the Patriarch Abraham of his beloved son Isaac (Gen. 22.1-19) is the most popular in the art of the three monotheistic religions, Judaism, Christianity and Islam. For Jews, the binding of Isaac (the *akedah*) is a metaphor for Israel bound to the Torah; for Christians,¹ the story prefigures the actual sacrifice of God the Father of His crucified Son (and within early Christian artistic context also illustrates deliverance from death and therefore resurrection); for Muslims, the Sacrifice of Abraham's first-born Ishmael (*al-Dhabih*, Koran 37:99-109) represents the supreme act of devotion and submission to Allah's will. Visual depictions of the subject are known in a variety of media—painting, mosaic, stone (sculpture and seals), glass, bone and ivory, clay, and textile—in the Late Antique and early Byzantine world, c. 200-600 CE.² But in pre-Islamic western Asia, specifically Iran and those areas to the west under the Sasanian Empire (224-651), the Sacrifice of Isaac is known exclusively from glyptics, where it is recognizable as a distinct artistic topos.

Almost thirty years ago, I published *Christian Seals of the Sasanian Period*³ based on my study of seals in public and private collections. While documenting the types of winged figures that occur in Sasanian art, I kept finding certain images on Sasanian seals that looked

¹ The New Testament contains few, but significant, references to Isaac (Matthew 8:11; Luke 12:28; Romans 9:7; Galatians 4:28; Hebrews 11:17; James 2:21).

² The literature on the Sacrifice of Isaac in Christian and Jewish art is extensive. For works that will lead the reader to others, see bibliographies in Lerner 1977 for publications prior to the mid-1970s, and Gutmann 1984 and Kessler E. 2000 for more recent work in addition to older ones.

³ Lerner 1977.

unmistakably to be based on Old and New Testament themes; one of the most prevalent was the Sacrifice of Isaac. This identification has been accepted in most sigillographic studies, although it has been questioned or ignored by some writers.⁴ Here I review the reasons for this identification, most of it already stated in my monograph, consider the question of Christian or Jewish ownership of such seals and, most importantly, add to the corpus of the twenty-five seals I had identified as the Sacrifice another twenty-two (among which one, two or three might not belong [see catalogue in the appendix]). These additions indicate that, despite its rarity among the hundreds of Sasanian seals in public and private collections, the Sacrifice of

⁴ In his work on Jewish and Christian seals, Shaul Shaked has expressed scepticism about the identification of the Sacrifice (Shaked 1977, p. 18, n. 5; 1995, p. 243), discussing seal no. 8 in the catalogue at the end of this paper. In their reviews of the monograph Rika Gyselen (Gyselen 1979) and Philippe Gignoux (Gignoux 1980b, p. 469) also express doubts. In another discussion, Gignoux (Gignoux 1980a, p. 304), citing pl. IV:25 in Lerner 1977, acknowledges that the scene is one of sacrifice but insists that “il y a sans doute du bois sur l’autel, et le bélier est la victime”. That it is Isaac lying on the altar is discussed later in the current paper. Similarly, Gignoux and Gyselen in their catalogues of seals and bullae in public and private collections classify the Sacrifice of Isaac within their type 16, e.g., in Gignoux and Gyselen 1987, “Personnage en relation avec un objet inanimé” (p. 165 and pl. V; 246) or “Personnage impliqué dans une action” (pl. XVII), both of which terms refer to the same seal illustrated in pl. XVII. Interestingly, they acknowledge seals that depict a man standing with arms raised between two lions as the Old Testament theme of Daniel in the lions’ den (“Action bienveillante: ‘Daniel,’” p. 164 and pl. V: type 13: “Personnage agissant envers un animal”). Yet Gyselen accepts the scene on seal D. 1330 in the Bibliothèque Nationale (Lerner 1977, pl. IV: 24; Gyselen 1993, pl. IX: 16.4) as the Sacrifice of Isaac because the figure with the knife is dressed in the archaising tufted garment (the so-called *kaunakes*) worn by certain personages on Mesopotamian glyptics from the first millennium BCE and earlier (Gyselen 1998). Not all who have published seals depicting the Sacrifice of Isaac have ignored its correct identification: see Göbl 1979a and b; Finney 1995, p. 152 and n. 23; and Spier 1992, p. 164, no. 453.

Others who have written about Sasanian seals had noted some as Christian, the earliest writer being Chabouillet 1858, p. 191 (nos. 1330-1332), and the most recent until my publication Borisov 1939, pp. 235-242, and Bivar 1969, pp. 29-29. For references to other scholars who had recognised Christian subjects on Sasanian seals see Lerner 1977, pp. 1-2 and ns. 5-10, pp. 50-51. As I was working on my monograph, Shaul Shaked (Shaked 1977) was writing his article on Jewish and Christian seals and graciously shared his manuscript with me. Nearly a year after I had completed this paper, Rika Gyselen kindly sent me her important article on the seals and sealings that may have belonged to Christians living under Sasanian rule. It is gratifying to note that she recognises seals I had identified as showing the Sacrifice of Isaac as that motif, although she cautions that it is not certain that the motif was exclusively used for Christian seals (Gyselen 2006, p. 35).

Isaac was an even more popular subject among those living under Sasanian rule than suggested by my original catalogue.

It was while I was first collecting these images that I met Jens Kröger, who was working on what would become his important contribution to our knowledge of Sasanian stucco. Since then, Jens has been a respected and valued colleague, and I am pleased to make this offering on a subject that has such deep pre-Islamic and Islamic significance and which recalls our meeting as graduate students both studying Sasanian art.

II. *Iconographic Elements*

The elements of the story are Abraham; Isaac; the place of sacrifice (an altar or, following rabbinic tradition, Mt. Moriah);⁵ the ram; the thicket in which the ram is caught; and the hand of God (a substitution for the angel that occurs in Jewish and Christian images) that draws Abraham's attention to the ram.⁶ These elements are present in most representations of the Sacrifice in the art of lands west of the Sasanian empire, but in Sasanian glyptic art where we find the story depicted, the small size of the seal stones, as well as the particular talents of the seal carver working in this miniature scale, often leaves some of the elements that identify the episode missing. Thus, the hand of God appears on only one seal; the thicket, typically shown as a bush or large leafy sprig, is included in only nine. Isaac, the intended victim, is not readily discernable because he is abbreviated as a stick figure or reduced to two oblique lines; in fact, in almost half of the representations known to me, Isaac is completely absent! (fig. 7) Except for one on which the ram is missing,⁷ all the

⁵ In Genesis 22:2 God enjoins Abraham to take Isaac "into the land of Moriah; and offer him there for a burnt offering upon one of the mountains". The identification with Mt Moriah, where Solomon builds a temple (2 Chronicles 3:2), was already made by the time of Josephus (*Antiquities of the Jewish People* I, 13:1).

⁶ The hand of God, symbolising the *bat kol*, the voice from heaven, is found in many literary works from the first century on (Kessler E. 2004) and is shown in Jewish and Christian depictions of the Sacrifice, beginning as early as the third century. Later Christian and Muslim pictorial representations show the angel bringing the ram to Abraham, an image, according to Meyer Schapiro, that can be traced to a Jewish legend of the first century BCE (Schapiro 1943, p. 139); see also Gutmann 1984, p. 118 and n. 8).

⁷ Lerner 1977, pl. V:31 = Bivar 1969, pl. V: BD 5.

seals that can be identified as depicting the Sacrifice of Isaac show a standing male figure with the altar to one side and the ram to the other (the three doubtful ones are nos. 20, 21 and 22 [fig. 8] in the catalogue).

Why is this male personage Abraham and not a Zoroastrian priest or layperson about to sacrifice a ram? The depiction on the altar of a human figure should leave no doubt that Isaac is intended (figs. 1 and 2), but what of the other seals where the figure is not clearly shown? After all, the inclusion of the ram in all but the one image cited (see note 7) might suggest a blood sacrifice, in which the fat of the animal is placed on the altar to fuel the sacred fire.⁸ Although an altar is not a common device on seals, when it appears, as the sole image, with a single human figure or flanked by two figures, it generally supports the sacred fire (fig. 9).⁹ On the other hand, when instead of the fire we see two short, obliquely intersecting lines made by the seal cutter's wheel atop the altar, we are not looking at kindling wood but at an abbreviated rendering of Isaac (figs. 5 and 6);¹⁰ with the exception of the seal cited in note 7, this abbreviation occurs only on seals that contain the other main elements of the story: Abraham and the ram. Indeed, with this exception, the figure of Isaac, whether as a recognisable child or youth, stick figure or oblique lines, never appears on a seal if the ram is absent and only the standing figure (Abraham) and the altar are present. Further, regardless of how his body is rendered, Isaac always lies on the altar with his head closest to Abraham (figs. 2-4) or sits on it with his back to him (fig. 1) so that he cannot see his father with the sacrificial knife.

⁸ Boyce 1966, pp. 100-102.

⁹ Altars that do not bear the fire seem to refer to other cults and religions. Some have nothing on them, although their shafts are decorated with what may be ribbons, similar to those that decorate the fire altar on the reverse of Sasanian coins from the 4th century on (for example, Gyselen 1993, pl. XLII: 60.1-3; also Gyselen 1990, 256 and pl. II: 2-18, 22); others are manifestly Christian, with a Greek cross above and similar crosses flanking the altar (for example, Gyselen 1993, pl. XLII: 60.4-5). In addition to those seals published by Gyselen (Gyselen 1990) of fire altars and figures standing before such altars, see those now available from the Edward Gans Collection, University of California, Berkeley, www.ecai.org/sasanianweb/.

¹⁰ Finney 1995, 152 and n. 23, who includes a drawing in the form of "an oblique 'Y'" to illustrate this reduction of Isaac's body and notes with regret that Göbl (Göbl 1979a) did not underscore this point and that Gignoux (Gignoux 1980) denies it.

That Abraham and not a Zoroastrian is intended is also shown by the standing figure's position before the altar. The Zoroastrian worshipper always faces the altar to raise both hands with palms towards the burning fire or hold in one or each hand the *barsom*, the bundle of twigs used in Zoroastrian ritual and rendered on the seals as one or two long staves (fig. 9). In contrast, Abraham turns his head from the altar to look toward the ram *behind* him—exactly where the biblical text locates the animal (Gen. 22:13). This is the most dramatic moment of the story, when Abraham, his knife poised to slay Isaac, hears the angel of God call to him and turns to find the ram that will replace his son as a burnt offering; indeed, in many representations Abraham's arm is raised as if wielding the knife and sometimes the knife is actually visible (figs. 1 and 2).¹¹ To be sure, among the 47 seals that now comprise this corpus there are four on which the standing figure does *not* turn to view the ram but faces the altar; yet two distinctly show the child Isaac upon the altar (fig. 1),¹² the third has reduced the child to a stick figure,¹³ and the fourth is unclear, although the standing figure grasps what could be a knife rather than the barsom.¹⁴ Despite these anomalies, the format of a male figure who stands before an altar on which a small figure lies and who turns his head to glance at a ram that stands behind him should leave no doubt that Abraham's sacrifice is intended.

III. *Matters of Ownership Style: Christian or Jewish?*

As an important Christian visual theme, I had included all the seals with the Sacrifice of Isaac in my monograph, but since it is also a major theme in Jewish art, many of these seals might instead have been owned by Jews living under Sasanian rule, thereby making their ownership ambiguous. Following Shaul Shaked, we can consider unequivocally Jewish only those seals with Hebrew inscriptions or

¹¹ Also Lerner 1977, pls. IV: 29 and V: 31 and 32.

¹² The other is Ashmolean Museum, 1961.534, illustrated in Lerner 1977, pl. IV: 27, and Gignoux and Gyselen 1987, pl. V: 11.2 (1966.1229 given as the accession number).

¹³ Royal Ontario Museum, Toronto, D.1554 (Lerner 1977, Pl. V: 32).

¹⁴ Tiflis, Georgian State Museum, 65N (Lerner 1977, catalogue no. 43, with publication reference. The seal was set in a ring and found on the right index finger of a woman who was buried in the cemetery at Mtzkheta-Samtavro).

unmistakable Jewish devices (e.g., *lulav* and *etrog*);¹⁵ only one seal in our corpus (no. 8 in the present catalogue), then, is unquestionably Jewish as it bears the name Hillel, written in Hebrew. Only two other seals in the group carry inscriptions, both in Middle Persian: one, with the name Mihrēn,¹⁶ and the other, variously read as “This seal is valid”, or as “This seal (belongs to) Rāstēn” (fig. 10).¹⁷ But unless a name is undeniably Jewish (such as Hillel) or Christian, such as Jesus (Išō‘), which appears on several seals with different motifs,¹⁸ a seal, unless it also depicts specific symbols of the respective religions (i.e., the *lulav* and *etrog* or a Latin or Greek cross), could have belonged to an affiliate of either religion; further complicating the issue of ownership is that many Jews and Christians living in Persian territory bore Iranian names.¹⁹

Nor is the presence of a cross necessarily a mark of Christian ownership. Except for the cross as the central motif or as the accoutrement of a church dignitary or priest, a small cross in the field may refer to the seal owner’s religion or be merely decorative. I was certain in my publication of 1977 that the inclusion of one or more small crosses with arms of equal length on seals showing worshippers and Old and New Testament subjects indicated the former,²⁰ but I am less sure now, in light of seals with such crosses that either belonged to a Jew²¹ or with a motif that appears completely non-

¹⁵ Shaked 1995, pp. 239-240.

¹⁶ Lerner 1977, no. 32, inscription 16, p. 42; pl. IV: 25 = Gignoux 1978, p. 138, no. 4.43.

¹⁷ The first reading is that of Richard N. Frye (Lerner 1977, no. 55, inscription 17, p. 42; pl. V: 35); the second that of Philippe Gignoux (Gignoux and Gyselen 1987, MFA B3, pp. 285-286).

¹⁸ E.g., Gignoux 1980a, pp. 306-308, seal of a priest, no. 3 (pl. I: 2, standing man holding a tall cross); seals of laypeople: nos. 1 (pl. I: 3, but the image is a standing nude female! The crowded placement of the inscription suggests that the seal was reused, but why would a Christian chose this image?); 2 (pl. I: 4, a cross is the central device) and 5 (a couple with ribboned cross between them; Lerner 1977, pl. III: 17). Shaked (Shaked 1980, p. 240) notes that a seal with a Biblical name has an equal chance of being Jewish or Christian, “but in view of the fact that Jews did tend to use Hebrew as their script, we may take it that these seals are Christian unless proved otherwise”.

¹⁹ Shaked 1995, p. 240. The use of common formulas on the seals such as “Reliance on (the) God(s)” is also not a reliable indication of a seal owner’s religion.

²⁰ Lerner 1977, p. 11.

²¹ Shaked 1977, p. 25 and pl. IV: 2, which shows a man standing with arms stretched before him and flanked by crosses; the Hebrew inscription identifies the owner (presumably the man) as Yosef bar Nata.

Christian.²² Yet the frequent placement of a small cross above the hindquarters of the ram (here, nos. 10 and 11 [fig. 6]) or above both the animal's hindquarters and the altar (nos. 3 and 8)²³ suggests that a Christian identity is intended. Since the Sacrifice of Isaac had meaning for both Jews and Christians one might surmise that a cross could be added for a Christian patron. With a few exceptions, the carving styles of seals bearing the Sacrifice theme do not differ from those of other Sasanian seals, and just as the same workshops in the Holy Land produced glass vessels for Jewish and Christian pilgrims, seal cutters within Sasanian territory could have worked for members of the different religious communities, Jewish, Christian as well as Zoroastrian.²⁴

IV. *Exegetical Matters*

Regardless of which biblical religion their owners followed, Sasanian seals with the Sacrifice of Isaac conform to an artistic interpretation of the subject that is based on the earliest known portrayal of the theme, the Sacrifice that was painted on the Torah shrine of the synagogue at Dura Europos, executed in 244 (fig. 11).²⁵ In contrast to contemporary Christian representations which show Isaac kneel-

²² For example, the seal carved with a nude woman cited in n. 18. Still, I concur with Shaked's earlier observation that "when crosses are used on monuments of glyptic art, which are private in character, and where they do not continue any local artistic tradition, there is some presumption in favour of regarding them as indicating the personal religious inclination of their owners. The existence of a substantial Christian minority, and of the powerful Byzantine empire, must have made non-Christians realise that this was not a symbol to be used in a mere decorative manner" (Shaked 1977, pp. 20-21).

²³ And in Lerner 1977, pp. 37-38: nos. 35 (above the ram's head), pp. 36-38 (pl. IV: 29) and 46 for scenes with the Sacrifice of Isaac.

²⁴ Lerner 1977, pp. 67-68, n. 146, citing Barag 1971, pp. 45-51. Contrary to my thinking then, I see no reason why followers of different religions could not have shared motifs or "neutral" subjects; however, a subject such as the Sacrifice of Isaac with its very specific elements and meaning no doubt would have been avoided by Zoroastrians, for whom the fire altar would be a more appropriate theme for a personal seal.

²⁵ Gutmann 1984, p. 116. Dated by Carl H. Kraeling in the Dura-Europos excavation report (see Gutmann 1984, p. 116, n. 3; and Kessler E. 2000, pp. 75-76, ns. 3 and 14, for bibliography; Lerner 1977, p. 21. The synagogue was filled with earth during the Sasanian assault of 256 and its paintings preserved despite the Persian destruction of the city.

ing, crouching, or standing beside (or on top of) the altar,²⁶ this portrayal closely follows the biblical account that Isaac was “bound and laid on the altar” (Genesis 22:9); the only exception to the biblical account still known to me is the 3rd- or 4th-century seal in the Museum of Fine Arts, Boston, which shows Isaac seated upon a rocky knoll or masonry altar and is executed in a style influenced by western glyptic art (fig. 10).²⁷

In some other aspects, the Sacrifice of Isaac as it appears on Sasanian seals follows a Jewish pictorial tradition or “artistic exegesis” (one that begins at least as early as Dura Europos and continues through the 6th century with the synagogues at Sepphoris [early 5th century] and Bet Alpha [6th century] with Isaac appearing as a child-sized figure [an exception may be fig. 1 where he looks full-grown].)²⁸ This conflicts with rabbinic literary tradition that transforms Isaac into an adult so that he becomes an active participant and willing victim. The visual prominence given to the ram in the synagogue representations, as well as on the seals, is also in conflict with the literary *midrash* which does not stress the animal’s role. As previously mentioned, the ram appears behind Abraham and next to a tree, to which in the synagogue representations it is tethered and which, on the seals, is sometimes included (fig. 4). A key visual image, the ram emphasises the sacrificial aspect of the story and its consistent inclusion on the seals shows its centrality to the story, so much that the figure of Isaac can often be dispensed with. Thus, in their depiction of Isaac as a child and consistent inclusion of the ram, the Sasanian seal carvers appear to have followed the Jewish

²⁶ Lerner 1977, p. 20 with citations; see also Kessler E. 2004, pp. 156-163 with bibliographic citations and convenient illustrations of the earliest known Christian depictions, from the Callixtus (first half of the 3rd century) and Priscilla (late 3rd century) Catacombs, Rome, to San Vitale, Ravenna (6th century). Such positions derive from classic models.

²⁷ MFA 65.1649; Lerner 1977, no. 55: pp. 19-21, and 39. See n. 17 for the alternative readings of the inscription.

²⁸ Kessler E. 2000 and 2004. The existence of an “artistic exegesis” is central to Kessler’s work which emphasizes the exegetical relationship between Judaism and Christianity in the first six centuries CE and documents both the rich diversity of Jewish and Christian interpretations of the Sacrifice (artistic and textual); in terms of artistic representations, it shows how Jewish and Christian representations often diverge from interpretative texts to suggest that “artists were involved in their own exegetical encounter” (2004, p. 173). A presumed “cross-fertilisation” of Jewish and Christian artistic traditions over several centuries is also treated by Herbert L. Kessler (Kessler H. 2000).

and Christian exegetical artistic circles prevalent in areas west of Sasanian-controlled lands.

V. *The Question of Usage*

As for actual use of these seals, I had suggested that in addition to the religious symbolism of the Sacrifice, its popularity (as well as that of Daniel in the Lions' Den) might be accounted for because of its resemblance to the Sasanian worshipper before an altar (or with Daniel to the ancient Near Eastern hero between lions)²⁹ and could thus be used without calling attention to its owner's religious affiliation for fear of persecution. But I now know of four bullae that bear the image of a cross (from Dvin, the capital of Armenia during Sasanian times,³⁰ Ak-depe in southern Turkmenistan,³¹ the port of Mantai, in northwest Sri Lanka,³² and one unexcavated³³); another bulla from Ak-depe with Daniel in the Lions' Den³⁴ and from Takht-i Suleiman in northwestern Iran bullae with the busts of a couple flanking a mountain (?) surmounted by a cross³⁵ and with what may be an abbreviated rendering of the Sacrifice of Isaac (fig. 8). These bullae, in particular those decorated with the unambiguously Christian symbol of a cross, are evidence that seals with Jewish and Christian motifs were used publicly in administrative and economic transactions along with seals with more generalised or "Zoroastrian" images.

²⁹ Lerner 1977, pp. 28-29.

³⁰ Kalantarian 1996, p. 113 and pl. 51:5: a cross on a triangular mount, with other seal impressions.

³¹ Gubaev 1996, pl. XVIII: 22.5: bulla 25, sealing 22, "Maltese" cross, with two other seal impressions.

³² Carswell 1991, p. 201, fig. 11.2: bulla with "Nestorian" cross and two other seal impressions.

³³ Munich 2004, p. 348, no. 762: "Latin" cross within an arch, with fifteen other seal impressions.

³⁴ Gubaev 1996, on three bullae (2, 3, 9), with several different seal impressions; pl. XV: 4.2. Two crosses appear, either held by Daniel in his raised hands or in the field flanking his head and above the lions.

³⁵ Göbl 1976, bullae 565 and 566: p. 140 and pl. 44:102. Gyselen provides some additional bullae that contain impressions of Christian seals (Gyselen 2006, pp. 40-41).

*Appendix: Catalogue of the Additional Seals*³⁶*A1. Abraham, the ram, altar with Isaac in recognisable form*

1. (fig. 1). Getty Museum, Malibu, 82.AN.162.85. Carnelian bezel with flat face; L: 11.7; W: 10.3; Th: 3.2 cm. Abraham faces the altar and holds a sword (a variant of the knife that occurs on non-Sasanian depictions); Isaac, almost adult-size, sits on the altar, facing away from Abraham. Spier 1992, no. 453, p. 164.

2. Formerly Ralph Harari Collection (present whereabouts unknown). Carnelian bezel with convex face set in modern gold ring; Diam: 13; Th: 3 cm. Abraham turns back to look at the ram which stands beneath a tree; Isaac's body is stretched out on the altar. Boardman and Scarsbrick 1977, no. 99 and p. 45; Finney 1995, pl. 5a.

3. (fig. 2) Private collection. Pink chalcedony bezel; L: 1.5; W: 0.95; Th: 0.3 cm. Abraham turns back to look at the ram; a bush or twig is between Abraham and the ram; Isaac lies on the altar with a cross above; a second cross is above the hindquarters of the ram. Bible Lands Museum 2000, no. 34, p. 63.

4. George Ortiz Collection, Geneva. Garnet cabochon set in gold ring; L: 1.3 cm. Ortiz 1993, no. 249.

A2. Abraham, the ram, altar with Isaac shown as a stick figure

5. Dr Harten Collection, Pinneberg. Banded agate bezel with convex face; L: 1.9; W: 1.3; Th: 0.4 cm. The ram faces a tree with arching bough, placed at the edge of the composition. Göbl 1979b, no. 26, p. 61 and pl. 2: 26.

³⁶ For seals that have been reproduced many times, only the most salient references are given. For the catalogue of the "original" 25 seals in this corpus, see Lerner 1977, pp. 36-39 (nos. 31-55). Yet another example might bring the corpus to 48 seals: an unpublished bronze ring in a private collection that is listed in the exhibition catalogue, Jerusalem 2000, p. 63, no. 35, but not illustrated. However, based on the description, the ring seems to have an eastern Mediterranean origin; indeed, the catalogue entry lists its provenance as "unknown" rather than Sasanian.

For permission to study and publish the seals in the Rosen Collection, I thank Jonathan and Jeannette Rosen and Sidney Babcock.

6. (fig. 3) Private collection. Agate hemisphere, mounted in modern ring; Diam: 1.4 cm. Wolfe and Sternberg 1989, no. 350, pp. 94-95.

7. (fig. 4) Private collection. Carnelian bezel; Diam: 1.0; Th: 0.2 cm. Bible Lands Museum 2000, no. 33, pp. 62-63 (not illustrated); photograph of seal face: www.blmj.org/SpeciExh/Inspirat/Images/Izaac%20Round.jpg

8. Musées royaux d'Art et d'Histoire, Brussels, O.2932/IR.988. Hematite hemisphere; L: 1.98; W: 1.83; H: 1.43 cm. Hebrew inscription: "Hillel, son of ...". Gignoux and Gyselen 1987, p. 246 and pl. XVII: MCB 16.1. Read as "Hillel bar R ..." by Shaked 1995, p. 243: no. 16.

8a. A. Saeedi Collection, London. Agate bead; L: 9.5; W: 20.5; Th: 11.3 cm. Abraham faces the altar on which Isaac lies; in the field is a series of small crosses: one above the ram's hindquarters, two between the ram and Abraham, another above the altar, and a fifth immediately to the right of Isaac's body, which could, however, be a cursory means of indicating his head (this, however, would be a departure from all other representations known to me in which the figure of Isaac can be discerned: as already noted, Isaac sits or lies on the altar with his head closest to Abraham). Gyselen 2006, p. 66: no. 109; illustrated on p. 67. I am grateful to Rika Gyselen for providing the dimensions of this object.

A3. Abraham, the ram, altar with Isaac shown as pair of oblique lines

9. (fig. 5) Bibliothèque Nationale, Paris, 1400A (Collection Chandon de Briailles 23.455bis [1953]). Rock crystal irregular ellipsoid; L: 1.88; W: 1.39; Th: 1.47 cm. The bush, in the form of an irregular vertical line is between Abraham and the ram. Gyselen 1993, p. 88 and pl. IX: 16.5; Finney 1995, pl. 4h.

10. Rosen Collection, New York. Lapis lazuli bezel; L: 1.3; W: 1.1; Th: 0.2 cm. Cross above ram's hindquarters.

11. (fig. 6) Rosen Collection, New York. Brown chalcedony ellipsoid; L: 2; W: 1.8; H: 1.3 cm. A cross is above the ram's hindquarters.

12. Rijksmuseum van Oudheden, Leiden, B 1982/5.708(882). Chalcedony ellipsoid; L: 2.19; W: 1.47; H: 1.8 cm. Abraham holds a long knife or sword vertically; a tree with three branches is between him and the ram. Gyselen 1997, RMO 16.6: p. 38 and pl. XII.

13. Bibliothèque Nationale, Paris, no accession number. Carnelian bezel; L: 1.4; W: 1.28; Th: 0.4 cm. Abraham holds the sword or knife upright. Gyselen 1993, p. 88 and pl. IX: 16.6.

B. Abraham, ram and altar

14. (fig. 7). Rosen Collection, New York. Brown chalcedony hemisphere; L: 1.4; W: 1.3; H: 1.2 cm. Unpublished.

15. Dr Harten Collection, Pinneberg. Hematite dome, L: 1.4; W: 1.3; H: 1.15 cm. Göbl 1979b, no. 27, pp. 61-62 and pl. 2: 27.

16. Auction catalogue. Carnelian bezel; L: 1.8 cm. Hirsch 1999, no. 1495: p. 67 and pl. XVI.

17. Lowie Museum of Anthropology, University of California at Berkeley, 9-1949. Hematite dome; L: 1.3; W: 1.25; H: 9 cm. Tomabechi 1984, no. 141: p. 50 and pl. 99.

18. Rosen Collection, New York. Banded agate ellipsoid; L: 1.89 cm. Two crosses in the field: one above the ram's head, the other above the altar. Malloy 1993, no. 139: p. 49 and pl. XII.

19. Rijksmuseum van Oudheden, Leiden, B 1982/5.1022 (1162). Hematite dome; L: 1.58; W: 1.51; H: 1.29 cm. Gyselen 1997, RMO 16.7: p. 38 and pl. XII.

C. Abraham turns to look at the ram behind him; the altar is not included

That these two seals are abbreviated renderings of the story may be doubted, given the absence of the altar. I nonetheless include them because the figure looks back at the ram.

20. Bibliothèque Nationale, Paris, I. 197. Hematite dome in trilobed (modern?) mount; L: 1.67; W: 1.38; H: 1.26 cm. Gyselen 1993, p. 88 and pl. IX: 16.9.

21. Kunsthistorisches Museum, Vienna, IX B 1638. Lapis lazuli bezel set in modern gold ring (surface of stone badly worn); L: 9.4; W: 9.0; H: 2.6 cm. Zwierlein-Diehl 1991, p. 118 and pl. 118.

22. (fig. 8) Takht-i Suleiman, Iran, no. 13. Face of seal almost circular. Occurs on only one bulla, 63/751; impressed twice. Pls. 5: bottom; and 30: 5.

A third seal published by Göbl (1979b, p. 61 and pl. 2:25) as a sacrifice scene shows two figures to either side of an altar which seems to support a stick figure; one of the standing figures looks to a ram at the edge of the scene. Despite acknowledging the oddness of the composition, Göbl accepted it; compositionally and stylistically, however, it seems to belong to some other cultural sphere and is likely a forgery.

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Fig. 1. The Sacrifice of Isaac: Abraham, the ram, the altar with Isaac. Impression of a carnelian oval bezel. Getty Museum, 82.AN.162.85 (after Spier 1992, no. 453, p. 164).



Fig. 2. The Sacrifice of Isaac: Abraham, the ram, the altar with Isaac. Impression of a chalcedony bezel. Private collection (after Jerusalem 2000, no. 34, p. 63).



Fig. 3. Sacrifice of Isaac: Abraham, the ram, the altar with Isaac reduced to a stick figure. Impression and agate hemispherical seal in modern ring. Private collection (after Wolfe and Sternberg 1989, no. 350).



Fig. 4. Sacrifice of Isaac: Abraham, the ram, the altar with Isaac shown as a stick figure, and tree. Face of a carnelian bezel. Private collection (after www.blmj.org/SpeciExh/Inspirat/Images/Izaac%20Round.jpg).



Fig. 5. Sacrifice of Isaac: Abraham, the ram, the altar with Isaac shown as a pair of oblique lines, and the bush between Abraham and the ram. Face of a rock crystal ellipsoid, reversed as if seen in impression. Bibliothèque Nationale, 1400A (collection Chandon de Briailles 23.455bis [1953]). (After Finney 1995, pl. 4h).



Fig. 6. Sacrifice of Isaac: Abraham, the ram, the altar with Isaac shown as a pair of oblique lines. Impression of a chalcedony ellipsoid. Rosen collection (author's photograph).



Fig. 7. Sacrifice of Isaac: Abraham, the ram and the altar. Impression of a chalcedony hemisphere. Rosen collection (author's photograph).



Fig. 8. Sacrifice of Isaac: Abraham and the ram. Bulla from Takht-i Suleiman, 63/751 (after Göbl 1976, pl. 30: 5).



Fig. 9. Worshipper holding barsoms before a fire altar; above the altar, a star. Rosen Collection (author's photograph).



Fig. 10. Sacrifice of Isaac: Abraham lunges at Isaac who is seated on a rocky knoll or altar; the ram stands behind Abraham; Pahlavi inscription above. Impression of a carnelian bezel. Museum of Fine Arts, Boston, 65.1649 (after Lerner 1977, pl. V: 35).



Fig. 11. Sacrifice of Isaac: Abraham holds a knife and faces Isaac who lies on an altar; the hand of God is above; in the foreground the ram is tethered to a bush; in the background is a tent. Painting from the Torah Shrine of the Synagogue, Dura Europos, 244 CE, (after Lerner 1977, pl. VIII: D).

FROM SAN MARCO TO SOUTH ARABIA: OBSERVATIONS ON SASANIAN CUT GLASS

ST JOHN SIMPSON, LONDON

The analysis of Sasanian glass and the luxury arts are subjects which have consistently attracted the attention of Jens Kröger. This paper is therefore dedicated to him with fond regard and deep respect.¹

I. *Introduction*

Cut glass is typically considered synonymous with luxury tableware, regardless of period or culture. From about 1958 onwards, the reported discoveries of large numbers of facet-cut hemispherical bowls in the Dailaman region of northwest Iran awoke academic attention to the existence of a Sasanian glass industry. These finds also made it possible to propose an Iranian origin for the spectacularly well-preserved bowl of the same type deposited in the Shosoin Treasure House at Nara in Japan.² Sasanian glass began to be eagerly acquired for Japanese and Western collections, both private and public, although a number of forgeries and pastiches began to circulate soon afterwards as demand exceeded supply.³ Although formal catalogues have only begun to appear within the past two years, exhibition catalogues and periodicals contain illustrations of a representative selection of pieces;⁴ for convenience, reference is usually made in this article to these formal catalogues rather than citing exhaustive comparanda.

¹ I am indebted to a number of friends and colleagues in the preparation of this paper as part of my wider research into Sasanian glass: my former supervisor the late Roger Moorey, John Curtis, Michael Roaf, Ian Freestone, Mariamaddalena Negro Ponzi, Roberta Venco, David Whitehouse, Jenny Price, Søren Anderson, Julian Henderson, Derek Kennet, and last but not least to my own personal proof reader, Susan Gill, for patiently listening to my evolving thoughts on Sasanian material culture.

² Fukai 1960.

³ Goldstein 1978, pp. 133–134.

⁴ Goldstein et al. 2005; Whitehouse 2005.

During the 1960s and 1970s, archaeological excavations were conducted by an Italian expedition at Veh Ardashir, the ‘new town’ founded by Ardashir I (c. 224–240 AD) on the site of an older settlement known in Aramaic as Coche and on the opposite bank of the Tigris from the capital at Ctesiphon. The published preliminary reports suggested the existence of glass working and gave a lengthy dated sequence from the end of the 3rd century to the 5th or 6th century in the so-called ‘Artisans’ Quarter’, and from the end of the 6th century onwards at the site of Tell Baruda. The full range of types represented included not only cut glass, but also mass-produced plain and mould-blown forms, which hitherto have attracted less attention.⁵ This evidence suggested that Mesopotamia was a major producer and consumer of glass in the Sasanian period.

Between 1928 and 1935, excavations in Iraq at Ctesiphon, Kish, Nineveh and Nuzi, and in Iran at Tepe Hissar, Istakhr, Naqsh-i Rostam and Qasr-i Abu Nasr revealed dramatic archaeological evidence for unexpected Sasanian stucco ornament, distinctive yet localised pottery styles and palatial, military, ecclesiastic and domestic architecture. This was a period during which Iran, previously subject to French archaeological monopoly, opened to wider activity, both academic and commercial. International exhibitions on Persian art were held in Philadelphia (1926), London (1931), St Petersburg (1935), and New York (1940), and Pope published the first volume of his magisterial *Survey of Persian Art* in 1938. It is telling that there is no mention of glass in the discussion of Sasanian material culture, and Lamm’s⁶ brief overview of pre-Islamic and Islamic glass from Iran includes only a single reference to the gold bowl in the Bibliothèque Nationale with its central rock crystal roundel depicting an enthroned king usually identified as either Khusrau I (531–579 AD) or Khusrau II (590–628 AD). Furthermore, only a decade previously Donald Harden had assumed the Sasanian glassware recovered from a season’s excavations at Nineveh either to be “Early Arab” or “Byzantine”.⁷ In the intervening years (in 1934), O. H.-W. Puttrich-Reignard submitted his thesis on “Die Glasfunde von Ktesiphon” to the Christian-Albrechts-Universität in Kiel, but lacking illustrations, this did not attract the attention it deserved.

⁵ Negro Ponzi 1966; 1984; 1987; 2002; 2005.

⁶ Lamm 1939, p. 2595.

⁷ Harden 1932; cf. Simpson 2005a.

II. Overview

Ghirshman⁸ stated that the Sasanian glass industry was a state monopoly. This view was reiterated by Wenke⁹ who commented that the “production of glass, metalwork, and many other crafts ... under imperial control required thousands of craftsmen, administrators, and other specialists whose activities could most effectively be co-ordinated in large cities”. Lamm¹⁰ suggested that itinerant Jewish glass workers played an important role in the development of this industry, whereas others have seen this as the work of Roman craftsmen who had been forcibly resettled.¹¹ The result, according to the *Encyclopaedia Iranica*, was that glass was rather commonly used.¹² The *Cambridge History of Iran* goes further by stating that:

... the principal Sasanian centres of glass production were in northern Mesopotamia and north-west Iran The identity of shapes suggests that these vessels, whether glass or silver, served the same mortuary and perhaps ritual purposes. It would seem, therefore, that the art of the Sasanian glassmaker must have held a position of pre-eminence perhaps not inferior to that of the silver- or goldsmith.¹³

A detailed comparative analysis of Sasanian glass and metalware lies beyond the scope of this essay, but we should seriously question most of these statements and take a fresh look at the actual evidence for Sasanian glass.

In the absence of relevant contemporary written sources or known craftsmen's names, we must turn immediately to the archaeological evidence. This may be supplemented where necessary by cautious comparison with complete authenticated pieces known from the art market, chance finds or—as we shall see below—Western treasuries. The archaeological evidence is rather more frequent than sometimes supposed and unlike the apparent situation in northwest Iran, is not limited simply to graves. Furnaces apparently used in glass production have been reported from one area of Veh Ardashir,¹⁴ and manufacturing waste and cullet have also been reported from this

⁸ Ghirshman 1954, p. 343.

⁹ Wenke 1987, p. 256.

¹⁰ Lamm 1939, p. 2596.

¹¹ Fukai 1960, p. 176; Harper 1974; von Saldern 1963, p. 15.

¹² Huff 1987.

¹³ Shepherd 1986, p. 1105.

¹⁴ Cavallero 1966, pp. 63, 77–78, fig. 24.

site and from Uruk/Warka.¹⁵ In addition, archaeological surface surveys in central and southern Iraq have revealed eight Sasanian or Sasanian/Islamic sites measuring up to several hundred metres across. These are covered with glass manufacturing waste (although no moils or trails from blowing have been recognised) and in some cases have the remains of what appear to be tank-furnaces with possible evidence of fritting.¹⁶ This suggests that there was a very important rural component to the glass industry whose location was dictated by easier access to raw materials or fuel. It is not clear whether these industrial centres simply supplied the urban glass-houses with their raw material in the form of chunks or ingots, or whether a range of glassware was also shipped out along the canal waterways on which they were located.

Nineteenth- and early 20th-century excavations at Babylon, Kish and Nineveh have produced useful groups of glass, which—although neither reliably stratified nor quantified—do offer insights into the circulation of particular types within residential contexts in northern and central Iraq.¹⁷ Cemeteries excavated at Tell Mahuz, Abu Skhair and Umm Kheshm have produced assemblages of small complete vessels,¹⁸ although sadly there are no anthropological analyses to indicate possible patterns of use according to gender or age. In addition to the crucial sequence mentioned earlier from Veh Ardashir, there are additional useful small groups from sites in Iraq,¹⁹ or more recent excavations on the eastern and southern peripheries of the Sasanian empire, such as Merv and Kush.²⁰ Associated coins and ceramics, finds from independently dated Far Eastern contexts, and typological comparisons with Roman glassware forms enable a provisional classification and chronology of Sasanian glass forms and types of decoration.²¹

All of the glassware was blown, probably mass-produced and presumably stocked and sold rather as it still is in parts of the Near East. The principal functions of Sasanian glassware were as drinking and

¹⁵ Negro Ponzi 1984, p. 33; *idem* 1987, p. 265; Boehmer 1991, pp. 475–477.

¹⁶ Adams 1965, p. 146; *idem* 1981, pp. 211–213, 259, 288–289; Adams and Nissen 1972, pp. 223, 228–230; Brill 2005; Wright 1981, pp. 335, 341.

¹⁷ E.g. Simpson 2005a.

¹⁸ Negro Ponzi 1968/69; *idem* 2005.

¹⁹ E.g. Kamada and Ohtsu 1988; Meyer 1996.

²⁰ Simpson 2004; Price and Worrell 2003.

²¹ Simpson 1992, vol. I, pp. 391–442; vol. III, figs. 159–181.

-serving bowls, lamps and small containers for perfume or oil whereas, unlike the Roman tradition, large storage vessels are almost totally absent. Undecorated free-blown forms include stemmed goblets, bowls with cracked-off rims and a range of small perfume bottles (*unguentaria*).²² The walls and feet of some bowls and bottles were pinched with pincers to create low relief warts, a feature also of Syrian Roman glass and which makes for easy handling and support.²³ Several similar vessels are attested from Southern Arabia, where they were presumably exported for their contents.²⁴ Pincers were used to constrict the necks of small bottles while continuing to blow the parison, producing a small globular form with a cylindrical neck and tell-tale marks at the neck and shoulder.²⁵

Other vessels were dipped into moulds to create decorative vertical ribs (in contrast to the preferred Roman technique of adding hot threads); these were either expanded through re-blowing or pinched to create so-called “nipt diamond waies”. This technique was especially used for small bottles with constricted necks, deep bowls and tall beakers.²⁶ This “blow-and-blow” tradition of optic-blown ribbing is one of the characteristics of Sasanian glass rather overlooked in studies based on collections biased towards the cut glass. It nevertheless exerted a major influence on Early Islamic glass production when the honeycomb effect of cut-glass bowls was imitated more cheaply by using patterned moulds. Applied trailing was not commonly used, least of all adding glass of a different colour to the main body, and those from Tell Mahuz may represent Syrian Roman imports.²⁷ Trailed vessel types include mini-juglets and double-tube *unguentaria*, the latter representing a local version of the better-known eastern Mediterranean Roman type but distinguishable by their fabric and trailing technique.²⁸ An alternative form of hot applied decoration was in the form of modelled blobs or prunts, which were added to small bottles.²⁹

²² Negro Ponzi 2005; Simpson 2005a.

²³ Whitehouse 2005, pp. 25–26.

²⁴ London 2002, pp. 136–137, nos. 170–174.

²⁵ Simpson 2005a, p. 147, fig. 1: 9–13.

²⁶ Whitehouse 2005, pp. 22–23.

²⁷ Negro Ponzi 1968/69.

²⁸ Simpson 2005a, p. 147, fig. 1: 3–4.

²⁹ Negro Ponzi 2005, pp. 143–144, fig. 4: 16, 25.

Some forms are present both as undecorated and cold-worked versions, notably a variety of open bowls with cracked-off rim and, less commonly, stemmed goblets.³⁰ In these cases, the cold-working may have been carried out on finished blanks imported from other glass-houses. However cold-working was normally reserved for more costly types. The origins of Sasanian cut glass are unclear but it is noticeably rare at Parthian Seleucia, and only first appears in Sasanian contexts at Veh Ardashir during the early 4th century.³¹ From this period onwards it becomes increasingly elaborate, with a shift from Roman Imperial style rice facets or isolated circular facets to more heavily cut and closely set or overlapping circular facets, sometimes combined with pseudo-architectural arcading which may be the products of a single workshop.³²

Unsurprisingly cut-glass vessels were usually thicker-walled, and this relative robustness contributes to their preferential preservation in archaeological contexts. Small bowls are the most common type. In the early/mid 4th century these have cracked-off rims and are decorated on the exterior with equally spaced shallow circular facets.³³ These are followed by examples with flaring walls and deeper oval facets, the rims again being cracked off and left unfinished.³⁴ The fabrics of all of these types are typically pale greenish. Squarish facets were normally placed as the uppermost row on other bowls and goblets.

During the 6th century these bowls were replaced by hemispherical bowls with rows of deeper closely set or partially overlapping facets, sometimes overlapping to the extent that they resemble a polygonal honeycomb or tortoise-shell pattern.³⁵ As with other types of cut glass, these appear to have been cut from bottom to top, the facets decreasing in depth as they near the rim. The same cut decoration was used on certain specialised forms of container, for instance pear-shaped jars, amphora-like pourers (a form of rhyton) and, from the early 7th century, tall cylindrical tubes.³⁶ More

³⁰ Simpson 2005a, p. 149, fig. 3: 4; Whitehouse 2005, pp. 48–49, nos. 56–57.

³¹ Negro Ponzi 1984; 1987.

³² Braat 1964.

³³ Goldstein et al. 2005, p. 51, [cat.] no. 37.

³⁴ Whitehouse 2005, pp. 46–47, no. 53.

³⁵ Whitehouse 2005, pp. 42–44, nos. 46–48.

³⁶ Pinder-Wilson 1963; Harper et al. 1978, p. 153, [cat.] no. 76; Whitehouse 2005, pp. 54–57, nos. 65–66.

elaborate double-faceting or protruding knobs are found on some other deep bowls.³⁷ Although pale greenish fabrics continued to be employed, Late Sasanian cut glass more typically possesses a light brownish (manganese) tinge, and when recovered from an archaeological context is almost invariably covered with a thick layer of opaque enamel-like gunmetal-grey weathering, reflecting the high magnesium content. In addition, in all cases there is a very high degree of finish and polish, extending to the removal of any traces of hot-working, the rounding of the rims and the typical replacement of the pontil mark with a neatly cut facet which further enhanced the resting position of the vessel.

The fabrics of Sasanian glass are often slightly bubbly, perhaps an indication of the use of cullet in their manufacture, and are also usually naturally tinged. Most commonly they are pale greenish (representing between 73.8 and 77.8 per cent of the glass from graves at Abu Skhair and Tell Mahuz) or with a yellow or manganese tinge, but yellowish green, light greenish blue and light brownish fabrics are also known. Although the characteristically heavy weathering usually compromises detailed compositional analysis, the steadily growing body of data indicate the characteristic use of soda-lime compositions with relatively high levels of potassium and magnesium oxides. There are variations in the compositional groups but whether this reflects different workshops or chronological change in composition, or both, is uncertain and it is premature to speculate on the reasons.³⁸ These are typical of glass made using plant ash as the source of alkali, probably based on the collection of one or more of three local species of the Chenopodiaceae family (*Salsola kali*, *Salsola soda* or *Hammada scoparia*) which have been used as a traditional source of alkali for Near Eastern soap industries since at least the 17th century.³⁹ They contrast with the eastern Mediterranean tradition of using a soda-based flux of natron, but provide a forerunner of a major group of Early Islamic glass industries in the same region. Some deep blue glass was also found in Late Sasanian contexts at Ctesiphon and Merv, but deliberately coloured glass vessels are rare and the small number of red and purple wares found at Tell Mahuz may have been

³⁷ Whitehouse 2005, pp. 45–46, nos. 50–52.

³⁸ Brill 2005.

³⁹ Henderson 2004; Guest 1933, pp. 87, 92.

imported from Roman Syria.⁴⁰ In addition, there is no evidence for the manufacture of gold-glass, mosaic or marbled glass, even for beads, although there is tantalising evidence for painting on a stemmed goblet from Veh Ardashir,⁴¹ and a Sasanian-style figural composition was over-painted on a deep blue glass plate excavated in a tumulus at Niizawa Senzuka in Nara Prefecture, Japan.⁴²

Weathering may have led to the under-representation or even disappearance from the archaeological record of some thin-walled plain shapes, such as open plates or window-glass, and it is significant that only the folded-over feet of the goblets survive among the excavated glass remains from Kish. Finally this surface layer often conceals the true colour of the underlying fabric although on many art market pieces it has been deliberately flaked away to expose the original colour and enhance any decoration (but has significantly thinned the vessel walls in the process).

Contemporary written sources on the use of glass in the Sasanian empire are almost non-existent, yet clear glass appears to have been regarded as more costly, judging by one passage in the Babylonian Talmud:

At first the rich mourners in the mortuary were served drinks in white glasses, while the poor drank from coloured glasses. Since this custom put the poor to shame, the leaders ordained that everybody be served in coloured glasses in honour of the poor.⁴³

The quantification of excavated glass assemblages from Sasanian sites has only recently been attempted, but without this it is impossible to assess temporal trends, social patterns or regional distributions. Nevertheless, the available data suggest some interesting features. Glass appears to have been relatively common at Sasanian sites in Mesopotamia, to the extent that faceted hemispherical bowls are represented even at small rural sites such as Seh Qubba, Qara Dere and Khirbet Deir Situn where glass formed between 0.6 and 4.9 per cent of the combined pottery/glass sherd total. The analysis of collections from older excavations at Kish and Nineveh confirms the presence of consistent numbers of cut-glass vessels, including different varieties of hemispherical bowls, tubes and miniature flasks, and

⁴⁰ Negro Ponzi 1968/69.

⁴¹ Negro Ponzi 1987, p. 269, fig. B.

⁴² Masuda 1972.

⁴³ Rejwan 1985, p. 46.

proves the circulation of these within different residential contexts in northern and south-central Iraq.⁴⁴

However, the pattern is less clear for Iran. Art market reports suggest that Gilan province in northwest Iran was the principal source of large quantities of Sasanian glass as well as other finds such as swords and high-tin bronze vessels. Limited re-investigations by a Japanese expedition in 1964 confirmed heavy looting of hilltop cemetery sites of all periods and the occasional interment of glassware, swords and metal vessels with inhumation burials placed inside subterranean graves.⁴⁵ This led Fukai⁴⁶ to dismiss other Tehran dealers' reports of Sasanian glassware being found in Azerbaijan and Luristan. Muscarella⁴⁷ has repeatedly documented the murky world of shifting provenance and the addition of a famous site name or nearest market town as a means of attempting to enhance value and Overlaet⁴⁸ has added a strong cautionary note to assumptions over alleged 'Marlik' provenances for specifically Sasanian objects. Nevertheless, the excavators' discovery of several Late Sasanian pottery juglets in disturbed upper contexts at Marlik,⁴⁹ and archaeological finds of Sasanian pottery, metalwork and glass *unguentaria* within graves at War Kabud in Luristan and Haftavan tepe in Azerbaijan,⁵⁰ suggests that other regional provenances cannot be firmly excluded, particularly as large numbers of sites in both these regions were also heavily looted.

Nevertheless, the impression from publications is that glassware was rather more scarce at other categories of sites on the Iranian plateau. Thus, for example, extensive excavations at the 3rd-century palatial residence at Qal'eh-i Dukhtar, the Late Sasanian fire-temple complex at Takht-i Sulaiman and the fort at Tureng tepe only yielded a very few pieces (although the last-mentioned included three sherds of cut-glass bowls), and even Susa does not appear to have produced much Sasanian glass (let alone evidence for production: cf. Shepherd⁵¹). By contrast, a relatively wide number of types are

⁴⁴ E.g. Simpson 2005a.

⁴⁵ Sono and Fukai 1968.

⁴⁶ Fukai 1977, p. 29.

⁴⁷ Muscarella 1977.

⁴⁸ Overlaet 1995.

⁴⁹ Negahban 1996, vol. I, pp. 227–228, vol. II, fig. 22, pls. CVI–CVII, nos. 542–546.

⁵⁰ Vanden Berghe 1972; Burney 1973, pl. VIII d.

⁵¹ Shepherd 1986, p. 1105.

represented from Late and post-Sasanian levels of the citadel of the small town at Qasr-i Abu Nasr.⁵² Possible explanations may lie in the different functions, floor constructions, patterns of refuse disposal and occupational histories of these sites, particularly since at least part of the citadel at Qasr-i Abu Nasr seems to have undergone a violent episode of burning. Different excavation and recovery techniques may also play a role. Prior to the 1992–2000 excavations at the ancient city-site of Merv, evidence for Sasanian glass from a half-century of almost continuous excavation was effectively limited to a mould-blown re-blown ribbed bottle, another vessel described as an *aryballos* and a small number of sherds. However, the subsequent excavation of part of a single residence in the citadel yielded eighty-nine sherds of glassware, of which less than two per cent belonged to cut-glass vessels; other material was recovered from 4th- and 5th-century contexts within a modest residential quarter in the lower city. The reasons for the disparity lie in the very heavy fragmentation; indeed some pieces were in such a poor state of preservation that it is doubtful that they would have been recognised as glass were it not for careful hand recovery and the presence of a glass specialist.⁵³ A simple comparison of absolute frequency of glass sherds in comparison to the pottery indicate that glassware constituted 0.15 per cent of the combined assemblage, and was thus even scarcer than the situation recorded by the writer from rural sites in northern Iraq.

These results strongly hint at differential patterns of circulation across the Sasanian empire although a great deal more archaeological research is required before we begin to understand all the reasons.

III. *South Arabia and San Marco: diffusion and confusion*

Sasanian cut-glass vessels have been found throughout the Sasanian empire and in the Caucasus, China, Korea and Japan. The means by which they reached the Far East is likely to be a combination of overland and maritime routes, although the possible reasons are not limited to ‘Silk Road’ trade but may have included gift exchange,

⁵² Whitcomb 1985, pp. 154–160, figs. 58 and 59.

⁵³ Simpson 2004.

religious veneration and booty. Curiously, Sasanian glassware has not yet been recognised from a Roman site: Harper⁵⁴ has suggested that this was because the Roman market was already saturated with its own products, whereas the author has previously hinted that it may reflect the effect of the stringent trade regulations and border controls described in peace treaties.⁵⁵ However, the recognition of a large number of Roman containers, lamps and beakers from Nineveh suggests that there was a degree of cross-border traffic in glass. Northern Mesopotamia in particular appears to have enjoyed close cultural connections with the corresponding eastern province of Roman Syria, as is evident from the adoption of a Syrian-style basilical-plan church in ashlar masonry at Qasr Serij and the strong Sasanian influence on 5th-century and later Antiochene mosaics and Byzantine textiles.⁵⁶ It is likely that Late Sasanian faceted glass did circulate as an exotic luxury in the Roman eastern provinces, but proof must await further excavations of Late Roman sites in North Syria.

The southern maritime distribution of Sasanian goods was highlighted in 1973 when David Whitehouse and Andrew Williamson published an influential article suggesting a Sasanian origin for Indian Ocean trade. This was the height of the late Shah of Iran's political interests in the Persian Gulf and his creation of an Iranian navy, and excavations at the Gulf port of Siraf and elsewhere had demonstrated extensive trade from the 9th century onwards. Since then there has been a growing amount of archaeological evidence for Sasanian-period activity in the Persian Gulf, including figural stuccoes and seals from Darin on the island of Tarut,⁵⁷ although the Sasanian attributions of many of the surveyed sites in eastern Arabia are questionable.⁵⁸ There is also increasing evidence for the circulation of some types of Sasanian glassware in this region. De Cardi's survey of the early Sasanian site at Jazirat al-Ghanam, on the tip of the Musandam peninsula, produced two sherds of cut glass although Harden believed these to date from the 7th to 9th centuries.⁵⁹ A late 3rd- to early 5th-century flared faceted bowl

⁵⁴ Harper 1978, p. 151.

⁵⁵ Simpson 1996, p. 88.

⁵⁶ Cf. Okada 1992; Kondoleon 2000, pp. 130–138.

⁵⁷ Potts 1989, pp. 77–81.

⁵⁸ Kennet forthcoming.

⁵⁹ De Cardi, Vita-Finzi and Coles 1975, p. 32.

was recovered from a re-used burial-mound near Dhahran,⁶⁰ and similar bowls have been excavated more recently in graves on Bahrain.⁶¹ In addition, a group of trailed and mould-blown re-blown vessels has been illustrated from a grave excavated at Saar,⁶² and an important group of glassware has been recovered from a stratified settlement context at Kush.⁶³ This evidence implies the shipping of Sasanian glass as well as other commodities along the Persian Gulf. Although there is a surprising absence of Sasanian glass from South Asia and the Indian Ocean littoral, this is probably simply due to lack of excavation and recognition, and Kröger⁶⁴ has already indicated the reasons why there is little evidence for artistic interaction between Iran and India at this period. However, the archaeological evidence from Kush does demonstrate the import of Indian cooking and Red Polished Wares and Indo-Pacific glass beads into southeast Arabia. These finds therefore support the thesis that, in this period as in almost every other, the Persian Gulf was commercially closely connected with India, and from the beginning of the 1st millennium AD Iran was drawn via the Gulf into increasingly wide patterns of Indian Ocean trade.⁶⁵

This hypothesis is strengthened by the discovery of a Sasanian faceted glass bowl in Southern Arabia. In 1997 a travelling exhibition on ancient Yemen opened in Paris at the Institut du Monde Arabe under the title of *Yémen, au pays de la reine de Saba*. Among the exhibits was a faceted bowl, which is said to come from the Jawf region. The bowl is complete and undamaged except for a small area of green staining on the interior which probably reflects prolonged contact with a heavily corroded cuprous object. The fabric is semi-transparent with a light brownish tinge. The bowl has a rim diameter of 20.9 to 21.2 cm, measures 5.6 cm in height, is 0.7 cm thick at the rim, and 1.6 cm thick at the base. It is decorated around the exterior with four rows of deep circular cut and polished facets, seven around the bottom, followed by a row of twelve facets and two rows of twenty below the rim. Each facet measures 2.3 to 2.7 cm across and 0.2 cm deep. There is an additional single facet,

⁶⁰ Zarins, Mughannam and Kamal 1984, p. 42, pl. L: 10.

⁶¹ S. Andersen, pers. comm., 2004.

⁶² Vine 1988, p. 44.

⁶³ Price and Worrell 2003.

⁶⁴ Kröger 1981.

⁶⁵ Kennet 2004.

0.5 cm deep, on the underside of the base, which created a stable position of rest and conveniently removed any traces of the initial hot-working. The shallow form and absence of a cracked-off rim implies that it was initially slumped into an open mould or over a former, followed by fire-polishing of the rim. The deep facets were carefully ground and polished during cold-working. This bowl was deposited within the Military Museum in Sanaa (inv. no. 106), was purchased by its director, the late Mr Mohammed al-Sragei, and was subsequently transferred to the National Museum.⁶⁶ The bowl was initially attributed a 2nd- or 3rd-century AD date and assumed to be a product of Alexandria,⁶⁷ but a Sasanian origin was independently recognised by Negro Ponzi⁶⁸ and the writer.⁶⁹

This bowl belongs to a distinct class of thick-walled Sasanian cut glass which has not previously attracted attention in its own right. Sherds of this particular type have been excavated at two sites in Mesopotamia, namely Kish⁷⁰ and Nineveh.⁷¹ These belong to bowls measuring roughly 5 cm in height with diameters of 21 to 23 cm and decorated with cut and polished facets. Their weathered state precludes description of the fabrics although the Kish sherds were placed in a so-called ‘buff’ group, which is characterised by a thin and even opaque layer of gunmetal-grey weathering. Although the exact contexts of the two Nineveh sherds are uncertain, they come from 19th-century and later excavations on the mound of Kuyunjik. From the Seleucid period onwards Nineveh flourished as a town, and achieved the status of Nestorian bishopric within the metropolitane of Adiabene during the 6th century.⁷² The sherds from Kish were found in the so-called SP-7 (“Sasanian Palace”) mound which, despite its name, appears to represent an area of Late Sasanian vernacular architecture near a group of small palatial residences or villas. In short, all of these excavated pieces appear to derive from domestic (rather than funerary) contexts.

A small number of other complete examples are known. The most famous of these is in the San Marco Treasury in Venice. This bowl

⁶⁶ pers. comm. Mr M. as-Sayyani, 2002.

⁶⁷ Paris 1997, pp. 209, 235.

⁶⁸ Negro Ponzi 2002, p. 107, [cat.] no. 349.

⁶⁹ London 2002, p. 101, [cat.] no. 118.

⁷⁰ Harden 1934, fig. 4: 6; Moorey 1978 = AMO 1969.592, 1969.628 c, d, k.

⁷¹ Simpson 1996, pp. 96, 125, fig. 2: 2; *idem* 2005a.

⁷² Simpson 2005b.

measures 17 cm across and 6 cm high. It is said to have a greenish fabric, although published colour photographs suggest it is colourless with a greyish tinge. It is set within a silver-gilt mount decorated with semi-precious stones and seed pearls, and was listed as one of three patens in an inventory of the San Marco Treasury in 1325, and perhaps corresponds to that described as a “platinum vitream viridem”.⁷³ The mount was made in Constantinople during the 10th or 11th century, and is closely paralleled by contemporary Byzantine book-covers, patens, chalices and other vessels. However, although the mount has long attracted the attention of Byzantine scholars, the origin of the bowl itself has been the subject of cautious and occasionally conflicting opinions. Lamm⁷⁴ was the first author to suggest a 6th-century date for the bowl, but although he illustrated other examples of Late Sasanian facet-cut glass, he concluded that it was Byzantine, possibly because Sasanian parallels for this particular form were yet to be discovered. Von Saldern⁷⁵ drew more explicit attention to the similarity of thick-walled Sasanian cut glass from Iraq and Iran, yet Grabar⁷⁶ argued that the bowl was contemporary with the mounts and was a local imitation of a Late Antique vessel. Such differences of opinion have not been limited to this bowl: others with wheel-cut disks and protruding bosses were given early Byzantine, 11th-century Macedonian or Sasanian/Islamic attributions until Kröger⁷⁷ demonstrated a 9th- to 10th-century date and probably Iranian origin.

Another complete bowl of a slightly deeper shape than the Sasanian bowl in San Marco was excavated in the tomb of Wang Shiliang, Chinese duke of Guang-chang and a leading general of the Northern Zhou, dated to 583. This has a diameter of 10.8 cm and is catalogued as being “yellow and very transparent”, although the published colour illustration suggests that it has a semi-transparent light greenish fabric. It is decorated with two alternating rows of ground and polished facets with a single facet on the underside.⁷⁸ In addition, at least five other bowls of the first type are reported

⁷³ Pasini 1885/86, vol. I, p. 64, [cat.] no. 7, vol. II, pl. XLIX, fig. 109 (interior) [profile wrongly marked as fig. 108]; London 1984, pp. 195–197, [cat.] no. 26.

⁷⁴ Lamm 1929/30, vol. I, p. 148, no. 2, vol. II, pl. LIII: 2.

⁷⁵ Von Saldern 1969, pp. 128–131.

⁷⁶ Grabar 1971, p. 73, [cat.] no. 72, pl. LX.

⁷⁷ Kröger 1995, pp. 129–135.

⁷⁸ New York 2004, pp. 258–259.

from the Iranian art market since the 1960s. The first of these is in the Arthur M. Sackler Gallery in the Smithsonian Institution in Washington. It has a dark, possibly bluish tinged, fabric, measures 21 cm across and 5.5 cm in height, and is decorated on the exterior with four alternating and slightly overlapping rows of circular polished facets with a single deep facet in the centre of the underside. The slightly indented profile of the base indicates that the vessel was blown, but the unsightly traces of the pontil were removed during cold-working. A second bowl is in the Museum für Islamische Kunst, Berlin, and is again decorated with four rows of deep facets with a single facet on the underside (inv. no. I.13/61). A third example is in the collection of the Middle Eastern Cultural Centre in Tokyo. This bowl measures 21.3 cm across and 5.6 cm in height, is decorated on the exterior with five rows of overlapping circular facets above a single large facet in the centre of the underside, and has a light yellowish or brownish tinge, albeit largely obscured by a thick enamel-like gunmetal-grey weathering layer.⁷⁹ Another example in a Japanese collection was published by Fukai⁸⁰: it measured 17.3 cm across and 5 cm in height, and was decorated on the exterior with four slightly overlapping rows of deep circular facets with a single facet in the centre; judging by the published colour photograph, it appears to have a grey or brown fabric beneath the weathering layer. Finally, a fifth bowl of this type passed through the art market in London in 2000 and again in 2004; it had a pale greenish fabric, measured 21.3 cm across and 4.5 cm high, and was again decorated with five rows of facets.⁸¹

This type of bowl is closely related to, and contemporary with, the better-known category of Sasanian hemispherical faceted bowls of which several hundred examples are attested.⁸² Although most of these derive from commercial investigations, others have been found in archaeological excavations at a dozen sites in Iraq, as well as in Iran, the Persian Gulf, the Caucasus, Khorezm and the Far East. The sequence from Veh Ardashir and finds from single-period Late Sasanian sites now indicate a 6th- to 7th-century AD date range for these bowls, rather than the 4th- to 5th-century range cited in some

⁷⁹ Tokyo 1998, p. 38, [cat.] no. 67.

⁸⁰ Fukai 1977, pl. XXV.

⁸¹ Bonhams 2000, p. 14, lot 56; *idem* 2004, p. 62, lot 105.

⁸² Whitehouse 2005, pp. 42–44, [cat.] nos. 46–48.

of the older literature.⁸³ Both types of bowl lack plain undecorated counterparts, a feature which is also true of several other categories of Sasanian cut glass. The hemispherical bowls were almost certainly used as drinking bowls; however the shallow bowls are unsuitable for this purpose and, like the boat-shaped metal bowls, were perhaps employed for serving the fresh fruit or sweetmeats described in Pahlavi literature.⁸⁴

The faceted bowl from Yemen is the first example of Sasanian glass to be identified from Southern Arabia, and dates from an archaeologically elusive yet historically intriguing period when this region became entangled in the superpower conflicts of interest between Rome and Persia. In the years 530/531, towards the close of a thirty-year war with Persia, the emperor Justinian (527–565) despatched an embassy both to Sumyaf'a Ashw'a, king of Himyar, proposing that they launch a joint campaign with the Ma'add tribes "into the land of the Persians", and to Ella Asbeha, king of Ethiopia, to whom it was proposed that they break the lucrative Persian monopoly on the Indian silk trade and sell to Rome on more favourable terms.⁸⁵ In neither case did these proposals come to fruition but they do illustrate a revival of Roman interests in the Red Sea that was part strategic, part commercial, and part sympathetic to the Christian population. Some three decades later, a Sasanian delegation headed by a Persian called Wahriz arrived in Yemen and over the next sixty years Southern Arabia was ruled by Persian governors. In the light of Justinian's earlier initiative, this suggests a pre-emptive measure to prevent upsets to the security of their Lakhmid allies and to secure direct access to the natural resources of Southern Arabia and East Africa.

The Persian Court and Church were major consumers of silver, semi-precious stones and incense, and it is likely that these and the other traditional local exports of aromatic unguents, perfume, wine, honey, semi-precious stones and textiles found profitable markets in Mesopotamia, Iran and India.⁸⁶ The finds from Kush mentioned above, coupled with reports of Sasanian torpedo-jars from the Indian west coast and a sealed clay bulla from Mantai, confirm earlier sus-

⁸³ Negro Ponzi 1987, p. 272, fig. C: types P–Q; cf. also Puttrich-Reignard 1934, p. 39; Chilashvili 1963, p. 119, fig. 53; Ugrelidze 1961, p. 119.

⁸⁴ Simpson 2003a.

⁸⁵ Greatrex 1998, pp. 225–240.

⁸⁶ Morony 2001/02, pp. 34–37.

pictions of Sasanian involvement in Indian Ocean trade.⁸⁷ Green or blue glazed Partho-Sasanian jars found at Aksum, Khor Rori and other sites either represent the discarded packaging of return commodities, or the realisation of ready markets for Mesopotamian glazed pottery in regions lacking equivalent local industries.⁸⁸ Fine Orange Painted Ware beakers found at Qana likewise probably represent the marketing of an early Sasanian fine tableware from south-eastern Iran, which was perhaps an eastern aesthetic equivalent of the painted Nabataean bowls, Roman *sigillata* or African Red Slip imported in previous centuries.⁸⁹ Finally, discoveries of Late Roman Egyptian mosaic glass bowls in a burial mound near Heis and in a grave in the Wadi Dura⁹⁰ provide evidence for equivalent sales of bright multi-coloured glass containers made in imitation of serpentine.

Within this context of competitive Roman and Sasanian sales and diplomacy, it is therefore surprising not to find more evidence for heavy faceted glass tableware in Yemen or India, yet the reason for this probably simply lies in the poor state of archaeological research into this period in either region.

IV. *Sasanian Glass and Rock Crystal*

Sasanian cut glass tends to be chunky, reassuringly heavy and beautifully balanced. There is a tendency for the cutting on later glass to be deeper and almost invariably polished. One possibility is that this style emerged because increasingly elaborate cutting necessitated thicker blanks. However, it could have reflected, quite literally, a growing fashion for imitating rock crystal. The effect of having repeating polished facets on a rounded vessel was to multiply the number of reflections in what amounted to a series of convex mirrors.

The shallow faceted bowl in San Marco is not the only Sasanian vessel to have entered a European treasury. A second shallow glass

⁸⁷ Cf. Williamson 1972; Whitehouse and Williamson 1973.

⁸⁸ Cf. Phillipson et al. 2000, pp. 326–329; Sedov and Benvenuti 2002, pp. 185–186, 188–89, 224–227.

⁸⁹ Cf. Comfort 1960; Sedov 1998, p. 21, fig. 6: 2–7; Sedov and Benvenuti 2002, pp. 184–185, 192, pl. XXV; Yule and Kervran 1993, p. 80, fig. 3: 8–9.

⁹⁰ Freestone, Ambers, Simpson and as-Sayyani 2005.

bowl in the same collection has a similar fabric to the first bowl, measures 20.5 cm across within its mount, and is decorated on the exterior with four or more rows of separated circular facets.⁹¹ Although again previously identified as medieval Byzantine workmanship, it simply constitutes a variation of the deeper faceted Sasanian bowl discussed above. The added significance of this second San Marco bowl is that it represents a type that is certainly attested in rock crystal. Until it was destroyed in 1793 during the French Revolution, a bowl with precisely the same shape and decoration was held in the cathedral of Beauvais.⁹²

The existence of a Sasanian rock crystal tradition hitherto has hinged on discussions of the bowl inlay in the Bibliothèque Nationale and a gold-mounted miniature dish from Susa in the Musée du Louvre, the former queried by Harper⁹³ as possibly Central Asian and the other now re-assigned a slightly later date by Shalem.⁹⁴ However, a second rock crystal vessel of Sasanian type survives from the collection of Abbot Suger of Saint-Denis. Popularly known after its previous owner, Eleanor of Aquitaine, this is a small and slightly asymmetrical pear-shaped bottle covered with twenty-two to twenty-three vertical rows of small circular cut facets. Each of these measures roughly 0.75 cm across, and overlap to form continuous hexagons but change angle at the neck/shoulder junction, presumably relating to the conversion from the slope of the shoulder to the relatively vertical neck. The vessel has been restored from sherds and is set in a mid 12th-century jewelled mount, which measures 33.7 cm in height and 15.9 cm across at the foot.⁹⁵ The vessel itself measures about 17 cm in height, and has a lightly protruding base concealed within the rounded profile of the mount, but is missing the top which has sheared off, presumably at the junction of a horizontal rib at the shoulder/neck junction or at the level of an everted rim.

Sasanian metalsmiths and potters produced pear-shaped ewers, pitchers and vases. However the profile of this vessel most closely resembles a Late Sasanian type of thick-walled blown glass vessel covered with overlapping circular cut facets. Over a dozen examples

⁹¹ Pasini 1885/86, vol. I, p. 64, no. 8, vol. II, pl. XLIX, fig. 107 (interior); Grabar 1971, p. 73, no. 73, pl. LXI; London 1984, pp. 198–199, no. 27.

⁹² Lamm 1929/30, vol. I, p. 148, no. 3, vol. II, pl. LIII: 3.

⁹³ Harper 1981, pp. 111–113.

⁹⁴ Shalem 2002.

⁹⁵ Paris 1991, pp. 168–172.

of these are published, including one reported from the area of an Umayyad bath-house at Jerusalem which, if correctly identified, is the only piece yet found in an archaeological context.⁹⁶ They vary from being colourless to semi-transparent with a pale green or light brown tinge and range in height from 18.5 to 23 cm.⁹⁷ Beech⁹⁸ was the first author to make this comparison and suggest a link with the San Marco bowl, although he followed earlier scholars in attributing the bowl to early medieval Byzantium. Lamm⁹⁹ was more accurate by suggesting a Late Antique date possibly in the 4th or 5th centuries, but ventured a probable Egyptian origin presumably on the grounds of the better-known early medieval rock crystal industry. Instead these vessels confirm the long suspected close relationship between the forms and cutting styles of Sasanian glass and rock crystal.

Several rock crystal bowls reported from the art market have had a Sasanian date attributed to them but their authenticity is questionable, particularly as they appear to share the same pedigree as a very dubious 'Achaemenid' decorated bowl in the Cincinnati Museum of Art also first published by Shepherd.¹⁰⁰ More important are those Sasanian rock crystal seals, statuettes and beads from archaeological contexts or in old collections, which prove that this material was worked into small objects at this period.¹⁰¹

Whether this industry had one or more centres is unknown, yet it seems likely that the carving of complex three-dimensional objects was organised in a different manner from seals and beads. One likely centre of patronage was the capital at Ctesiphon. However, during the 10th century literary sources indicate the existence of rock crystal workshops at Basra, which appears to have capitalised on its position as an entrepôt at the head of the Persian Gulf. The description by al-Biruni (363–440/973–1048) suggests that the organisation of this industry was not only complex, but included highly remunerated professionals and was market driven rather than being a state monopoly.

⁹⁶ Engle 1984, pp. 92–93.

⁹⁷ E.g. Fukai 1977, pp. 53–54, fig. 59, pl. XXX; von Saldern 1980, p. 149; Whitehouse 2005, pp. 54–56, no. 65.

⁹⁸ Beech 1992.

⁹⁹ Lamm 1929/30, vol. I, p. 187, vol. II, pl. LXIV: 1.

¹⁰⁰ Cf. Muscarella 1977, p. 182, no. 142.

¹⁰¹ Simpson 2003b, pp. 64, 76.

It is brought from the island of Zanj and other islands to Basrah, where vessels are made. Large and small pieces are collected at one place. Instructions are tagged upon pieces that are to be cut and shaped and the types of vessels that are to be made from them. They are then handed over to the artisans who follow the instructions and collect high wages. These wages are far higher than those of the persons who measure the pieces and put down the instructions. There is considerable difference between knowledge and the practice of that knowledge.¹⁰²

Almost 180 examples survive of Early Islamic carved rock crystal, many from royal and church treasuries in Western Europe where they were initially believed to represent medieval European workmanship.¹⁰³ The slow recognition that these instead represented treasured heirlooms brought from the Near East has been followed by even greater problems of distinguishing products of Tulunid or Fatimid Egypt from those likely to have been carved in Mesopotamia, Syria or Iran. The discovery at Samarra of a completely transparent cut-glass bowl decorated in the same style confirms the close relationship between the two materials in the early Abbasid period.¹⁰⁴ The boom in supply of good quality rock crystal appears to reflect the 8th- and 9th- century engagement in Indian Ocean trade and the exploitation of new sources in northern Madagascar, and excavations at Shanga on the East African coast have confirmed the exploitation and working of local rock crystal by the 9th century.¹⁰⁵ However, other sources of rock crystal are mentioned by al-Biruni and al-Akfani, (d. 749/1348), including Armenia, north-west Iran, Badakhshan, Kashmir and Sri Lanka, and it seems likely that it was upon these that earlier eastern workshops relied for their supplies.

The physical appearance of rock crystal has been periodically imitated and emulated by glassworkers in the Near East since the 9th century BC. The shapes included horizontally fluted shouldered bowls, and the discovery of a complete gold bowl of the same type in an Assyrian queen's tomb at Nimrud confirm that identical versions were also made of precious metal.¹⁰⁶ The large quantities in circulation within the Egyptian court is demonstrated by the Egyptian historian al-Maqrizi (766–845–46/1364–1441) who wrote that

¹⁰² Al-Biruni 1989, p. 159.

¹⁰³ Contadini 1998, pp. 16–35.

¹⁰⁴ Kröger 2002.

¹⁰⁵ Horton 1996, pp. 332–333.

¹⁰⁶ Hussein and Suleiman 2000, fig. 58.

when the Fatimid treasury was plundered by the Turkish garrison in 460/1067, many crates of rock crystal ewers were found, either “decorated in relief, or plain”.¹⁰⁷ Carved stone vessels could also become treasured heirlooms, as is evident from the discovery of a speckled granite or metagabbro footed chalice with the inscription “Palace of Ashurbanipal, great king, [mighty king, king] of the world, king of Assyria” in the Treasury of the Achaemenid palace complex at Persepolis.¹⁰⁸ The costlier the item, the greater its chance of being treasured; precious metals tend to be melted down, however, and ivories and hardstones tend to be re-cut.

V. *Conclusions*

Several conclusions can be drawn. Firstly, despite general typological comparisons between Sasanian and Roman glass, there are significant differences in composition, manufacturing technique, aesthetic effect and functional categories. These differences suggest that although the two industries may have had shared roots, they had grown sufficiently apart by the early 4th century to be virtually independent. It is therefore unlikely that travelling glassblowers or Roman prisoners of war played a role in the development of the Sasanian industry.

It is commonly assumed that ‘Sasanian’ is synonymous with ‘Iranian’, a problem which is by no means limited to glass or material culture of this period: Charleston¹⁰⁹ has observed that “Persia appears never to have been a glassmaking country of seminal importance” and much Achaemenid glass seems to have been produced in western Anatolia, Macedonia, the Aegean and Mesopotamia, rather than within the modern political borders of Iran.¹¹⁰ In the case of the Sasanian period the archaeological evidence points to Mesopotamia being a major centre in the production of glass. This partly reflects its strong economic role and cultural continuity of this region throughout antiquity, but the existence of raw materials is also a conditioning factor for the manufacture of raw glass. The conservatism and strength of tradition is illustrated by the fact that plant ash glazes were used in Mesopotamia since the 9th century BC. The

¹⁰⁷ Al-Qaddumi 1996.

¹⁰⁸ London 2005, p. 120, no. 117.

¹⁰⁹ Charleston 1989, p. 295.

¹¹⁰ Triantafyllidis 2003.

siting of the Sasanian capital at Ctesiphon ensured a major source of court patronage for the luxury arts, whereas the combination of continuing old towns and cities with new foundations ensured a strong local demand from the aspirational and the affluent. The presence of fragmentary facet-cut bowls at rural sites within the same region demonstrates that at least these classes of vessel also circulated more widely, although we are far from understanding distribution patterns across the Sasanian empire or how particular types may have been favoured by particular social classes or gender groups.

Thirdly, the survival of a small number of rock crystal vessels in Late Sasanian style, as well as minor objects of the same material from stratified contexts, confirms the existence of a hardstone industry within the empire at this period. Furthermore, the close similarity in form and decoration of the hardstone vessels to varieties of cut glass suggests a close relationship between the two. The glass blanks were free-blown, despite their thick walls and Fukai's¹¹¹ suggestion that they were dipped into moulds, but the cold-working was almost certainly done by a different set of artisans (just as for instance it still is by Lebanese water-pipe manufacturers). Although there is widespread archaeological evidence for the hot-working of glass in urban and specialised industrial settings in Mesopotamia, the cold-working is more likely to have been carried out at major centres of patronage.

Ishida's¹¹² important and innovative replication experiments of a Sasanian bowl with projecting facets indicate that the cold-working stage could take as long as thirty-six hours to complete, and through these she has confirmed that the techniques of cutting and polishing glass and stone were very closely linked. From this we must conclude that cut glass was considerably more costly than plain, moulded or trailed pieces, and the comparative rarity of the hardstone compared to the cut-glass versions implies a further hierarchy in value. Although glass was highly esteemed in China, this was through its Buddhist associations, and it was never as costly there as gold, silver, silk or jade.¹¹³ Modern patterns of collecting have contributed to a totally false idea of the value of glass in antiquity. Von Saldern¹¹⁴

¹¹¹ Fukai 1977, pp. 31–32.

¹¹² Ishida 2005.

¹¹³ Moore 1998.

¹¹⁴ Von Saldern 1991.

has emphasised how “practically all glass up to the Roman Imperial times imitates more expensive stone and metalware,” yet how “almost all gold and silver plate from antiquity as well as probably most of the objects in semi-precious stone have perished”. Vickers¹¹⁵ and Stern¹¹⁶ have drawn different conclusions over the relative values of rock crystal and glass in the ancient Near East and the Roman empire, yet Vickers is surely correct in stating that “the nobler material to which clear glass looked was rock crystal”.

This relationship is underlined by the lack of many convincing parallels in form or decoration between vessels made of glass and other materials. The few exceptions include exceptional forms of a heavy stemmed goblet,¹¹⁷ the rare form in glass of a boat-shaped bowl with relief-cut facets,¹¹⁸ and two silver bowls with circular hammered facets arranged in rows around a central medallion enclosing a portrait bust.¹¹⁹ This suggests a fundamental difference in aesthetic values between the materials. The added value of particularly Late Sasanian glass lay in its dramatic reflective sparkle where each facet reflected its neighbours, but it also possessed two further advantages: its tactile and easily grasped surfaces, and its reassuring weight and balance when held in the hand. The latter affirmed an aesthetic connection with carved stone, although it lacked the transparency of rock crystal. It is not surprising that with this combination of factors a strong local market was created which could not be met by the limited supply of suitably large and unflawed hardstones until the discovery or greater exploitation of new East African sources in the 9th century.

The strong degree of continuity of arts and crafts in Mesopotamia and Iran after the Arab conquest should not be under-estimated, and it would not be surprising to find this was also true of hardstone and glass-cutting skills and traditions. However, the greater mobility following the dismantling of the Roman/Sasanian frontier and the creation of new centres of patronage must have contributed to a hot-bed of experimentation and cultural fusion. As many as four different compositions were used by the glass-workers at Raqqa, including Late Roman-type low magnesia glass and the Mesopotamian tradi-

¹¹⁵ Vickers 1996.

¹¹⁶ Stern 1997.

¹¹⁷ Fukai 1977, pl. XX.

¹¹⁸ Tokyo 1998, p. 38, no. 68.

¹¹⁹ Harper and Meyers 1981, pp. 24–26, pls. I and III.

tion of plant-ash glasses,¹²⁰ although the massive nine-ton glass slab at Bet She'arim illustrates how experimentation could go badly wrong.¹²¹ From the 9th century onwards, glassware appears to become much more common on the Iranian plateau and in Central Asia, and large amounts of thin-walled container glass also appear for the first time in these eastern lands. Lustre painting created new opportunities of combining bright colourful designs with metallic reflection. Mosaic-glass was also introduced from the west, possibly Egypt, and becomes popular in Mesopotamia and Iran in the 9th century where it was used alongside the traditional local preference for cut glass. Styles of cold-working also developed and were adapted to new forms of glass and rock crystal. Recognition of such hallmarks of Early Islamic glass is facilitated through a closer definition of what is meant by Sasanian glass. These are fields to which Jens Kröger has made tremendous contributions, and to whom this essay is dedicated with great pleasure.

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¹²⁰ Henderson and McLoughlin 2005.

¹²¹ Freestone and Gorin-Rosen 1999.

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THREE ROCK CRYSTAL BOTTLES IN OLD CASTILE (SPAIN)

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Out of the forty Egyptian rock crystal pieces kept in different collections in Spain,¹ three that are practically unknown deserve a detailed study. Two of these bottles are kept in their respective churches: the Collegiate Church of San Salvador in Oña (Burgos) and the church of San Pedro y San Ildefonso in Zamora (Zamora). The third is kept in the Cistercian monastery of Cañas (La Rioja).²

Collegiate church of San Salvador in Oña (Burgos) (fig. 1a-b)³

Total height	: 114 mm
Height of the crystal	: 91 mm
Width of body	: 41 mm
Width of base	: 47 mm
Depth	: 87 mm
Diameter of mouth	: 11 mm
Weight with base	: 266 gr
Approx. weight without base	: 250 gr

This is a cylindrical perfume bottle whose uppermost part is missing. Its hollowed part is also cylindrical and is not in line with the axis; while hollowing it the artisan was very close to breaking through the wall. On the upper part there is a simple semi-circular moulding below which are the decorations. It is decorated in relief by two

¹ I would like to express my thanks to the *Fondation Max van Berchem*. It was thanks to the foundation's financial support that I was able to catalogue the Islamic rock crystals kept in Spain.

² All diagrams are the work of José Fernández and all photographs have been taken by John Patterson. This text was translated into English by Ada Espinosa, whom I thank for her great effort and patience.

³ Zozaya 1993, pp. 123 and 135, fig. 6a; Casamar and Valdés 1996, pp. 67-68; Madrid 2000, pp. 206-209; Casamar and Valdés 2002.

long finger-like palmettes that curve into a sort of circle that closes in on itself. There is a heart-like shape in the centre.

A series of alterations to its carving have lowered its quality: some incisions are deeper at some points than at others. This proves that the artisan used an instrument which might have resulted in abrasions if used carelessly.

From among the works catalogued in Spain, this one is the most unusual in terms of its structure. The first characteristic that stands out is the poor quality of the raw material compared to the rest of the pieces in the series. The quartz used for this piece has many veins, whereas the others are in fact characterised by the purity of the quartz (no veins being visible to the naked eye).

Another difference is the narrowness of its hole and the surprisingly large needle chosen to make the bottle, as well as the contrast between the delicacy of its ornamentation and the bluntness of its inside: the hole is very much tilted and scrapes the exterior wall (at this point it is barely 1 mm thick). Is this the result of carelessness or inexperience? Is there some kind of connection between the overall lack of care—or the apparent carelessness in the making of the hole—and the relatively low quality of the raw material? The elaborately ornamental workmanship seems to suggest that the carving and decoration are the work of different hands. Perhaps this is one of the most interesting aspects we come across when we subject the manufacturing process to close examination and try to understand what went on in these workshops, where artisans had specific tasks depending on their level of skill.

Quite probably, this piece of artwork has something to do with Spaniard Sancho Garcés's partially fulfilled hopes that San Salvador would become the burial place of the count's dynasty; however, it is very difficult to guess the date when it came to form part of the treasury of the collegiate church. The rest of the Islamic pieces kept there are not too helpful either, as their dates range from the 11th to the 14th to 15th centuries.⁴

The most famous of these, the so-called "aljuba", might be able to give us a clue concerning dates, but we are not completely sure of when and where it was found⁵ (apparently, it was discovered in a place other than its original location along with the much-later

⁴ Madrid 2000, pp. 254-256.

⁵ Lázaro 1969, pp. 48-49.

Nasrid-dynasty boxes shown in the small museum of the collegiate church).⁶ This means we cannot rely on the circumstances of the finding to date the piece,⁷ and although we know the date given to the fabric, we can hardly link it to the rock crystal itself because we do not know what it was originally used for, whether or not it formed part of the reliquary or if it was donated to or bought by the church at a later date (as is probably the case with the other Islamic works).

San Salvador's abbey was incredibly prosperous during the whole of the 11th century thanks to the considerably large donations and contributions it received. Its privileged financial situation allowed it to become the most important ecclesiastical institution in Castile, and its status was definitely consolidated when it was completely exempted from taxes.

Despite all this, its past is marked by a few negative incidents. In 1366 it was pillaged by the English troops of the "Black Prince" (who was helping Pedro I of Castile fight against Enrique II of Castile).⁸ Consequently, Abbot Sancho Díaz de Briviesca had to fortify the monastery. In 1450, under the reign of Juan II (1406-1454), the friars of San Benito de Valladolid, who had been given the task of checking the activity of several convents of the order (including the one in Oña), arrived with their abbot, broke up the community of friars who lived there and pillaged their treasures.⁹

The church has been a burial place ever since it was founded.¹⁰ The "Panteón Real" (Royal burial place) goes back to the reign of

⁶ Don Agustín Lázaro, who discovered the fabric when he was a priest in Oña, dated it to the first third (or even early years) of the 11th century (Lázaro 1969, pp. 48-53). J. Zozaya and M. Casamar (Zozaya and Casamar 1991) claimed it had been made in a workshop in Córdoba in the first third of the 10th century, however, detailed study of the technique used and its iconographic analysis now lead us to believe that it is more likely from the late 11th century than from the 10th century.

⁷ Sentenach 1925, p. 37.

⁸ Cadiñanos 1987, pp. 260-263.

⁹ "*Y no paró aquí la inclemencia y la crueldad sino que en presencia de ocho sepulturas reales de quien por línea recta deszienden los reyes de España, y que con crezido amor y cuidado se avían desvelado en allegar, sus joyas y tesoros para engrandezer asear y ornamentar aquel insigne y real templo archivo y monumentos de sus reales cenizas, y habian hecho retablos de plata fina sembrados de muchas piedras preciosas y camafeos, los mandó desclabar; con una imagen de Nuestra Señora y doce apóstoles de bulto de plata fina, y los cetros, cruces e incensarios, hasta una corona de oro que tenía un crucifijo; todo lo destruyeron; y llebaron a su cassa azémilas cargadas de toda esta riqueza.*" In: Herrera Oria 1925, p. 65.

¹⁰ Silva Maroto 1974.

the Catholic Monarchs, and is quite probably the work of Pedro de Valladolid. It enshrines the ashes of: King Sancho “el Mayor” of Navarre and his wife, King Sancho II of Castile, Count Sancho Garcés and his wife Urraca (who founded the monastery), as well as their son García, princes Felipe and Enrique (sons of Sancho IV), and García (son of Alfonso VII).

Church of San Pedro y San Ildefonso in Zamora (fig. 2a-b; 3a-b)¹¹

Our piece forms part of a chalice that is considered to be one of the masterpieces in silverwork of the last quarter of the 16th century. Its ornamentation is set out in three clearly differentiated parts. Its base consists of a small octagonal piece that sits on a foot shaped like a four-leaf clover. The lower part is adorned with simple incise motifs of volutes, and the upper part is decorated with scallop shells. Near the bottom are small heads of angels, four other pieces of carved crystal and an inscription in capital letters in Latin that reads: *IHS XRS FILIVS MARIE*.

The top of the bell-shaped cup is smooth; the bottom is more convex and has two rows of scallop shells alternated with heads of women and children, and a small pyramid, all in rock crystal. A bit higher up is another decorative band consisting of six small heads made of ivory.

The central part of this artefact is its stem, made up by three pieces of rock crystal. The top and middle ones are carved polyhedrons with smooth rectangular and trapezium-shaped faces. The bottom piece is smooth and shaped like a truncated pyramid.

This last piece is of particular interest to us. Although it seems to be a cylinder carved out of rock crystal, if we disassemble the work by unscrewing the bottom, hollow part of the base, it is easy to see that this part is in fact a bottle that has had its ends cut off, i.e. a recycled piece.

¹¹ Gómez-Moreno 1927, p. 158, pl. 170; Heras Hernández 1973, p. 256, pl. 1310; Caldero Fernández 1978, p. 45, pl. 22; Ramos de Castro 1984, p. 323; Ramos de Castro 1990, pp. 325-334; Salamanca 1991, cat. no 24; Casamar and Valdés 1996, pp. 67-69.

Height of chalice	: 264 mm
Height of crystal	: 53 mm
Total width	: 34 mm
Minimum width	: 20 mm
Diameter of cup	: 11.9/ 9.5 mm
Weight	: 90.5 gr

This is a perfume bottle that has a smooth and slightly damaged top and a bottom part shaped like a truncated pyramid.

A damaged, semi-circular moulding or beading delimits the end of the decorated part. There was probably a similar moulding at the top, but all that is left is a very thin line in relief.

As is customary, the ornamentation consists of a very stylised plant motif that appears thrice. Its body has a smooth background, with the ornamentation in relief.

The inside of the piece is pierced by a round hole that does not have a fully vertical axis and that is wider on the top than on the bottom. There is still a fraction of the bottom of the hole in what was once its lower part. When the crystal was placed in the chalice, a narrower and more rustic hole was made, deepening the first.

The uppermost part of the piece was bevelled in order to ease the insertion of the metallic stem. We can tell that the bevel was added at a later date because it is unpolished, unlike the rest of the surface of the crystal.

The crystal is of a very good quality and shows no veins or flaws.

It is quite certain that this object arrived at the Church of San Pedro y San Ildefonso de Zamora before, or at least during, its adaptation into a chalice there. We know this from the very thin moulding on its upper rim and from the complete lack of projections to fit the metal lid. This is also the case of other similar pieces. The upper end was carefully polished before the decorations were added. The ornamentation fits in perfectly and is in line with the set area; not the smallest fracture or change to the design is perceivable.

The small portion we have of the bottom of the hole shows that the piece is upside down in the stem of the chalice. Logically, the piece must have been directly underneath the crystal, unlike now.

The specialists who have examined the chalice claim that it is linked to the north Italian silversmith schools, more precisely to the workshop that belonged to the Saracchi family that settled in Milan

in the second half of the 16th century. In the mid 16th century, the sculptor of hard stones Jacopo da Trezzo settled in Spain and worked on El Escorial for King Philip II¹². Hayward¹³ believes him to have been the head of a school of silversmiths and carvers of crystal and hard stones in Spain; for this reason the chalice could either come from an Italian workshop or have been made in Madrid by an Italian artist.¹⁴ In short, the original rock crystal bottle was recycled in a much later workshop, could just as well come from Italy than from Spain, and does not help us date the Egyptian rock crystals.

*Monastery of Cañas (La Rioja) (fig. 4a-b)*¹⁵

Total Height	: 91 mm
Total width	: 22 mm
Diameter of mouth	: 10 mm
Depth	: 70 mm
Weight	: 147 gr

This is a cylindrical bottle with a cylindrical neck and a conical base.

It is believed to have had metal mountings (now missing) on both ends. On its neck is one of the rings into which fits the lid.

Below this is a moulding divided into rectangular sections, underneath which is a smooth incise line that delimits the ornamental part. The lower end of this part is marked off by another incision that is not too regular, followed by a moulding much finer than the one at the top.

Its inside is cylindrical.

On the outside is a white piece of paper that reads: “DE COLUMNA DONI: LIGNUM DONI”. These words in Latin make reference to the relics kept inside.

A simple plant motif drawn with very thick incisions appears on each of the two symmetrical sides of the ornamental part.

¹² Sanz Serrano 1978, pp. 208-213, and Sanz Serrano 1979, pp. 66-67.

¹³ Hayward 1976, p. 360.

¹⁴ Martín Vaquero 1993, p. 97.

¹⁵ Casamar and Valdés 1996, pp. 67-68.

Its lip is somewhat broken and its mouldings are slightly damaged.

The Cistercian monastery of Cañas was first heard of in 1169 when Count Lope Díaz de Haro and his wife Aldonza Ruiz de Castro decided to found it in Santa María de la Hayuela, near Santo Domingo de la Calzada. One year later, in 1170, before passing away, the count made another donation so that the nuns could move to Cañas, where the new monastery was to be built. The countess and her daughters joined it in 1171. Urraca, one of the daughters, was to become abbess and we can say that it was thanks to her that the monastery was built.¹⁶

Don Lope Díaz de Haro provided the necessary financial support but was not involved in the building of the monastery; it was his daughter Urraca (1170-1262), the fourth abbess of the monastery, who was the one who actually saw to it in 1236.¹⁷

We do not possess any evidence which might help us to link the rock crystal bottle with the monastery's past; we may assume that it could just as well have arrived there (probably during the first few years after the building of the monastery) as a loose object or serving as a reliquary. Inside the bottle is a piece of paper inscribed in Spanish. This inscription informs us of the bottle's contents. But, unfortunately, it is not too helpful because its ductus suggests a rather post-medieval date. The only thing we know for certain is that the piece arrived at the monastery no earlier than 1169/70, but this does not help us date the Fatimid rock crystal.

The bottles in Cañas and one in the Alhambra Museum in Granada (fig. 5a-b)¹⁸ are strikingly similar, not just in terms of their outer structure but also of their ornamentation. Apart from the chess pieces, these are the only two works in Spain with incised ornamentation made using rough strokes. The motifs are (or are supposed to be) plant motifs and they make up a frieze.

In both cases, the upper and lower mouldings have been carved to give the idea of classic beading, but the result is quite rudimentary.

¹⁶ Colombás 1973, p. 1540.

¹⁷ Abad 1983; Abad 1984, p. 102. On the architectural history of Cañas cf. Moya et al. 1975/76, pp. 280-286.

¹⁸ Granada 1995, cat. no. 252.

An object cannot be dated based on what is known about its provenance. In the case of the bottle in Granada, this is true because all we know of it is that it came from the trade of antiques; in the case of the bottle in Cañas, it is because the monastery was founded in 1071, i.e. after the rock crystal manufacturing industry had supposedly come to an end in Egypt. Given the various differences that exist between these pieces and the Spanish ones, we could consider the possibility of them not being of Fatimid origin, but because of the very characteristics of the raw material, the overall appearance of the bottles and the lack of similar items elsewhere, we are inclined to believe that they came from Egypt. Judging by the inscription and by the fact that its contents have apparently remained untouched, we could think that the work in Cañas came from the East, perhaps even straight from Palestine, preserving the relics of the Passion of Christ, like a number of other reliquaries.

Because of its style, it is just as likely to have been made when the rock crystal industry was taking off as when it was in decline, or even at a time when Fatimid workshops were active.

As we have already pointed out, we do not know the exact date when this manufacturing industry started developing in Egypt. Historians who have carefully studied the industry have never mentioned a significant improvement in the technical quality of the pieces, but only variations in the style of the ornamentation¹⁹ that eventually led to perfection (with the modern designs produced under the reigns of al-'Aziz and al-Hakim).

The works in Cañas and Granada give an idea of primitivism or even decadence, but it is always possible that they were poorer-quality items made in Egypt at similar dates. Maybe they were just preliminary or low-cost pieces that have only been kept due to their uniqueness and because of the curious contrast between the quality of the raw material and the work put into them. In any case, their resemblance is such that we could consider them to be from the same workshop.

In what concerns their structure, they are very much similar to pieces kept in the Stiftskirche in Gandersheim (Germany),²⁰ the

¹⁹ Erdmann 1951; Ettinghausen and Grabar 1987, p. 193.

²⁰ It is 112 mm tall and was thought to be of Byzantine origin (Steinacker 1910, p. 144, pl. 89). K. Erdmann determined its true provenance (Erdmann 1959, pp. 201-202, pl. 1); Philippe 1979, p. 243, pl. 4.

Schnütgenmuseum in Cologne (Germany)²¹ and in Borghorst (Germany),²² nevertheless these three have a bell-shaped neck unlike ours.

As far as ornamentation is concerned, they share a strong resemblance to a flask that is kept in the British Museum²³ and that is decorated quite simply: plant motifs with little detail made with thick incisions and a slight carving around the body and upper moulding.

Also similar to them, although not as much, is the bottle in the Iraqi museum of Baghdad that was found during the third season of excavations near the al-Hajjaj mosque in Wasit (Iraq).²⁴ Its mode of production is fairly simple but not as much as that of our pieces. Kurt Erdmann²⁵ claims (and it is undoubtedly true) that this bottle is linked to the chess pieces in the Parisian collection of Marquis de Ganay (that make up part of the lot from Àger—in Lérida, Spain—and are kept in the National Museum of Kuwait). Based on this link, he states that the bottle in Baghdad and the chess pieces are from a pre-Fatimid period. This might also be true of our works, however, as we have already said, the apparent carelessness with which they were made can be taken as a feature of primitivism/decadence or as proof that, in addition to first-quality goods, products of a lower quality and price were manufactured in the same or different workshops.

When compared to the Spanish pieces, the most atypical of the three is the one in Burgos, both because of its size and because of the quality of its ornamentation and raw material. Concerning the first of these aspects, we must say that its appearance is relatively simple and that it is the second heaviest piece among those catalogued in Spain (the heaviest being the one shaped like a spearhead that is kept in the National Archaeological Museum of Madrid).²⁶ Another distinguishing feature is that the crystal has whitish veins. Most other

²¹ Philippe 1979, pl. 3; Köln 1985, cat. no. H-28. See also Shalem 1999, pp. 289-299, especially fig. 2.

²² Philippe 1979, p. 243, fig. 4. It is placed in the centre of a cross-shaped reliquary and dates from 1020. See also Shalem 1999, pp. 289-299.

²³ Pinder-Wilson 1954, pl. 33a; Erdmann 1959, p. 202, pl. 2.

²⁴ It is 51 cm tall and has no neck. Its decoration consists of two overlapping friezes: the upper one has geometric motifs; the lower one, plant motifs. It was found in the ground under the building at a level that corresponds to the Ilkhane period (13th-14th centuries).

²⁵ Erdmann 1959, pp. 202-203, pl. 4 and A.

²⁶ Cat. no. 62.317; H: 112 mm; total width: 80 mm; minimum width: 35 mm;

works kept in Spain tend to be of a very good quality (this implies a careful selection of the raw material).

One thing it has in common with the bottle in Zamora is its tilted hole. If we compare it to the other (better-finished) objects, we are led to believe that for pieces made of this material, the artisans made the hole before decorating the object. This way, if the pieces became fractured during the process or if the artisan happened to break through the wall, no time would be wasted on decorating them. Presumably, this first part of the manufacturing process was carried out by apprentices or by poorly experienced artisans, and the decoration stage (undoubtedly, the most difficult part) was in the hands of the more experienced ones.

Despite the various differences in ornamentation, the piece in Cañas, which is closely linked to the one in the Alhambra Museum, helps prove that the latter is authentic, and is also tangible proof of what traveller Nasir-I Khusraw wrote in his *Safar Nama*²⁷ about his visit to Cairo from 1046 to 1050. He talks about the rock crystal products that were sold in the market places, and mentions that they were not all masterpieces nor were they exclusively bought by members of the palace. He differentiates the so-called *majrud* (that were only polished or engraved) from the *manqus* (carved).

It is obvious that the bottles in Cañas and Granada were from the *manqus* group, and it is clear that we cannot date artefacts based on their higher or lower degree of perfection. I do not rule out a possible evolution in terms of the quality and style of the objects, but I do understand that workers with different levels of skill (whether it be in the same or different workshops) produced goods of varying quality. I also believe it is possible that at the time, lower-quality products (made with less care and using cheaper, lower-quality raw material) were manufactured for a market that was selective but that could not afford what was produced for the courts. Definitely, we cannot automatically establish a relation between a certain degree of perfection and a developmental stage of the manufacturing industry. There might be some connection in some cases, but we cannot

depth of hole: 79 mm; Diameter of mouth: 11.5 mm; Weight: 350 gr. Illustrated in London 1976, cat. no. 110.

²⁷ Nanji 1993.

determine the stage at which an artefact was produced based on its artistic value.

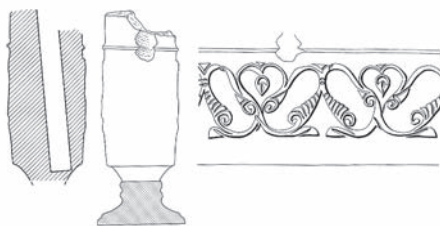
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1a



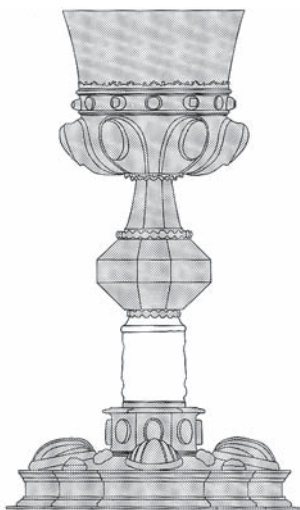
1b

Fig. 1a. Cylindrical perfume bottle, rock crystal, total height with mounting: 114 mm. Collegiate church of San Salvador in Oña (Burgos).

Fig. 1b. Drawing of fig. 1a.



2a



2b

Fig. 2a. Chalice, last quarter of 16th century. H: 264 mm. Church of San Pedro y San Ildefonso in Zamora (Zamora).

Fig. 2b. Drawing of fig. 2a.



3a



3b

Fig. 3a. Perfume bottle, rock crystal forming the shaft of the chalice (fig. 2a). H: 53 mm.
Fig. 3b. Drawing of fig. 3a.



4a



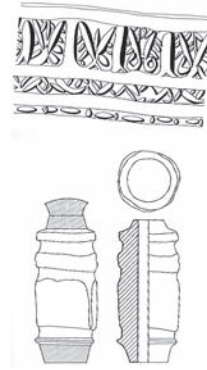
4b

Fig. 4a. Cylindrical bottle, rock crystal. H: 91 mm. Monastery of Cañas (La Rioja).

Fig. 4b. Drawing of fig. 4a.



5a



5b

Fig. 5a. Cylindrical bottle, rock crystal. Alhambra Museum (Granada).

Fig. 5b. Drawing of fig. 5a.

ANOTHER GILT GLASS BOTTLE¹

OLIVER WATSON, OXFORD

The existence of ‘solitary’ works of art, especially ones of documentary interest and of high quality or other exceptional factors, has always been worrisome for scholars. Authenticity can be a concern, particularly when the pieces are in excellent condition; at other times, the focus is on the cultural context. Why should a sole piece that survives of a particular type also happen to be so historically interesting? The Alp Arslan silver salver in the Boston Museum of Fine Arts and the Buyid gold jug in the Freer Gallery in Washington have engendered unease about their authenticity over a long period, and have found advocates on both sides of the argument, though a final conclusion has still not been reached.² The authenticity of the Innsbruck “Urtuqid” enamelled dish has not to my knowledge been seriously questioned, but the context in which this very un-Islamic object was made has continually puzzled scholars. How, why and where does such an unusual object happen to be made in the first place?³

Another virtually ‘solitary’ piece has also been accepted as genuine ever since scholars first documented it; however its cultural and manufacturing context has usually been somewhat airily passed over. I say ‘virtually solitary’ because the piece in question—the fragmentary glass bottle in the British Museum with gilt decoration and bearing the title of a 12th-century Zangid Atabeg—is both associated with a number of comparative fragments, and in its technique is easily seen as a precursor to the tremendous variety of gilt and enamelled

¹ I am delighted to be able to offer this modest contribution to the history of Islamic glass in celebration of the work of Jens Kröger, a fine friend and most helpful colleague. I wish to thank Hubert Bari of the National Council of Culture, Art and Heritage in Qatar for help in obtaining photographs of the Doha bottle, and Nahla Nassar, Curator of the Khalili Collection, for help with fig. 12.

² Pope 1939, pls. MCCCXLIII and MCCCXLVII–8. Lowry (1989) argues that the Buyid jug is genuine. See the vitriolic exchange between Arthur Upham Pope and M. Aga Oglu over the Alp Arslan salver in a review and subsequent letters in the *Art Bulletin* v. 29/1, 1947; 29/4, 1947 and 30/2, 1948.

³ Redford 1990.

glass pieces that were produced in great numbers in the following century.⁴ It is, however, the only piece approaching wholeness while its colleagues are a few random shreds, and its inscription makes it of key importance in framing a history of glass in the Islamic world.

The arrival of a spectacular new piece in the same style does not solve all the problems of this genre of glassware, but provides a new companion to the British Museum bottle. Along with a growing group of fragments of like technique and style, these two pieces begin to convince us that we are dealing with an established manufacture of this type of luxury glass and not with a few rogue one-of-a-kind samples.

The history of this new object is unknown before its appearance at a sale in Paris in the autumn of 2004, though it was said to come from “an old French collection”.⁵ It was purchased by Sheikh Saud Al Thani, then Chairman of the Qatar National Council of Culture, Art and Heritage, and is now in the Qatar national collections, where it will hopefully form part of the displays in the Museum of Islamic Art now under construction in Doha.

The item in question is a flask of dark blue glass, 24.2 cm tall, flaring slightly from a rounded base to a sharp flattened shoulder and a small nozzle of a neck (figs. 1–4).⁶ The decoration is painted gold—liquid gilding rather than cut gold leaf—with details incised with a sharp point. The flask is in excellent condition. It is intact and the gilding is generally thick and brilliant: only in a few areas is the gold worn through, and there are a few accidental scratch lines marking the surface in addition to the intentionally incised details. It is the general appearance of the gilding on the deeply coloured glass that no doubt led to its being catalogued at auction

⁴ Lamm 1929, pl. XLII, no. 4; Mayer 1939; Gray 1963, figs. 1a and b; Scanlon 1998, p. 27, pl. VIII.1. Fragmentary bottle: clear glass with painted gold decoration and incised details, showing pomegranate trees, heraldic birds and dancing girls, and an inscription giving parts of a royal titulature. British Museum OA 1906, inv. no. 7–19, 1; diam.: 15.7 cm, “Found in Asia Minor”.

Mayer argues that a title ending in “...al-salatin” followed by “‘imad al-din” indicates Zangi I (1127–1146), who established himself in Aleppo in 1130. Others have suggested that is it rather Zangi II, ruler of Sinjar in the Jazira from 1171 to 1197, favouring a later date for the object, but have not addressed the epigraphic arguments of Mayer, see Scanlon 1998 and Paris 2001, cat. no. 197.

⁵ Paris 2004, lot 412. My thanks to Annie Kevorkian for help, information and photographs of this piece.

⁶ Diameter at base: 4.3 cm; at shoulder: 6.3 cm.

as “Indian, 18th century”, for the quality of surface is comparable to this well-known type of object.⁷ However, the flask shape points to a medieval date, confirmed beyond doubt by the motifs of the decoration, which moreover indicate a Middle Eastern origin. The main body of the flask is divided by a series of off-set ‘pomegranate’ trees joined by bands of plain lines inclosing a chevron device, and the spaces between filled with affronted birds and plant fronds. It bears neither human figures nor an inscription, but can be placed closely alongside the British Museum bottle since both the trees and the birds can be paralleled on the British Museum bottle. The pomegranate trees are alike in every particular: the rounded shape of the whole; the branches ending in lobed forms with a central longitudinal incised line; the fruit with splayed petals and interior parallel incised lines; and the stubby leaves and infilling dots. One might be inclined to say that they were created by the same hand, if such attributions were really possible or appropriate. The birds are certainly from the same flock, though perched with folded wings they are less impressive and less ornate than the heraldically splayed birds on the British Museum bottle. However they share the same characteristics of internally incised details, including the line from the top of the beak to the top of the eye, the ring enclosing the eye, and the decorative elaboration behind the eye. The smaller paired fronds in the background are less carefully executed than on the British Museum bottle, where the leaves taper in length towards the tip, but the general effect is very much the same. One can with complete confidence attribute both pieces to the same workshop, and assume that they were made within a very short time of each other.

We are able to put together a small family of Islamic gilt glass around the two major pieces: the British Museum and Doha bottles. Several sherds, which have already been published, are candidates for inclusion. A fragment of a blue flask with decoration of an archer was already associated with the British Museum bottle by Basil Gray.⁸ Two sherds of vessels in clear glass with gold painting

⁷ Carboni and Whitehouse 2001, cat. no. 138. The auction catalogue compared it to an Indian flask in the Cleveland Museum of Art. The price it fetched, several times the estimate, indicated that more than one person had recognised it for what it really was.

⁸ Gray 1965, pp. 4–5, fig. 2. Shoulder fragment of a flask. Blue glass with painted gold decoration and incised details of an archer drawing a bow set in a large roundel. Foliage fronds of the same type as on the British Museum Zangid bottle

in the Ashmolean collection—one decorated with an heraldic eagle, the other with an inscription above a roundel against a background of interlocking “y” motifs—have been attributed to Syria, although they were likely discovered in Fustat.⁹ Also from Fustat are two small fragments published by Lamm,¹⁰ but whose relationship to the British Museum bottle appears not to have been remarked on (figs. 5–7).¹¹ Both are painted in gold on opaque white glass (“Milchglas”) and may indeed originate from the same vessel. One shows part of exactly the same type of pomegranate tree as found on the British Museum and Doha bottles, to one side are the arms of a musician holding a long wind instrument. The other fragment features a more complete version of a similar musician and a dancing girl in a very similar pose and dress to that on the British Museum bottle, but separated by an interlaced double band unlike that on any of the other pieces.¹² These two fragments, in the Cairo Museum of Islamic Art, were presumably found in Fustat. There can be no doubt that a survey of glass sherds from museums and excavations will turn up many more associated pieces, and may be a first step towards establishing a provenance (or provenances) for the manufacture of such glass.¹³

appear around him. The roundel is formed by two lines containing a continuous chevron. British Museum. H: 5.5 cm; w: 6 cm. Recorded to have been found in South Anatolia.

Gray compares the headdress of the archer with those illustrated in the Topkapi Warqah and Gulshah manuscript, now attributed to Anatolia in the first half of the 13th century, possibly Konya.

The chevron bands of the roundels are reminiscent of a rather more complex version of the same pattern in the bands that join the pomegranate trees in the Doha bottle.

⁹ Wenzel 1985, p. 102, fig. 1a, where it is mistakenly described as “black glass”. Paris 2001, cat. no. 197 (image upside-down); and Scanlon 1998, p. 27, fig. 8.2.

¹⁰ Lamm 1929, p. ii, pl. XLV, nos. 1 and 2; line drawing of no. 2 given on pl. XLVI, no. 26.

¹¹ Museum of Islamic Art, Cairo, nos. 6959 and 4313.

¹² It is not irrelevant to note that the British Museum bottle also shows a musician as well as dancing girls, although he has never been illustrated: alongside a pomegranate tree in the upper register is the head of a musician who is holding and strumming what appears to be a harp or *kanun*-like instrument.

¹³ Cf. Lamm 1929, pl. XLI, no. 24, and pl. XLVI, nos. 16 and 17; cf. also Clairmont 1977, nos. 412 and 419. When dealing with fragments there are often not enough diagnostic features for a definitive attribution and one must beware of including later enamelled and gilt objects that have broken into sherds, which show only gilding. Carboni 1999, note 12, comments on gilt glass without enamels that “many unpublished fragments are in various public and private collections”.

At present we can point to only one group of sherds that may help us identify a manufacturing site. Among the finds of excavations at the Qasr al-Banat in Raqqa by Dr K. Toueir from 1977 to 1982 were a group of gilt glass sherds from two different vessels. More fragments from one of the pieces are additionally found in the Khalili collection.

The first piece is represented by two fragments from a bottle of clear glass, with painted gold decoration and incised details, showing seated drinking figures under an arcade (figs. 8–9). Details of the figures are incised and in the background appear floral sprays, a bottle and stars. Above the arcade is an arabesque that appears to continue up the neck. The dark colour is a patination of the glass during burial. Details of the faces and other details of the figures are not unlike that of the archer on the British Museum fragment, including the jutting chin, long delicately-pointed nose and double lines at the cuff.

The second piece is a beaker, with an inscription at the rim, and interlocking roundels beneath containing human-headed birds (figs. 10–12). These have details incised through the gold, though the work is more perfunctory than on the pieces so far described. The fragments shown in figs. 10 and 11 were discovered during the course of the excavations at Qasr al-Banat, although it was unclear at first that the inscription and the decorative roundels belonged to the same piece. However, three further sherds from the same vessel in the Khalili collection (fig. 12) bridge the gap between the different elements of design and show that the entire group belongs together and comes from a single piece.

The fact that these pieces were found in Raqqa does not of course prove anything, for quite clearly luxury items of this type could be and were traded over considerable distances. However, there are other reasons for regarding Raqqa as a possible source for these objects, not least of which is the long glass-making tradition in that city, and its candidature for the production of early enamelled glass at the end of the 12th century.¹⁴ Carboni comments that Raqqa "... seems to be a good candidate as the putative centre of birth". He tentatively therefore attributes to Raqqa the British Museum bottle and the two earliest datable enamelled glass objects: a beaker with

¹⁴ See for example the publications by Julian Henderson listed in Ward 1998 or Carboni and Whitehouse 2001.

the name of Sanjar Shah, another atabeg of Mosul (r. 1180–1209), and a dish excavated at Kubadabad in Anatolia with the name of the Saljuq sultan Kaikhusraw II (r. 1237–1247).¹⁵ The Kubadabad dish is in a fully-fledged enamelled technique, but in the early beaker the dedicatory inscription and fish scattered on the surface are in gold alone, while coloured enamels were used only for the emblem of a sword, bow and arrow.¹⁶ A sequence suggests itself: the earliest decoration would be in gold painting alone, then enamelled details are added; finally the coloured enamel takes precedence, and gold is left as a subsidiary colour. The Sanjar Shah beaker shows an intermediate stage between the British Museum bottle and the Kubadabad dish. A barely visible detail on the Raqqa beaker with human-headed birds described above supports such a chronology: there is a dark painted line running above and below the gilt lines framing the inscription. Clearly not gold, it has every appearance of a line of enamel, perhaps discoloured during burial. If this is the case, then might we be looking at one of the earliest introductions of enamel into gilt-glass making, placing it between the British Museum bottle and slightly more developed enamelling on the Sanjar Shah beaker?

If this is the correct relationship of gilt glass to the later series of enamelled glass, might we speculate further and see gilt glass also as a bridge backwards in time towards the earlier lustre glass of Syria and Egypt? Lustre decoration is the only form of painted glass in early Islamic times, but it appears to die out with the Fatimids sometime in the 12th century.¹⁷ Gilding glass is easier to do than lustre painting—more reliable in its outcome, more striking in its effects, though not capable of polychromy. Once gilding is established, the fixing of gold by a fairly low heat might of itself have suggested to the glassmakers that other bright colours could also be fixed this way. The development of low-fired coloured enamels allowed for a full polychromy, and there was no reason to stay wedded to the monochrome palette of gilding: the fully-fledged enamelled glass industry took off. In this scenario, our gilt glass school fits well into its mid-12th-century dating: while lustre on pottery survived the move from

¹⁵ Carboni and Whitehouse 2001, p. 204.

¹⁶ Carboni 1999, pp. 173/4, figs. 3 and 4; Carboni and Whitehouse 2001, p. 205, fig. 100; Paris 2001, cat. no. 198.

¹⁷ On lustre glass, termed by Carboni as “stained”, see Carboni 2001 and Carboni and Whitehouse 2001.

Fatimid Egypt to Syria at just this point, lustre-painted glass was replaced by gilt glass.

We cannot leave this gilt glass family without exploring its relation to the cognate groups of Byzantine glass recently discussed with admirable clarity by David Whitehouse.¹⁸ He does not mention the British Museum bottle at all—a clear indication that in his mind it belongs to a distinct ‘Islamic’ group. Indeed, we can now start to tease out the precise differences. The decoration of the Byzantine pieces can be more restrained and formal than the Islamic with, typically, birds in offset roundels, and an additional difference in the use of coloured enamels alongside the gilding,¹⁹ while in other types it can seem much more clumsy, crowded and less skilled than the Islamic.²⁰ The Byzantine glass seems to divide into a number of groups and it is possible to see the Islamic pieces as yet another group within a larger extended family. There are close comparisons to be made in shape and decorative details between the pieces found in Cyprus and the Doha bottle.²¹ Thus the form of the elongated bottles or flasks is very similar, some birds and animals appear to have similar incised details, the framing bands with chevrons are closely comparable as is the triangular radial pattern at the neck and shoulder. Despite these similarities, however, there is something which distinguishes them quite clearly. The Islamic pieces are in this case more ordered and better drawn, while the square cartouches containing animals in the Cyprus pieces are quite un-Islamic, as are the decorative grids with crosses.²² Moreover, the Cyprus pieces are decorated with white enamel, while the bottle from Corinth, with its more formal and restrained decoration of birds in offset roundels has red, yellow and green enamels alongside the gold. Megaw, in relating the Cyprus pieces to those from Corinth, comments that the similarities suggest “... if not a common source ... at least a very close parentage”. Exactly the same might be said of the Islamic pieces. However, such evidence as we have suggests that the Islamic pieces

¹⁸ Whitehouse 1998.

¹⁹ Whitehouse 1998, fig. 2.1.

²⁰ Whitehouse 1998, figs. 2.2–2.5.

²¹ Compare figs. 1–4 here with the glass from Cyprus illustrated in Megaw 1959, fig. 1, and in Megaw 1968, figs. 5–8.

²² After Megaw 1959, fig. 1. Bottle found in the “Saranda Kolonnes” mound at Kato Paphos by Megaw. Blue glass with gold painting and incised detail, and white enamel. Cyprus Museum. H: 16.9 cm.

are earlier in date than the Byzantine, where all evidence points towards the end, not the middle, of the 12th century. It would not stretch the imagination too far to see the Islamic workshops as the precursor, and the Cyprus pieces as the products of a descendent workshop, working in the Byzantine or Crusader sphere and maintaining many of the Islamic features, albeit in a less skilled fashion, and adopting 'Byzantine' schemes of layout and other motifs. This then would be counter to the usual view—that the British Museum bottle shows 'Byzantine influence', and argues for the primacy of the Islamic glass working traditions, therefore reversing the flow of 'influence'. What conclusions can we draw from these observations?

Firstly: that there is a coherent group of gilt Islamic glass which can be gathered around two key pieces—the British Museum and Doha bottles. This group is formed of a variety of shapes (round bottle, elongated flask, flaring beakers) in a variety of glass types (clear, translucent dark blue, opaque white) but is decorated in a single technique (painted gold, with incised details). The 'style' of painting is perhaps better regarded as particular technique (incised details in painted gold) and a series of motifs (pomegranate tree, animals in roundels, human figures in particular poses and with characteristic details of costume).

Secondly: that this group is to be dated to the middle part of the 12th century. The British Museum bottle gives the fixed point of the dates of the Zangi I, Atabeg of both Mosul and Aleppo from about 1127 to his death in 1146.²³ By the end of the century, coloured enamels were already in use in combination with gilt painting, as demonstrated by the beaker in the name of Sanjar, Atabeg of Mosul from 1180 to 1209. And it is clear that the vast bulk of 13th- and 14th-century decorated glass is painted either in enamel alone, or in enamel with gilding, but very rarely in gold alone.²⁴ The middle

²³ The interpretation of the material from the Qasr al-Banat in Raqqa is fraught with difficulty and of no help in precise dating. It appears that there is no discernable stratification, but that the ruins of the building were filled with debris from the surrounding potteries and habitations. Material of any date might have been washed into the building after it was abandoned—probably before the Mongol destruction of 1259. There are also considerable quantities of pre-Mongol Raqqa pottery apparently deliberately dumped as wastage from the surrounding kilns. In the late 1980s on inspecting the finds of Dr Toueir's excavations, I discovered a group of manganese sherds weighing over 17 kg, which had been found in a doorway. These excavation finds have not been published; on the building see Toueir 1985.

²⁴ We have to guard against the possibility of enamelled and gilt glasses breaking

decades of the 12th century suggest themselves as the high point for gold painted glass.

Thirdly: that this Islamic school of gold-decorated glass-making appears to be located in Syria or the Jazira (with Raqqa emerging as a plausible centre). Though only the finds from Raqqa are securely located, the reports of all the finds congregate on this area: the British Museum bottle and sherd found in “Asia Minor”, the group of pieces from Raqqa, the history of Zangi I in Syria and the Jazira, and even the beaker of Sanjar Shah. That fragments should also be found in Fustat should not worry us—there are many of the distinctive Raqqan lustreware ceramics found there too, which shows that luxury objects were an article of trade over considerable distances. The example of Islamic enamelled and of Byzantine glass shows that luxury articles could travel even further afield.²⁵

Finally: far from being an offshoot of the Byzantine glass-decorating industry, there is growing evidence that we are dealing primarily with an Islamic industry, whose connections with the Byzantine groups of glass may be one of ‘influencing’ rather than of being ‘influenced’.

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in such a way as to leave only gold decoration on particular sherds.

²⁵ For Islamic glass in Europe see Carboni and Whitehouse 2001, p. 203. Whitehouse 1998 lists pieces of Byzantine glass found in Belarus, Armenia, Sweden and England, as well as in Cyprus and Corinth, demonstrating a wide network of trade.

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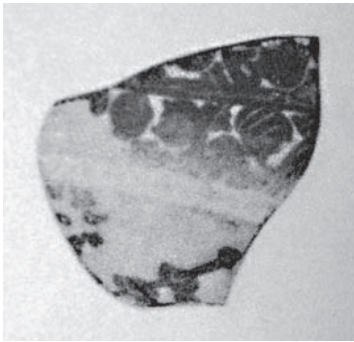
Figs. 1–4. Bottle. Dark-blue translucent glass, with painted gold decoration and incised details, showing pomegranate trees and birds. H: 24.3; diam. (at shoulder): 6.3 cm. Provenance unknown, Museum of Islamic Art, Doha, State of Qatar. See Paris 2004, lot 412, where it is catalogued as “Indian, 18th century”.



3



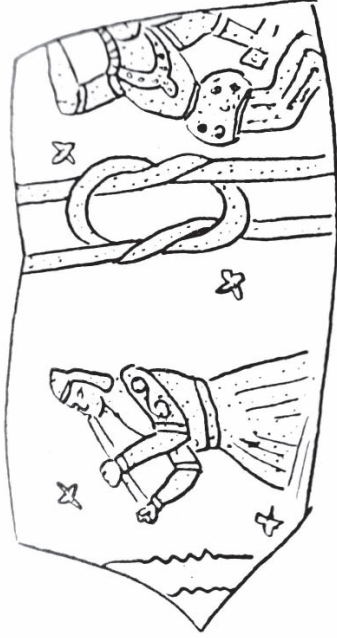
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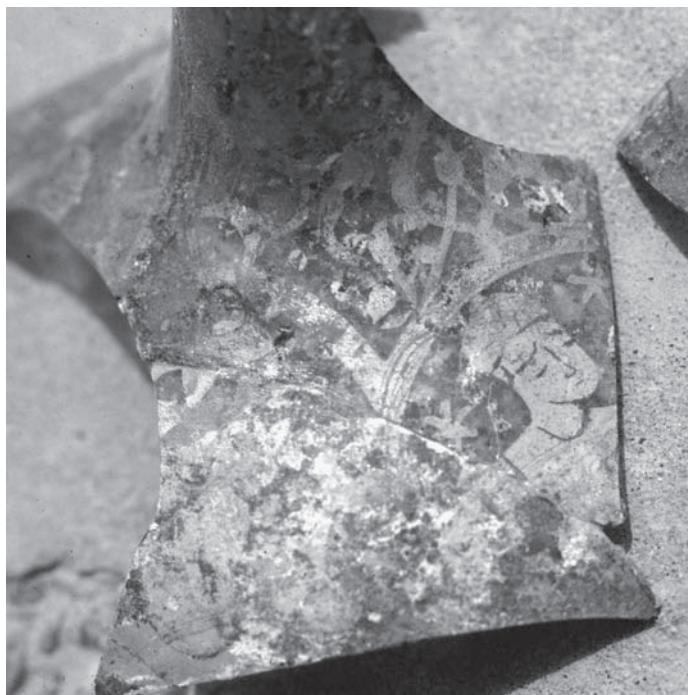
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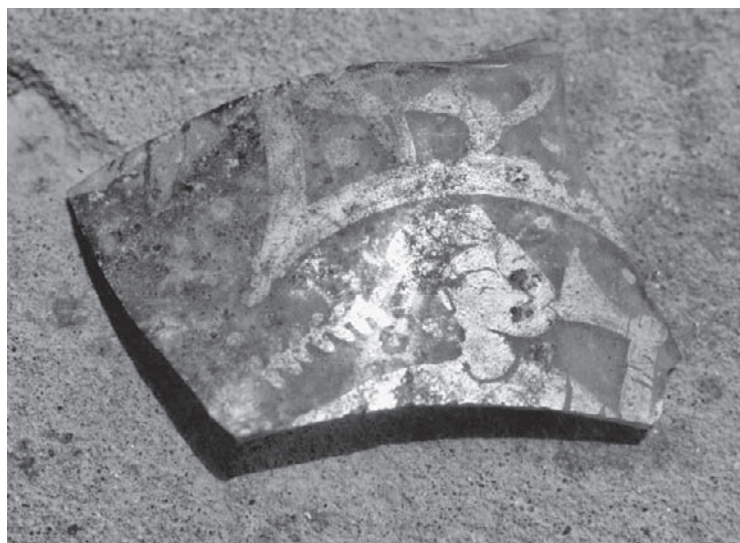
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Figs. 5-7. Two fragments from a bottle or beaker, opaque-white glass (Milchglas) with painted gold decoration with incised details; one showing part of a pomegranate tree and the hands of a musician blowing an instrument; the other with figures of a musician and a dancer separated by a knotted double band. H: 3 cm. Presumably from Fustat, Museum of Islamic Art, Cairo, inv. nos. 6959 and 4313. See Lamm 1929 and endnote 10. (The line drawing in Lamm 1929, pl. XLVI, no. 26 is clearly a rather inept rendering of pl. XLV, no. 2, though Lamm compares rather than equates the two.)



8



9

Figs. 8–9. Two fragments from a bottle. Transparent glass, with painted gold decoration and incised details. Present whereabouts unknown. From the finds of the excavations at the Qasr al-Banat in Raqqa by Dr K. Toueir. Photographed by the author in the excavation sherd-house in the late 1980s.



Fig. 10. Fragments of a beaker. Transparent glass, with painted gold decoration, showing a band of inscription. Excavated in the Qasr al-Banat, in Raqqa. Present whereabouts unknown. The dark colour is a patination of the glass during burial. From the finds of the excavations at the Qasr al-Banat in Raqqa by Dr K. Toueir. Photographed by the author in the excavation sherd-house in the late 1980s.



Fig. 11. Fragment of a beaker. Transparent glass, with painted gold decoration and incised details, showing interlocked roundels containing human-headed birds. Excavated in the Qasr al-Banat, in Raqqa. Present whereabouts unknown. The dark colour is a patination of the glass during burial. From the finds of the excavations at the Qasr al-Banat in Raqqa by Dr K. Toueir. Photographed by the author in the excavation sherd-house in the late 1980s.



Fig. 12. Fragments of a beaker. Transparent glass, with painted gold decoration and incised details, showing a band of inscription above a roundel in which can be seen the face of a human-headed bird as on the fragment from Raqqa above (fig. 11). The face has incised details.

Reported to have been found in Raqqa. Khalili Collection, London, inv. no. GLS 349. (See Gibson 2005, pp. 268–269, fig. 17.) The glass was originally clear but has developed a black patina during burial. The sherds are said to have been found at Raqqa and presented to the collection by a local inhabitant.

AN UNUSUAL FRAGMENT OF AYYUBID GLASS

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This short article describes a fragment of Islamic glass, which was acquired in Cairo and is now at The Corning Museum of Glass (acc. no. 55.1.25). It is reasonable to assume (although we do not know) that the fragment was found in Cairo or elsewhere in Egypt.

I. *Description*

The fragment (figs. 1 and 2) appears to come from a disc or disc-like object. It is 14 cm across and the thickness varies between 0.3 cm (near the supposed centre) and just over 0.1 cm (towards the edge). The fragment is made of translucent deep blue glass containing a few minute bubbles, and it is decorated with greenish yellow stain. The side descends in an almost imperceptible curve and the centre is almost flat.

The concave and convex surfaces of the fragment are markedly different. The concave surface is smooth and shiny, and it has painted decoration. At the centre is a medallion with a double border, which has an external diameter of about 10.5 cm. The medallion contains a bird standing in left profile. The bird has a pointed beak, a small head with a crest of three feathers, a long curving neck, a body that tapers towards the tail, and sturdy legs. It stands among scrolling stems with tendrils and leaves, most of which are small. Above the bird, however, is a larger leaf with a narrow, curving silhouette. The background contains scattered dots and comma-like motifs. The body of the bird, the large leaf, and some other elements are solid; the stems and tendrils are single lines. The medallion is surrounded by a concentric band of radiating tear-shaped motifs, which alternate with short, radial lines superimposed on a continuous zigzag. Traces of additional ornament survive between the band of tear-shaped motifs and the outermost part of the fragment, which is about 8.5 cm from the centre. Too little survives, however, to indicate the nature of this outer band of ornament.

The convex surface, on the other hand, is rough and matte, and there is no trace of decoration. Under low magnification, the surface appears to have a granular texture, with many minute cavities and irregular, rounded protrusions up to 0.3 cm across. The overall appearance of the surface is pale bluish grey with patches of light brown. The protrusions are also bluish grey but somewhat darker; where chips or breaks reveal their interior, it is blue and glassy. A thin, uniform layer of whitish material separates the wall of the disc from the greyish surface. No pontil mark is visible.

The fragment consists of seventeen joining pieces, which comprise roughly half of the medallion and a much smaller part of the surrounding area; the rim is missing. On the concave surface, the glass is dull and has a thin film of weathering; much of the stain is shiny, with hints of iridescence.

II. *Discussion*

As mentioned at the outset, the shape of the fragment indicates that it comes from a disc or disc-like object. If the missing rim projected upwards, the object might have been a dish. Although the absence of a foot ring might be used as an argument against identifying the object as a dish, this is by no means conclusive. In any case, the decoration covers the concave, presumably upper surface and this suggests that the object was intended not for use but display. The appearance of the convex surface suggests that this surface was not meant to be seen: one possible use for such an object is as decoration embedded in a wall.

While no other disc decorated with silver stain appears to have been published, discs of cold-painted glass employed as mural decoration do occur in at least one Mamluk building in Cairo: the mausoleum of Ahmad ibn Sulayman al-Rifa'i, who died about 1291. The decoration of the *qibla* wall of the mausoleum includes hexagonal and circular glass tiles, which are embedded in white plaster. The tiles are of colourless or almost colourless glass and are decorated with cold-painted black, green and light brown vegetal motifs. The decorated surfaces of the tiles were pressed into the plaster before it dried, with the result that the ornament is viewed through a protective layer of glass and against a white background.¹

¹ Carboni 2003a, pp. 129–130; 2003b.

It is not clear what caused the unusual appearance of the convex surface. Examination under low magnification confirmed that the bluish grey exterior, the whitish layer and the wall of the disc are fused, and that the blue glass of the protrusions penetrates the whitish layer and is attached to the wall of the disc. The surface, therefore, was formed at a high temperature and is not the result of weathering or accretion. Perhaps, when the disc was placed in a kiln to fire the decoration, it rested on sandy or clay-like material (possibly kiln wash), some of which melted and fused with the softened disc, while small droplets of glass penetrated the sand or clay forming the protrusions that cover the surface. We cannot determine whether the glass worker knew this would happen or whether it was an accident.

The decoration is less of a problem. Although the tail does not survive, the distinctive crest identifies the bird as a peacock.² The medallion, therefore, originally contained a peacock, scrolling vegetation with at least one larger leaf, and a background strewn with dots and other small elements.³ Given the fact that the glass is thickest near the centre of the medallion, we may safely assume that the medallion occupied the centre of a circular object. The fragment extends up to 8.5 cm from the centre and so the diameter of the object was greater than 17 cm.

The closest parallels for the decoration of the disc occur on ceramics rather than glass. Fritware vessels made in Syria and Egypt during the Ayyubid (1171–1250) and early Mamluk (1250–1517) periods frequently have painted decoration under transparent glaze and the ornament on open forms may contain medallions decorated with birds or animals with a background of dense, scrolling vegetation. The birds include peacocks and the vegetal motifs include large, curving leaves. The pottery that most closely resembles our fragment,

² Cf. the peacocks on an underglaze painted bowl in The Metropolitan Museum of Art, New York (Lane 1947, pl. LXXVIIB), on an underglaze painted vase in the National Museum, Damascus (A/7016: *L'Orient de Saladin* 2001, p. 165, cat. no. 155) and on a North African underglaze painted *bacino* from the church of San Michele degli Scalzi, Pisa, which may have been completed in 1204 (Berti and Tongiorgi 1981, pp. 87–88, cat. no. 256). It is just possible that the large 'leaf' is part of the tail, but this seems improbable.

³ Although approximately half of the medallion is missing, the disposition of the surviving ornament makes it unlikely that a second bird or animal existed.

usually known as Raqqa ware, is attributed to the late 12th century and the first half of the 13th century.⁴

In addition to the objects with underglaze decoration, 13th- to early 14th-century Syrian and Egyptian ceramics include vessels decorated with lustre over a transparent deep blue glaze—a colour scheme very similar to the decoration of the glass disc.⁵

III. Conclusion

The fragment at Corning is part of a blue glass disc, the diameter of which was greater than 17 cm. The disc was decorated with a silver-stained medallion containing vegetal ornament and a peacock. The style of the decoration resembles that of certain types of Raqqa ware (especially objects with black decoration under transparent blue or turquoise glaze), which was made in Syria and Egypt in the late 12th and early 13th centuries. The conventional chronology of Raqqa ware suggests that the disc was made during the first half of the 13th century.

If the disc was used (and not discarded on account of the disfigured convex surface), it is reasonable to suppose that only the decorated surface was visible; and this suggests that it may have served as part of the decoration of a wall. The only other published example of medieval Islamic painted glass used as mural decoration is in the mausoleum of Ahmad ibn Sulayman al-Rifa'i (who died about 1291),

⁴ The most extensive description of Raqqa ware from an archaeological excavation is the account of finds from Hama, in Syria, presented by Riis, Poulsen and Hammershaimb 1957, pp. 157–178. For a succinct and up-to-date discussion of Raqqa ware and its place in the ceramic history of early Islamic Syria and Egypt, see Watson 2004, p. 289. The numerous examples of similar vegetal ornament include: a vase in the Victoria and Albert Museum, London, which is decorated with foliage and an inscription (Lane 1947, pl. LXXVI); a bowl in the Ashmolean Museum, Oxford (Ash 186 NE 270: *Arts of Islam* 1976, p. 232, cat. no. 307); a fragment in the Museum of Islamic Art, Cairo (5910: *L'Orient de Saladin* 2001, p. 159, cat. no. 144); two objects in the Keir Collection, London (Grube 1976, pp. 268–273, cat. nos. 212 and 217); a fragment in the al-Sabah Collection, Kuwait National Museum (LNS 922 C e: Watson 2004, p. 296, part of K.9); the base of a bowl in the Museo Internazionale delle Ceramiche at Faenza, Italy, which has foliage and an inscription (Curatola 1993, p. 292, cat. no. 163B6); and part of a *bacino* from the 13th-century church of Santa Cecilia, Pisa (Berti and Tongiorgi 1981, p. 109, cat. no. 365).

⁵ Again, the examples are legion. Cf. Watson 2004, pp. 292–293, cat. nos. K.3 and K.4.

in Cairo. One hopes that the publication of the Corning fragment will lead to the recognition of other examples of Ayyubid and Mamluk painted glass intended to decorate buildings.

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Fig. 1. Fragment of a blown glass disc decorated with greenish yellow stain. Diam.: 14 cm. Syria or Egypt, 13th century. The Corning Museum of Glass, acc. no. 55.1.25. (Courtesy of The Corning Museum of Glass, Corning, NY).



Fig. 2. Drawing of a fragment of a blown glass disc decorated with greenish yellow stain. Diam.: 14 cm. Syria or Egypt, 13th century. The Corning Museum of Glass, acc. no. 55.1.25. Scale: 1:2. (Courtesy of The Corning Museum of Glass, Corning, NY).

METAL AND IVORY

ANALYSING A PICTORIAL NARRATIVE—
THE AQUAMANILE IN THE HERMITAGE MUSEUM
IN ST PETERSBURG

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The Hermitage Museum in St Petersburg acquired this famous aquamanile (no. AZ 225, fig. 1)¹ in 1929 through the Antikvariat, the State Agency for commerce, works of art and antiquities.² We know about its earlier history only that it was in the private Khanenko Collection in Kiev until it was requisitioned by the State, as were all private collections in the Soviet Union. Nothing is known about when and where it was acquired for the above private collection.³

The golden-coloured bronze aquamanile, dated 603/1206, is a sculpture 31 cm long and 35 cm high. It represents a zebu cow suckling a male calf, and a small male lion, lying on the cow's back, has its snout over the top of the cow's hump. As will become apparent, one can observe both realistic and stylised traits in the renditions of the animals and in the multitude of decorations on the three creatures, predominantly on the cow.

The Overall Composition: The cow and its suckling calf form a realistically rendered unit with the offspring straining to reach one of the udder's two tits. However, the representation of the lion, which forms the aquamanile's handle, raises different considerations. In spite of the lifelike details, such as some lines on its head, its eyes, snout, emerging mane, and large paws, the association of the lion and cow, rendered here, does not occur in nature. No lion, even a

¹ I would like to thank Anatol Ivanov, Head of the Oriental Department of the Hermitage Museum, for his kind reception and facilitating in many ways my study and photographing of the aquamanile for an extended period of time. I am also indebted to Adel Adamova of the same department for her thoughtfulness and letting me share with her some of my thoughts and observations about the vessel. I am also grateful to both for their kind hospitality.

² According to Barrett 1949, p. X, it was in the Academy of Science at the time of his book's publication in 1949 and according to Mayer 1959, p. 36, it was in the Museum of that Academy (no. 2092) and was later transferred to the Hermitage Museum (no. AZ 225).

³ Cf. *Earthly Beauty* 1999, no.119, p. 165 (Ivanov).

cub would be “lounging” comfortably on the back of a cow and sucking contentedly on the cow’s hump. Most certainly, the juxtaposition of the lion on top facing towards the head of the cow and the calf underneath it, facing towards the cow’s rear, is endowed with more than a visual effect. It provides a clue to the purpose and *raison d’être* of this sculptural group.

Description of the Animals Represented: By far the largest and therefore the dominant animal is the well-fed, statuesque figure of the zebu cow, which is realistically portrayed as standing in a contented and relaxed manner. This naturalistic approach, notwithstanding a slight stylisation, explains also why its hipbones are shown protruding in spite of its body’s massiveness, as this is a characteristic trait of cattle in general. But at the same time the features of its head are portrayed in a more cursory and unaccented manner. Even if its eyes, which are now missing, had been applied originally to the surface of the head, this stylised rendition is quite pronounced and further accentuated by an inscription on both the head and the neck of the animal. While some decorative markings of the cow’s body could ostensibly be interpreted as an identifying branding stamp for the owner of the animal, the extensive decorative and figural scheme indicates clearly that it must be the depiction of a story related to the representation of the twosome—the cow and its offspring, an interpretation supported further by the lion’s presence on top of the bovine animal. Thus realistic renditions are in various degrees intermingled with stylised and more fanciful ones, depending on their purpose and aim for each one. Realistic features pertain not only to the overall depiction of the cow, but also to details, such as the decorated neck strap with a large cowbell, which features a movable clapper. One remaining ring on the strap clearly indicates that the circular indentation lower down on the same side and two corresponding ones on the other side of the cow’s bell strap must have also held the same type of soldered-on rings (fig. 2). The rings denote that the cow, as done with some bovines in real life, was originally fitted with a harness. All these features—the presence of an elaborate neck strap with a bell and a harness—shows that the cow was meant to be a real animal and thanks to its massive stature a leading specimen, an “alpha” cow. While usually only a special, mature cow is fitted with a bell, the male calf also sports a neck strap with a proportionately smaller bell. This uncommon feature designates the calf, too, as an

unusually fine specimen and the expectation that in the future it will turn into an “alpha” bull.

The calf and the lion positioned on the bottom and top respectively and facing in opposite directions from each other, are both deriving sustenance from the large cow. While the male calf is quite realistically rendered as it strains to suckle at the cow’s udder, the small lion is lying peacefully on the cow’s back to obtain his nutrients by sucking on its hump. The lion is shown in a formal and stately manner and in spite of its small size appears as a domineering figure.⁴

To-date the relationship between the cow and the little lion had been interpreted as a hostile one, namely as the lion’s ferocious attack on the cow.⁵ However, this assumption cannot be sustained upon careful scrutiny of the lion’s wide-open snout in relation to the hump (figs. 1, 3), which clearly indicates a sucking instead of a biting action. The undisturbed, complacent stance of the cow is a further argument favouring the premise that the lion is not attacking the cow. The juxtaposition of the two sucking animals above and below the huge contented cow gives added credence to the interpretation of a peaceful relationship between the lion and cow, rather than a hostile one. This will be discussed more extensively further on.

To-date the small size of the lion versus the large cow had been considered inappropriate and out of proportion with each other; however, a different conclusion can be drawn.⁶ The lion’s undeveloped facial features (fig. 3) rather than those of a mature lion, the proportionately oversized paws, and the barely emerging mane are appropriate for an approximately one-year-old male cub.⁷ The reason and purpose for this unusual representation will become evident further on.

Description of Specific Features: The aquamanile’s filler hole for the intake of water is located on the lion’s neck. The covering lid is missing, but the holes for its hinges are preserved. Also intact is the spur on the lion’s back for the cover to rest on, when opened, so as not to hang loosely or mar the lion’s back. The small circular opening in the middle of the cow’s snout provides the pouring hole for the aquama-

⁴ The explanation for this statement will be given further on.

⁵ Cf. Dyakonov 1939, pp. 46-47 and *Arts of Islam* 1976, no. 178, p.169.

⁶ Cf. Dyakonov 1939, p. 47; *Earthly Beauty* 1999, p. 164.

⁷ Cf. West 2005, p. 229.

nile. The big round hole in the center of the cow's forehead—besides a possible other purpose, to be discussed later—must have served as an air hole, a place for anchoring a bridle and perhaps even for the insertion of temporary decorations, such as flowers.

The aquamanile was cast in one piece, indeed a great accomplishment, and a feat that the artist of this sculpture boasts about in the inscription. This text, highlighted in silver on the cow's head and neck, is all in *Farsi* except for that of the date and a formula of good wishes (*baraka*), which are rendered in Arabic.⁸ In addition to the date of 603/1206, this inscription gives the name of the person who conceived and cast this piece, namely Ruzba ibn Afrīdūn ibn Barzīn, as well as the one who decorated it, namely `Ali ibn Muhammad ibn Abu'l Qāsim, al-naqqāsh, and finally the person who was the recipient of this splendid piece, Shāh Barzīn ibn Afrīdūn ibn Barzīn. Since the father's and grandfather's names of the casting artist and donor on the one hand and of the recipient on the other hand are identical, namely Afrīdūn and Barzīn, it has been assumed that they were brothers.⁹

Condition of the Aquamanile: A cut on the throat of both the cow and its offspring was apparently a wilful action of religious fanatics, who intentionally “killed” the realistically rendered animals in the ritual Islamic manner.

A connection between the left front hoof of the calf and the right rear hoof of the cow, like the existing one between the cow's right front hoof and the calf's right rear hoof, is now missing, but small traces of its former presence are still evident.

The right horn and ear of the cow are missing, now leaving a large hole; traces of an attempted repair in this area are discernable, especially also a round blotch of lead from soldering on the cow's forehead bear witness to this undertaking. The left horn is broken off at the top, leaving only its stump intact (fig. 4). Also the cow's tail is missing, which originally was hinged to the stump, attached to its rear. Like the bell clapper, the tail had been movable in an up- and downward direction.¹⁰ The round boss below the stump, with a circular indentation in the centre, was probably meant to have the

⁸ The latest reading is given in *Heaven on Earth* 2004, p. 89.

⁹ Cf. Dyakonov 1939, p. 50.

¹⁰ Cf. *ibid.* However, the author thought that the tail had been screwed on, consequently it would not have been movable.

cow's tail when hanging down, rest on it and not mar the surface of the cow's hindquarters. One can assume that the tail was attached to thin rods as part of a harness running along the cow's flanks through the rings on the bell strap and that these rods were connected to straps extended over a bridle on the cow's head to the lion's neck. This way the movement of the cow's tail could be activated together with grasping the lion as the handle of the aquamanile. This feature must have heightened further the combination of magic and realism, which alone the ringing of the cowbell at the slightest movement of the aquamanile, such as when pouring water from it, must have evoked (the bell is still intact).

An upper harness must have run from near the hinge of the missing tail to just below the protruding bones of the cow's hindquarters, which prevented the rod from slipping upwards, and along the mostly undecorated area between the uppermost figural panel and the central one. It is likely that it went through the ring on the bell strap and ended in a little crossbar or similar device to prevent the harness rod from slipping through the ring. When the tail was hanging down, most likely the end of the rod rested against the edge of the cow's pronounced jowl. When the tail was being lifted up, it could be raised so far that the harness rod butted against the ring on the cow's bell strap. The rod's crossbar or bent end prevented it from slipping through the ring and moving any further. It is possible that small indentations on the surface of the cow's head stem from attaching a bridle, which might have consisted of braided straps adorned with silver, like the braided design on the bell strap. Based on faintly discoloured spots low down on the cow's forehead, the cow's eyes, just like the bridle now missing, may have been applied lightly to the surface and attached to the bridle for stability. This would have left space above the eyes for a bridle strap running across the head of the cow below the big hole on its forehead. The original presence of an elaborate, decorated bridle would explain why today the cow's head appears rather featureless and excessively narrow in contrast to the heads of the two other animals of the group. The original existence of a bridle would also explain why today only the features mostly below and above the bridle on the cow's head, namely its nostrils, still highlighted with specks of silver, its ears and horns are modulated.

A second ring lower down on both sides of the bell strap could suggest that a second harness strap lower down on the cow's flanks had existed. In that case one would have to assume that it either

joined the upper harness rod nearby or else that it ran parallel to the upper rod. In this scenario the cow's tail would have been hinged also somewhere at a lower point so that it could be activated in different configurations. The second harness rod must have run from lower down on the cow's tail along its flanks, namely along the lower mostly blank area between the middle and lowest figural panels and must have gone through the lower ring on the bell strap. From there a strap, connected to the rod, must have run over the lower part of the bridle, above the cow's nostrils and then joined the other straps connected to the upper rods.

It is also feasible that there was only one harness rod along the cow's flanks, namely the one running above the protruding hipbone. In this case the use of the lower ring on the bell strap would have played a role only in anchoring the bridle on the lower part of the cow's head. Yet this seems to be a less plausible option. It is more likely that the bridle ran over the cow's jowls, ears and horns and that all rings on the bell strap functioned as anchoring points for the harness rods.

By frequently activating the tail, connected to the harness, the recurring pull on the rings of the bell strap and on the bridle might have contributed to or have been the sole cause of, how three rings on the bell strap, the horns and one ear of the cow broke off and are now missing. The protruding outline of the cow's jowls, which both secured the cow's bridle and functioned as stoppers for the harness rods, does not seem to conform to the original appearance of the cow's head, because the presence of an elaborate bridle and straps must have masked the outline of the cheekbones and changed the shape of its head, which today shows only its "skeletal" remains.

The strange and unnatural line on the neck of the lion is the key to explaining how the harness was operated: the bridle running over the cow's ears and horns must have been connected to the rim and spur at the bottom of the lion cub's neck. By these means a person holding the vessel by its lion handle could also regulate the lines connected to the bridle and harness and consequently operate the movement of the cow's tail. So far as is known to-date, this is the only Middle Eastern *Automaton* which survives, although in a battered condition. However, we do have later pictorial renditions and explanations about their mechanical functions.¹¹

¹¹ Cf. Ettinghausen 1962, pp. 95-96. The original work by al-Jazarī was written

It is conceivable that the unusually large hole on the forehead of the cow served not only as an air hole or for decorative purposes, but that, together with the small hole on the cow's snout, during pouring operations it could have also functioned to create a noise typical for cattle, such as a low-intensity roar or grunt. So far this is merely a conjecture on my part.

The extensive decoration over much of the animals' surfaces, particularly of the cow and the lion, are rubbed, in some cases perhaps intentionally, and in certain instances reduced to a few scratches. Also the silver inlay, especially all its larger pieces and most of the smaller ones, have fallen out or were removed. Thus it is difficult to recognise particularly the figural representations. Yet by patiently observing and following the existing lines, it was possible to identify most figural forms, and consequently the question arose, what the purpose of all these depictions was.¹²

Before attempting an explanation and *raison d'être* for the representations, it seems in order to provide a detailed

Description and Identification of the Decorations on the Animals:

The Cow: Both its flanks are decorated with three tiers of panels with figural representations. Each panel is clearly separated from the next by outlines and mostly unadorned strips in between.

The Right Flank of the Cow (fig. 4): In the top panel furthest to the left, one can observe a figure leaning backwards, while probably singing and playing a musical instrument, most likely a stringed instrument. Next to this musician is shown the main tableau of this panel, namely two backgammon players with the board depicted between them. The figure to the right of the board, who has just thrown a dice, is represented in a rather formal, frontal position and therefore can be easily recognised as the master of his entourage; as we shall see, he is the central figure of all the depicted scenes. His opponent player, to the left of the game board, is rendered in three-quarter view, facing towards the other player. His head is turned, showing his profile. His body is leaning backwards and his left hand seems to be outstretched towards the game board and his partner.¹³ Since

at the same time as this aquamanile was created.

¹² Cf. Dyakonov 1939, p. 48, states that there was no special reason and meaning associated with this representation.

¹³ Dyakonov 1939, p. 48, suggests that this player is drinking, a possibility I subscribed to at first, too; upon further scrutiny and deliberation, however, I arrived at the interpretation which I am suggesting here. What Dyakonov must have inter-

backgammon is both a game of chance and skilful strategy, the gesture of his outstretched hand towards the companion player might express his astonishment over his partner's success. The last two figures of this panel, seated on the other side of the "master" are two more musicians, namely a harpist and, at the right end of the panel, a *nay* player (flautist).

The middle panel (fig. 5) is divided into a left and a right section, each of which shows a horseman facing towards the centre of the panel. The right section is well preserved so that the rider holding a falcon in his raised left hand is clearly visible. But the representation of the horseman in the left section is so poorly preserved that he is barely recognisable. The riders on both sides are surrounded by dense vegetation composed of foliate scrollwork, typical for work from Khurasan from the 12th and 13th centuries.¹⁴ The part between the two horsemen is so badly defaced and shows so many scratches and gashes that its representation can only be guessed at. However, faint traces of a trefoil, flanked by tendrils in the upper mostly blank space—just below the left backgammon player—and the clear depiction of a lozenge shape flanked by tendrils in the mostly blank area between the central and bottom panels, as well as scant curved lines and tendrils in between, led me to believe that the reason for the division into two flanking sections with lateral concave outlines was to have a medallion in the centre, framed by a decorative border, similar, as we will see later, to the ones on the cow's shoulders. Even though it was not possible to detect what was represented within the oval frame, I will broach this subject when discussing the central panel of the cow's other flank.

The lowest panel (fig. 6), which is well preserved, shows wild animals in a dense, natural setting represented by scrolls of foliage and tendrils, like those around the horsemen in the central panel. The five animals face in the same direction as the cow; they are apparently all gazelles, but judging from the different lengths of their antlers, they range perhaps from young to mature. As characteristic for Iranian art, the first animal on the left is only partially visible, indicating that only part of the actual scene is shown. The first three

preted as the person's left arm and hand, I am seeing as part of his vest and I also see faint indications of a left arm and hand, outstretched in the direction of the backgammon board.

¹⁴ Cf. Melikian-Chirvani 1982, e.g. p. 74, fig. 43 and p. 124, figs. 52, 52A, 52B. For the provenance of the aquamanile in *Khurasan*, cf. *Earthly Beauty* 1999, p. 164 and *Heaven on Earth* 2004, p. 89.

animals from the left, with their heads down, seem to be grazing. The next one to the right with its head up appears to be sniffing the air or communicating with the one furthest to the right, whose head is turned back towards the gazelle behind him; he appears to be the leader of the herd. The pose with the backward-turned head is a frequent mode of depiction, with antecedents as far back as antiquity; it is a device to achieve a closer link and interaction between individual figures.¹⁵

The Left Flank of the Cow: The left flank is decorated in a comparable manner to the right one, namely with three panels arranged one above another, and each one representing similar themes as on the cow's right flank. Thus the top panel (fig. 7) is devoted to depicting the entertainment of the household master with the help of dancers and musicians. The first figure on the left shows a juggler or dancing juggler sporting a large pear-shaped object in his left hand. Next to him are two dancers performing in tandem, with one arm over their heads bent in opposite directions from each other, as well as, also in opposite directions, each kicking up the lower part of their outer leg to a horizontal position. The latter movement is a stylised, traditional form of dance, reminiscent of the dancers' leg figuration in the wall painting from the Jawsaq al-Khaqani Palace in Samarra.¹⁶ The remainder of the top panel shows two musicians to either side of the master of the house. To his right is a musician with a string instrument (perhaps an *'ud*, even though the location of the instrument's neck at the player's right arm is perplexing, but perhaps depicted this way for artistic reasons), and to the master's left is a tambourine player or drummer, positioned at the right end of this panel. The dominant figure of this panel is the before-mentioned master of the house, who is represented, as on the other flank of the cow, in a rather formal pose and also in frontal view. The fact that he holds a beaker in his right hand stresses his role of authority, which is further emphasised by an ornament above and a halo around his head, as well as an elaborate backdrop. The scene surrounding the master is depicted in an exceptionally lively manner so that it is possible to sense the beat of the music and the stomping movements of the dancers. The curved lateral frame of this panel and the corresponding one on the cow's opposite flank, next to its

¹⁵ Cf. Melikian-Chirvani 1982, e.g. pp. 96-97, no. 27.

¹⁶ Cf. Herzfeld 1927, pl. II.

hindquarters, ends in slender half-palmettes, some even with their silver inlay still in place. The special treatment of these two frames emphasises, in yet another way, the prominence of the master, who appears only in these two panels.

The central panel on this side is much better preserved than its counterpart on the cow's other flank. It is also divided into two sections, which, next to the central field, are framed by concave lateral outlines. The horseman on the left (fig. 8) holds a falcon in his outstretched right hand. The rider in the right part of the panel has his left hand raised. The array of lines near his left hand may show that he has just released a falcon, which is flying towards the upper right corner of this panel. The side sections with the horsemen on this cow's flank, as on the other side, leave here, too, enough space for a central medallion; it consists of an upward pointing trefoil, often a reduced version of a palmette, with side tendrils, all positioned in the top interstitial blank strip, and a lozenge-shaped figure flanked by tendrils, located in the middle of the lower interstitial mostly undecorated area. Besides these decorative features also traces of curved outlines and tendrils are discernable, all having been part of an oval-shaped central medallion. The image within it is totally defaced as a result of rubbing and many slashes on the bronze surface. Because of the similarity of the medallion's frame to other ones on the cow and calf, it is, however, likely that here, too, a bird was depicted, perhaps a falcon.

The bottom panel of the cow's left flank (fig. 9) shows, on this side as well, animals facing towards the cow's head. However, unlike the other flank with a peaceful scene of undisturbed wild animals, this panel shows the result of the hunt, namely gazelles and an antelope attacked by or fleeing from the pursuing hounds. A large gazelle buck on the left with long straight antlers and its head bowed low seems to have been ferociously attacked and wounded by a hunting dog, indicated by the proximity of the hound and the bowed position of the gazelle. Next to this scene an antelope with long curved horns on its head held high, is depicted masterfully as fleeing in panic from the pursuing hound, which is attacking its rear. The dog is only partly visible in the right corner of this panel, just as was the case with one of the animals in the panel of the other flank. Here, as in the other scenes, the dense vegetation is rendered in the form of leafy scrolls. The framing outlines of both panels with wild animals might indicate that this is a hunting preserve.

The three tiers of panels on both flanks of the cow could be labeled in the following manner: Entertainments for the master of the household, Preparation for the Hunt, and The Hunt in the Hunting Preserve. In summary, what is represented as the common theme of all the panels on the cow's flanks are scenes typical for the courtly life of a ruler, depicted so often and in various media: a master, lounging comfortably, holding a beaker in his hand, playing games, being entertained by jugglers, dancers and musicians, and engaged in the hunt with the help of his retinue and falcons as well as hounds. It shows the life of abundance and privilege.

Other individual decorations embellish the surface of the cow. On its left shoulder, to the left of the central panel is a medallion, similar to the one mentioned for the central medallion between the panels with the horsemen. Its foliate enclosure contains a large bird, probably a falcon; this representation seems to show a bower, in which a falcon is kept when not used for hunting. Lower down on the cow's shoulder to the left side of the panel with the wild animals, a large bird is depicted facing towards the cow's head and thus away from the wild animals. An unusual feature is the elongated upright stance of the bird, like that of a heron, with its right leg raised high, as if prancing; this might indicate a trained bird, calmly strutting ahead of the animals. It is well known that by their behaviour birds naturally warn animals of danger, therefore the unusual stance may indicate that this bird is enticing the animals to follow its lead to the hunting preserve and obviously to their doom. On the right flank of the cow a similar bird, also with one raised foot, is represented next to the lowest panel with the gazelles. However, except for its frame, the medallion above it is too defaced to determine its content with any certainty. Nevertheless, it is likely that the same subject matter, namely a falcon in its bower, was shown here, since its frame resembles very closely the corresponding one on the cow's left flank and the representations on both flanks of the cow are always similar or identical.

In several locations are also small vegetal designs: on both sides of the cow's neck is a rosette with six round petals, and the cow's buttocks and most of its rear are covered with the depiction of a large pomegranate tree bearing many large fruit (fig. 10). At the bottom of the tree, to either side, are shown two gazelles; they are depicted as mirror images of each other, with long antlers, their heads turned towards each other, and one front paw raised while

prancing in opposite directions from each other. Their poses, which enliven the scene and create a sense of action, replicate the depiction of the gazelle furthest to the right on the bottom panel with the peaceful scene of wild animals. Below the pomegranate tree and the two gazelles is a little grass-edged body of water with two fish, turned in opposite directions. To complete the setting of water, earth and sky, a bird, even though barely discernible, is perched on top of the tree.

The Calf (figs. 8, 11): Besides the unusual feature of the calf wearing a strap with a bell around its neck, it is noteworthy that, although it is realistically rendered, both of its flanks are decorated with a sphinx before a backdrop of dense vegetation similar to that on the cow. Each sphinx is shown in profile view, its head raised in a frontal position. However, unlike most other features, there is a divergence in the representation of the two sphinxes' tails: while on the calf's right flank the sphinx's tail ends in a rabbit's head, the one on the opposite side ends in a snake's head. Both sphinxes with one raised front paw are strutting in the same direction as the calf and therefore facing the pomegranate tree, which decorates the hindquarters of the cow. The panels with the sphinxes are the only areas, besides the inscriptions on the cow, where much of the silver inlay is still in place, especially on the right flank of the calf. Since the calf is standing underneath the cow, its silver inlay was better protected from handling or its possibly forced removal.

On the calf's hindquarters is a large elaborately decorated medalion frame, which encloses a bird with a raised bushy tail. An almost identically rendered bird is found on the bottom of a bronze bucket, of approximately the same period, in the Hermitage Museum.¹⁷ A large bird, perhaps a heron, closely resembling in shape and stance the ones on the cow's front legs, is depicted on the calf's shoulders and it is strutting forward towards the pomegranate tree.

The Lion (fig. 12): The lion on top of the cow, serving as the aquamanile's handle, is set apart from the cohesive unit of the cow and the calf and was therefore judged as not integrated into the composition.¹⁸ However, it appears to have been the deliberate intention of the designer to present the lion as a separate entity, which will be discussed further on in this article. In contrast to the cow and the calf, the lion's posture appears stiff and formal, but at the same time

¹⁷ Cf. Giuzalian 1968, fig. 14 at p. 119.

¹⁸ Cf. Dyakonov 1939, p. 47.

all its features, including its silver eyes, nostrils and lines on its head are rendered in a relatively naturalistic manner, as is its emerging mane. All these features indicate that the master craftsman was able to fashion the forms of a young male lion, which is especially obvious in the lion's facial features (fig. 3). The lion cub holds on to the cow's hump by lightly squeezing it with its front paws. Its hindquarters are decorated with vegetal designs, namely a rinceau and a medallion. The centre of each flank shows an elaborate interlace pattern within a square, which serves as a good luck charm. This pertains also to the braided design on its back and long tail, which, now broken off, must have been curled upwards, judging from the remaining trace of its attachment to the top of the lion's hindquarters.

Interpretation of the Representations: We can ask ourselves what possible sense does the representation of a small lion on top of a cow, nursing its offspring, have to do with all the figural depictions on the cow and the calf? The key to the answer can be found in the father's name of this aquamanile's donor as well as of the recipient of this gift, namely that of Afīrdūn (Ferīdūn). Thanks to the significant role of the Iranian national epic, the *Shahnāmah* (Book of Kings) and other Iranian poetic works, specifically Ibn al-Balkhī's *Fārsnāmah* (the Story of Fārs),¹⁹ through the centuries, all Iranians, young and old, have known the story of the famed king Ferīdūn and his ascent from small beginnings as a cattle breeder to the loftiest station in the realm as its king and benign ruler.²⁰ This story is recounted on this sculpture by a visual display, to be "read" metaphorically from the top down.

As lions in Iranian art and elsewhere are often a symbol for kings, the rendition of a small lion with only a rudimentary, emerging mane is meant to portray the young Ferīdūn, the cattle breeder, before his future ascent to power, which is hinted at by the formal representation of the lion, as if enthroned on the cow, the source of his wealth.²¹ Naturally, the lion cub, the young Ferīdūn, is not integrated into the grouping of the cow with the calf, because his

¹⁹ Fārs is a southern province of Iran.

²⁰ A 14th century version of Ibn al-Balkhī's (fl.1104-1117) *Fārsnāmah*, preserved in the British Museum, is the published one, used here. I am indebted to Kambiz Eslami for having drawn my attention to the story about Ferīdūn in this work. Thanks are also due to Verdi Farmanfarmaian for his help with the translation of the Persian text into English.

²¹ According to al-Balkhī (p. 99), Ferīdūn sat on the cow until the Iranians accepted him as their king.

role is a totally different one. However, the lion cub forms part of the sculpture due to its sucking action on the cow's hump, which indicates that Ferīdūn, as a young man, the future king, was to ascend to wealth, power, and fame through his successful cattle breeding and nurturing. It is for this reason that the lion, merely a cub, is so small, why it is sucking on the hump of the cow—the source of his wealth—and why the lion is on top of the cow. This is how Ferīdūn's life story begins.

The representation of the well-fed, "contented" cow, the growth of the herd, and the resulting ascent of Ferīdūn to wealth and power are portrayed by the exceptionally fine specimens of a cow and a robust male calf, as well as by the bell on a strap around both of their necks. The story of Ferīdūn, the king, is depicted in the panels on the flanks of the cow. These representations document his dominant station in the world and the prerogative of a king, namely to drink, to be entertained by jugglers, dancers and musicians, to demonstrate his prowess in games, and exert his power over the animal world by means of the hunt.

It may seem surprising that the master of the house—the king—is not represented in the centre of the top panels on the cow's flanks. However, there is a good reason for it: in both cases he is positioned below the head and neck of the lion cub as an indication of Ferīdūn's lowlier beginnings; in the top panels, however, he appears as a mature master of great prestige and power, namely as the powerful master and king. Thus the story is to be "read" both vertically and horizontally.

The sphinxes on the calf symbolise the king's magical superiority and strength: they are the guardians of the king's power over his realm as well as guardians of his continuing good fortune. This is further stressed by the sphinxes' tails, namely by the snake's head—standing *pars pro toto* for a whole snake—as a guardian and the rabbit's head, in the same way, symbolising abundance and good fortune. The two sphinxes on either flank of the still young and immature bull, as mentioned before, face the pomegranate tree on the cow's hindquarters. This tree is famed for producing flowers and fruit at the same time and it is therefore considered to bring abundance and good luck as a tree of life—of eternal life.²²

²² For the representation and meaning of sphinxes flanking a tree, cf. Baer 1965, especially p. 65.

Undoubtedly, the story told in pictures so imaginatively and convincingly has also another purpose. While in the inscription on the cow only the usual formula of “blessing to the owner” is used, the same is expressed repeatedly in images, but in a much more elaborate manner, not only by means of the pomegranate tree and its guardians, the sphinxes, but also in other less conspicuous ways. Prime examples are the elaborate interlace on the lion’s rump to prevent misfortune and, for good fortune, the trefoil design on its rear quarters and the same decoration crowning the medallions on both the cow and its calf, as well as the six-petalled rosette on the cow’s neck.²³ These good luck wishes must also have been addressed to the owner as a wish for him to live this very life of privilege and peace.

The basis for such a conclusion is the donor’s as well as the owner’s patronym, namely Ferīdūn, the celebrated ancient king, who was perhaps meant to play the role of an ancestor. The choice of showing a backgammon game in progress with the master of the house throwing the dice, must hint at a special meaning, too. Since this game is partially one of strategy, it refers to how the master of the household, just as his ancient namesake, has skilfully managed his operations in the past and with all the good-luck wishes and charms will continue to do so. This would also explain why this scene, displayed here in a conspicuous manner, forms the centre of the top panel: to portray that the master’s strategy and good planning resulted in his wealth and high station.

The preciousness of this aquamanile in its original state, resplendent with all its silver accoutrement, indicates clearly the high standing of the donor and even more so of the donor’s brother, the recipient of this bronze vessel. The brothers must have belonged to the class of merchants and traders, as well as highly skilled designers and craftsmen, who had all attained wealth fairly recently. This class lived lives of pretension and extravagance to obtain recognition and be held in high esteem. Their ambition was to lead the good life of luxury and leisure, like the aristocracy and the court circles. It is for this reason—to stress his importance and power in the manner of an enthroned king—that the master of his household and owner of

²³ For the role of the palmette, cf. Ettinghausen 1986, especially pp. 95-96; for the role of the rose cf. Mélikoff 1967, the rose bringing *baraka*, especially p. 355.

the aquamanile is always represented in a formal pose and frontal view.

This type of representation, as on the aquamanile, is not unique, but is related in parts of its programme and depiction to the Bobrinski bucket of 1163, which, however, is more pretentious by representing the owner of the bucket “enthroned” within an elaborate medallion.²⁴ But both the bucket and the aquamanile are paradigms of the ambitions of the upper middle class and of the socio-economic atmosphere pervasive in these circles during the 12th and 13th centuries, namely to show off their wealth and aspire to “live like kings”.²⁵

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²⁴ Cf. Ettinghausen 1984, p. 329; for good illustrations cf. Veselovsky 1910.

²⁵ Cf. Ettinghausen 1984, pp. 329-330, who first pointed out these pretensions of the wealthy middle class.

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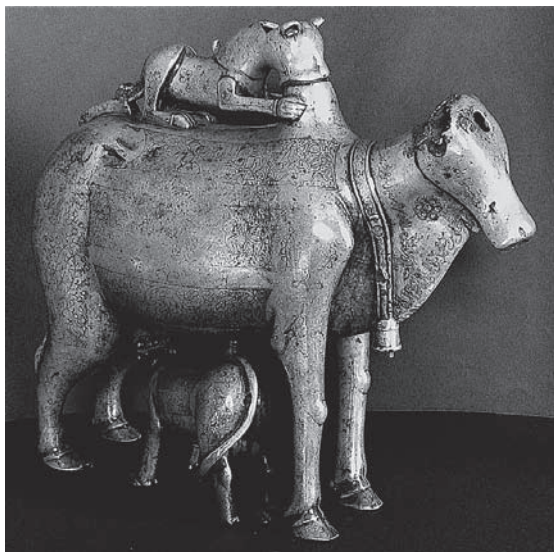


Fig. 1. The aquamanile of the zebu cow, its calf, and the lion; general view of the right flank.



Fig. 2. View of the frontparts of the cow and the lion and the cow's bell strap with one ring.



Fig. 3. Frontal view of the lion and the cow.

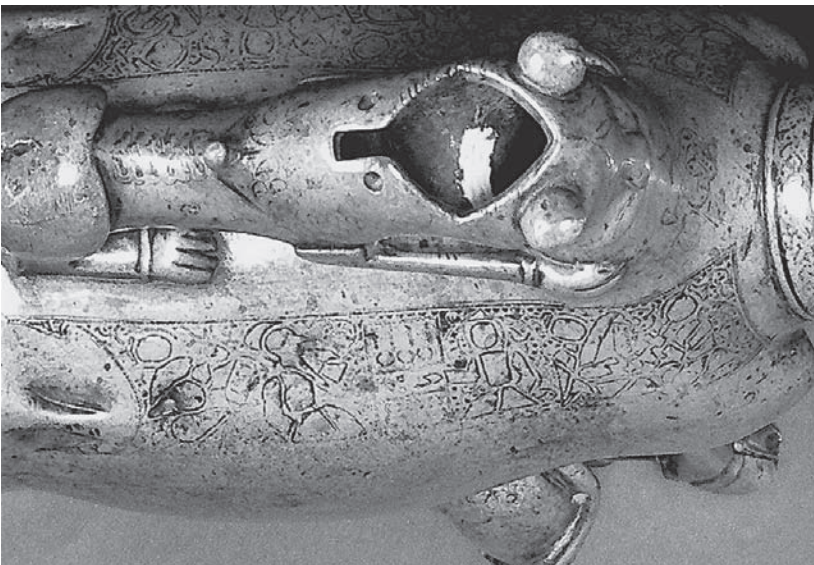


Fig. 4. Bird's eye view of the lion and cow with entertainment scenes around the master of the household on the top panel of the cow's right flank.



Fig. 5. Falconer on horseback: centre panel's right section of the cow's right flank.



Fig. 6. Wild animals, in the bottom panel of the cow's right flank.



Fig. 7. Entertainers around the master of the household, on the top panel, and horseback riders, on the central panel of the cow's left flank.



Fig. 8. Falconers on horseback, centre panel of the cow's left flank.



Fig. 9. The hunt—wild animals pursued by hounds, on the bottom panel of the cow's left flank and the calf's right flank.

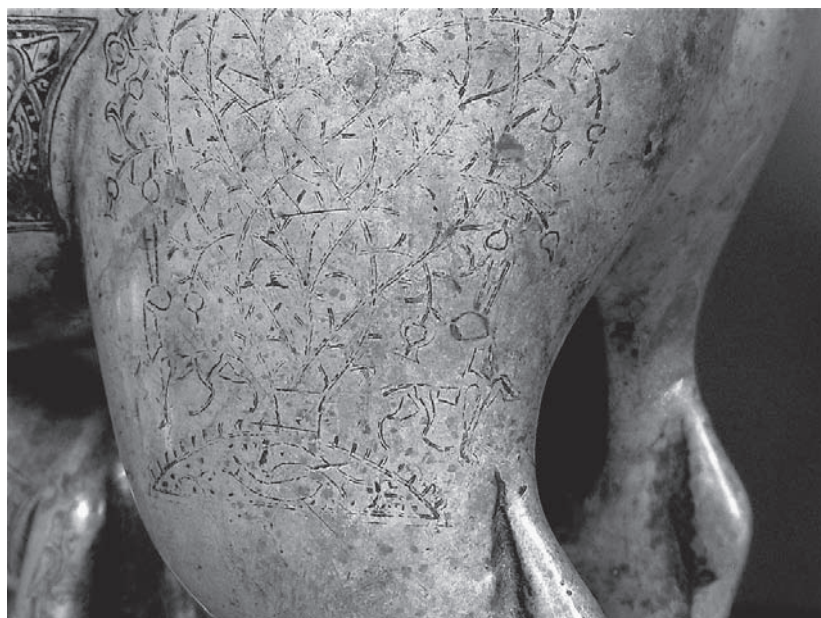


Fig. 10. Pomegranate tree flanked by two gazelles, and, below, fish in a body of water, on the cow's rear.



Fig. 11. A sphinx, with a bird and a medallion on either side, on the male calf's left flank.



Fig. 12. Male lion cub, on top of the zebu cow, profile view.

LATE OTTOMAN DOOR KNOCKERS FROM SYRIA

STEFAN HEIDEMANN, JENA

I. *The Wartburg Door Knocker*¹

One of the most admirable traits of Jens Kröger, which all of those who have ever met him—even briefly—can ascertain, is that if you come with a question or ask for his advice, even in remote fields within the history of Islamic art, he will guide you an excellent way to go. My acquaintance with Islamic art goes back to such an encounter. I remember well my first visit to the library of the Museum of Islamic Art, Berlin, in August 1983. I was then just a young undergraduate student of economics. Jens Kröger invited me to come regularly by saying: “Eine Bibliothek ist nur so gut wie ihre Benutzer”.² From that point on I frequented the library.

The following survey of door knockers of the late Ottoman period has a similar history. During a visit to the Wartburg castle in Thuringia, in February 2000, my attention was drawn to a weathered but outstanding silver inlaid door knocker (no. 1) hanging just at the entrance door of the “bath of knights”. At first glance it did not seem to have any immediate parallel. Later I found out that Eugen Mittwoch (1876-1942) who usually worked with Friedrich Sarre (1865-1945) in matters of Islamic epigraphy had no definite opinion on this artefact.³ My research began with a chat in the Museum of Islamic Art in Berlin, where all colleagues contributed helpful opinions about the photographs of the object. After some minutes Jens Kröger produced the closest parallel then in a sales

¹ I would like to thank Emilie Norris and Venetia Porter for their valuable comments and for their thorough reading and correction of the English draft, and Luit Mols, Stefan Weber and Christoph Konrad for allowing me kindly to use their photographs.

² Translation: “A library is only as good as its users”.

³ In Summer 1909 the Burghauptmann von Cranach, director of the historic castle, had asked Eugen Mittwoch in a letter for his opinion on the inscription and the door knocker itself; Wartburg-Archiv, Eisenach, Akte KL 507/508. Mittwoch believed that the illegible inscription copied older models. He determined a date between the 13th and the 16th centuries for the models. See Heidemann 2002, p. 183.

catalogue⁴ and he showed a serious interest in the further course of this study.

I soon realised that there was no specialised study on the development of Mamluk door fittings and door knockers, a lacuna which will be filled by the study of Luit Mols.⁵ If door knockers were discussed in previous literature, then it was invariably together with different kinds of objects and all other forms of medieval metalwork.⁶ The outstanding quality of the Wartburg door knocker raised the question as to whether it is a Mamluk artefact or belongs to the Neo-Mamluk art of the second half of the 19th century. At that time the art of silver-inlay had resumed in Damascus and Cairo.⁷ Opinions were split. A survey of the literature shows that door knockers of the Wartburg type were dated from the 15th to the 16th century.⁸ Obviously no firm criteria for dating were established. Furthermore, there are no adequate studies on Neo-Mamluk arts and crafts either. Although there are some general surveys of the latter subject,⁹ Islamic art and metalwork of the 19th century has never been seriously studied or systematically collected.

⁴ Sotheby's 1998, p. 18, no. 10 (cat. no. 8).

⁵ During the writing of this article, an in-depth study on "Mamluk Metalwork Fittings" was under preparation as a Ph.D. thesis by Luitgard Mols (Mols 2006), with digression on Mamluk revival. I am grateful to her for generously providing me with parts of her manuscript.

⁶ For additional but different Mamluk knockers from Cairo see the pairs of the Madrasa of the Sultan Hasan Mosque (built 1356-1360); cp. Meinecke 1992 II, pp. 224-225, no. 19 B/13; (brass disc with silver inlay with six buckles, at each buckle a small six-petalled brass flower projecting from it; similar flowers decorate the rim of the disc). Pair of door knockers at the al-Mu'ayyad Mosque (built 1415-21); Much 1921, fig. 76 (round disc in open work, with a medallion at the bottom); cp. Meinecke 1992 II, p. 319 no. 29/15. A further one is on the bronze double door of the Madrasa of Sultan Baibars. The door is now in the French embassy in Giza, (image no. ID IHC0588 by John A. and Caroline Williams, year 1977); Parker, Sabin and Williams 1985, p. 196. The door knocker which has not to be the original one, is related in design to the mentioned ones in the book by Prisse d'Avennes, see note 14.

⁷ Kalter 1991. The inlay technique described by Vernoit 1997, p. 230, of hammering thin silver wire into the tracks is typical for Cairo. In Syria bands of silver seem to be used as well.

⁸ The Louvre door knocker (cat. no. 4) and the one from Sotheby's 1998 (cat. no. 8) were dated to the 15th century; the Sotheby's 1988, no. 44, to the 16th century. The Hague knocker (cat. no. 5) was seen as an 15th- to 16th-century specimen and the Harvard door knocker (cat. no. 2) as from the 16th century.

⁹ Vernoit 1997, pp. 228-249, chapter "The Mamluk Revival". Rabbat 1997. About the presentation of the Oriental crafts on the World's Fairs in the 19th century see Çelik 1992.

A taste for Mamluk revival existed already in Egypt in the 1840s. The Jazira palace in Cairo from the year 1863 designed by the Austrian architect Julius Franz, was the first Mamluk revival structure. The Rifa'i mosque in Cairo was begun in 1869. The monumental illustrated work by Prisse d'Avennes 1877 on Mamluk art was then one of the main catalysts of this revival style.¹⁰ The question remains, as to how far the Mamluk revival was rooted in the contemporary development of arts and crafts in Egypt and Syria. When did this new style spread to Syria?¹¹ Were the 19th century revival objects an innovation and only stimulated by the demand of European and Egyptian collectors? Or is there any kind of continuity of tradition and taste? Or had the almost forgotten heritage of the Mamluks perhaps always served as a model? Until these questions are explored further, this study of late Ottoman door knockers from Syria must be seen as preliminary.

After comparing a silver inlaid door knocker of Qala'un (reigned 1280-90) in the St Louis Art Museum,¹² a 15th-century door knocker from the Madrasa al-Khaidariyya in Damascus¹³ (completed in 878/1473-4) as well as with drawings of the door knockers of the Madrasat Qansuh al-Ghuri (completed in 909/1503) in Cairo, illustrated in the monumental work by Emile Prisse d'Avennes,¹⁴ I concluded in an article that the Wartburg door knocker might be an outstanding example of Mamluk art of the second half of the 15th century.¹⁵ However doubts remained. There are no immediate parallels in design to its outstanding workmanship among the known undisputed Mamluk door knockers. The script and Arabic letters on the suspension disc are all fine and well executed, however most

¹⁰ Vernoit 1997, p. 232.

¹¹ Vernoit 1997, p. 239, suggests that in the early 20th century Jewish workers in Jerusalem took over the Mamluk revival idiom.

¹² Steiner 1991, p. 22. St Louis Art Museum, inv. no. 40:1926. I am grateful to Almut von Gladiss who directed my attention to this knocker and to Sidney Goldstein who kindly provided me with photos of the object.

¹³ Al-Ush, Joundi and Zouhdi 1980, p. 244, fig. 108; Wiet 1945. It is now in the National Museum in Damascus (cat. no. 11).

¹⁴ Prisse d'Avennes' publication appeared before the Comité de Conservation des Monuments de l'Art Arabe was founded in 1881. It began to work in 1882. This suggests that the door knockers from the Mamluk buildings illustrated might originate from the Mamluk period. Prisse d'Avennes 1877, text, pp. 122-125, vol. III, pl. 102 (Tombeau du Sultān Qansou el-Ghoury), and a second similar knocker in vol. III, pl. 107. Both knockers are reproduced in Heidemann 2002, figs. 12 and 13.

¹⁵ See in detail Heidemann 2002.

of the lettering is meaningless. The inscription starts with parts of the standard benedictory phrases on metalwork, but all the rest is completely distorted. The same holds true for the circular legend around the very common Mamluk symbol of the six-petalled rosette at the lower end of the hanger. This type of rosette had already become a mere ornament in the late Mamluk period.¹⁶ Splendid examples of door knockers from the Mamluk period always name the patron and the inscriptions consist of legible phrases.

The Wartburg door knocker was restored by the University of Applied Science in Berlin/Weißensee, after I had completed my initial study.¹⁷ In the course of the restoration, Josef Riederer, director of the Rathgen-Research Laboratory in Berlin, analysed the metal composition. They fostered further doubts about the dating of the object, for the composition of the brass revealed an unexpectedly high zinc content of about 24% and a significant amount of cadmium. J. Riederer concluded that it was therefore a 19th-century brass alloy (see analysis below).¹⁸

II. *A Door Knocker at Harvard and Further Specimens*

In summer 2003 the curator of the St Louis Art Museum Sidney Goldstein directed my attention to a silver-inlaid door knocker (no. 2) just published in the *Harvard Magazine* (March-April 2003). Emilie Norris had conducted a 'University Cultural Properties Survey' and discovered it hanging on the wall in one of the offices at Harvard. In May 2005 the author had the chance to study this knocker in Cambridge.¹⁹

It had almost the same cast body as the Wartburg door knocker, with the eight-lobed interior openwork, projecting three-leafed lilies at the edge and bosses. The raw body might have come from the same workshop. But the decoration shows different techniques

¹⁶ Meinecke 1972, pp. 221-222, especially note 68.

¹⁷ The work was done at the Institute for Restoration under the direction of Kay Kohlmeyer and Matthias Knaut.

¹⁸ In the Mamluk period a zinc content that high was rare and unlikely, but still possible. Compare the brass incense globe, mid 14th century (25.7% zinc) in Atil, Chase and Jett 1986, p. 175. The dating must be questioned here as well. Indicative for the nineteenth century is the cadmium content.

¹⁹ I am most grateful to Emilie Norris, Harvard University, who allowed me to study this outstanding artifact.

and is richer. Silver and red copper were laid into the brass and a black paste highlights the engravings. However, no silver inlay covers any leaf or flower head. Both door knockers share the same finely executed naskhi-calligraphy, but as on the Wartburg door knocker, the inscription on the Harvard one has no meaning. The arabesques on the Harvard specimen seem to be flat, whereas the ones on the Wartburg knocker are in relatively high relief. The decoration seems to have been made in a different workshop.

The Wartburg knocker had hung at the front door of the 'bath of knights' for about a century from 1897 to 2001 and during this time every puff of wind caused it to knock on the anvil which was also inlaid with silver. The Harvard knocker, in contrast, was never used as such. No documentation about its provenance is known. Since it was produced, it served as showpiece, mounted on a wooden board although configured in the wrong order. The suspension disc usually framing the lobed suspension pin was mistaken as a frame for the anvil. The edges are still sharp on the separate pieces, which also show marks of grinding after casting. Even the back of the lower part of the hanger which usually strikes the anvil still exhibits bubbles from the casting process. These facts suggest that both door knockers, the Harvard and the Wartburg one, belong to the age of tourism in the Middle East from the 1830s onwards. A third specimen with a very similar cast body, silver inlay and incised decoration was on sale at Sotheby's in 1977 (no. 3). The decoration again was close, but slightly different with silver inlaid flower heads—which is typical for this group—and a broad band of inscription referring to an *al-Sultan al-Nasir*, which is an anonymous phrase of titulature.

Ten smaller versions of knockers of the Wartburg type exist. They are characterised by a four-lobed interior openwork—the hanging bar is in the position of the fourth lobe. Six three-leafed lilies are at the rim, three on the left and three on right side. The hangers have as well a prominent lower part formed by a five-leafed lily with a "teardrop" hanging from the middle leaf. The number of bosses on the lilies varies, as well as the decoration; there are some with silver inlay and some without, as well as some that are only incised and some that are plain. Five appeared in western collections and sales. The fourth and fifth are in the Louvre (no. 4) and the Hague Museum (no. 5). Four pairs²⁰ could be located in Damascus (no.

²⁰ Door knockers on double doors were usually found in identical pairs. These

16-19). The last one is hanging at a double door in Neo-Mamluk style in the French embassy in Giza (no. 9).²¹

III. *Damascus as Origin*

Where were these knockers made? In September 2000 a survey of door knockers was conducted in Cairo in the Museum of Islamic Art as well as in various Mamluk madrasas and mosques. It failed to reveal any further close parallels, either Mamluk nor Neo-Mamluk. However, one from the French embassy in Giza was later brought to my attention. In August and September 2003 a six-week survey was conducted of door knockers in Damascus, Aleppo and Hamah. The National Museums in Damascus and Aleppo did not produce any comparable unknown specimens. Historical buildings and houses in the old quarters could easily be surveyed, because representative knockers usually hung at entrances. Since door knockers can be moved, they are not necessarily contemporary with the building itself, and usually there is no documentation about this class of artefacts. A dating of the door knockers can thus only be preliminary. The suggested datings are based on the history and condition of the building, the entrance door itself and old photographs in publications. It is also obvious that precious old door knockers with silver inlay or rich decoration were no longer in use at entrance doors visible to the public, with the exception of no. 13 from the Khan al-Tutun. Many door knockers might have been removed during the metal shortage in the First World War and afterwards²² or were simply hidden from public view.

Damascus revealed four pairs of door knockers belonging to the Wartburg type. Seven different late Mamluk and Ottoman ones were recorded in Damascus for comparison. Prestigious door knockers were used on double doors as pairs, not as single items. Two pairs of knockers from the Madrasa al-Zahiriyya (no. 16) and the Madrasa al-ʿAdiliyya (no. 17) belong to the four-lobed version of the Wartburg type. The two buildings face each other. Only five bosses are placed

are reckoned here always as one item belonging together.

²¹ This one was brought to my attention by Luit Mols, who provided me kindly with a photo. See Raafat 1998.

²² For example catalogue, no. 18, and the door knocker of the Madrasat al-Shadhbakhtiyya (see note 25).

on the lilies of each knocker. However, the bodies are plain without any engraving, inlay or decoration. The Madrasa al-ʿAdiliyya used to house the Majmaʿ al-ʿIlmi al-ʿArabiyya (Academy of the Arab Science), the Madrasa al-Zahiriyya the Dar al-Kutub al-ʿArabiyya (the National Library).²³ It can thus be assumed that these two pairs were manufactured during renovation of these important buildings for their new purposes or afterwards. The Dar al-Kutub was founded in 1296/1878, and opened to the public in 1297/1880. In 1326/1908 the cenotaphs of Baibars and his son were restored. Photos of the interior of the Zahiriyya show that not much care was taken to provide the new institutions with a historical Mamluk appearance. The Madrasa al-ʿAdiliyya was still used for housing in 1917. In the period of the government of King Faisal (reg. 1918-20), in 1919 it was turned into the National Museum and seat of the Academy of Science. This might be the date for the addition of the two identical pairs of knockers.²⁴ The undecorated bodies suggest local availability at the time of addition, rather than a choice for Mamluk revival.

The third and fourth parallels share the same overall design and belong to private homes in the Bab Tuma quarter. The third (no. 18)—probably one of a pair—was photographed by K. Wulzinger and C. Watzinger in 1917. It had silver inlaid spots at the flower heads of the arabesques. As far as can be seen on the photo, the body and decoration are almost identical to those examples from the Louvre (no. 4), The Hague Museum (no. 5) and the hanger of the Giza example (no. 9). The plain undecorated fourth one (no. 19) with twelve bosses is quite similar, but the notion of style is somehow between Art Deco and the Fifties. The overall appearance and the style of the building suggest a dating of the latter to the second third of the 20th century.

The thirteen pairs or single door knockers of the Wartburg type (3 eight-lobed, 10 four-lobed) include four of the smaller versions attached to doors in Damascus (nos. 15-19). The incised door knocker from the French embassy in Giza (no. 9) is the only known specimen of this type outside of Damascus in the Middle East. It was obviously consciously chosen in order to adorn the door in Mamluk style. The

²³ In 1986 the library and its manuscripts moved to the Maktabat al-Asad at the Umayyad Square in Damascus.

²⁴ Watenpaugh 2004, pp. 193-194; Weber 2005. I am very grateful to Stefan Weber, Beirut, for giving me access to his forthcoming thesis about 19th-century Damascus.

suspension disc with its strict geometrical design is quite different from the scrolling foliage of the hanger and the overall appearance of the door. The disc as well as the rest of the door's decoration suggest therefore a different workshop than that of the hanger. It can be suspected, but not proved, on the basis of the collected evidence (see catalogue), that the hanger might have been imported from Damascus by a French collector or by the European architects responsible for the interior. Syria was under the French mandate.

The bodies of the Wartburg type door knockers can thus be assumed to have been cast in brass foundries of Damascus, perhaps only in one. The decoration varies and might have been done in the numerous small workshops of the market. This would explain the different techniques and styles applied.

IV. *The Relative Sequence of Door Knockers in Damascus*

The other recorded pairs or single door knockers from Damascus will help to define a preliminary relative sequence. Two pairs of door knockers belong to the entrance and inner doors of the Bimaristan al-Nuri (nos. 10a, b), cast probably in the middle of the 12th century. The first is more prominent and richer in decoration than the second. Although early, they are included in the survey because of the prominent lily ornament. Over the centuries these were always visible, probably served as models for the specific Damascus type of knockers. Seven three-leafed lilies form a ring. The inner part of the ring is not lobed, but forms a heptagon with concave sides.

The four pairs of knockers from the Madrasa al-Khaidariyya (no. 11), completed in 878/1473-4, Madrasa al-Darwishiyya (no. 12), built in 1572-1575, from the Khan al-Tutun (no. 13), probably late 17th, early 18th century, and from the Madrasat al-ʿAzim (no. 14), built in 1779, look as if they were still from the initial building phase. The knocker of the Khaidariyya consists of two rings of lilies in openwork, one encircling the other, with a prominent three-leafed lily at the lower end. The lilies were done in relief, however, without any bosses. The hangers of the two knockers at the Darwishiyya are in some formal aspects comparable to the one of the Khaidariyya. They consist of rings, one encircling the other, but the inner ring has ten bosses and the inner part is therefore ten-lobed, the outer second ring is formed by ten three-leafed lilies always with a smaller lily in

between except at the top in the position of the hanging bar. There is no prominent lily at the bottom end. The pair of ring knockers of the Khan al-Tutun is very different and refers to a continued appreciation of the distinct northern Mesopotamian figurative animal style. Each ring hanger is formed by two snake-like dragons. The inner part is six-lobed. Bosses are not cast together with the hanger, but applied separately. The knob of the suspension shaft is formed as a stylised feline head and the features of its eyes and the shape are highlighted with silver inlay.

The door knockers of the Madrasat al-‘Azm (no. 14) and the Madrasa al-Nuriyya (no. 15) belong together. They are closer to the Wartburg type. They are formed as a single ring of eight three-leafed lilies each having a boss and with an eight-lobed inner section formed by eight inwardly turned three-leafed lilies, though with no prominent lily at the bottom. The knocker from the Madrasat al-‘Azm seems to be still the original, whereas the one of the medieval Madrasa al-Nuriyya is placed at the inner side of the entrance door. It is thus not the original door and position. On the basis of the one from the Madrasat al-‘Azm they might both be dated to the last quarter of the 18th century. The type of door knocker of the Madrasat al-‘Azm of Damascus exists in miniature form on several double doors opening to the inner court in the Bait As‘ad Basha al-‘Azm in Hamah (no. 20), built about 1740. All are of the same type, but some of them seem to be recasts and are inferior in quality to the older model. Nevertheless the overall appearance dates the original design to the 18th century.

The lilies were a usual element in the design of knockers from Damascus, at least from the 12th century on. Bosses in Damascus can at least be traced back to the early Ottoman period. The prominent five-leafed lily of the Wartburg type seems—as far as we have the evidence—to be an invention on Damascus knockers in the last third of the 19th century.

V. *Iron Door Knockers from Aleppo*

The third Syrian city in the survey was Aleppo. No door knockers of the Damascus-related Wartburg type were discovered here, thus underlining the Damascene origin of the Wartburg type. Four pairs of knockers help to understand the sequence, those from the Khan

al-Wazir (no. 21), built in 17th century, from the Khan al-Salihiyya (no. 22), built about 1900, from the monastery belonging to the Syriac Catholic Church (no. 23) and the Bimaristan al-Nuri (no. 24). The common feature of the known Aleppo knockers from the Ayyubid period²⁵ onward is that they were all made of cast iron in the form of one ring, plain without bosses and inlay and without any prominent feature at the bottom of the hanger.

The knocker of the Khan al-Wazir of the 17th century seems to belong to the original building phase. The inner section is an eleven-lobed ring. The outer rim has no lilies but it is pierced twelve times and the rim itself frames these holes with a wavy line. The other three pairs of door knockers form a group distantly resembling the Damascene Madrasat al-‘Azm and Madrasa al-Nuriyya-type, however they have a plain body and the inner lilies are only split into two leaves like the one at the entrance of the Khan al-Wazir. They date to the second half of the 19th century and before the First World War. The Khan al-Salihiyya was built in the late 19th or early 20th century. The door knocker of the Bimaristan al-Nuri is in fact one from a private house, which lay in ruins even before the First World War.

VI. Conclusion

The three large eight-lobed single door knockers or pairs (Wartburg, no. 1; Harvard, no. 2; Sotheby’s 1977, no. 3) as well as the ten smaller counterparts of the Wartburg group belong to a type which is common in Damascus. Since they are—with the exception of the one in the French embassy in Giza—only found in Damascus itself, one can assume that Damascus is the origin. The splendid large ones—as far as the known specimens are concerned—were mainly exported to western collections. Because there were no patrons who

²⁵ See the door knocker from the Madrasa al-Shadhbakhtiyya, built in 589/1193; Herzfeld 1942, p. 7, fig. 49 (drawing); Herzfeld 1954-56, pp. 155-260, pl. CVII (door knocker still *in situ*). It is now housed in the National Museum in Damascus, inv. no. ‘ain/2798; see Julia Gonnella in Wieczorek, Fansa, and Meller 2005, p. 108. Sauvaget 1944/45, p. 227, mentions and illustrates that since the First World War the Ayyubid door knockers of the Shadhbakhtiyya were replaced by simple ones, which were still in place in 2005. For the building see Gaube and Wirth 1984, pp. 364 no. 167.

wanted their names to be celebrated on the objects, the knockers are without any meaningful inscription. The Wartburg group is distinct from all door knockers found in Aleppo and Cairo (with the exception of the French embassy). Assuming the reported installation of the Wartburg door knocker to the “bath of knights” in 1897 as the earliest known *terminus ante quem*, this type of knocker can be dated to the last third of the 19th century. The restoration and opening of the ‘Adiliyya as Arab Academy of Science seems to prove that production was continued into the early 20th century.

Small differences between the knockers—even among examples where the decoration was probably done by the same hand (i.e. inlaid flowerheads)—show that they were all cast in the lost wax process. The differences in the style of ornamentation and inlay can be explained by different Damascene artisans using plain prefabricated bodies. Among the knockers of the Wartburg group, some share almost the same surface decorations and are likely to be from the same workshop, such as those in the Louvre (no. 4), The Hague (no. 5), and Sotheby’s 1988 no. 44 (no. 6) and probably also the Bab Tuma knocker illustrated by Wulzinger and Watzinger (no. 18). Typical for this workshop seem to be the inlaid flowerheads, so that the Sotheby’s knocker of 1977 (no. 3) might be added to this group.

As for answering the second question raised in the beginning, and putting forward a relative sequence, some arguments can be advanced. Those door knockers of the Wartburg group are possibly part of a late development in designs rooted in Damascus itself. There seems to be a succession of brass door knockers with lilies and bosses going back through the Ottoman period to the late Mamluk period or even earlier (no. 12). The prominent pairs of knockers of the Bimaristan al-Nuri (no. 10)—visible during all periods—with three-leafed lilies designed in the middle of the 12th century, might have served as a constant source of inspiration. In Damascus brass is the commonly used material. In contrast, in Aleppo iron was the usual choice for ring knockers from the Ayyubid period onwards, as far as we know. In Aleppo and in Damascus, until at least the late 18th century if not the beginning of the 19th century, only ring knockers were produced. The innovation of the prominent five-leafed-bottom-end lily can be first detected in Damascus on the door knockers of the Wartburg group. This type was obviously popular right into the 20th century. The emergence of prestigious bossed brass door knockers decorated in Mamluk style in late 19th century

Damascus can thus be seen within the movement of the rich adorned style and historical forms which suited the taste of late 18th- and 19th-century Ottoman society.²⁶ The study underlines the importance of the preservation and study of a vanishing material culture of the late Ottoman era.

VII. *Metallurgical analysis of the Wartburg door knocker (cat. no. 1)*
by Josef Riederer

	hanger	suspension pin
copper	69.79%	70.82%
tin	1.63%	1.23%
lead	2.92%	3.55%
zinc	24.59%	23.44%
iron	0.73%	0.65%
nickel	0.11%	0.09%
silver	0.04%	0.04%
antimony	0.05%	0.05%
arsenic	0.14%	0.14%
bismuth	< 0.025%	< 0.025%
cobalt	< 0.005%	< 0.005%
gold	< 0.01%	< 0.01%
cadmium	0.004%	0.005%

Brass is an alloy of copper and zinc. The alloy of the Wartburg door knocker suggests a 19th-century origin. Metallic zinc could not be made prior to the 18th century. In the 19th century, it came into general use. Only in the late 15th century did India succeed in the production of metallic zinc. Prior to the 18th century, brass was produced—except in India—only by alloying copper with the zinc ore calamine. With this process a zinc content up to 27% in the brass could be reached, but in practice it rarely exceeded 20%. Typical for the use of metallic zinc in the production of brass is an elevated content of cadmium, which lay prior to the 19th century below 0.001%.

²⁶ Cp. Wulzinger and Watzinger 1924, p. 25.

VIII. *Catalogue**Late Ottoman Door Knockers of the Wartburg Group in Collections and Sales**Large Eight-lobed Modules*

1) Wartburg, Eisenach, Germany (fig. 1).
Probably Damascus, before 1897.

Single brass door knocker (height 259 mm), inner part eight-lobed. The hanging bar is in the position of the eighth lobe. Four of the eight inwardly turned points are prolonged with a diamond. Each of the eight points has a teardrop-shaped boss attached. The margin is formed by eight lilies, six of which are three-leaved with teardrop-shaped bosses. The upper lily is without a middle leaf and is split to hold the hanging bar in between. The lily at the bottom is five-leaved with a round drop at the point. All the rims, the lilies, the diamonds and the bosses are edged with silver inlay. Scrolling arabesques in relief are within the fields. In the centre of the five-leaved lily is an eight-petalled silver-inlaid 'water-wheel'-rosette encircled by a silver inlaid distorted standard inscription placed itself within a silver inlaid circle.

The suspension disc (128 mm) is divided into six concentric zones or bands, each separated with 2-mm of silver inlay. The first (5 mm), second (10 mm), fourth (10 mm), the fifth (12 mm) and the sixth zone (the margin, 12 mm) are filled with extremely fine, plastically modelled arabesques, some with silver inlaid leaves. The third zone (30 mm) has an outwardly turned—it is to be read clockwise—inscription or lettering in well-executed calligraphy starting like any other standard inscription with *al-'izz li-maulana*. From that point on the inscription is illegible. Points and arcs form the rim.

The suspension pin (height 54 mm) is undecorated. The cylindrical anvil (diameter 43 mm, height 19 mm) repeats on its much-worn top the silver inlaid rosette and inscription of the five-leaved lily. The body is covered with plastically modelled arabesques.

Lit.: Heidemann 2002. Photo: author.

2) Harvard University, Cambridge MA (fig. 2).
Probably Damascus, last quarter of the 19th century.

Single brass door knocker mounted on a wooden board. The cast body (height 264 mm) is almost the same as the Wartburg one, only

with an additional boss placed on the five-leafed lily. The edges of all the rims, the lilies, the diamonds and the bosses are outlined with silver inlay. Scrolled arabesques within the fields are highlighted by a black paste rubbed into the engravings. A six-petalled rosette is in the centre of the five-leafed lily. The petals are alternately inlaid with silver and copper. In the centre of the rosette is a small incised ringlet and the whole rosette is bordered by silver inlay as well.

The suspension disc (diameter 178 mm) is formed like that of the Wartburg knocker. Here, in its present arrangement, it serves as the frame of the anvil. The anvil itself is an octagonal knob with an incised six-petalled rosette at the top. The suspension disc is divided into five concentric zones, each framed with silver inlay. In the first inner zone (30 mm) are fourteen inwardly turned, incised, alternating smaller and larger, three-leafed lilies. The second (11 mm) and fourth (10 mm) circular band each have an indefinite repetition of incised knots interrupted by three cartouches each containing a six-petalled rosette. The third circular zone (26 mm) comprises a silver inlaid outwardly oriented illegible band of inscription, with pieces of the standard phrases. It is divided by three circular cartouches each with a symmetrical arabesque. The fifth zone (11 mm), the margin, is formed by silver inlaid points and arcs. The loop of the projecting suspension pin is decorated by incised arabesques and has a pointed knob at its top.

Lit.: Norris and Cohen 2003, pp. 68-67 (with illustration). Photo: author.

3) Sotheby's sale 1977 (fig. 3).

Probably Damascus, last quarter of the 19th century.

The cast body of the door knocker (height 305 mm) is almost a twin of the Harvard one with differences in ornamentation. The silver inlay is limited to small spots on the flower heads of the scrolling arabesques. Apparently the original silver inlay of the inscriptions has been removed.²⁷ In the centre of the lower five-leafed lily is a cartouche with the incised inscription *al-maliki al-nasiri*. The edge of the suspension disc alternates from one to two points between every arc.

²⁷ Parallel tracks of punched pits are visible in the lines of inscription, where the silver wire ought to be hammered into. Compare for such tracks of punched pits used for the inlay: Ward 1993, p. 37, fig. 25. These tracks are different from the incised tracks visible in the lines of inscription on the Louvre knocker.

The disc is divided into three zones. In the inner zone are scrolled foliage, the second broad band has an outwardly oriented almost illegible incised standard inscription. On the photo—the hanger covers almost half of the disc—the following phrase is legible: (...) *al-'alim al-nasiri al-sultani* (...). The third band contains again scrolling foliage, divided by eight circular cartouches each containing a six-petalled rosette. The lobed suspension shaft is also decorated and topped by a knob.

Lit. and fig.: Sotheby's 1977, p. 28, no. 237, pl. 32.

Smaller Four-lobed Modules

4) Louvre, Paris, inv. no. MAO 856.

Probably Damascus, last quarter of the 19th or early 20th century.

Single door knocker of cast bronze. The inner part is four-lobed. The fourth lobe opens elegantly to the hanging bar; at the rim six three-leafed lilies and a five-leafed lily with a 'teardrop' at the lowest point. The five-leafed lily is formed by two merged three-leafed lilies in order to fit to the eight-lily design. There are thirteen sleek bosses, each on a three-leafed lily, three on the bottom five-leafed lily, and on each of the four inwardly turned points.

The silver inlay on the hanger and suspension disc is limited to small spots, representing the flower heads of the scrolling arabesques. The suspension shaft has a decorated knob at the top. The suspension disc has an edge with points and arcs. It shows an outwardly oriented incised inscription (without inlay) on a scrolling foliage, with parts of the standard inscription, otherwise illegible: *al-janab al-nasir (...?) al-'alim al-malik al-mujahid* (reading according to Makariou 2002). Compare nos. 5, 6, and 18.

Lit.: Makariou 2002, p. 41, no. 11 (with illustration).

5) The Hague Museum, inv. no. OM 2-37, (fig. 4).

Probably Damascus, last quarter of the 19th or early 20th century.

Single door knocker of cast bronze with suspension disc. Almost identical in body and decoration to the Louvre hanger and disc, even in the legible parts of the inscription, except that there are two fewer bosses. They are missing on the second three-leafed lily to the left and to the right side of the hanging bar. Compare nos. 4, 6 and 18.

Lit. and fig.: Teske 1991, pp. 46-47.

6) Sotheby's sale 1988, no. 44.

Probably Damascus, last quarter of the 19th or early 20th century.

Single door knocker of cast bronze with suspension disc. Almost identical in body (240 mm) and decoration to the Louvre hanger and disc, except that there is no boss in the middle of the five-leafed lily. The inscription could not be identified on the photo, but it is not excluded that it is the same. Compare as well nos. 4, 5 and 18.

Lit.: Sotheby's 1988, p. 15, no. 44 (with illustration).

7) Sotheby's sale 1988, no. 45, (fig. 5).

Probably Damascus, last quarter of the 19th or early 20th century.

Single door knocker of cast bronze with suspension disc. Almost identical in body to the Louvre example (no. 4) in respect to the hanger (222 mm) and the disc, except that there is no middle boss on the five-leafed lily (cp. no. 6). The decoration is much different in style. The silver inlay is broader and richer. All arabesques, the entire flowers, and the framing of the margins are silver inlaid. On the suspension disc there are two large medallions with inscriptions and two smaller ones, each with two completely silver inlaid fishes, forming an "0" and swimming to the middle. The inscription seems to be meaningless, but it is not fully visible on the photo. The script is not traditional naskhi, but a modern interpretation, reflecting presumably Art Nouveau calligraphy.²⁸

Lit. and fig.: Sotheby's 1988, p. 15, no. 45.

8) Sotheby's sale 1998 (fig. 6).

Probably Damascus, last quarter of the 19th or early 20th century.

Single door knocker mounted on a wooden board, on the photo copperish in appearance, but may be brass. The hanger has the same body as the Louvre knocker (no. 4), except that there are only three rather fat bosses, one at the bottom and one on each lily beside the two top lilies. The disc has the same form as the Louvre one. The knocker and disc are incised with arabesques, which were perhaps highlighted by a black paste.

²⁸ See for example the calligraphy on the coinage of Morocco under Mulai Hasan (reigning 1873-1896) and Mulai Abd al-Aziz (reigning 1896-1908). The design and the production of these coins were made in Europe. The relation between Art Nouveau and late Ottoman art deserves far greater attention, see Özer 2002.

Lit. and fig.: Sotheby's 1998, p. 18, no. 10; Heidemann 2002, pp. 198-199, fig. 14.

9) Giza, French Embassy, 29 Giza Avenue (fig. 7).

Probably Damascus, last quarter of the 19th century, early 20th century.

The brass body of the hanger matches in size, proportion, style and decoration as well as with the number and placement of the bosses exactly the Louvre one and—with the exception of the two bosses—The Hague door knocker. The closeness of this group to no. 18 points to Damascus as origin. The decoration only does not have any inlay in the flower heads. The suspension disc is different in taste and style. At the edge are repeated two arcs and one point. Within the central zone are interlaced arcs and the outer zone is a simple band of interlaced incised knots. The suspension shaft has a knob on its top.

The door knocker could have been either taken from the distinguished Neo-Mamluk building of the French legation, located from 1887-1937 in the Ismailia-district, which was decorated by its former owner, the distinguished antique and Neo-Mamluk collector Charles Gaston de Saint-Maurice, or the knocker added to the new premises of the French legation in Giza in 1937 by their architects. The door knocker should not be confused with the knocker on the splendid Mamluk bronze door of the Sultan Baibars Madrasa, also housed within the French embassy (see note 6).

Lit.: Raafat 1998. Photo: Luit Mols.

Other Door Knockers from Damascus

Early Types

10) Bimaristan al-Nuri, built in 1154-5.

a) Damascus, about 1150s (fig. 8).

b) Damascus, about 1150s (fig. 9).

Pair of knockers (a) at the main entrance door furnished with brass fittings, inner section almost a heptagon with concave sides, outer rim five three-leafed lilies and two two-leafed lilies at the top, no bosses, circular suspension disc. The knocker could also be described as having six outwardly oriented crescents and the hanging bar in the position of the seventh. A three-leafed 'lily' is formed each time by the points of two crescents and with one leaf between them. In place of the seventh crescent is the hanging bar with two brick like blocks to the right and left. A second pair (b) is of the same type but simplified; there are no lilies beside the blocks of this hanging bar. It is attached to the second door of the entrance hall.

Herzfeld draws a distant parallel for this early type to the Madrasa al-Shadhbakhtiyya in Aleppo,²⁹ and a close parallel one to the Mashhad Imam 'Aun al-Din in Mosul built in 646/1248-9.³⁰ The latter one is formed by six three-leafed lilies as a concave hexagon, having bosses as well.

Lit.: Wulzinger and Watzinger 1924, p. 70, pl. 50d (fig. of the knockers). Sauvaget 1932, pp. 49-53; Herzfeld 1942, pp. 2-11, figs. 43, 48-50 (fig. of the knockers and its parallels); Sauvaget 1944-5, pp. 213-215, pl. XVIII (fig. of the knockers); Sack 1989, p. 94, no. 1.34. Photo: author.

11) al-Madrasa al-Khaidariyya, completed in 1473-4 (fig. 10).
Damascus, about 1470s.

One of a presumed pair of door knockers, brass (?), two rings of three-leafed lilies in openwork encircling each other. Four lilies in openwork are projecting from the almost square inner ring. Between each two lilies is a tiny three-leafed one. The outer ring—connected with the top of the inner lilies—consists of eight lilies. The lily on the top serves as a hanging loop. The lily at the bottom is somewhat larger and more prominent than the others. The three lilies to the left and right are in openwork. Between each lily is again a tiny one. The convex suspension disc (210 mm) has circular zones like the Wartburg knocker. An outwardly turned inscription mentions the building and eulogises the founder. The background of the inscription has floral arabesques almost in relief.

²⁹ See note 25.

³⁰ The Mashhad was restored in 1777. Sarre and Herzfeld 1911-1920, II, pp. 263-270, esp. 270, figs. 264 and 265 (drawing); Herzfeld 1942, fig. 49 (drawing).

Lit: Ush, Joundi and Zouhdi 1980, p. 244 (fig. 108); Wiet 1935, fig. only of the suspension disc. For literature on the building see Sack 1989, pp. 104, no. 3.48; Meinecke 1992, pp. 404, no. 42/46.

12) Jami' al-Darwishiyya, built between 1571 and 1575 (fig. 11).
Damascus, about 1570s.

Pair of brass door knockers at the wooden entrance door, which seems to be still the original one. Two rings encircling each other. The inner part is ten-lobed, the inner ring is formed as a ten-pointed star with ten teardrop-shaped bosses at each point. The outer ring is formed by ten three-leafed lilies projecting from the points of the star. All lilies are joined with an extra leaf between them, except for the two upper leaves (cp. no. 11). The two are connected with the hanging bar for the looped suspension shaft. The suspension disc is edged with points and arcs.

Lit.: Wulzinger and Watzinger 1924, pp. 68-69, pl. 36-39; Sack 1989, pp. 108, no. 4.22. Photo: author.

13) Khan al-Tutun, built 17th to early 18th century, with some modifications in the late 19th or early 20th century (fig. 12).

Damascus (?), 17th to early 18th century (?)

Pair of bronze ring knockers with suspension pins, suspension discs and anvils. The knob of each pin has the form of a feline head holding the hanging bar in its mouth. Two snake-like dragons form the six-lobed ring. Their heads with open mouths are to the left and right of the feline head. The eyes of the dragons and the feline as well as the edge are marked by an inlaid line of silver. The split ends of the tails join each other at the lowest point to form a teardrop-shaped oval. The two bodies of the dragons are on each side folded into four teardrop shaped ovals. On each of the snake bodies were originally two bosses applied. The upper right boss of the left and the two lower ones on the right knocker are missing today. Their insertion moulds are still visible, showing that the bosses were cast separately and attached later. The extraordinary form with dragon and feline lacks to date any parallel among the Syrian knockers. They derive from much more elaborate models from 13th-century northern Mesopotamia.³¹ The suspension discs are plain sixteen-lobed rosettes. The anvil is formed as a poly-petalled rosette.

³¹ Most notable is the pair of door knockers from Cizre; the first knocker is in

Lit.: Wulzinger and Watzinger 1924, p. 72, no. F4.8 (18th-19th c.); Scharabi 1987, p. 305, no. 12 (13), fig. 65b (18th c.); Sack 1988, p. 267, no. XVI-399-408 (18th-19th c.); Sack 1989, pp. 38, 110, no. 4.35 (end of the 18th c.). Information about dating of the building: Stefan Weber. Photo: Christoph Konrad.

Ring Knockers with Eight Three-leafed Lilies

14) Madrasat ‘Abdallah Basha al-‘Azm, built in 1779-80 (fig. 13).
Damascus, about 1770s and 1780s.

Single door knocker at the middle of the main single entrance door clad with iron sheets. Brass, inner section eight-lobed, the lobes are created by eight inwardly turned three-leafed lilies. Eight three-leafed lilies are oriented outwardly. Seven lilies have an almost triangular boss except the eighth one at the top, which has a rectangular hole instead. The middle leaf in the upper eighth lily is missing, in order to form the hanging bar. At the point of each middle leaf is a punch or drilled mark, except for the top lily where a mark is found on the left and right leaf. Also the eight inner lilies are marked with a punch or drilled mark at each point and its bottom. The suspension disc is in openwork with the rim of points and arcs. To prevent theft, the knocker is affixed to the door with a heavy rusty iron belt.

Lit.: Sack 1989, p. 110, no. 4.40. Photo: author.

15) al-Madrasa and al-Turba al-Nuriyya al-Kubra, built 1167-1172 (fig. 14).

Damascus, last third of the 18th century.

The single brass door knocker at the inner left side of the entrance door is obviously in a secondary position. Herzfeld and Sauvaget noted several “récente” remodelling of the building. The body of the knocker is almost of the same type as no. 14. A drilled hole is at the point of the middle leaf of each of the seven outwardly turned lilies, except for the top one with the hanging bar. The inner lilies

the Türk ve Islam Eseleri Müzesi together with the suspension pin of the second; cat. Istanbul 1980, pp. 60-61, nos. D.96 and D.97, colour plate after page 12. The hanger of the second one belongs now to the David Collection in Copenhagen; Wiczorek et al. 2005, pp. 329-330, no. B.15. The second example is the door knocker in the Islamic Museum in Berlin; cat. Berlin 1971, p. 17, no. 17, pl. 53.

are adorned with a similar drilled mark or punch as well.

The suspension disc is decorated with points and arcs, and a hole is drilled into each arc, although most of them are filled with dirt. Originally these holes were made for nails. This can be seen on the Qala'un knocker in the St Louis Museum. The decoration at the rim can be interpreted to resemble broad three-leafed lilies. Three sets of triple incised lines encircle the centre of the suspension disc.

Lit.: Sauvaget 1932, pp. 53-54; Herzfeld 1942, pp. 40-46; Sauvaget 1944-5, pp. 215-219; Sack 1989, pp. 94, no. 1.40. Photo: author.

Door Knockers of the Wartburg Type

16) al-Madrassa al-Zahiriyya, completed 1277, used as National Library since 1878-80, some restoration on the cenotaphs in 1908 (fig. 15). Damascus, probably about 1919.

Pair of brass knockers at the main entrance door. The cast body is of almost the same design as the Louvre door knocker, but less elegant. Five bosses are placed on the second and third three-leafed lily of the right and left side of the hanging bar and on the five-leafed lily at the bottom. The looped pin has a knob at the top. Suspension discs are missing. The door itself seems to belong to the restoration of the late 19th century, when the building was re-used as the National Library. The suggestion of the late date, 1919, is based on the date of the opening of the Academy of Science (no. 17).

Lit.: Wulzinger and Watzinger 1924, pp. 59-61; Sauvaget 1935, pp. 67-69; Sack 1989, p. 102 no. 3.23; Meinecke 1992, II, p. 52, no. 5/3; Weber 2006, no. 57, XVIII/1-102. Photo: author.

17) al-Madrassa al-ʿAdiliyya al-Kubra, completed 1222-23, used since 1919 as National Museum and as seat of the Arab Academy of Science (Majmaʿ al-ʿIlmi al-ʿArabi). Damascus, about 1919 (fig. 16).

Pair of brass knockers at the main entrance door, the design of the hanger and the lobed suspension shaft are like those at the Zahiriyya. The otherwise plain suspension disc has eight three-leafed lilies at the margin, the anvil is a similar disc having as well eight three-leafed lilies. In 1917 Wulzinger and Watzinger described the building as still intensively used for housing. The doors belong obviously to the restoration phase, probably when the building was remodelled as

the National Museum and administration of the Academy of Science in 1919.

Lit.: Wulzinger and Watzinger 1924, p. 61; Sauvaget 1932, pp. 62-64, no. 32; Herzfeld 1942, pp. 46-49; Sauvaget 1944-45, pp. 219-220; Sack 1989, p. 97 no. 2.20; additional information by Stefan Weber, Beirut (e-mail 10 November 2005). Photo: author.

18) Private house in the Bab Tuma quarter, 1917 (from Wulzinger and Watzinger).

Damascus, between 1870s and 1917.

The door knocker, possibly one of a pair, is almost the same as nos. 4, 5 and 6. As with the Louvre door knocker, inlaid spots, as far as are visible on the photo, might represent flower heads of the scrolling foliage. Silver inlaid spots are visible as well on the suspension disc, but the design of the disc could not be established from the photo.

Lit.: Wulzinger and Watzinger 1924, p. 24, pl. 52d (fig. of one door knocker).

19) Private house in the Bab Tuma quarter, Shari'a Ja'far ibn 'Abdallah al-'Adawi (street 306), no. 41 (fig. 17).

Damascus, about second third of the 20th century (?).

Pair of brass knockers at the main double door entrance. They seem to be almost a copy of nos. 16 and 17, but they have four sleek inner bosses and eight sleek outer bosses. The plain suspension disc is surrounded with points and arcs and has four drilled holes at the margin. The anvil is a brass rosette with twenty-four petals. The notion of the style and the presumed date of the building suggest a dating to the middle of the 20th century.

Photo: author.

Hamah

20) Bait As'ad Basha al-'Azm, 1740, several times remodelled since the 18th century.

Hamah or Damascus, after 1740 (fig. 18).

Several pairs of small brass knockers on double doors opening to the court. The inner section is seven-lobed. At the position of an eighth lobe is an inwardly turned point, above it the hanging bar. At

the edge are seven three-leafed lilies with seven bosses. The eighth one is split to leave space for the hanging bar. The suspension disc is in floral openwork, the rim is decorated with points and arcs. The same design, but in different qualities, can be found throughout the house. It can be assumed that they all belong to an original design. Several of the knockers seem to have been recast during subsequent restoration phases. The design seems to be almost a miniature copy of no. 14.

Lit.: Riis 1987, p. 155-169. Photo: author.

Aleppo

21) Khan al-Wazir, built between 1678 and 1682 (fig. 19).
Aleppo, about 1670s or 1680s.

Pair of iron door knockers at the main entrance door, which is clad with iron sheets. The lobed inner part is formed by twelve inwardly turned two-leafed lilies, with a broad hanging bar in between. The iron ring hanger is pierced twelve times. The margin seems to be wavy around the holes. Suspension disc, iron, at the rim are holes and arcs around those holes.

Lit.: Gaube and Wirth 1989, p. 366, no. 180. Photo: author.

22) Khan al-Salihyya, about 1900 (fig. 20).
Aleppo, late 19th century.

One remaining of a pair of iron knockers; it is attached to the right wing of the double main entrance door, which is clad with iron sheets. The inner part of the knocker is formed by seven inwardly turned two-leafed lilies; between the upper lilies is a broad hanging bar. Eight three-leafed lilies at the margin. Iron suspension disc, perhaps lilies or rust holes at the margin. The design of this knocker is almost the same as nos. 23 and 24. It is probably from the original building phase, at the end of the 19th century.

Lit.: Gaube and Wirth 1984, p. 387, no. 397. Photo: author.

23) Syriac-Catholic Church and Monastery Mar Asiya, Harat Yasmin, Jdaide, Aleppo, built 1510, rebuilt after a fire in 1852 (fig. 21).
Aleppo, about middle of the 19th century.

Pair of iron door knockers at the main entrance door, clad with metal sheets, probably from the restoration after the fire in 1852 or later. Same design as nos. 22 and 24.

Lit.: Gaube and Wirth 1984, p. 418, no. 761. Ghazzi, Nahr, ed. 1929, II, p. 484; ed. 1999, II, pp. 391-392. Photo: author.

24) Bimaristan al-Nuri, built between 1150 and 1154, restored 1436 (fig. 22).

Aleppo, about 19th century.

Pair of iron door knockers at the main entrance door of wooden 'brick' mosaic, typical for 19th-century Aleppo. Same design as nos. 22 and 23. The Bimaristan has lain abandoned and in ruins since the 1920s. However some wooden boards were replaced since the photos were taken by Sauvaget and Herzfeld. The entrance seems to belong to an abandoned private house, which had made use of the medieval ruin.

Lit.: Sauvaget 1931, p. 77, no. 17, pl. VI (photo of the door knockers); Herzfeld 1954-56, pl. XCIII, b (photo of the door knockers); Gaube and Wirth 1984, p. 349, no. 44. Photo: author.

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Fig. 1. Wartburg, Eisenach, Germany. Cat. no. 1 (photo: Stefan Heidemann).



Fig. 2. Harvard University, Cambridge MA. Cat. no. 2 (photo: Stefan Heidemann).



Fig. 3. Sotheby's sale 1977, cat. no. 3 (after Sotheby's 1977).



Fig. 4. The Hague Museum, inv. no. OM 2-37. Cat. no. 5 (after Teske 1991).



Fig. 5. Sotheby's sale 1988, no. 45. Cat. no. 7 (after Sotheby's 1988).

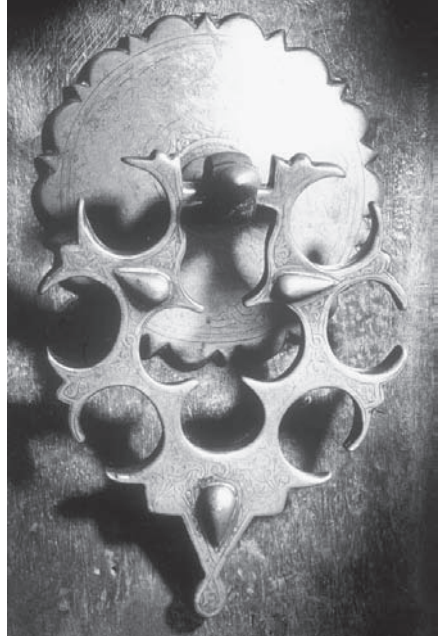


Fig. 6. Sotheby's sale 1998, no. 10. Cat. no. 8 (after Sotheby's 1998).



Fig. 7. French Embassy, Giza. Cat. no. 9 (photo: Luit Mols).



Fig. 8. Bimaristan al-Nuri, Damascus, about 1150s. Cat. no. 10a (photo: Stefan Heidemann).



Fig. 9. Bimaristan al-Nuri, Damascus, about 1150s. Cat. no. 10b (photo: Stefan Heidemann).

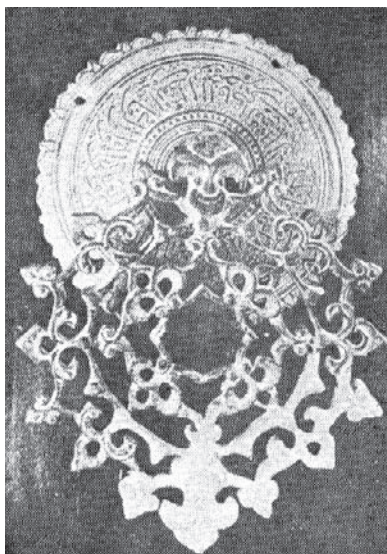


Fig. 10. al-Madrasa al-Khaidariyya, Damascus, about 1470s. Cat. no. 11 (photo: after Ush-Joundi-Zouhdi).



Fig. 11. Jami' al-Darwishiyya, Damascus, about 1570s. Cat. no. 12 (photo: Stefan Heidemann).



Fig. 12. Khan al-Tutun, Damascus (?), 17th to early 18th c. (?). Cat. no. 13 (photo: Christoph Konrad).



Fig. 13. Madrasat 'Abdallah Pasha al-'Azm, Damascus, about 1770s and 1780s. Cat. no. 14 (photo: Stefan Heidemann).



Fig. 14. al-Madrasa and al-Turba al-Nuriyya al-Kubra, Damascus, last third of the 18th century. Cat. no. 15 (photo: Stefan Heidemann).



Fig. 15. al-Madrasa al-Zahiriyya, Damascus, probably about 1919. Cat. no. 16 (photo: Stefan Heidemann).



Fig. 16. al-Madrasa al-'Adiliyya al-Kubra, Damascus, about 1919. Cat. no.17 (photo: Stefan Heidemann).



Fig. 17. Private house in the Bab Tuma quarter, Damascus, about second third of the 20th century (?). Cat. no. 19 (photo: Stefan Heidemann).



Fig. 18. Bait As'ad Basha al-'Azm, Hamah or Damascus, after 1740. Cat. no. 20 (photo: Stefan Heidemann).

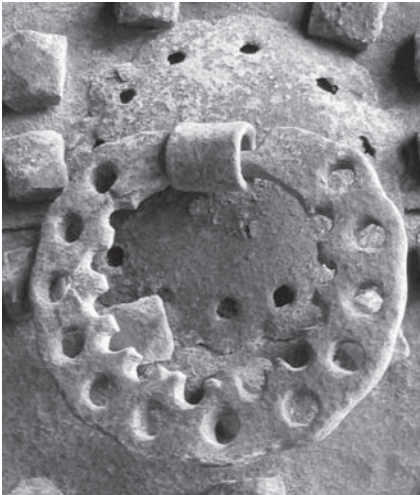


Fig. 19. Khan al-Wazir, Aleppo, about 1670s or 1680s. Cat. no. 21 (photo: Stefan Heidemann).

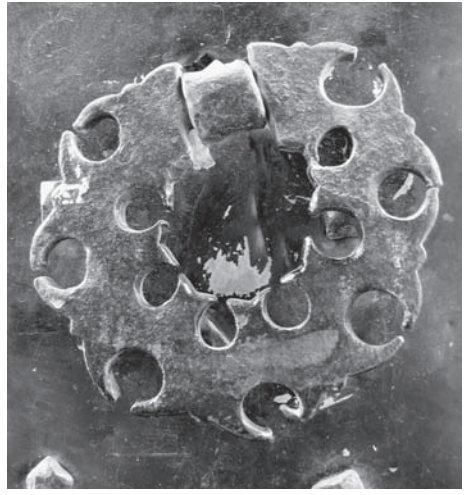


Fig. 20. Khan al-Salihiyya, Aleppo, late 19th century. Cat. no. 22 (photo: Stefan Heidemann).

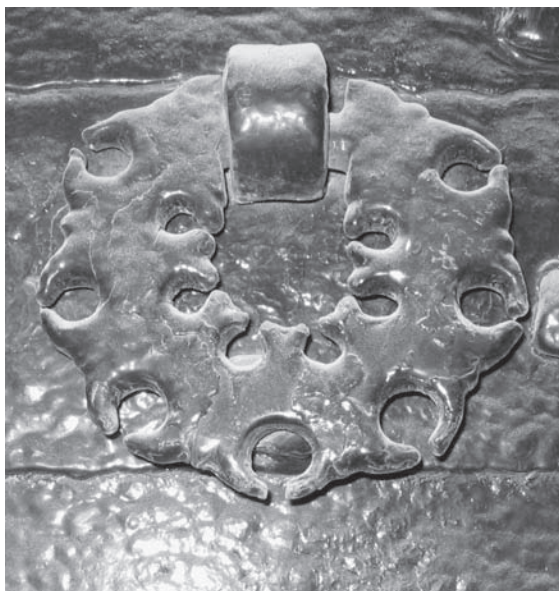


Fig. 21. Syriac-Catholic Church and Monastery Mar Asiya, Harat Yasmin, Jdaide, Aleppo, about middle of the 19th century. Cat. no. 23 (photo: Stefan Heidemann).

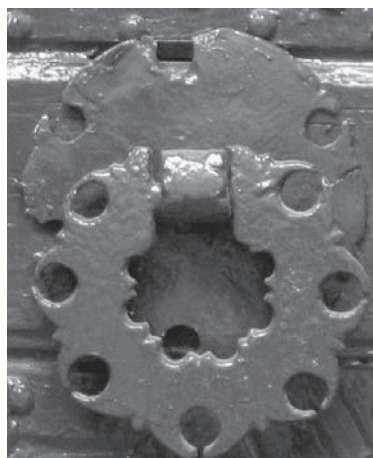


Fig. 22. Bimaristan al-Nuri, Aleppo, about 19th century. Cat. no. 24 (photo: Stefan Heidemann).

A MIRROR DISC WITH INSCRIPTIONS

GISELA HELMECKE, BERLIN

The collection at the Museum of Islamic Art in Berlin contains a Persian bronze disc that probably belongs to the Safavid dynasty (1501-1722) and is datable to the 16th or 17th centuries (figs. 1 and 2). The acquisition history is unknown. The disc bears inscriptions and magic symbols, the details of which are discussed in the pages that follow.

Technical data:

Inv. no. I. 8109.

Diameter 19 cm; thickness 2 mm.

Material: bronze, some remnants of a dark coating.¹

Condition: slightly warped, the handle has broken off, slightly damaging the edge; a small, incomplete hole constitutes another minor flaw; several small indentations on the reverse are the result of poor casting; circular dark and greenish spots on both sides (early stages of verdigris), otherwise an overall patina as well as clearly visible wiping traces on the smooth side and scratches.

I. *Description*

Round disc with one perforation below the upper rim, just to the side of a smaller, poorly executed second perforation, and originally equipped with a handle. One side² bears an inscription—some 8 mm wide—that runs along the edge of the disc in intertwined *thuluth* (fig. 1). On the other side³, the entire surface is covered with ornamentation and inscriptions (fig. 2). Here, too, we find a peripheral inscription. The centre is covered by a large circle into which an eight-pointed star is inscribed, the joints of which are each ornamented with a

¹ Lacquer? Probably more likely a silver alloy with a high copper content, since a coppery shimmer is noticeable in some areas. A closer examination is yet to be undertaken.

² In the following referred to as front side.

³ In the following referred to as reverse side.

simple, tripartite leaf. Three-quarters of the star shape is filled with script (very small *thuluth*), while the remaining quarter displays rows of magic numbers. This circle is surrounded by yet another inscription, similar to that along the edge. Between these two inscriptions lies an ornamental ribbon composed of six elongated cartouches and circles in alternating order, filled with *thuluth* inscriptions and surrounded by double frames. Altogether there are twelve such fields. The inscriptions in the circles and in the cartouches differ in size.

II. *On Technique*

The following observations are based on what is visible to the naked eye.

The disc was created in a casting process. Several casting mistakes are evident, in particular on the reverse side, while some such errors were filled in on the front side (see below). Prior to creating the décor, the two perforations for the now missing handle were presumably made. This assumption is based on a comparison with a similar disc, the perforations of which are still intact: they are worked differently than those fashioned prior to engravings.⁴

The ornamentation was punched in with an awl; the lines in the frame were executed freehand on top of a preliminary outline applied with compass and ruler. The inscriptions were clearly created with various small awls containing letter elements and shapes. The smallest awls would have been used for diacritical marks and downstrokes. Different awls existed for some letters and it is obvious that the selection was random. Thus the word *Allah* is found in a variety of styles in the inscriptions along the edge: with a high, closed terminal *-ha* drawn up in two different sizes, with identically sized *alif* and another that is considerably larger.

Clearly the text in the cartouches and the circles was not composed specifically for this disc but rather copied from an earlier source. This is borne out by the fact that there are two instances where the continuation in the text is not congruent (see below).

As we have noted, casting errors were corrected on the front side. A total of five circular repair spots, each 2 mm in diameter, are

⁴ Maddison, Savage-Smith et al. 1997, no. 55, note 3.

visible on the disc. Both sides of the disc were then covered in the coating that has now darkened to a coppery-black.

The upper perforation was added at a later time, presumably for mounting; perhaps the handle was already lost at that point. The damage on the side with the incorrect smaller hole also occurred at a later date.

III. *The Inscriptions*⁵

These are in Arabic and reproduce the Koran *surah* of victory (*surat al-fath*), *surah* 48. The inscription begins on the front, slightly to the right of the perforation and continues counter-clockwise—following the convention of Arabic script. The beginning of the inscription is not marked in any particular way; the sole point of orientation is the perforation itself. However, the scribe did take the space required for the handle into consideration because only very short passages, which would not fill the entire space, are missing at the large connecting point for the handle on the right-hand side. On the front side, a short passage from the middle of verse 4 is missing at the point where the handle would have been attached:

... المومنين] ل]يزداد والإيمنا مع إيم]نهم [و] الله ...

And on the reverse side, a short passage from the beginning of verse 9 is missing at the connecting point:

... لتومنوا] بالله ورسوله وتعزر]وه ...

On the front side, the text ends in verse 6 with the words *wa-l-mushrikat* (“and the idolators, [men and] women”). It continues along the edge on the reverse side, beginning slightly to the left of the perforation with the word *az-zaniyin* (“who think”) and ending with *shaghalatna* (“we were occupied with [our goods and families]”) in verse 11.

The text then continues in the band composed of circles and cartouches, beginning with the circle at the perforation. In the last cartouche, the inscription ends in the middle of verse 16 with the words *au-yuslimuna* (“unless they embrace [Islam]”). The circle directly across from the perforation does not follow the same pattern: here, the inscription appears to stand on its head in contrast to the

⁵ All translations of the Koran are taken from the translation by N. J. Dawood (Penguin Classics, 1999).

others, and is therefore immediately legible to the reader holding the disc.

Due to the fact that the inscription was culled from different copies, which—since they aren't fully congruent—were clearly not prepared specifically for this disc, there are two overlaps in the text: the end of the inscription in the third circle (counting from the perforation onwards) overlaps with the beginning of the next cartouche and the same is noticeable in the subsequent circle and the cartouche after it: the passage from verse 14 that is missing because of the perforation, namely

... وكان [الله غفورا ...

appears as the beginning of the text in the following cartouche. Moreover, this cartouche also bears the impression of the combination $\text{ك} / \text{ي} / \text{ن} / \text{ث} / \text{ت} / \text{ب}$ above the word *sa-yaqul* ([...those that stayed behind] will say”), which does not belong to this context. The inscription continues in the inner band with the words *fa-inna* (“But if”) from verse 16 below the circle at the perforation. The band ends in the middle of verse 20 with the words *fa-‘ajjala lakum hadhihi* (“and has given you this [with all promptness]”).

The rest of the *surah* is inscribed in the star-shaped field, beginning at the point immediately below the perforation with the words *wa-kaffa* (“[he has] stayed”). The *surah* ends in the last line above the section with the rows of magic numbers. The inscription ends in the phrase *sadaqa allah al-‘azim* (“Allah the Almighty Has Confirmed It”), which is no longer part of the *surah*.

IV. *The Magic Numbers*

These are inscribed in eleven rows, divided by single lines, in the lower quarter of the star-shaped field (drawing no. 5). Each row contains the same combinations of numbers and letters as well as individual numbers and letters, albeit in different sequences. All were obviously punched in with the same awl and are inscribed in regular upright fashion with the exception of the number 61 and the *lam-alif*-ligature, which are carved in cursive.⁶ The rows contain both

⁶ The number pair 61 also appears in regular, upright script at one point in the third line.

integral numbers such as 8, 6 and 7, as well as *abjad*-letters. It is difficult to determine whether the long vertical stroke is intended to represent the number 1 or *alif*, the numeric value of *alif* being 1. Several combinations can be differentiated:⁷

1–1–*lam-alif*-ligature over *alif-sin*

1–1–8–1–1

kaf–61

sin-jim (whereby different awls were employed for the *jim*)

sin–3–6 (wherein the upper part of the number 3 is drawn like a roof above the *sin*)

The only out-of-sequence element appears in the centre of the fourth line in the form of a comb-like character with five teeth inscribed horizontally on the line.

V. Comparatives

A similar disc—slightly smaller at a diameter of 14.5 cm—was or still is located in Beirut's Ibrahim Beyum collection,⁸ where it is catalogued as a mirror (see drawing no. 2). Slightly different in décor, this disc is embellished with the twelve signs of the zodiac on the reverse side and twelve magic squares on the front; the inscriptions, too, are different in content, although the overall composition is the same. Aside from those carved within the magic squares, the Beirut disc also features magic numbers. Here, however, they are arranged in a ring around the edge and in the centre field, distributed on the six points as well as individually. On the front, six lines are visible as a ring around the edge. The Beirut disc has the same style of script as the edge inscription on the Berlin disc: the same *thuluth* with, for example, the same forms of the *waw* or the middle-*ha*. Some of the combinations and elements present on the Berlin disc are also found on the Beirut disc beneath the magic numbers. The latter also has a missing handle, although the two holes for the fastening of the handle are preserved. Otherwise, there is no other perforation on this disc.

⁷ Reproduced in the Arabic direction of reading.

⁸ *Art islamique* 1974, no. 143.

The Khalili Collection⁹ in London houses a further two discs, generally regarded as Indo-Persian in origin and dating from the 17th century (see drawing nos. 3 and 4). With a height of 19 cm and 22 cm respectively, they are nearly equal in size to the Berlin disc, and at 2 mm they are identical in thickness. Both have, or rather had, two perforations for the now missing handles. The characteristic style of the inscriptions is nearly identical to that on the Berlin disc, albeit with some deviations in the details, such as the shape of the *waw* or the middle-*ha*.

Again like the Berlin disc, both feature a ring around the margin in the form of an inscription and another ring on the reverse side, although—as mentioned for the Beirut disc—the décor differs from the Berlin disc: magic squares, the twelve signs of the zodiac and inscriptions interspersed between them. The content of these inscriptions on both discs points explicitly to their talismanic and magical function; moreover, a Shiite context is evident.

A script similar in style to that found in the star on the Berlin disc is also found on the peripheral inscription of a Persian magic bowl in the Khalili Collection dated to 1044/1634-35.¹⁰ There are deviations in the detail, however, for example, once again in the shape of the *waw* or the middle-*ha*.

The decorative pattern found on all four discs mentioned here—the peripheral inscription, additional circular inscriptions surrounding a ribbon of circles and rectangles or cartouches, as well as a large ornamented or inscribed field at the centre in the shape of a square or a star—harks back to medieval models. The most prominent example known thus far is currently housed in the Art and History Trust Collection in Houston. It is a disc that is interpreted as a mirror, which was dedicated to the Muzaffarid ruler Shah Shuja (r. 1364-84) and has been dated to 777/1375-76.¹¹ With a diameter of 20.5 cm, it also corresponds to the aforementioned objects in size. In this case, the peripheral inscriptions consist of magic numbers, including the combination “1–1–*lam-alif*-ligature above *alif-sin*” with which we are familiar from the Berlin disc. On the front side, this

⁹ Maddison, Savage-Smith et al. 1997, no. 55.

¹⁰ Maddison, Savage-Smith et al. 1997, no. 30. Another probably Safavid bowl in the same collection also bears inscriptions inside cartouches, the stylistic characteristics of which are similar to the small script in the star on the Berlin disc, albeit more angular and less elegant (Maddison, Savage-Smith et al. 1997, no. 29).

¹¹ Soudavar 1992, no. 17.

is followed by an inscription with the dedication and the date, and continues with a quote from *surah* 67, although this inscription does not form a full circle. The reverse side bears two wide ribbons, one of which consists of twenty-eight circles with as yet undeciphered inscriptions, and the other of twenty-four parts: the twelve signs of the zodiac inscribed in circles alternating with twelve magic squares. As on the disc under discussion here, the centre field is composed of an eight-pointed star in a circle.

VI. *Surah* 48 of the Koran

This *surah* was composed during the late Medina era, that is the Prophet Muhammad's final period in Medina prior to his final and victorious return to Mecca. It was probably proclaimed after the Treaty of Hudaibiyya in 628 and the conquest of the Khaybar oasis, which was populated by Jewish tribes who were particularly hostile to Muhammad. The *surah* contains allusions to some of these events and it is correspondingly known as "*al-fath* (the Victory)". It speaks of the victory of the faithful and their reward, especially in battle, as well as of the punishment meted out to unbelievers and those who waver in their fealty to God. The *surah* opens with an unequivocal statement of victory to the faithful: "See: We have given you a glorious victory."

Other verses praise God's omnipotence and mercy. Verse 27 also mentions the fulfilment of Muhammad's vision on the eve of battle.

Given the explicit message of Islam's victory contained in this *surah*, it comes as no surprise that the relevant verses at the beginning and at the end of the *surah* are frequently cited on prominent religious and secular buildings where the message is ever present in the eyes of the public. In 1981 Dodd and Khairallah published a list of monuments where these and other verses of *surah* 48 are found.¹² The earliest among these is the Ibn Tulun mosque in Cairo (265/879), with an inscription of verse 29.¹³ Passages taken from this *surah* are among the most frequently cited Koran excerpts on buildings.

¹² Dodd and Khairallah 1981, pp. 118-121. The *surah* does not appear in any of the buildings studied by Blair in 1992.

¹³ Excerpts of this *surah* are most frequently found on Mamluk buildings. They

Dodd and Khairallah found only one instance where the *surah* is quoted in full: in the madrasa of Imami in Isfahan (datable 755/1354), where it is inscribed around the full circumference of the courtyard.

Apart from architecture, the *surah* of victory or parts thereof are predominantly found on objects that are clearly intended for military or talismanic uses, or where such uses are at least suggested.¹⁴ Individual verses as well as complete versions appear on inscribed and printed talismans,¹⁵ talisman tunics¹⁶ and flags.¹⁷ Selected verses, especially those that proclaim the victory of Islam are found on sarcophagus cloths¹⁸ and on cutting and stabbing weapons.¹⁹ They are also reproduced on certain amulets²⁰ and some magical

also appear on the Friday mosque in Isfahan, and repeatedly on Indian buildings, particularly in Delhi. The latest instance recorded by Dodd and Khairallah is an inscription on the Katshawa mosque in Algiers from 1210/1795 on the wall above the prayer niche, now in the Boucris private collection.

¹⁴ The RCEA (*Répertoire Chronologique d'Epigraphie Arabe*) contains very few examples and always only with specific verses rather than the complete *surah*. Verses 1-4, for example, at the end of an inscription on a bronze Kaaba key from Egypt (?), dated 795/1392-93, Istanbul, Topkapı Sarayı Müzesi 2/2220 (RCEA 18, 1991, inv. no. 795 004).

¹⁵ An Ottoman example dated to roughly 1640-48 in the Karlsruher Landesbibliothek (*Karlsruher Türkenbeute 1991*, inv. no. 319), a printed example acquired locally from Haram as-Sharif in Jerusalem in 1957, by Kriss and Kriss-Heinrich 1962, fig. 86.

¹⁶ E.g. on the front side of a talismanic tunic, possibly Persian, from the 16th/17th century, together with additional *surahs* and *surah* excerpts as well as other inscriptions and magic squares. Because of this *surah*, the repetition of the victory verse 1 of the *surah* and the repeated quotation of the well-known phrase from *surah* 61, verse 13, *nasr min allah wa-fath qarib* ("Help from God and a speedy victory"), this talismanic tunic was presumed to have had a function of protecting and supporting the wearer in battle (London, Khalili Collection, published in Maddison, Savage-Smith et al. 1997, no. 49).

¹⁷ Here they are preferred, in particular the verses on victory and faith. They appear on flags of the *zulfikar* type and on inscribed flags; examples: verses 1-4 on the folds on the *zulfikar* and in the form of a large transverse ribbon on a North African flag from 1094/1683 in Cambridge, Mass., Harvard University, Fogg Art Museum, inv. no. 1958.20 (Welch 1979, no. 20); verses 1-4 as peripheral inscription on an Istanbul (?) inscribed flag in Cracow, Wawel, inv. no. 143 (*Kunstschätze 1994*, no. 142). The whole *surah* is depicted on an Indian flag in the Staatliche Museum für Völkerkunde in Munich, see Frembgen 2003, fig. 35-36, and Rahim 2004.

¹⁸ Verse 1, e.g. on a Safavid sarcophagus cloth dated to 1123/1711-12 in Lyon, Musée Historique du Tissus (Welch 1979, no. 64); on another fragment of the same type in Berlin, Museum für Islamische Kunst I. 9/69 (*Museum 1971* and 1979, no. 12).

¹⁹ E.g. verses 1-11 on an Ottoman steel sabre from the first half of the 16th century at the Metropolitan Museum of Art, New York (Welch 1979, no. 30.)

²⁰ E.g. verse 1 on a round amulet in the Khalili Collection (Maddison, Savage-

bowls²¹ where they are combined with verses from other *surahs*, among others, for example, verses 2 and 19-20, which are part of the so-called *ayat al-hifz* (verses of refuge or protection).²² One of the precious objects on which excerpts of this *surah* appear is the elaborate wooden Koran box with ivory and ebony inlay created in 911/1505-6 by the master Ahmad bin Hasan in Istanbul's Türk ve Islam Eserleri Müzesi.²³ Here we find verses 28 and 29 together with other popular verses from the Koran.

Most preserved magic bowls are made of metal and are therefore a good source of comparison for the Berlin disc. One of the bowls published thus far²⁴ bears the annotation *haft-juš* (see below), a term used to denote an alloy that is said to contain seven components and to which magical faculties were ascribed.²⁵

VII. Use and Function

The discs that have been published thus far were described as mirrors or as talisman discs. Both descriptions are probably correct. All discs have one side that remains blank with the exception of an inscription around the edge. This side would obviously have been intended as the reflecting mirror side and would have been polished. In the case of the disc presented here, the five carefully filled-in casting errors support the idea of this function: the same errors were

Smith et al. 1997, no. 102), once again presumably fulfilling a protective function for the wearer in battle.

²¹ Verses 1-6 (in addition to other passages from the Koran), e.g. on the inside of an Egyptian or Syrian magic bowl, presumed circa 1400, in the Khalili Collection (Maddison, Savage-Smith et al. 1997, no. 27); verses 1-18 on the outside of a 16th-century Persian magic bowl in the same collection (Maddison, Savage-Smith et al. 1997, no. 29) and on the inner rise of an Indo-Persian magic bowl, fashioned by the artisan known as Ali Rida sar-kar (Maddison, Savage-Smith et al. 1997, no. 34). Verse 11 on a protective amulet (Kriss and Kriss-Heinrich 1962, p. 6).

²² Mentioned in Lane 1846, p. 67.

²³ *Anatolian civilizations* 1983, no. E19.

²⁴ London, Khalili Collection (Maddison, Savage-Smith et al. 1997, no. 34).

²⁵ According to Allan 1979, a special bronze mixture called *haft-juš* was preferred in medieval Persia for mirrors and other magic objects. In the modern era the term is used for an alloy with a high zinc content, which has been forged and quaked. This alloy was silver in appearance. However, it breaks easily. Traditionally the term was used for a clever combination of—unsurprisingly—seven metals: usually copper, silver, antimony, lead, gold and iron. The number seven indicates magic properties and the term itself assumed a magic or talismanic characteristic.

not corrected or filled in on the reverse side. All of these discs were originally equipped with handles; some bear the marks of additional perforations, which indicate that they may have been mounted on or fastened to a stand. The décor on the reverse side points to the talismanic-magical character of these objects.

We can therefore describe our disc as a magical mirror.

Among the examples known up to now, this mirror occupies a unique position because it is only inscribed with the *surah* of victory and because the magic numbers are limited to one subordinate area on the surface. There are no astrological symbols or magical squares, no healing inscriptions or medicinal indications, no incantations or prayers. Although we are still uncertain of the meaning of the magic numbers,²⁶ what we have here is as pure an example of the permissible “white magic” as we are likely to find: this form of magic is entirely founded on the Koran and hence in divine omnipotence. As with some talismanic tunics, it is reasonable to assume that these types of object were used in the context of military campaigns as a form of spiritual preparation and readiness for a successful struggle.

Information on Mirrors in General and Magical Mirrors in Particular

Mirrors have held a great fascination for people since time immemorial. Intellectually, the phenomenon of reflection has been explored from a variety of perspectives: the spectrum ranges from objective-material, scientific²⁷ to philosophical or religious-magical observations.²⁸ In terms of practical manufacture, the mirror is no simple object. Advanced technical knowledge and craftsmanship were required, and this was the domain of experts.

A wide range of different mirrors has survived in the Islamic world. Thus far, the scholarly literature on Islamic mirrors has focused almost exclusively on older objects (9th to 13th centuries). These are generally small, round hand mirrors of metal alloys, usually different types of bronze, although iron and steel are also documented.

Few mirrors composed of this latter group of materials have survived in the greater Iranian region from before circa 1100. This is

²⁶ These may also be cryptic pious messages.

²⁷ Here in particular Ibn Haitham (c. 354-430/965-1039).

²⁸ Here in particular al-Jahiz (d. 250/864-5 or 255/ 868-9); see also Burckhardt 1960. On the mirror as a motif in Nizami's writing, see Nizami 1991.

presumably largely due to soil conditions, because few iron objects of any kind are preserved in this wide region.²⁹ Iron mirrors are part of a long tradition, supported, for example, in legends of origin. An object that is as charged with meaning and at the same time as supremely useful as the mirror is among those items, the invention of which was ascribed to a cultural hero. Although knowledge on pre-Islamic mirrors in general and certain famous mirrors from Antiquity in particular was exchanged during the Islamic era, and although the mirror could already look back on a long-standing tradition as a toiletry object, the notion of a cultural hero was nevertheless pursued. In his poetic novel entitled *Iskandarname*, for example, Nizami (535-599/1140-1 to 1202-3) ascribes the invention of manufacturing a mirror to Alexander the Great.³⁰ It is interesting to note that in Nizami's tale all attempts with differing metals fail until a mirror is successfully produced in iron.³¹

As mentioned, there are few studies on later mirrors. In 2000, Allan compiled a first summary on Persian mirrors (*ayine*) of the 14th and 15th centuries. Once again these are mirrors made of iron and steel. Of more recent mirrors, more detailed descriptions only exist from the Ottoman region. Little is known about the manufacture of mirrors in Iran from the Safavid and subsequent period. Jean Chardin (1643-1713), who had several sojourns in Persia in the last third of the 17th century, reports that Persians preferred their own mirrors to imported Venetian glass mirrors. However, he mentions only the convex iron and steel mirrors, and only witnessed their use as a toiletry accessory. Unfortunately, Chardin does not write about bronze mirrors.

There are mirrors that were probably only created for talismanic, medicinal/magic and astrological purposes. They were used to treat diseases and protect against the Evil Eye and other evils, and were also employed for clairvoyance and exorcisms or invoking the spirits of the departed (see below). The décor of these mirrors reflects their purpose.

²⁹ Cf. Allan 1982, p. 36.

³⁰ An Indian miniature in a 1594 edition of the *Iskandarname* depicts the manufacture of a mirror under the supervision of a master; Alexander the Great is present, observing and speaking to his courtiers. (Walters Art Gallery 1997, p. 124.)

³¹ Cf. Nizami 1991, p. 93.

Such mirrors were sometimes fashioned on commission for high-ranking individuals and are therefore inscribed with relevant dedications. Some of the most beautiful medieval mirrors, which were made of either bronze or iron,³² fall into this category. However, older mirrors, for example those that had grown dull, were also converted for other functions. To this end, images, symbols and inscriptions were engraved into the mirror surface.

The Berlin mirror is probably an example of the first group.

Reports on the use of mirrors in Persia for a wide range of magical purposes only began to appear as recently as the 19th century in Europe and continued into the 20th century. One important function was to invoke spirits, at times in the context of medicinal healing. With reference to medieval authors, Reinaud writes: "Should someone fall victim to any incurable afflictions, all that is needed to heal them is to write certain passages from the Koran on a mirror. Incense is then burned around the mirror, which is laid into the hands of the patient who can see his reflection in it; thereafter specific prayers are recited, earthly and heavenly spirits are called upon and the patient is cured from all suffering."³³ And: "These types of mirrors may also have served to invoke the appearance of angels and archangels, and to receive all that one desires from them. A person in distress ... [is advised] to write the names of the four archangels, Gabriel, Michael, Azrael and Asrafel, on the edge of a mirror, accompanied by the following words from the Koran which make reference to God's omnipotence: *qaulahu al-haqq wa-lahu al-mulk*. Now burn incense around the mirror; fast for seven days and observe the strictest solitude and abstinence for social intercourse; next, the mirror must be given into the hands of another person, be it man, woman or child, or, if there is no other person available, continue to keep the mirror yourself; finally, recite certain prayers: an angel will immediately appear in the mirror and one can present one's wishes to him."³⁴

³² A prominent example is a large mirror with silver and gold inlay and a diameter of 24 cm created for an as yet unidentified Mamluk officer called Ala' ad-Din. Housed in the Topkapı Sarayı Müzesi, the mirror is ornamented with the signs of the zodiac, running animals and rich décor, fashioned prior to 1345 by the master Muhammad al-Waziri (Mayer 1959, p. 74).

³³ Reinaud 1828, vol. 2, p. 401.

³⁴ Reinaud 1828, vol. 2, pp. 401-402.

A seven-day fast, solitude and abstinence as well as incense burning are standard practices prescribed for exorcisms and the manufacture of certain talismans, as is documented in the writings of medieval authors such as al-Buni (d. 622/1225), whose works are distributed throughout the Islamic world to this day.

As recently as 1930, one could read: “The mirror sprinkled with blood or incense was used for exorcisms or the invoking of spirits in a dark room after [days of] fasting and preparations. Still today, women in Persia cover mirrors at night for fear of evil spirits.”³⁵

Even in the modern era, mirrors continue to play an important role in the marriage ceremony in the Muslim world throughout the Iranian and Indian region. Many customs have been handed down. In 1957, Schuyler Cammann mentioned the so-called breaking of sugar as one of the highlights in a marriage ceremony in Afghanistan. At this ceremony the bride and groom formally meet, seeing each other for the first time (after which pieces of sugar are distributed among the gathered guests): “At first just regarding each other’s image reflected in a mirror, then looking up face to face.”³⁶ This, too, is a magical gesture: clearly the mirror is intended to capture the first glance and thus any possible negative characteristics it might have. Cammann emphasises that polished bronze mirrors with ornamented reverse sides have been used for this ceremony up until the modern day. In 1985, Micheline Centlivres-Dumont mentions the henna tray as a common component in wedding ceremonies in Northern Afghanistan that continued for several days. Among other ritual objects, the tray also held a mirror needed for the last phase of the wedding ceremony, the “revelation through the mirror”. This ritual followed after the contractual wedding ceremony and the feast. The veiled bride and the groom sat side by side, the groom then also covered his face with the bridal veil and the mirror was handed to the couple beneath the veil so that the couple could see each other “for the first time” in the mirror.³⁷

³⁵ Kohlhaussen 1930, p. 25.

³⁶ Cammann 1957, p. 15.

³⁷ Centlivres-Dumont 1985, p. 617.

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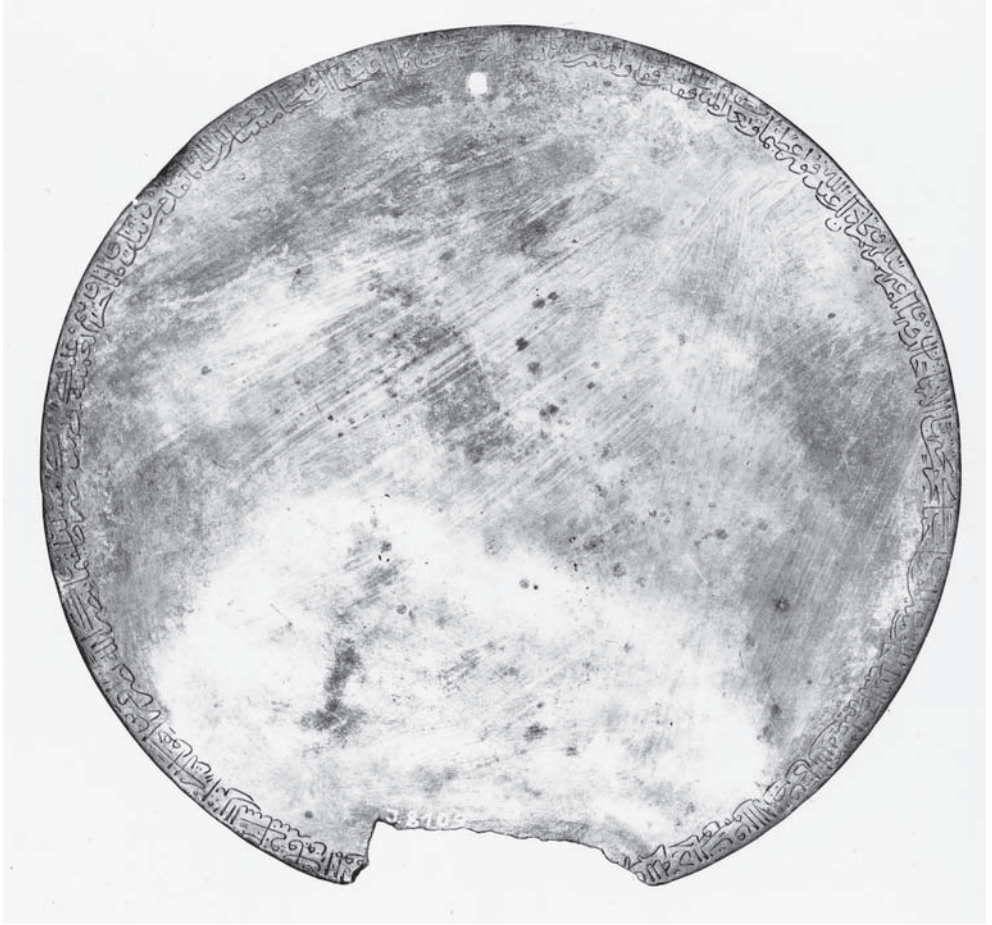
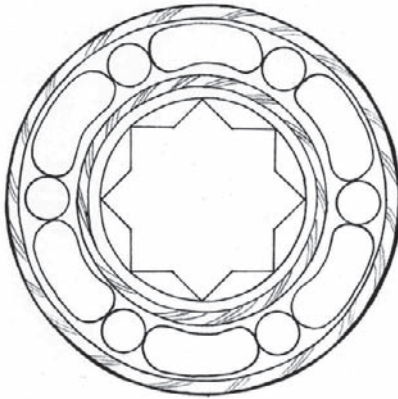


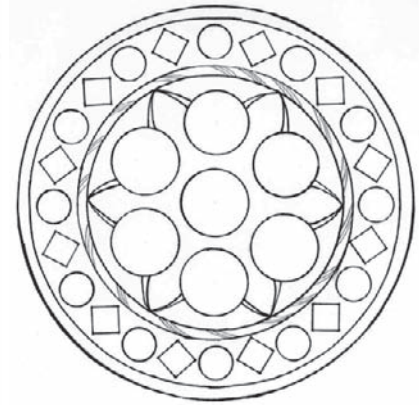
Fig. 1. Bronze disc, probably Safavid (16th or 17th century), front side. Museum of Islamic Art, Berlin, inv. no. I. 8109 (photo: museum).



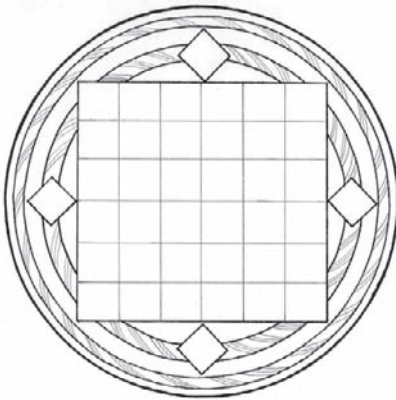
Fig. 2. Bronze disc, probably Safavid (16th or 17th century), reverse side. Museum of Islamic Art, Berlin, inv. no. I. 8109 (photo: museum).



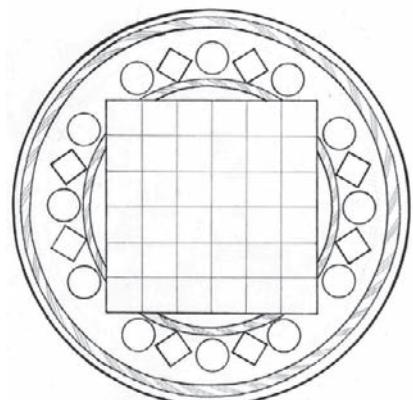
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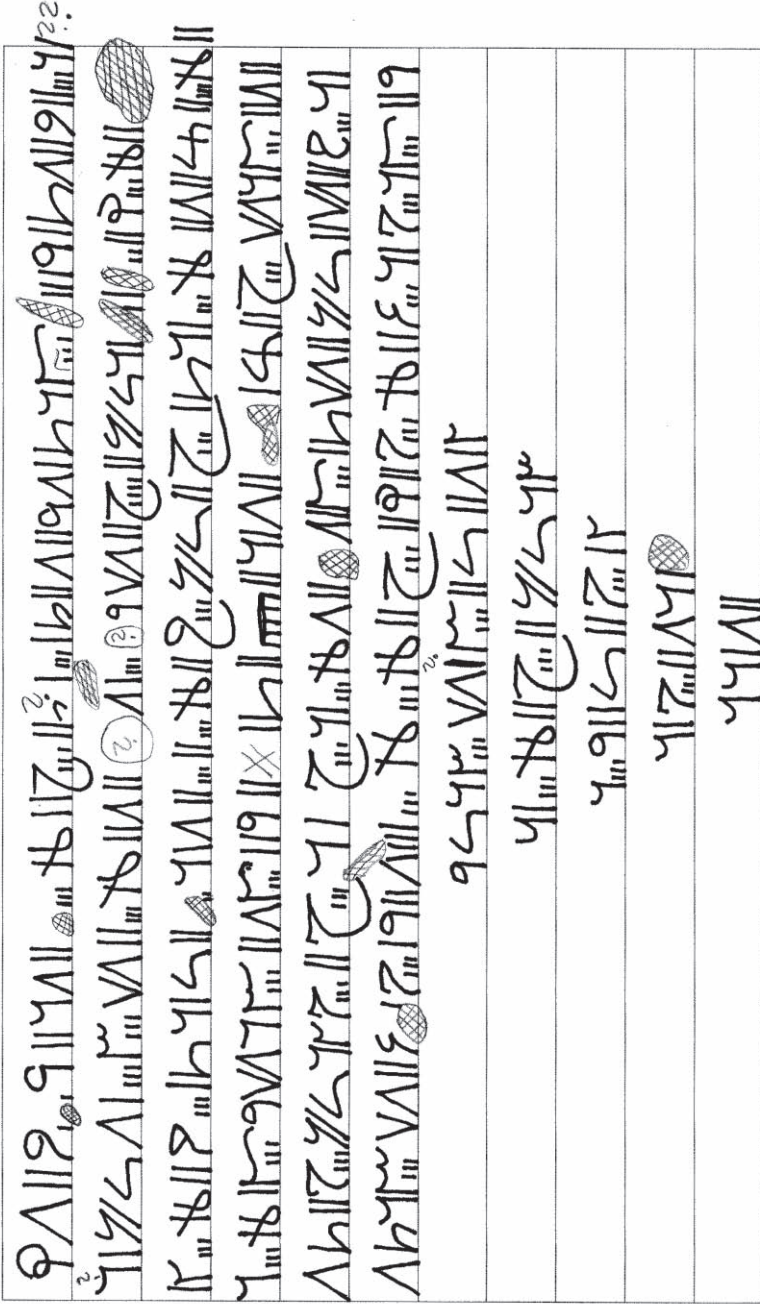


3



4

Drawings 1-4. Four discs kept in Berlin (1), Beirut (2), London (3, 4) (drawings: author).



Drawing 5. The magic numbers on the bronze disc in Berlin (inv. no. I. 8109) (drawing: author).

THE “PARTHIAN” BRONZE BUST IN THE BERLIN
MUSEUM OF ISLAMIC ART AND
PARTHIAN-SASANIAN ARISTOCRATIC HEADGEAR

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Among the inventory of the Berlin Museum of Islamic Art is a small, only 7 cm-high bronze bust of a bearded man in a chalice of leaves, which obviously was part of a lost utensil of unknown kind. A semi-circular groove under the chalice indicates that it was applied to a horizontal bar.¹ The object was acquired shortly before 1911, without information about its place of origin, and was published by F. Sarre² as a product of the Parthian period. His dating was based on comparison with representations of Arsacid kings on Parthian coins, mainly for the seeming similarity of the headdress of the bust with the Hellenistic royal diadem of the Arsacid kings. His interpretation was generally accepted and repeated later on.³

The headdress of the man in fact is the most interesting detail of the impressively realistic but otherwise rather simple sculpture (fig. 1a-c). His hair, which is flat like a tonsure on top of the skull but falls down with heavy curls on the neck, is bound together by a construction of bands which consists of two different parts, probably of different materials. A broad band is laid around the forehead and both temples. Behind the ears, the ends of the band widen considerably and sharply turn sideways, so that they stand off from the head at right angles. The nearly triangular outer ends are partitioned by two grooves into a three-lobed, leaf-like ornament each. On the

¹ This contradicts the suggestion that the bust was part of a sceptre (Ghirshman 1962, p. 359, fig. 108). It more probably belonged to some kind of metal furniture, as already taken into consideration as an alternative by Sarre (Pope SPA I, p. 409). Metal tripods, braziers, falting tables, chairs and stools, decorated with figurative attachments, had spread with Roman civilisation far abroad and the fashion might have been applied for other installations by local workshops. See e.g. *Pompeii* 1976, figs. 143, 147, 159, 181-182; Rosenheim 2000, pp. 169, 364-365, cat. 105a, 1-3, fig. 140.

² Sarre 1911, pp. 97-100.

³ Sarre 1925, pp. 28, 30, fig. 6; Pope SPA I, p. 409, II, pl. 134 C; Jucker 1961 I, pp. 125, 181-182, II, figs. 73-74; Ghirshman 1962, pp. 96-97, 358, fig. 108; Colledge 1967, fig. 49; Gall 1969/70, p. 307, pls. 59, 6-7; Berlin 1971, p. 28, no. 49.

back sides of these protruding elements, which are three-lobed also, a band, diminishing in thickness and apparently becoming a round, twisted cord, connects the two ends of the front part. The headdress gives the impression that it is a frontlet of some kind of stiff material which is held together behind by a string, in principle an age old method to embellish the head of a person. To decorate and curve the ends of the frontlet is a simple and effective way to further increase its impressiveness. The material used for the frontlets was mostly metal, be that precious, semi-precious or just copper or bronze. Regarding the sharp turn sideways of the prominent frontlet ends at the Berlin bust, metal also might be indicated here. The material for the connecting string behind the head would be a cord of textile or leather. It is not clear how the string, which seems to widen to the size of the frontlet, was fixed to the back side of the prominent ornaments.

The protruding end ornaments of the frontlet were the decisive argument for Sarre's comparison of the Berlin bust with the representations of Arsacid kings on some Parthian coins, showing the king in frontal view. The majority of Parthian coins show the king's head in profile, turned left, with the royal diadem wound around the bare head or the cap or helmet-crown.⁴ The diadem is tied together behind the head by a knot with or without loops, its loose ends hanging down behind the back (fig. 2a). On those rare coins with a frontal image of the king, the loose ends of the diadem are laterally hanging down on or floating above the king's right and left shoulders, and mostly two loops are shown, one on either side of the head (fig. 2b). Sarre understood the frontal representation as giving the correct binding of the diadem, namely with two knots and loops on either side of the head. Misunderstanding the protruding elements of the Berlin bust's headdress as such loops, he took the small sculpture as a correct model in the round of the frontal image on the coins; the profile images he regarded as a simplified contraction of an imaginary double binding of the diadem with knots and loops on either side. This, however, was a double error, turning reality upside down. Even if we have no final proof for some constructive details of the Berlin bust's headdress, the protruding elements can never be explained as loops of a fillet. The royal Hellenistic diadem, explicitly described in literature and clearly shown in all kind of representations, was a textile band, mostly white, sometimes embroidered, bound together

⁴ See Sellwood 1980, pp. 21-295.

at the neck by one knot, with long ends hanging down behind.⁵ Originally there were no loops at all, as shown on Hellenistic and early Parthian coins; they appear only on later editions, when the images became schematic and barbaric, and thus it became necessary to emphasise the presence of the diadem which otherwise might be overlooked.⁶ The necessity to make the diadem unmistakably visible was probably also the reason for introducing loops on either side of the head on frontal images, where the knot was hidden behind the head and the complete system of the diadem's binding was not understandable. We may assume that, as a solution to the dilemma, the two slings of the single knot with double loop in the neck were shown non-proportionally enlarged so that they protruded on either side of the king's head and were visible also in front view. That the diadem was bound not by two lateral loops but only by one knot at the neck is also proven by coins with a frontal image where only the fillet on the forehead of the king and its ends waving on his shoulders are shown and no loops at all.⁷

The textile diadem, which allegedly was adapted by Alexander from the repertoire of royal Achaemenian insignia,⁸ became the most important insignium of Parthian kingship, obviously even more important than the more or less decorated Parthian helmet-crown or tiara. According to the series of Parthian coinage, the diadem was the only royal insignium of the early kings. Later on it occurs with the bare-headed king as well as on his helmet-crown, whereas the helmet-crown of a king is never shown without diadem. Its use is not only limited to the lands of the Parthian empire, where it is also worn by some sub- or petty-kings, like those of Characene, Elymais, and Persis. It belonged also to the outfit of the Graeco-Bactrian rulers and their Central Asian successors up to the period of the Kushan emperors in Afghanistan and India.⁹ Towards the end of Parthian rule political uproar against the Arsacid dynasty seems also

⁵ Pauly 1903, pp. 303-305, s.v. Diadema; Grenz 1914 apud Ritter 1965, p. 3; Wieschöfer 1994, p. 135.

⁶ See e.g. Ghirshman 1962, pp. 114-115, figs. 135-155; Colledge 1977, figs. 38-39; Vienna 1996, pp. 90-96.

⁷ See Ghirshman 1962, pp. 115-116, figs. 140, 153; Vienna 1996, p. 95, fig. 75. The correct interpretation of the two lateral loops was originally considered but rejected by Gall 1969/70, p. 306.

⁸ Pauly 1903, pp. 303-305, s.v. Diadema; Ritter 1965, pp. 6-11.

⁹ Cf. portraits of rulers on coins e.g. in Le Rider 1965; Vienna 1996, pp. 21-140.

to have penetrated cultural aspects. This was the case especially in Fars province, which had become the realm of the increasingly successful Sasanian family, who started a period of experimenting with royal insignia. Fanciful, bizarre headgear, like that in the graffiti in Persepolis (fig. 3a-c) found access even into the earliest Sasanian coinage, side by side with the Parthian helmet-crown and the old Achaemenian mural-crown, always with diadem and ribbons.¹⁰ The Persepolis graffiti show the transformation of the end ribbons of the traditional Hellenistic-Parthian diadem, which were simple, straight textile bands, into the typical Sasanian pleated ribbons.¹¹ These are fully developed and impressively displayed in Ardashir's large battle relief at Firuzabad where he, in some ways returning to the original Hellenistic tradition, is bareheaded, racing forward on his horse, his loose hair floating back together with the pleated ribbons of his diadem, like his son Shapur behind him,¹² both unhorsing their Arsacid adversaries (fig. 4). The same broad, pleated ribbons are also given to the toppled Parthian Great King Artaban V (IV), fluttering down from his head, the closed eyelids indicating his death.¹³ Scarcely ten years before, Artaban had been represented on his throne still with the simple, straight Parthian ribbons hanging down along his shoulder, in the relief of investiture of the satrap of Susa, Khwasak, dated by inscription to 215 AD.¹⁴

Different from the rather narrow, unpretentious Hellenistic fillet, the Sasanian pleated ribbons grew in volume and number. They floated not only from the king's neck but in a smaller version also from his hair tuft, belt, shoes and from his horse's tail. Long, pleated ribbons are a reliable indicator of a god or of a royal personality,

¹⁰ Alram 1999, pp. 70-74; Nasrullahzadeh 2004 (1383 H.), p. 192.

¹¹ Herzfeld 1941, pp. 307-309, figs. 401-402 (the latter laterally inverted); Sami 1959, pp. 274-275.

¹² As the Parthian horseman who is toppled by Shapur also wears pleated ribbons he must belong to the Arsacid family. His identification by Tabari as Dadh-bundadh, Artaban's scribe, could only be justified if he was of royal stock, which is not reported. Killing an Arsacid prince would also be a more appropriate subject for a Sasanian triumphal relief than the revenge killing of a scribe for an insulting letter. This detail of Tabari's report is certainly a popular distortion. See Tabari 1879, p. 14.

¹³ Ghirshman 1962, pp. 125-130, figs. 163-166; Hinz 1969, pp. 115-120, pls. 51-55; Gall 1990, pp. 20-30, fig. 3, pls. 5-8.

¹⁴ Ghirshman 1950; Ghirshman 1962, pp. 14, 16-17, 358, fig. 70; Henning 1951, p. 176; Sept. 14, 215 AD; Colledge 1977, p. 98, pl. 29; Kawami 1987, pp. 48-51, 164-167, pl. 7; Vienna 2000, p. 238, fig. 6.

of members of the royal family or any other royal entity or object. Fire altars, adorned with ribbons, certainly are meant to carry a Bahram fire, the king of fires. The ring with ribbons is an emblem of royal rulership. According to the literary tradition of the *khwarenah* in the shape of a ram running towards Ardashir, animals with ribbons may have been meant as a manifestation of the *khwarenah*, the divine power which is a precondition for kingship.¹⁵ The widespread use of pleated royal ribbons in Sasanian iconography shows that their original context as an integral part of a headdress was no longer respected; their significance as a symbol of royalty, however, remained valid.

Experimenting with the design of crowns obviously continued during the earliest Sasanian time. Apart from his crown of styled hair, Ardashir I used different crowns for his coinage,¹⁶ and the question why Shapur I (if it is Shapur) wears Ardashir's hair-crown in the rock relief of Darab, and not his proper mural-crown, as he does in his other triumphal reliefs over Roman emperors, or in the small lion fight stele in front of the Darab relief, has not been answered satisfactorily.¹⁷ Only after that was the well-known system of individual crowns, composed for each king, finally established. The Parthian helmet-crown or tiara, its shape obviously derived from a high cap of felt, leather or other light material, ended as a royal insignium under Ardashir I. But its type lived on in the Sasanian *kolah*, the headgear of the upper ranks, as represented by the dignitaries in the Sasanian rock reliefs or by stucco sculptures, e.g. those from Hajiabad.¹⁸

We have seen that the headgear of the small Berlin bronze bust has nothing to do with a Parthian diadem in the tradition of the Hellenistic insignia of kingship. But of course it distinguishes its bearer as a person of special rank or of special social or communal relationship. So we have to search for comparable headgear of that type. These are more frequent than one might expect. The stucco decoration of a large mud-brick building, excavated at Hajiabad near Darab in southern Iran, perhaps the richest treasure of Sasanian stucco ever found, contains a great number of fragments of

¹⁵ Karnamak 1879, p. 45; Azarpay 1975, pp. 174-176; Azarpay 1981, pp. 108-115.

¹⁶ Göbl 1968, Tab. I; Alam 1999, pp. 67-76.

¹⁷ Herrmann 1969, pp. 63-88.

¹⁸ Azarnoush 1994, figs. 92-93, 103-106. For representations in the round of the Parthian tiara cf. sculptures from Hatra, e.g. Ghirshman 1962, figs. 100, 102.

anthropomorphic statues, statuettes and high-reliefs, many of which carry headdresses closely similar to that of the Berlin bust.¹⁹ The most impressive group of stucco figures consists of somewhat under life-size busts that obviously depict members of the nobility. Among them are images of Shapur II (309-379 AD), identified by his crown, which date the building to the early Sasanian period. The busts had been attached to walls and pilasters, most of them set into round discs or medallions, decorating the upper zone of the building. Although the faces of the people are rather stereotypical, the very different, fanciful fashions of their hair- and beard-style characterise them as different individuals. A minority of them wear caps or *kolahs* with or without decoration or emblem. The majority of bare-headed and always bearded people have head adornments like that of the Berlin bust: a frontlet, both ends protruding behind the temples and standing off from the head at right angles (fig. 5a). The curved ends widen to leaf-shaped ornaments with three pointed or rounded lobes. The mostly concave surface of the frontlets is sometimes decorated by incised lines.²⁰ In one case the frontlet carries on its upper rim three double horns with a central pearl, producing the image of a crenellated semi-crown.²¹

Whereas the male busts are characterised as individual persons, a group of at least six statuettes of nude female figures can scarcely have been meant to represent realistic individual women (fig. 5b). The statuettes, only about 60 cm high, were all found in the same location, dumped on the floor of a room or court with wall niches in which the badly destroyed remainders of more or less life-size stucco statues were standing still in situ.²² The nudity of the statuettes contrasts sharply with their uniform but rich upper outfit: a complicated hairstyle, two necklaces each and a frontlet similar to those of the male busts. Here in addition, the frontlet is adorned by an oval bead at the centre of the forehead and its end ornaments are broadened to five-lobed pointed leaves. The female statuettes, as well as the male busts, are sculptured nearly freestanding; however, as their backs

¹⁹ Azarnoush 1994, figs. 92-93, 103-106, pls. IX, XVII; Huff 1995, pp. 357-358.

²⁰ Azarnoush 1994, pp. 105-118, nos. 18, 23-25, 29-30.

²¹ Azarnoush 1994, pp. 112-113, no. 23. There is some similarity with Hunnic head adornments, e.g. that from Kerch, cf. Maenchen-Helfen 1978, pl. XIV, 38.

²² Azarnoush 1994, figs. 144-148.

had been attached to the plaster coating of the wall, the connecting string of the frontlet behind the head was not worked out.

The mud-brick building of Hajiabad is regarded as a combination of a mansion with a cultic area.²³ Unfortunately, the central zone of the complex with the decisive main rooms was completely erased during agricultural leveling activities by bulldozers. Nevertheless, the highly differentiated layout of rooms in the preserved part strongly points to cultural, ritual or ceremonial functions of some kind. Therefore it cannot be excluded that the special type of frontlet that so frequently appears with mortal as well as with symbolic or spiritual figures, has to be seen in a corresponding context.

The detailed and naturalistic manufacture of the three-dimensional stucco sculptures from Hajiabad provides information which may help to better understand details of other, two-dimensional representations, like those of reliefs of any kind. The Sasanian rock reliefs in particular show a great variety of personal outfits, some of which, due to the convention of relief art, were not sculpted in the round. In the present context, the headdresses of two dignitaries in the relief of Bahram II (276-293 AD) at Naqsh-i Rostam (relief no. 2)²⁴ are of special interest, as they can be easily identified as two more examples of the frontlet in question. Different from those in Hajiabad and Berlin, where they are worn bareheaded, mostly on fancifully styled hair fashions, they are sitting here on the *kolah* of two dignitaries, one of whom is among the best-known personalities of early Sasanian Iran: the high priest (*mobad mobadan*) Kartir, who served under the first six Sasanian kings up to Narseh (293-302 AD). Kartir is represented in three reliefs of Bahram II²⁵ and by two portrait busts carved near and added to reliefs of the two greatest early emperors, Ardashir I²⁶ (224-240 AD) and Shapur I (240-272 AD).²⁷ He is always recognisable by his beardless chin and, with one exception,²⁸ by the scissors-like emblem on his *kolah*. In three

²³ Azarnoush 1994, pp. 66-92; Huff 1995, pp. 358-359.

²⁴ The numbering of the reliefs at Naqsh-i Rostam follows the system of Herrmann and Mackenzie 1989, p. 11.

²⁵ At Sarab-i Bahram, Sar Mashhad and Naqsh-i Rostam 2.

²⁶ At Naqsh-i Rajab.

²⁷ At Naqsh-i Rostam 6, behind the triumphant relief of Shapur I.

²⁸ At Naqsh-i Rajab, with inscription, next to the relief of investiture of Ardashir I. Kartir's bust here is the most unusual one. Apart from the absent emblem, which is thought to have flaked off (Herrmann and Mackenzie 1989, p. 30), his gesture of respectful salute towards the king, which normally is a raised, closed fist with the

cases he introduces himself by long inscriptions next to the reliefs, a fourth inscription he got carved on the Ka'aba-i Zardusht at Naqsh-i Rostam, under the trilingual "testament" of Shapur I.²⁹ No other Sasanian subject before or after Kartir was allowed so openly to display his nearness to the royal family and his political influence. He reached the zenith of his career under Bahram II, during whose seventeen-year rule (276-293 AD) he must have executed all his reliefs and inscriptions.³⁰

The best preserved of all reliefs with Kartir, and the most informative one about his headgear, that of Bahram II of Naqsh-i Rostam 2, shows the king frontally at full height, standing between two groups of people who are given as busts.³¹ He looks towards the left group, clearly the favourite one, with three members of his family next to him, who are distinguished from the others by royal ribbons and by not raising their hands in a salute. The next dignitary after the royal family is Kartir. On his high cap or *kolah* with the scissors emblem sits a frontlet, adorned by three lines of lancet leaves pointing forwards, and at the end by a large ornamental three-lobed leaf, the deeply serrated lobes pointing backwards³² (fig. 6a). The last person in the right group wears the same frontlet, differing only by a slight variation of the lancet leaves (fig. 6b).³³ In both cases

forefinger stretched out, differs by his additionally stretched out little finger. This slightly affected gesture occurs at different other occasions, e.g. at the unknown man far left and the royal lady far right in the relief of Ardashir's investiture nearby, the lady not greeting the king but looking outward from the relief. It is also shown by the last person of the Sar Mashhad relief of Bahram II and by the captured Roman emperor standing in front of the Sasanian king in the relief of Darab. In a completely different context, the stretched out little finger is shown by the dignitary on the silver plate from Kerch, who raises a flower to his nose with his right fist. It is unclear whether the stretched little finger has a special meaning or is just a fashion. Unusual in this rather sparing relief is the necklace of large globular beads, rare among non-royals and worn by Kartir only here and on his bust at Naqsh-i Rostam 2.

²⁹ Hinz 1970, pp. 251-265; Herrmann and Mackenzie 1989, pp. 35-37.

³⁰ No later kings are mentioned in his inscriptions or represented together with his image. But he was still mentioned in the Paikuli inscription of Narseh (293-302 AD), see Frye 1984, p. 376.

³¹ Ghirshman 1962, figs. 169-173; Hinz 1969, pp. 189-228; Herrmann and Mackenzie 1989, pl. 24.

³² See Hinz 1969, pp. 200, 207, pls. 121, 126; Herrmann and Mackenzie 1989, pl. 24.

³³ The dignitary is distinguished by a most elaborate and elegant *kolah* and by an unfinished excavation of a segment of the rock above his head, by which the upper border of the relief obviously was planned to be heightened, similar to, but

there is a clear distinction between the frontlet and the much narrower band at the back of the head, behind the three-lobed end ornaments. These ornaments are sculptured more in relief than the frontlet proper. They grow straight up from the frontlet, but then the lobes are leaning back and recline above the rear band; normally they should have been directed forwards like the lancet leaves.³⁴ They obviously must be seen not as fixed flat on the frontlet, like the lancet leaves, but as separate, free-standing objects, here given in a modified, unrealistic position, due to the two-dimensionality of the relief. In reality they certainly were the end ornaments of the frontlet, standing off from the head at right angles like those of the Haggiabad stuccoes and the Berlin bust. The artistic method of folding back three-dimensional objects into a two-dimensional picture is a commonly used, well-known technique of representation in Oriental iconography throughout the ages.

An inconspicuous detail in the Bahram II relief of Naqsh-i Rostam 2 gives us more information about the part which Kartir played in the preparation of the rock relief. In the upper left corner, scarcely visible to the eye, his scissors emblem is once again carved into the relief ground, like the signature of an artist or author.³⁵ In addition to his own reliefs, it was certainly he who organised the arrangement and realisation of this and the other Bahram II reliefs and, regarding his obviously extreme ambitiousness, did his best to mould every detail of his own image as carefully as possible. So he may have taken the headgear of the captive Roman emperors in the nearby triumphal relief of Shapur I as a model for the decoration on the frontlet of his own effigy with lancet leaves (fig. 6c). Unlike the Sasanian frontlets, Roman headgear was indeed derived from the Hellenistic diadem, that means they were textile fillets, covered with laurel leaves bound around the head, and tied together at the neck, the short, straight ends hanging down behind.³⁶ By taking as

smaller than the rounded niche for the *korymbos* of the king. The awkward design of the ornament was noticed by E. F. Schmidt, who suggested metal as material (Persepolis III, p. 129).

³⁴ Hinz 1969, p. 202, pl. 122, scarcely visible; better in: Persepolis III, pl. 88 B.

³⁵ The possibility that Kartir's scissors emblem here refers to the enigmatic bare-headed person below seems inconsistent (see also note 39).

³⁶ Laurel bands, which had supplanted the Hellenistic diadem in Rome, unpopular there, became nearly standard for the representations of Roman emperors in the triumphant reliefs of Shapur I.

a model some details of the Roman headgear, like decorative leaves and short fillet endings behind the neck, Kartir may have intended to bestow some royal glamour—even if it was foreign and associated with the defeated—upon his own image, carefully avoiding any violation of royal Sasanian prerogatives. It is noteworthy that the short, straight streamers at the neck are not royal pleated ribbons.

The identical accounts of his career given by Kartir in his several inscriptions³⁷ mostly praise his steadily increasing authority as a supreme cleric and report the names of honour he received from each king he served. This might raise expectations, that information could be drawn for the interpretations of details like the frontlets, represented in the reliefs. There are two remarks, which seem to be promising in this respect: Kartir reports that Hormuzd I (272-273 AD), son and successor of Shapur I (240-272 AD), gave him “cap and belt” (“*kulaf ud kamar*”), and that Bahram II (276-302 AD), the fifth Sasanian Great King and his foremost sponsor, raised him into the ranks of high aristocracy.³⁸ The first remark only confirms the importance of the cap or *kolah* as an insignium of nobility, which could be derived from figural representations, especially in the rock reliefs, where persons close to the king and obviously belonging to the nobility generally wear the *kolah*.³⁹ As Kartir had received his *kolah* already from an earlier king, none of the reliefs of Bahram II can be of relevance for his first honourable promotion.

The remark on Kartir’s second promotion, his elevation into the ranks of the high aristocracy by Bahram II, probably can be seen in the context with a report by Faustus of Byzantium. He writes that persons of high rank at the court of the Armenian Arsacids had the right to a throne, a cushion and an insignium of honour to wear on their heads.⁴⁰ As ceremonial court regulations in Armenia, where Arsacid princes had survived the downfall of their dynasty of Par-

³⁷ Frye 1964/65, pp. 211-225; Hinz 1970, pp. 251-265; Herrmann and Mackenzie 1989, pp. 35-72 with further literature.

³⁸ Hinz 1970, pp. 258, 260-301; Herrmann and Mackenzie 1989, pp. 54-57.

³⁹ However, the man behind Kartir in the Bahram II relief (N.R. 2) immediately below Kartir’s scissor signature on the relief ground (Persepolis III, pl. 88 B) has full, loose hair without a cap. He must be an extraordinarily important person, because he does not raise his hand to salute the king, as the king’s family did not. But lacking any pleated royal ribbons, he cannot belong to the royal family. This speaks against his identification as the later king Narseh (293-302 AD), Bahram’s uncle, by Sarre 1925 and Hinz 1969, p. 194.

⁴⁰ Harper 1981, p. 39, footnote 56.

thian Great Kings, were certainly not much different from those of the Sasanian court, it is certainly justified to look for the insignia of honour on Kartir's and other dignitaries' *kolah*. There are two different possibilities. Faustus' mentioning of insignia of honour may refer either to emblems like Kartir's scissors, or to some kind of head adornment, like Kartir's frontlet or headbands, which are frequently depicted in Sasanian iconography. The emblem in general certainly was something like a coat of arms, and the fact that it is present only on a minority of *kolah* bearers on Sasanian state reliefs emphasises its importance as an indicator of high social status. Emblems or *tamgas* frequently occur among Sasanian seals, testifying authorship when impressed in clay bullae⁴¹, and it is doubtful that every owner of a seal with emblem or *tamga* belonged to the high aristocracy. Following Faustus of Byzantium, the important condition was the right to wear the insignium of honour openly on one's head, which certainly could mean on one's *kolah*. With the exception of his enigmatic bust at Naqsh-i Rajab,⁴² Kartir had his scissors emblem depicted nearly unchanged⁴³ on all his reliefs and busts. That means, if the emblem in fact was connected with the final promotion of his career, this promotion must have taken place before the start of his project of rock reliefs, busts and inscriptions. As he had been a mentor of Bahram as a crown prince long before his enthronement, it is likely that this last promotion had happened at the very beginning of Bahram's reign. Therefore the possibility that Kartir's scissors emblem and the emblems on the *kolahs* of dignitaries in general are the marks of a special class of nobility must not be excluded, but can also not be regarded as proven.

The more widely accepted second possibility, namely that some kind of diadem or headband was the insignium of high aristocracy, is favoured by Kartir's *kolah* in the relief at Sarab-i Bahram.⁴⁴ This

⁴¹ Borisov and Lukonin 1963, pp. 38-45, nos. 190-203; Bivar 1969, pp. 110-117, tab. 129, pls. 27-29; Persepolis III, Tab. V; Frye 1973, pp. 47-57; Göbl 1973, pp. 14-17, pl. 34; Göbl 1976, pp. 60-63, pls. 44-50; Bruxelles 1984, p. 99, fig. 12.

⁴² See note 28.

⁴³ Herzfeld (Herzfeld 1941, p. 310, fig. 403) already noticed that Kartir's scissors emblem in the relief of Sar Mashhad (Hinz 1969, pl. 135a; Trümpelmann 1975b, pls. 1-7; Herrmann and Mackenzie 1989, pl. 23) differs from all the others by a horizontal bar instead of the heart-shaped "handles" of the "scissors". In general one might expect a change like that at the beginning or at the end of a series, not in between—if it is not a mistake of the sculptor.

⁴⁴ Hinz 1969, pls. 127-133; Herrmann and Mackenzie 1989, p. 29, pl. 22.

looks like a smaller, less complex predecessor of the Bahram II relief at Naqsh-i Rostam, with a frontal king, accompanied only by two dignitaries on either side. Kartir again stands at the king's right side as his closest advisor, with no royal family in between. He has a very simple *kolah*, without even a neckguard, and the lack of any fillet may be taken as an indication that he had not yet been awarded the last and final honour of his career. Although the sequence of Kartir's reliefs is by no means ascertained, the relief of Sarab-i Bahram is reasonably regarded as the earliest, or a very early one.⁴⁵ As the front parts of most of the other Kartir reliefs are badly damaged, only the Sarab-i Bahram and the Bahram II relief of Naqsh-i Rostam 2 can provide safe information about the adornment of Kartir's *kolah*. At Sar Mashhad, where the upper part of the *kolah* with its slightly differing version of the scissors emblem is preserved, the lower part is completely gone. Only the rear outline of the neckguard is recognisable and traces of short streamers are reported behind the neck, which may indicate a frontlet or fillet adorning the *kolah*.⁴⁶ Kartir's bust at Naqsh-i Rajab closely resembles that of Naqsh-i Rostam 2, especially his heavy *kolah* and his compact physiognomy. The surface of his *kolah* has completely flaked off and just a barely visible trace above his forehead indicates a fillet or frontlet. Also here traces of short streamers behind the head are reported.⁴⁷ Only the bust, which Kartir added to the triumphant relief of Shapur I at Naqsh-i Rostam 6, the rear part of some kind of decorative band is preserved, which might have been another frontlet of the Berlin or Hajiabad type. The front part of the *kolah* is destroyed here too, but above the ear, exactly where the off-standing ornament should be expected, a battered knob of rock protrudes, and behind that a ribbed band, diminishing in height like that of the Berlin bronze bust, runs towards the neck; remains of a short streamer seem to be preserved behind on the relief ground.⁴⁸ The artistic quality of this bust is certainly superior to Kartir's other portraits. His clothing is delicately sculptured, only here his coat is fixed over the chest by floating pleated ribbons, otherwise reserved for members of the royal family.⁴⁹ His

⁴⁵ Herrmann and Mackenzie 1989, p. 30.

⁴⁶ Hinz 1969, pls. 134-135a; Trümpelmann 1975b, pls. 1, 3-4, 6-7; Herrmann and Mackenzie 1989, p. 30, pl. 23.

⁴⁷ Hinz 1969, pls. 130-131; Herrmann and Mackenzie 1989, p. 30, pls. 19-21.

⁴⁸ Hinz 1969, pls. 115-116; Herrmann and Mackenzie 1989, fig. 2, pl. 15.

⁴⁹ See e.g. the king at Sar Mashhad (Hinz 1969, pl. 135), and a prince at the

kolah has decorative borders all around and his scissors emblem is more elegantly shaped than the rest. The extraordinary necklace of globular beads resting on his shirt is carved here even more carefully than at Naqsh-i Rajab. The fact that Kartir chose his addition to Shapur's I triumphant relief also for his very long and most significant inscription, carved under his bust and behind Shapur's horse, seems to indicate that he regarded this as his most important memorial. Therefore one may tentatively assume that his *kolah* here was adorned with the same decorative frontlet as in the nearby Bahram II relief, which may be regarded as his second in rank.

Taken together, however, the badly damaged condition of Kartir's effigies in his rock reliefs does not provide satisfactory understanding of the appearance and development of the frontlet-like head ornament on his *kolahs* during the course of his career. We do not know for sure whether the presence of the frontlet in his Bahram II relief of Naqsh-i Rostam 2 was due to one single event, whether it was connected with a certain period of his services as priest or statesman, and whether he wore other head adornments, now destroyed, in some of his other reliefs. The presence in the same Bahram II relief of another dignitary with the same frontlet, whose identity is debated, does not help with the explanation of this rare head adornment.⁵⁰

Other Sasanian rock reliefs show different kinds of headbands. In his relief of investiture on horseback at Naqsh-i Rostam 1, Ardashir I as well as Ahuramazda wears a proper diadem, a broad band, fixed together at the neck by a bow tie which is shaped as a double trapezoid given in front view, one half sitting straight on the diadem, the other half diagonally above the knot.⁵¹ We see here again the method of depicting an object in two dimensions on the relief, which in three-dimensional reality is visible only in profile. It is the same mode of presentation used for the protruding end ornaments of Kartir's frontlet in the Bahram II relief. The same kind of bow tie, more naturalistically shaped and arranged as sitting on top of the knot which fixes the diadem, appears on the relief of Narseh (293-302 AD) and (presumed) Hormuzd II (302-309 AD) at Naqsh-i Rostam 5 and 8. It is not only shown on the diadem of the king and

Bahram II relief of Naqsh-i Rostam 6 (Hinz 1969, pl. 120).

⁵⁰ For the question of this dignitary's identification see Hinz 1969, pp. 196-215; Harper 1981, pp. 29-30. See also footnote 33.

⁵¹ Hinz 1969, pl. 61-62; Herrmann 1969, pl. 4.

the goddess but also together with the small, pleated ribbons at the costume of royal personalities in the king's entourage.⁵² An unmistakable view of the bow tie was already used in the investiture relief of Ardashir I at Naqsh-i Rajab. It stands off from the diadem at the king's neck as two triangles, one overlaying the other.⁵³ In no case, except for the two frontlets in the Bahram II relief and, possibly, at Kartir's bust at Naqsh-i Rostam, is there any evidence for frontlets among Sasanian rock reliefs. When recognisable, the headbands of royal persons and dignitaries are always simple fillets of the diadem type, mostly with the binding knot indicated by a bow tie, standing vertically above the neck. This easily recognisable solution became the standard type of bow tie not only in rock reliefs, but especially in metalwork, where the small size of imagery required formulaic, clearly identifiable details of minimum size.

A number of early Sasanian silver or metal plates of excellent quality are decorated with medallion busts of obviously high-ranking people, which like the rock reliefs are certainly meant to be portraits of distinct men and women, their individuality indicated by the outfit rather than by their physiognomy.⁵⁴ With rare exceptions they are bare headed and the majority has some kind of head adornment. This is always a fillet around the head, bound together at the neck by a bow tie. The open ends of the fillet are mostly pleated, the long ones hanging down behind the back, the short ones fluttering in the air. The headgear always consists of just one continuous band; there is no interrupting ornamental device above the ears separating a broader frontlet from the narrower fixing band at the rear, like on the Berlin bust or in the Bahram II relief at Naqsh-i Rostam. One plate, found in a tomb at Mtskheta, Georgia (fig. 7), shows the portrait of a dignitary with a normal diadem, denominated by inscription as Papak, the *bitakhsh*, a title of a high official, who, according to the similarity (not identity) of the emblem on the *kolah*, may be identical with the second frontlet-bearer in the Bahram II relief of Naqsh-i Rostam 2.⁵⁵ If the identification proves correct, the difference in headgears is noteworthy. The carefully engraved tendril decoration on the diadem of the Mtskheta plate shows that

⁵² Herrmann 1977, figs. 1 and 2, pl. 1, 8-13.

⁵³ Hinz 1969, pl. 57.

⁵⁴ Cf. Harper 1981, pp. 24-39, pls. 1-7; Gunter and Jett 1992, pp. 157-160.

⁵⁵ See endnotes 33 and 50.

the excellent craftsman would undoubtedly have been capable of working out the characteristics of a frontlet, if this was the subject to be represented. But what he displayed is an embroidered textile band without any accentuation of the front part. If the Georgian Papak in fact was the same dignitary as the frontlet bearer opposite to Kartir in the Naqsh-i Rostam 2 relief, this would indicate that different headgears could be used on different occasions or at different times by the same person.

As we see, the normal head adornment of high-ranking Iranians, male and female, bare-headed or with *kolah*, was a headband, similar to the Hellenistic type of diadem, mostly with short streamers behind the knot or bow tie at the neck. The headband with long and pleated ribbons (the diadem in its proper sense) or just the long, pleated ribbons only, were reserved for gods, kings, the royal family and royal or divine objects or entities. The cap or *kolah*, from which the Arsacids obviously had developed their helmet-crown, and which seems also to have been a model for Sasanian parade helmets of iron and precious metal,⁵⁶ was a headdress of honour by itself, bestowed by the Sasanian king. Its dignity could obviously be enhanced by additional adornments, emblems and fillets. Which of the two was the insignium of honour mentioned by Faustus of Byzantium as the last of the three regalia of high aristocracy, cannot be finally decided by the evidence of Kartir's headgear as shown on his reliefs. The emblem certainly is the more expressive symbol. But the rather decorative fillet, missing at least on one of Kartir's reliefs, may reasonably be seen as evidence of promotion. The frontlet, as shown by the three-dimensional Berlin bronze bust, seems to have been a special variant of the fillet. However, it can scarcely have been just another state insignium of honour, because among the stuccos of Hajiabad it is worn not only by bare-headed male individuals with fancy hairstyles, but also by the enigmatic type of female nudes, which can probably find an explanation only in the background of Old-Iranian religious ideas. The members of the Hajiabad community, the average Persian nobleman from the Berlin museum, the high priest Kartir and his opposite in the Bahram II relief, who certainly was a dignitary of the highest rank, seem to have little in common, that might explain their similar head adornment. They may of course have been connected by ideological, religious or other associations

⁵⁶ Bruxelles 1993, pp. 172-176, pls. 30-34.

unknown to us. And finally, the possibility should not be neglected that the frontlets were just a decorative fashion. However, what all the people wearing frontlets with leaf ornaments have in common is that they do not belong to the royal family; so the frontlet was not a royal insignium,⁵⁷ and all, except for the Berlin bronze bust, are clearly dated to the early Sasanian period.

The Parthian date of the bronze bust, accepted since its suggestion by Friedrich Sarre, was doubted by Jens Kröger,⁵⁸ who pointed to its floral base as an argument for a Sasanian origin. In fact, a chalice of leaves is the standard base for the countless numbers of human busts represented in any category of Sasanian art. All medallion busts in the above-mentioned silver bowls rest on bases of this kind, sometimes worked out as rich, flourishing palmettes like that on the Mtskheta plate, but mostly shorter and smaller, the tips of the leaves scarcely protruding from under the bust.⁵⁹ The same goes for Sasanian seals and gems.⁶⁰ The small space available sometimes led to a replacement of the leaves by schematic patterns like series of panicles, cross-hatched stars and sometimes the plant base even amalgamated with the person's dress. The omnipresence of the leaf chalice in Sasanian iconography has no comparison in Parthian art, where busts sometimes may appear in a frieze among acanthus leaves or vine branches⁶¹ but normally they are set isolated in a medallion or architectural framework.⁶² The chalice of leaves certainly had Roman predecessors, but it is unclear whether and how the motif persisted throughout the Parthian period. Anyhow, in Sasanian art

⁵⁷ The fragmented relief head of an Elymaean petty-king, excavated at Masjid-i Sulaiman, Khuzistan, wears a high *kolah* with two decorated headbands, one above the other. The headbands have differently decorated end ornaments, standing off from the head at right angles. The headgear in fact gives the impression of a double frontlet. The sculpture is tentatively dated to the 1st or early 2nd century AD, that means the late Parthian period and might be regarded as a predecessor of later frontlets. Its style of decoration however is in a completely different tradition. Cf. Ghirshman 1950, pp. 97-107; Ghirshman 1976 I, pp. 122-123, II, pls. LXXV, 1-3, 33; Bastan Chenassi 1970, cover photo; Kawami 1987, pp. 85-86, 186-187, pl. 32. In this context also the Khwasak relief of Artaban V (IV) from Susa deserves further consideration.

⁵⁸ Vienna 1996, pp. 396-397.

⁵⁹ Harper 1981, pls. 1-7; Borisov and Lukonin 1963, see ill. 16-51.

⁶⁰ Bivar 1969, see pls. 1, 3, 32; Göbl 1973, pls. 5-6; Göbl 1976, pls. 44-50; Frye 1973, see ill. D. 1-151, 421.

⁶¹ Colledge 1977, figs. 21, 24; Colledge 1986, pls. 32b, 39b.

⁶² Ghirshman 1962, fig. 347; Colledge 1977, fig. 30b; Colledge 1986, pls. 19b, e, p, q, z, aa, 27c, 35 b, c, 35b, c, 41a; Vienna 1996, p. 224, fig. 69.

it had completely lost its original Roman death-related context and had become a formal iconographic convention.⁶³

Another argument for the Sasanian date of the Berlin bronze bust, namely the fashion of the person's moustache, had been already noticed by Sarre,⁶⁴ but was put aside as not decisive, which was understandable, given the limited comparative material in his time. In fact the Parthian moustache either hangs down as it naturally grows, or slightly swings up at the tips⁶⁵. It never waves up and down several times along the horizontal line, as the moustache of the Berlin bust does. This fashion of moustache can, however, be observed in most representations of adult males in Sasanian art; there is sufficient evidence among Sasanian rock reliefs and stuccos⁶⁶ and among silver or other metal work.⁶⁷ The small bronze bust of a Sasanian king⁶⁸ in the Louvre (fig. 8) and its near identical counterpart in the Borowski Collection in Basel combine the Sasanian type of moustache with the typical Sasanian chalice of leaves.⁶⁹ Furthermore, it demonstrates that the Berlin bust was by no means a unique object of its kind, but that human busts were frequently used as part of larger metal objects. With no sound argument for a Parthian date remaining, the small bronze bust in the Berlin Museum of Islamic Art must be dated to the early Sasanian period. Its analogy with well-dated Sasanian sculptures from the time of Bahram II (276-293 AD) till Shapur II (309-379 AD) as well as stylistic detail comparison suggest a date from the mid third to the end of the fourth or mid fifth century.

⁶³ Jucker 1961, pp. 133-138; Harper 1981, pp. 27-29.

⁶⁴ Sarre 1911, p. 98.

⁶⁵ See e.g. Ghirshman 1962, figs. 52B, 99-102, 105, 109-110; Vienna 1996, p. 224, fig. 69.

⁶⁶ See e.g. Ghirshman 1962, figs. 208-209; Hinz 1969, pls. 78-81, 91, 97, 101, 105, 123, 126, 136, 137, 138; Bruxelles 1993, figs. 55, 60; Azarnoush 1994, figs. 92-105, pl. 7-17.

⁶⁷ See e.g. Ghirshman 1962, figs. 267, 269; Harper 1981, pls. 1, 4, 8, 12, 16, 17, 28; Bruxelles 1993, fig. 82, pls. 23-24, 49, 52, 58, 60-61. Another type of Sasanian moustache, frequent e.g. among the so-called hunting plates, is straight or wavy horizontal with the tips curving upwards to the cheeks or even to the temples.

⁶⁸ Perhaps Peroz (459-484 AD).

⁶⁹ Ghirshman 1962, pp. 224-225, 367, figs. 267, 269.

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Fig. 1a. Bronze bust of a bearded aristocrat with head adornment. Front view. Berlin, Museum für Islamische Kunst, inv. no. I. 588. H: 7 cm; W: 4.8 cm.

Fig. 1b. Side view.

Fig. 1c. Rear view.



Fig. 2a. Parthian silver coin of Artaban II (c. 10-38 AD) with diadem, the loose ends hanging down on the shoulders, the loops of the binding knot protruding at either side of the head. London, British Museum (after Vienna 1996, p. 95, pl. 76).



Fig. 2b. Parthian silver coin of Artaban V (213-224 AD) with diadem on helmet-crown, the loose ends hanging down behind the back, one loop of the binding knot visible behind the head. St Petersburg, Hermitage (after Vienna 1996, p. 96, pl. 77).

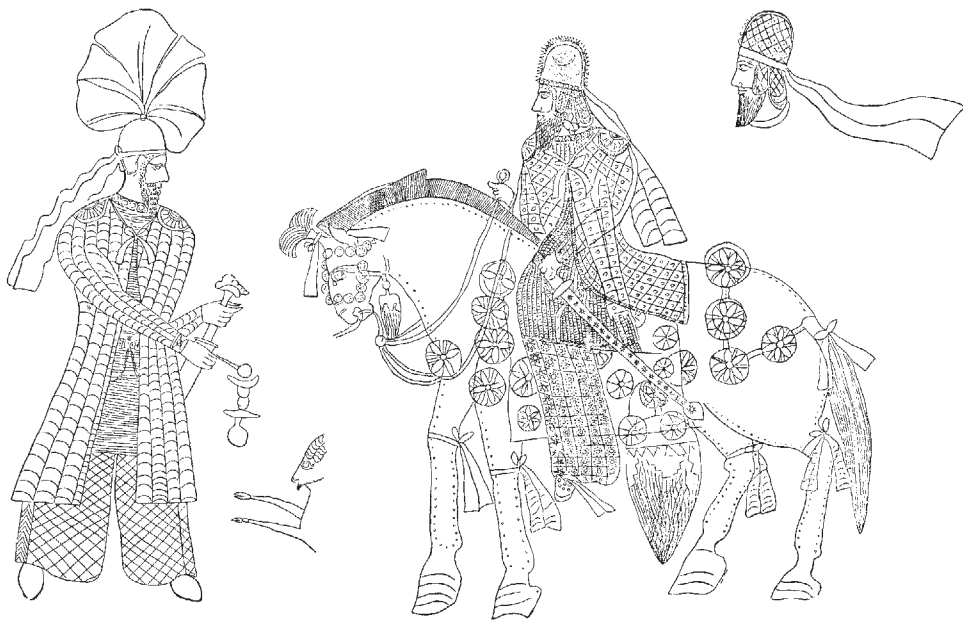


Fig. 3. Drawing of two graffiti of early Sasanian petty-kings. Standing: Papak, on horseback: probably his son Shapur, all with diadem and pleated ribbons (early 3rd century AD). Shiraz, Persepolis Museum (after Sami 1959, pp. 274 a and c).



Fig. 4. Drawing of the horse-battle relief in the gorge Tang-i Ab, Firuzabad. Front group: Ardashir I Papakan kills the Parthian Great King Artaban V. Central group: his son Shapur unhorsing a Parthian prince. Rear group: Ardashir’s attendant wrestling down a Parthian knight. All four royal personages with diadem and pleated ribbons, others without (after Bruxelles 1984, fig. 8).



Fig. 5a. Stucco bust of an aristocrat with head adornment. Hajiabad, Darab. H: 28; W: 31 cm. Early Sasanian (after: Azarnoush 1994, cat. no. 22).



Fig. 5b. Stucco head of a female statuette with head adornment. Hajiabad, Darab. H: 61 cm (total height of statue; bust: H: 18 cm. Early Sasanian (after Azarnoush 1994, cat. no. 39).



Fig. 6a. Bust of the high priest Kartir, with head adornment on his cap decorated with his personal emblem in the form of scissors. Rock relief of Bahram II (276-293 AD), Naqsh-e Rostam no. 2 (after Hinz 1969, pl. 121).



Fig. 6b. Bust of a high dignitary, with head adornment on his cap with personal emblem. Rock relief of Bahram II, Naqsh-e Rostam no. 2 (after Hinz 1969, pl. 126).



Fig. 6c. Head of a Roman emperor with laurel diadem. Rock relief of Shapur I (241-272 AD), Naqsh-e Rostam no. 6 (after Herrmann and Mackenzie 1989, pl. 4).



Fig. 7. A detail of a silver plate from Mtskheta, Georgia, showing at its centre the bust of the high dignitary Papak with diadem-type headband on his cap decorated with his personal emblem. Diam: 24 cm; central medallion: Diam: 9 cm. Museum of History, Tbilisi, inv. no. 18-55:53.



Fig. 8. Bronze bust of a Sasanian king, probably Peroz (459-484 AD). H: 32; W: 23.8 cm. Paris, Musée du Louvre, Département des Antiquités orientales, acc. 1952, inv. no. MAO 122.

FROM INDIVIDUAL MANUFACTURING TO
MASS PRODUCTION: NOTES ON THE AESTHETIC
OF THE ISLAMIC TRADED IVORIES
OF THE CRUSADER ERA

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I still recall the first time I met Jens Kröger. It was in Berlin in December 1989, during my first year as a master-degree student in the University of Munich. Interested in Islamic and Byzantine art, I decided to take a seminar on Byzantine ivories in the department of Byzantine studies and focused on the specific group of medieval ivory horns, the so-called oliphants. My aim at the time was to investigate their stylistic relationship to other carved works of art of South Italy, mainly those datable to the 11th and 12th centuries. Spending time in the depot of the Museum of Islamic art in Dahlem and studying the oliphant and other related carved ivory pieces of the collection opened to me a new field of interest and was the beginning of an endless curiosity in this material. Jens Kröger assisted me there and discussed with me different issues concerning these magnificent works of art. As usual, and in his typical, rather discrete way, he would have shown me other comparative pieces from the collection, hinting in a very subtle way to a possible interpretation or a new direction of thinking. I learned to look at objects through his sharp eye, and re-raise questions on issues which were seemingly already solved. I would like therefore to contribute this short study to him—in memoriam of our first encounter in Berlin eighteen years ago.¹

It is generally accepted that with the establishment of the Crusader kingdoms in the Levant, the whole trade system of the Mediterranean basin went through major changes. Caravan routes, centres of buy-

¹ A modified version of this article appeared in German, see Shalem 2005, pp. 90-106. I would like to thank Claus-Peter Haase and Jens Kröger from the Museum of Islamic Art in Berlin, Matthias Weniger from the Bavarian National Museum in Munich, Catarina Arcangeli Schmidt from Florence for providing me with the illustrations of the painted ivory caskets in the Museo del Bargello, and Andrea Wähning from the Badisches Landesmuseum in Karlsruhe for her excellent remarks on the manufacturing techniques of these painted ivories.

ing and selling, and even the tempo of commerce, trade traffic and quantity of merchandise were changed. Apart from the well-known alterations in the naval hegemony of the Mediterranean Sea, such as the decline of the cities of Salerno and Amalfi and the emergence of the northern Italian cities of Genoa and Pisa, perhaps the major difference was the establishment of a Christian monopoly over the Levantine ports of Syria and Palestine.² This new state of affairs gave the Latin West direct access to the Near East. Thus, although the trade between Europe and Fatimid Egypt, which flourished in the 10th and the 11th centuries was not now at its height, other possibilities were opened. Of no less importance was the new key role that the city of Palermo took with the consolidation of Norman rule in Sicily and parts of South Italy, especially in the second half of the 12th century. The geographical location of Sicily at the heart of the Mediterranean basin, in particular combined with the new political circumstances, in which crusaders, pilgrims and traders enjoyed more freedom of movement in both directions, namely west-east and east-west, gave Palermo a vital and essential role. It was quite obvious and an outcome of pure necessity that Palermo immediately became a central spot for the numerous naval routes of the Crusade era.³

These changes in Mediterranean economy and medieval commercial interests have been widely discussed by historians and sociologists. Art historians, however, have so far been less occupied with general and, I may even say, global questions concerning the alteration of the fundamental procedure of manufacturing Islamic artifacts in this specific period.⁴ It is true that emphasis has been put on the export of oriental luxury goods during the period of the Crusades. This form of research has mainly focused on the manufacture of metalwork designed for Western clientele,⁵ the production of inlaid metalwork and enamelled glass vessels with Christian scenes and heraldic symbols⁶ or of carved and painted ivories—I mainly refer

² Ashtor 1983a and 1983b; Citarella 1967, pp. 299-312; Citarella 1968, pp. 531-55. See also Schwarz 1978; Lopez 1976, especially pp. 63-70; Lopez and Raymond 2001. The role of Venice has been extensively researched, see mainly Buenger Robbert 1985, pp. 379-451; Pace 1986, pp. 331-345; Howard 2000; Mack 2001; Favreau-Lilie 2005, pp. 73-81.

³ For a recent publication on Norman Sicily, see Seipel 2004.

⁴ For an interesting approach, see Hoffman 2001, pp. 17-50.

⁵ Ward 1989, pp. 202-209.

⁶ Atil 1981, cat. nos. 44, 43; Carswell, 1988, pp. 61-63; see also the enamelled

to the numerous carved ivory horns, the so-called oliphants,⁷ and, of course, lavish and gold-woven textiles.⁸ However, the attempt to identify new types of Islamic artifacts made for export in the Crusade era should not focus exclusively, as has been done so far, on the modifications made on the artifacts, namely on the change in taste and the creation of a new aesthetic mode; this was mainly done by adapting them to a European taste by modifying their shape and adding extra motifs to their decorative programme, with which a Christian buyer was familiar.⁹ But what is actually needed is to look at this phenomenon, namely the creation of a new aesthetic trend in Islamic art during the Crusade, in a wider perspective, thus bringing into the discussion further topics, by which the research might enormously be enriched. This perspective could be focused, for example, on changes in patronage in the Levant during the Crusader period, which in fact resulted in a shift of sponsorship from the royal and the upper-class members to the well-to-do middle class, the bourgeoisie. The implications of this shift on the arts were certainly crucial.¹⁰ But also the discovery and improvement of artistic techniques and alterations in the working procedures or even in modes of trade were no less important and should be therefore reconsidered.¹¹

It is of course beyond the scope of this short paper to answer all these questions. I would like therefore to focus on one aspect, namely the one concerning the change in the working procedures of craftsmen working in ivory. I concentrate for that reason on a specific group of painted-ivory caskets and draw from the artifacts themselves evidence for a change in working in ivory in the 12th century. This change, which is already defined by the title of this paper, suggests an emergence of a new alternative in the production of ivory during the 12th century. It was mainly done by adjusting the precious and

glass bottle from the Furussiya Arts Foundation in Vaduz, Liechtenstein, in Whitehouse and Carboni 2001, pp. 242-245, cat. no. 121; Carboni 2001, pp. 340-341, cat. nos. 90a-l.

⁷ See Shalem 2004.

⁸ Wardwell 1988-89, pp. 95-173.

⁹ Baer 1989. See also Shalem 1989.

¹⁰ On this change of aesthetic during the 11th century, see mainly Ettinghausen 1942, pp. 112-124; Ettinghausen 1956, vol. I, pp. 250-273; see also Grabar 1969, pp. 173-190; Grube 1984, pp. 423-432; Baer 1999, pp. 385-394; Meinecke-Berg 1999, pp. 349-358; Baer 2004, especially pp. 8-12.

¹¹ For the change in trade practices during the Crusade, see Shalem 1988, pp. 64-68. See also *L'Orient de Saladin* 2002; Kotzur 2004; Rozenberg 1999.

costly material of ivory for a broad clientele, and thus giving a boost to a new trend of mass production of objects, which till then were regarded as exceptionally precious objects and were associated with the royal members and the nobility.

This specific group consists of circa 220 ivory objects. These are rectangular caskets with pyramidal truncated lids, cylindrical ones with flat lids, several oval caskets and even polygonal caskets with pyramidal lids. The ivories are usually ornate with painted or incised decoration. Stylistically speaking, it is likely that also numerous combs and croziers should be associated with this group.

The ivories were first studied as a group by Dietz in 1910 and 1911, and by Kühnel in 1914.¹² Dietz suggested a Syrian provenance for these caskets, a suggestion which was rejected by most scholars concerned with this group of ivories. Kühnel, however, basing his argument on stylistic observations, convincingly attributed them to Norman Sicily. Soon after, in the 1930s they were discussed by Cott, and in 1939 they were further discussed in the book *Siculo-Arabic Ivories* by the same author.¹³ However, a number of them were also published in Ferrandis's *Marfiles árabes de Occidente*, in 1940.¹⁴ Ten years later, in 1950, Monneret de Villard, while discussing the painting on the ceiling of the Palatine Chapel in Palermo, referred to this group of ivories.¹⁵ He called our attention to stylistic similarities between these caskets and the under-glazed and enamel-painted pottery (*minai*) of Persia, which is dated to the 12th and 13th centuries. A major contribution to the study of these artifacts was made later by Pinder-Wilson and Brooke in 1973.¹⁶ They classified them into seven stylistic groups, and suggested that they are the product of intensive ivory workshops active in Norman Sicily, especially from the establishment of the Norman kingdom by Roger II in 1130 until the reign of Frederick II in 1197.¹⁷

¹² Dietz 1910-11, pp. 231-244 and pp. 117-142; Kühnel 1914.

¹³ Cott 1939; see also Cott 1930, pp. 131-46.

¹⁴ Ferrandis, 1935-40, vol. 2.

¹⁵ Monneret de Villard 1950, p. 29. For recent publication on the Cappella Palatina, see Grube and Johns 2005.

¹⁶ Pinder-Wilson and Brooke 1973, pp. 261-305. See also Pinder-Wilson 1977, p. 473.

¹⁷ See Shalem 1989, especially pp. 110-113, in which this group of painted ivories and their Mediterranean context was discussed, and cat. nos. 145-246; Shalem 2005, pp. 90-106.

As already noticed by Pinder-Wilson and Brooke, these caskets consist of “thin sheets of ivory often insecurely assembled and painted in a summary fashion with unstable pigments”.¹⁸ They explain that “these were objects of commerce intended to meet a widespread demand”.¹⁹ The use of thin ivory sheets attached to wood walls instead of using thick or at least firm and solid panels of ivory evidently reduced the price of these caskets. At the same time, the effect was almost the same because these sheets of ivory totally cover the whole surface of the caskets. Moreover, since the inner parts of most of these artifacts were entirely covered by woven textiles, the wooden walls were completely concealed.

A close look at these artifacts indeed reveals that the caskets were executed with less care, especially when compared to the carved ivories of Muslim Spain or Fatimid Egypt. The ivory walls of the caskets are amazingly thin and are, for this reason, secured to the wooden panels with relatively many ivory pegs. In numerous cases, these sheets of ivory cover the wooden panels with no precision at all or with almost no concern for symmetry. It seems as if the work was done in a rather hasty manner using any size of ivory sheets available at the workshop at the time.

This tendency is well illustrated in the famous ivory casket from the Palatine Chapel in Palermo (fig. 1).²⁰ Thin ivory panels of slightly curved shape were mounted on the rectangular casket. One big curved panel is mounted on the front side of this casket, and several extra small fragments are attached to the four corners of the front side, filling the gaps between the curved piece and the rectangular shape of the front panel. Moreover, the use of small pieces of different shapes to fill the gap suggests that these fragments were remainders left after the making of other ivory objects in the workshop. It should be stressed that the same is to be seen on the flat lid and on the other sides of this casket.

A similar solution is to be found on two other caskets of this group. The flat lid of the casket from the cathedral of Trento (33.5 cm in length) is made up of nine or perhaps ten thin panels of different shapes (fig. 2).²¹ They are secured to the wooden panel by small ivory pegs. The narrow side of the casket from the Islamic Museum

¹⁸ Pinder-Wilson and Brooke 1973, p. 293.

¹⁹ *Ibid.*

²⁰ For this casket see mainly, Andaloro 1995, pp. 170-173, cat. no. 36. Seipel 2004, pp. 218-220, cat. no. 49.

²¹ On this casket see mainly, Andaloro 1995, pp. 210-211, cat. no. 48.

in Berlin is made up of at least four pieces (fig. 3).²² The ivory pegs attached to these panels in specific spots secure these panels to the wooden walls. It should be pointed out also that the narrow and elongated panel attached to the lower part of the truncated lid is made up of two pieces of different length.

In numerous cases the sheets of ivory are so thin that they almost appear as thin papers attached to the caskets' sides. This is easily seen for example on the casket in the church of St Servatius in Maastricht or the one kept at present in the Museum für Angewandte Kunst in Cologne.²³ Moreover, in numerous cases the sheets of ivory are so thin that they tend to crack. The extensive use of pegs for securing these cracks on the casket in Maastricht or those on the huge casket in the Museo del Bargello in Florence is the evidence for the use of extremely thin sheets of ivory (fig. 4). However, it seems likely that several ivory sheets were added to the wooden core of the caskets despite the fact that they were already slightly cracked. For example, several motifs on the wall of the rear side of the casket in Cologne were painted precisely in order to hide these cracks. This is clearly to be seen on the upper part of the wall, at the left side. Two birds with intertwined necks are painted on the horizontal crack. Moreover the bodies and especially tails of these birds are shaped along the horizontal crack. The same is to be found on the rear side of another painted ivory casket in the Museo del Bargello in Florence (fig. 5). The bird depicted on the lower left side of this panel appears along the horizontal crack.

Another excellent example of the tendency to conceal cracks and even joins is to be found on the casket of the treasury of the church of Maria SS. Assunta in Messina.²⁴ It appears on the backside of the rectangular casket (fig. 6). The narrow panel attached to the lower part of the lid was made up of three pieces. The thin space between the central piece and the one at the right-hand side is almost hidden behind the metal bracing band. The other thin gap at the very spot, at which the central piece is fastened to the one on the left side, is hidden by four painted roundels. These roundels are organised along this diagonal join. A similar motif appears to the right. It is simply

²² Berlin 1979, p. 76, cat. no. 262.

²³ For the casket in Maastricht, see mainly, *Ornamenta Ecclesiae* 1985, cat. no. H20; Shalem 1989, cat. no. 249.

²⁴ On this casket, see mainly, Andaloro 1995, pp. 182-185, cat. no. 39.

painted on the ivory panel, thus creating a symmetrical design, which probably aims at concealing the fact that this panel is made up of more than one piece. Moreover, the two cracks on the front wall of this casket are also concealed by the painter. A bird spreads out its wings, which are clearly stretched along the crack on the upper part of the right panel attached to the wall. Another bird appears on the left side, at the lower part of the other panel. It bends its head forward and stretches its tail. The crack appears as if a line is painted along the bird's body, from the bird's forehead up to the tip of its tail.

Another example of the concealment of joints appears on the ivory caskets in the diocesan museum in Trento and the Musée de Cluny in Paris. A palm tree in the 'Tower of Pisa' position is painted along the diagonal join of both caskets (see, for example, the casket from Trient, fig. 7).²⁵ The fact that the palm tree appears as the central part of the familiar motif of the roundel with two animals—in this case two peacocks—flanking a tree, makes the join difficult to see at first glance. A less elegant attempt was made by the same painter on this casket in Trento. It appears on the front side of the casket, just below the lock plate.

An interesting observation could be made on the painting of the casket in the Museo del Bargello in Florence. The vertical join between the two pieces, which are fixed at the casket's lid, is concealed by a fantastic plant with two birds depicted at its base. Moreover, the painter took the decision to add several ornaments along the little gap between the two panels on the casket's flat lid. By doing so, the painted decoration along the join of the two panels is integrated into the whole programme of the decoration of the casket's lid.

A similar method of concealing a join is to be found on the truncated top of the lid of the casket in the Archaeological Museum in Laval. The join, which appears at the center of the top of its lid, dividing it into two identical ivory sheets, is painted with a fantastic plant, which 'grows' along the join. Two birds turning their heads backwards appear at the top of the fantastic plant.²⁶

Hence, another interesting method of concealing the fact that the ivory sheets mounted on this casket are in fact attached by ivory pegs

²⁵ Andalaro 1995, cat. no. 48.

²⁶ Cott 1939, p. 37, cat. no. 41.

to a wooden surface is achieved by painting around the pegs small ornamental motifs. This method is probably made in order to leave the impression that the casket is made out of ivory panels rather than thin sheets attached to wooden ones. The ivory pegs are rendered less noticeable by painting around them heart-shaped leaves. The latter strongly recall the ends of the gilded bracing bands and security clasps of this casket. A similar aesthetic approach appears on the lid of the casket in the diocesan museum in Trento. This can be clearly detected on the very left side of the lid, on which the curved join was treated as a stem of a plant. The ivory pegs on both sides of the join are treated as if they were buds. This is achieved by painting around them small buds, which appear as if growing out of the stem of this plant.²⁷

In fact, this method of concealing the ivory pegs by painting leaves and buds around them and thus integrating them into the entire painted decoration is to be found on numerous caskets. For example, nine pegs are painted as pointed leaves along the borders of the ivory sheet mounted on the narrow wall of the caskets in the parochial church of S. Lorenzo in Portovenere (La Spezia) (fig. 8).²⁸ The leaves are organised along the borders of the ivory sheet frame, so to speak, the main central motif is of two birds kissing each other. A similar aesthetic decision is to be found on the ivory casket in Qatar (Doha, Islamic Museum),²⁹ the second ivory casket in S. Lorenzo in Portovenere, the one in S. Ambrogio in Milan and on two caskets, the rectangular one with the truncated lid and the other rectangular one with a flat lid, which are kept in the treasury of the cathedral of Veroli.³⁰

As noticed by Pinder-Wilson and Brooke, the surface decoration of these caskets is comprised of unstable pigments. According to a scientific examination made on the casket of St Petroc in the laboratory of the British Museum, colours were applied as water paint.³¹ This technique of using water paint, which—in comparison to oil or tempera paint—is rather inexpensive, was probably used for economical reasons. It reduces the price of the production of these artifacts. They

²⁷ For an illustration of this lid see, Andaloro 1995, p. 210, fig. 48.1.

²⁸ Andaloro 1995, cat. no. 46.

²⁹ For this casket, see Rosser-Owen 2004, cat. no. 5.

³⁰ For the Veroli casket, see mainly Curatola 1993, cat. no. 88; Evans and Wixom 1997, cat. no. 343.

³¹ Pinder-Wilson and Brooke 1973, p. 268.

also argue that the motifs were painted in a “summary fashion” so that the objects could have met a widespread demand.³² It is true that the painting is done in a remarkably fluent manner, as if the painter had to work under a time pressure. It is quite obvious that the mass production of these artifacts dictates a rather speedy tempo in the workshop. The motifs were probably first outlined with a dark greyish pigment. The other colours used were reduced to around three: red, green and gold. The gold pigment sometimes appears at present as dull yellowish grey. But this might be the sizing medium used to receive the gold leaf.³³ This can be seen on the animal, probably a leopard, depicted on the casket in the parochial church of S. Lorenzo in Portovenere, or on the hunter riding a horse, which is depicted on the casket in Veroli.

Another method contributing to rapid production was the repetition of motifs. Thus, specific images were simply copied, like for example, a pair of birds turning their heads backwards, a gazelle in a medallion, interlaced scrolls in medallions and pair of peacocks facing each other. These images were then placed on the ivory surface in a rigid symmetrical composition filling the spaces on the casket’s walls and lid, which were in turn divided by the bracing bands.

And yet it would be unjust to define the style of this group of artifacts as having a “static nature”, as Pinder-Wilson and Brooke suggested.³⁴ They argue that, as far as composition and style are concerned, in most cases, “an inflexible adherence to a facile symmetry has replaced the more subtle principle of balance”.³⁵ For example, a free drawing of a hunting scene in rather fine and delicate contours appears on the casket from the Palatine Chapel of Palermo. The hunting scene consists of a dog attacking a gazelle, and a hunter, who carries a bird in one hand and keeps hold of a rope attached to his falcon; a leopard is also depicted at the bottom of this scene (fig. 9). This scene reveals impressionistic qualities. It seems as if the painter succeeded in illustrating a specific moment rather than copying a familiar motif of a hunting scene, like that of falconry. Moreover, the energy and force, and perhaps even violence, presented in this moment of attacking the gazelle is accentuated by

³² Pinder-Wilson and Brooke 1973, p. 293.

³³ Pinder-Wilson and Brooke 1973, p. 268.

³⁴ Pinder-Wilson and Brooke 1973, p. 294.

³⁵ *Ibid.*

the strung rope. This tense line illustrates the forceful attack of the falcon on the poor gazelle. Other examples of subtle drawing are the two delicately drawn musicians, one playing a flute and the other a harp, which appear within the roundels on the casket from Messina, in the treasury of the church of Maria SS. Assunta.³⁶ But even several other motifs, which frequently appear on these caskets as well as on other Islamic artifacts in this period, demonstrate the excellent ability of the painter to draw animals with only a few lines. It is by rapid rather than hasty contours that the character of a peacock or a gazelle is transmitted. The painter's flowing line and confident contours of the depicted images display the artist's high competence and self-confidence in drawing. The contours might be compared to the flowing and energetic lines of Henri Matisse's drawings or the self-assured lines of Pablo Picasso's ink drawings.

This seeming contradiction between the pursuit of new alternatives for cheapening the price of these artifacts and, at the same time, the employment of professional painters is probably rooted in the nature of any mass production. It is a mixture of cheap materials and conspicuous and impressive effect. On the one hand, attempts are made to reduce their price. This was mainly done by using thin ivory sheets, mounting ivory sheets onto the wooden surface in a less careful and perfect manner, reducing the palette of colours used for decoration to very few water-based pigments, and speeding the manufacturing process by adapting methods of work which enable a serial production. But, on the other hand, a sense of preciousness was also desired. This was probably achieved by evoking memories of luxury carved ivories, by referring both to their specific form and their particular decoration. For example, the densely decorated casket from Berlin, on which medallions with interlaced scrolls and wild animals are depicted, might refer to the carved ivories of Muslim Spain (fig. 10).³⁷ The latter are usually decorated with animals within scrolls and with Arabic inscriptions, which also appear on the lower part of their lid. But also the symmetrical composition of roundels organised on the walls and lids of the caskets recalls the symmetrical composition of carved ivory caskets, such as the one

³⁶ For an illustration see Shalem 2005, fig. 12.

³⁷ On this casket from Berlin (KFMV 60), see Berlin 1979, cat. no. 262; see also *Europa und der Orient* 1989, pp. 550-552, cat. no. 4/16, fig. 642.

from Turin (Museo Civico di Arte Antica, inv. no. 197).³⁸ It should be stressed that this casket is also decorated with a Kufic Arabic inscription on the lower part of the truncated lid.

It is plausible that the use of gold for highlighting several motifs was made in order to enhance the semi-luxurious impression of these caskets. It was probably a sort of compensation for the reduced number of pigments. But the effect was grand. The appearance of bright gold colour on the polished shiny white surface of ivory is extremely attractive. A sense of luxury and even of extravagance was achieved. In addition, the use of bracing bands and securing clasps bestows an impression of firmness, strength and balance on these caskets. The metal mountings are usually made of an alloy of copper mixed with silver and lead or of bronze, an alloy of copper and tin. The mountings were also gilded. Thus, a further impressive accent of shiny gold was added to these caskets. The shiny and solid impression transmitted by the metal mountings obscures the rather fragile sensation of the extremely thin sheets of ivory attached by ivory pegs to cover the wooden structure of these caskets.

In sum, like any other artifacts of mass production, the painted ivories attributed to Sicily combine two contradictory aspirations in their character: that for economical and low-cost production, and that for the sense of preciousness. It has been demonstrated that cheap materials and inexpensive working methods were used, and a great deal of concern over the low-cost production of these caskets was made. The craftsmen developed new methods of production in order to conceal this fact. The wooden structure was totally covered by ivory sheets, leaving the impression that the caskets were solely made of ivory: it is likely that the inner parts of the caskets were also covered, most probably by textiles. Ivory pegs were used for attaching the sheets onto the wooden panels. Thus, no traces of fastening were to be seen, at least at first glance. Moreover, the joins and the ivory pegs were painted in order to conceal the fact that the caskets are actually covered by thin ivory sheets. The decorative motifs hiding the joins and ivory pegs were also integrated into the entire decorative programme of the caskets. It should be stressed, though, that

³⁸ For this casket, see Calò Mariani and Cassano 1995, p. 18, cat. no. 8.7. Another painted ivory casket, which might hint at this notion of imitation of carved ivory caskets is to be found in the David Collection in Copenhagen (6/1976), see Folsach 2001, p. 255, cat. no. 407.

the decoration was probably made by competent painters. But the spectrum of colours was largely reduced, and water-based pigments were used. Gold leaf was also applied, most probably to compensate for the sparse use of colours. The gilded bracing bands and securing clasps, which are so characteristic of this group of ivories, added to the caskets a rather solid and costly appearance.

The aesthetic observations made in this short paper are the evidence for a new taste, which was born in the 12th century and which is most probably associated with the development of a new mode of trade in the Mediterranean basin. The trade was probably designed to meet the needs of a large social group, who wished to be associated with costly materials and luxury artifacts but lacked the financial means for acquiring those costly objects. The precious object was therefore replaced by the semi-precious one. And the terms 'impressive' or 'imposing' substitute for the adjectives 'real' and 'unique', which were used for defining valuable artifacts. The artifacts were designed to conceal the fact that they are of low-cost production, to draw the attention of the beholder to their shiny surfaces or to their striking colours. Eyes were then deceived, and beholders were misled—or one may say: a new vogue was born.

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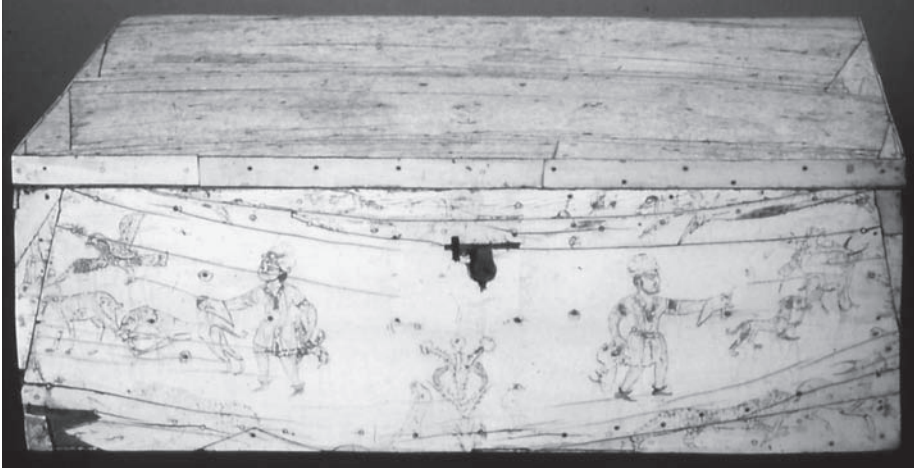


Fig. 1. Painted ivory, probably Sicily, 13th century. Tesoro della Cappella Palatina, Palermo (after Seipel 2004).

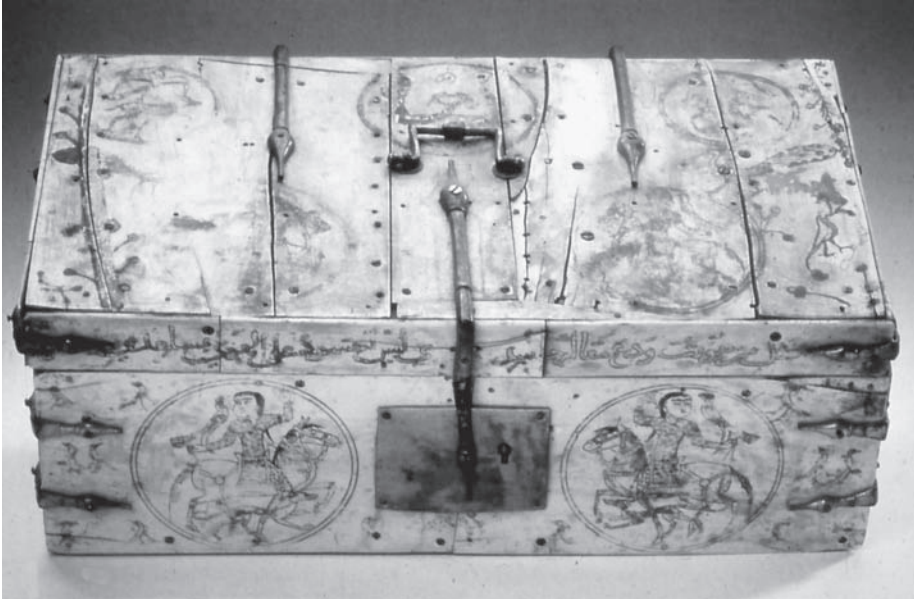


Fig. 2. Painted ivory, probably Sicily, 13th century. Diocesan Museum, Trento (after Andaloro 1995).



Fig. 3. Painted ivory, probably Sicily, 13th century. Narrow side. Museum of Islamic Art, Berlin (KFMV 60) (photo: museum).

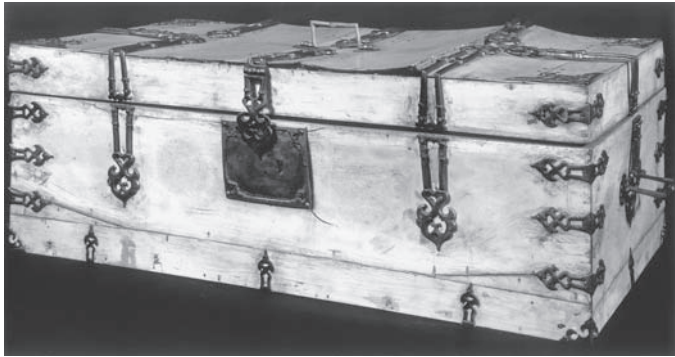


Fig. 4. Painted ivory, probably Sicily, 13th century. Museo Nazionale del Bargello, Florence (photo: museum).



Fig. 5. Painted ivory, probably Sicily, 13th century. Museo Nazionale del Bargello, Florence (photo: museum).



Fig. 6. Painted ivory, probably Sicily, 12th-13th century. Treasury of the church of Maria SS. Assunta, Messina (after Andaloro 1995).



Fig. 7. Painted ivory, probably Sicily, 13th century. Detail, rear side. Diocesan Museum, Trento (after Andaloro 1995).

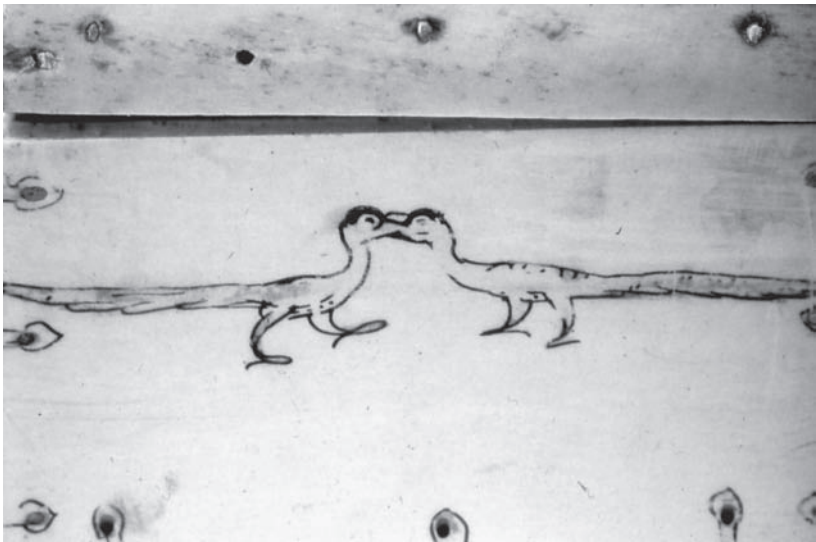


Fig. 8. Painted ivory, probably Sicily, 13th century. Narrow side. The parish church of S. Lorenzo in Portovenere, La Spezia (after Andaloro 1995).



Fig. 9. Painted ivory, probably Sicily, 13th century. Detail (see fig. 1).



Fig. 10. Painted ivory, probably Sicily, 13th century. Museum of Islamic Art, Berlin-SMB (KFMV 60) (photo: museum).

ON THE LONG JOURNEY FROM EAST TO WEST— DRAGONS FROM TIBET

FRIEDRICH SPUHLER, POTSDAM

“At the time of the vernal equinox—so it says in the *Shuo Wen*—the dragon ascends to heaven, and at the autumnal equinox it sinks back into the bottomless depths.”¹

We encounter the mythological dragon—Lung—in stylised form in the cult bronze objects of the Shang (1500-1050 BC) and the Zhou (1050-221 BC) Dynasties.² It became distinctly naturalistic during the Han Dynasty (220 BC-220 AD) and over the next thousand years developed into creatures with a sinuous torso, similar to reptiles with short, lizard-like legs and clawed feet. The long tail is curled like a whip. The head sits on a thin, snake-like neck which is s-shaped and merges into a scaled body.³ The head also underwent a series of stylistic changes: a thin and usually flat tongue points out of the ever-open mouth. Stag-like antlers, each with a blunted side branch, point backwards. Between them an opulent strand of hair flows backwards. A longish tuft of beard hangs from each corner of the mouth. Both eyes are wide open and framed by bushy brows.⁴ Although its mouth is open, this type of Chinese dragon from the Ming period does not look threatening. Usually it is trying to catch the Pearl of Immortality.

From 28 September 2005 to 29 January 2006 in the special exhibition “Unknown Tibet—Treasures from Buddhist Monasteries” in the Museum of Indian Art in Berlin, a collection of Sino-Tibetan metal objects was on display which form the basis for this article on Tibetan dragon images.⁵ The majority are iron objects inlaid with gold from the 12th to the 16th centuries. Despite its being portrayed in completely different ways, the ancestor of the Chinese dragon is

¹ Willets 1968, p. 183.

² Rawson 1984, fig. 45.

³ Eod. fig 74 (Tang) and fig. 79 (Yuan).

⁴ Hall 2006, pl. 88.

⁵ Spuhler 2005, pp. 69-70.

always recognisable. It is never in an aggressive position, but lolls quite peacefully amongst tightly woven foliage, often studded with flowers. There is no hint of greed in its attempt to catch the pearl.

After an introduction to the different styles of dragon from the exhibition, we shall consider the question of whether those differences make it possible to determine their age or even their place of origin.

The relationship between the Chinese imperial court and the monasteries in Tibet was never closer than during the rule of the Yongle Emperor (1403-24). He favoured Tibetan monks as advisors, who in turn elicited from him, with great cleverness, opulent presents for their native monasteries. Never again did the flow of presents reach such a level, which explains why the monasteries' treasures contain a preponderance of 14th and early 15th-century textiles. A dozen red lacquered chests, in which the brocades, embroidery and satins were transported to Tibet, have turned up in western collections in recent times.⁶

Certainly, iron decoration for the monastery doors such as door knockers and hinges were also sent to Tibet. There is a general consensus among experts that one example can be dated back to the Yongle period.⁷ This is a sawn-out and filed iron doorknocker, all four parts of which are preserved (fig. 1). Its completely gilded, scaleless dragon, which appears twice in mirror-image on the almost semi-circular convex boss, has a strongly arched body ending in an extremely thin neck. The neck flows into a head with a makara's snout, which bears a surprising resemblance to the curved beak of a gryphon. The bushy eyebrows, the antlers, the thin, flicking tongue and the backward-flowing mane together with the thick tail are all clearly typical features of the Ming period dragon. It struts on short, muscular legs and three-clawed feet through the tightly interwoven foliage of rolled-up leaves, which shows traces of its original silvering.

The ring is made up of pearls held apart by gold discs, reminiscent of Chinese jade ball rings. At the ends are identical dragon heads which are "attacking" the mounting of the doorknocker. This is deco-

⁶ Anninos 2000, especially p. 101.

⁷ E.g. James Watt, *The Metropolitan Museum of Art*, New York, 1999, personal notification.

rated with a “flaming jewel”, one of the seven precious royal symbols, underlining its exceptional status and showing that the doorknocker was destined for Tibet. This masterpiece was most likely made in China or at least it was made by a Chinese craftsman.

A group of four hinge strips (fig. 2) have round shapes merging into straight segments, which are framed by a pearl border. Each circle is almost completely filled by a “dancing” dragon. These dragons have an awkward look about them, with a stylised head and every characteristic of the early Ming dragons. They are drawn rather sketchily and betray a craftsman who had little contact with the elegant Chinese models. For instance the scales are punched, and two other stylistic peculiarities seem to come from the Eastern Islamic, Persian region. One is the multi-leaved palmetto blossom, beginning to bloom, which is found in identical form on 14th-century East Persian bronzes,⁸ and the other is the end of the band which becomes narrower towards the top and which has a wide cloud-shaped collar in gold. A masterpiece of Timurid textile art has given us this model,⁹ as have numerous examples painted on miniatures.¹⁰

The comparison of the dragons in figs. 1 and 2 shows clearly that craftsmen from very different traditions worked in the same material, namely iron, for Tibetan monasteries.

Even larger and therefore more difficult to explain are the differences in the dragons of our third example. In all probability both pieces (fig. 3) were originally handle grips from a sedan chair which was used in Tibet. The dragon’s torso, of uniform thickness, is coiled in a double s-shaped sweep across the entire grip. Short, sturdy legs end in menacingly sharp, three-toed claws. They are grasping pearls (?) or small clouds. The dragon’s mane is braided haphazardly, whereby his mischievous gaze is directed straight at the beholder. He has a scant beard with three strands. On the corresponding grip there is a side view of the same head. The sea of clouds surrounding it is made up of knotted bundles which only rarely peter out at one side into the otherwise usual ribbon of flames. It has not yet been possible to find anything comparable to the unchangingly thin body, which would otherwise be more appropriate for a snake.

⁸ SPA 1938, pl. 1371.

⁹ Lentz and Lowry 1989, p. 216, cat. no. 116.

¹⁰ SPA 1938, pl. 871.

However, the skull and the lizard's legs demand that we speak of a dragon. The clouds, the legs with rudimentary flames and the head all correspond with Chinese depictions from the second half of the Ming period. The fact that neither the foliage nor the outline of the dragon has been sawn out of the solid iron plate can be explained by the supporting function of the grip, which is more stable without fretwork. Because they are solid, functional objects the two pieces lack something of the graceful charm of both of the objects previously described, but they are nevertheless worthy of inclusion as evidence of the diverse modes of illustrating the dragon.

Two very delicate fittings are among the finest iron objects which we have come across in ten years of collecting. Placed side by side (see fig. 4) they form an embrasure, whereby one can imagine them being positioned flush or at right angles. At the top and bottom they have almost circular holes through which they were nailed onto a wooden or leather chest or box. They may also have been mounted horizontally, which would have given the dragons an offensive position and have meant that the flowers lay more naturally among the foliage. The riddle would be more easy to solve if it were known what object they originally adorned.

These two dragons are undoubtedly among the most precious objects in this collection. Arched like the back of a cat, the dragon's breast with its snake's neck and its front paws spread wide pushes its way through the dense foliage. As if it were a hand, the outstretched paw is grasping a twig. The right hind leg is stemmed almost straight against the reared-up back. The two cat-legs turned towards the beholder are begirt with the aforementioned "flames", whereby their gilding is smooth and on one side set off from the torso by a strip of silver. The scales of the body have been fashioned as a close mesh of circles. One can feel the slight embossment of the muscles. The head is an undisputed masterpiece. There is a perfect balance between gilded and silvered parts. The makara snout and the muscular cheeks are gilded and punched. Its bushy brows and the ears are gilded flat, whereas the tongue and antlers are embossed as a gleaming silver surface. The climax is the mane, in which the strands of hair are made from alternating gold and silver strips. A piece of jewellery could not have been conceived more sophisticatedly.

The flow and elegance of the design point here more than in any other piece to the skills of a Chinese craftsman. Comparable work is

more likely to be found in the field of textile art¹¹ or porcelain painting¹² than made from the rough material, iron. Bridles, saddles and stirrups were among the objects of everyday use stored in large quantities in Tibetan monasteries, together with the above-mentioned door fittings and chest and box decorations, which were preferably made from iron. They were an integral part of the armouries which each monastery had as a matter of course, and which contained a great variety of weapons from many different countries.¹³ The standard Tibetan saddle is made of wood with the seat covered with leather. The seat forms a trough between a flat cantle at the rear and a higher pommel at the front end. They are bound with decorative bands which, like the double, tub-like seating boards are decorated with matching fittings made with the iron openwork technique (*opus interrasile*) being discussed here.

The collection consists of five saddles each complete with decorative fittings. Nevertheless I have selected the left half of a rear cantle ornamentation, because the dragons reproduced on it enrich our study with an exotic aspect (fig. 5). The three elongated, extremely thin-legged creatures strut towards the centre of the cantle on spider-thin, almost muscleless legs ending in three toes. The dotted, snake-like torsos are coiled manifoldly, whereby the last dragon gambols with the front half of its body completely knotted. The heads are also thin and lacking in detail, with the artist clearly concentrating on the effect caused by the twisted torsos. The decoration is divided into two levels: the gilded level with dragons and a little foliage, and below that the foliage on the darkened iron surface, which may originally have been partly silvered. The decorative arch is bordered on both sides by a zig-zag band somewhat reminiscent of a range of mountains. In China the depiction of the strutting “snake dragons” has a long tradition,¹⁴ going back to the time of the Kangxi Emperor (1662-1722).¹⁵

The dragons described so far were either inlaid into iron or made in different degrees of relief, and so I should like to finish the sum-

¹¹ Hall 2006, no. 121, p. 354.

¹² Rawson 1984, fig. 79.

¹³ An exhibition of Tibetan weapons took place in spring 2006 at The Metropolitan Museum of Art, New York. See LaRocca 2006.

¹⁴ Hearn 1996, pl. 4 and 3; likewise Nickel 2001, p. 141.

¹⁵ Zimmermann 1913, pl. 64.

mary with a three-dimensional version which is embedded in a rectangular buckle (fig. 6). The dragon was made from a slightly bent sheet at least 15mm thick, and gilded on both sides. Viewed from above, its scales are applied like small round discs onto the three-dimensional torso, a technique obviously developed from the punching of earlier examples. Because of its curved horns which, from the front, clearly point downward like those of an ox, the dragon ranks among the mythological “douniu” variety. Szan Tan associates this mythological dragon with imperial gifts.¹⁶ The fact that on our buckle the dragon is portrayed from the front suggests that it belonged to such a robe. On the left side there is a single slit and on the right side a double one, through which a leather or woven belt would be threaded. The side decoration displays what appears to be a horizontal tree trunk with rolled-up leaves and twigs. In an imperial present of this quality it would not have been out of place to fashion the piece out of solid gold. The fact that it is made from iron, which is much more difficult to work, shows that ironwork was valued just as highly as gold work.

What can be deduced from the comparison between the six examples so far described? Different stylistic tendencies emerge from which we hope to gain an inference to different regions of origin. This would mean that presents were brought from widespread geographical areas, such as China, East Persia and Central Asia. I was convinced of this for a long time, until an exact examination of the technical implementation and traces of tool-work on the iron made me doubtful and caused me to search for a solution. The craftsmanship of the pieces was too closely matched for them to have come from workshops thousands of miles apart. In addition, such delicate ironwork was not popular in China in the 14th to 16th centuries. Nor could I be satisfied with the idea that they were produced in larger quantities for export only. Ironwork is better known in the Persian region, although it occurs there in very different media, such as calligraphic decoration or in most filigree, usually medical, instruments.

In the history of cloth-making we often hear of the voluntary migration and even deportation of craftsmen.¹⁷ Is it not possible

¹⁶ Hall 2006, no. 121.

¹⁷ Wardwell 1992/93, especially p. 244.

that craftsmen migrated to Tibet and Nepal, when the boom in monastery building in the 15th and 16th centuries created an ideal employment situation and demand for door hinges and door knockers was so great? Since the iconography of the dragons and the foliage followed the same pattern, national varieties of style could certainly be retained.

While we have been examining local Tibetan issues, the dragon, which originally came from China, had progressed far into the west. In Timurid Persia (1370-1506) it was widespread on pottery and tiles, on cloth and metal vessels.¹⁸

In Chinese depictions the dragon is normally portrayed alone, peaceable and not attacking any other creature. It exudes the superiority befitting a symbol of the Sun Emperor.

The Persian Timurid and early Safavid dragon changes its appearance and behaviour completely. The regal aura mutates to a fire-breathing, threatening monster, which only a hero can conquer. In the *Shahnama*, the Persian “Epic of Kings”, it becomes a topos and there is hardly an Islamic depiction of the beast more apt than the miniature in the Houghton *Shahnama*, in which the fire-breathing monster is to be slain by the three sons of Feridun as a test of their bravery.¹⁸

Finally the dragon reaches the Germanic heroic tales, where Siegfried alone is able to accomplish the wonder of slaying it. In the course of its long journey from East to West a creature respected by men and often portrayed as the “Son of Heaven” turns into the very incarnation of evil, which threatens humans, attacks them and aspires to destroy them. I have no explanation for this transition except the suspicion that the mythological creature is revered in the country where it is also understood. The increasing lack of understanding which accompanied the westward journey engendered fear and turned the dragon into an antagonistic monster.

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¹⁸ Welch 1972, pp. 120-121.

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Fig. 1. Round door-knocker, early 15th century. Iron, gilded and silvered. Diam.: 15.5 cm (photo: Museum of Indian Art, Berlin).



Fig. 2. Hinges (4 in total) 13th/14th centuries. Iron openwork, gilded and silvered. L: 27cm (photo: Museum of Indian Art, Berlin).



Fig. 3. Two handle grips from a sedan chair, 16th century. Sheet iron, gilded and silvered. Max. L: 22.7cm (photo: Museum of Indian Art, Berlin).



Fig. 4. Pair of decorative fittings, 15th/16th centuries. Iron openworked and embossed, gilded and silvered. 12 by 5 cm (photo: Museum of Indian Art, Berlin).



Fig. 5. Saddle decoration (half), 16th century. Iron openwork, gilded. H: 21.5 cm (photo: Museum of Indian Art, Berlin).

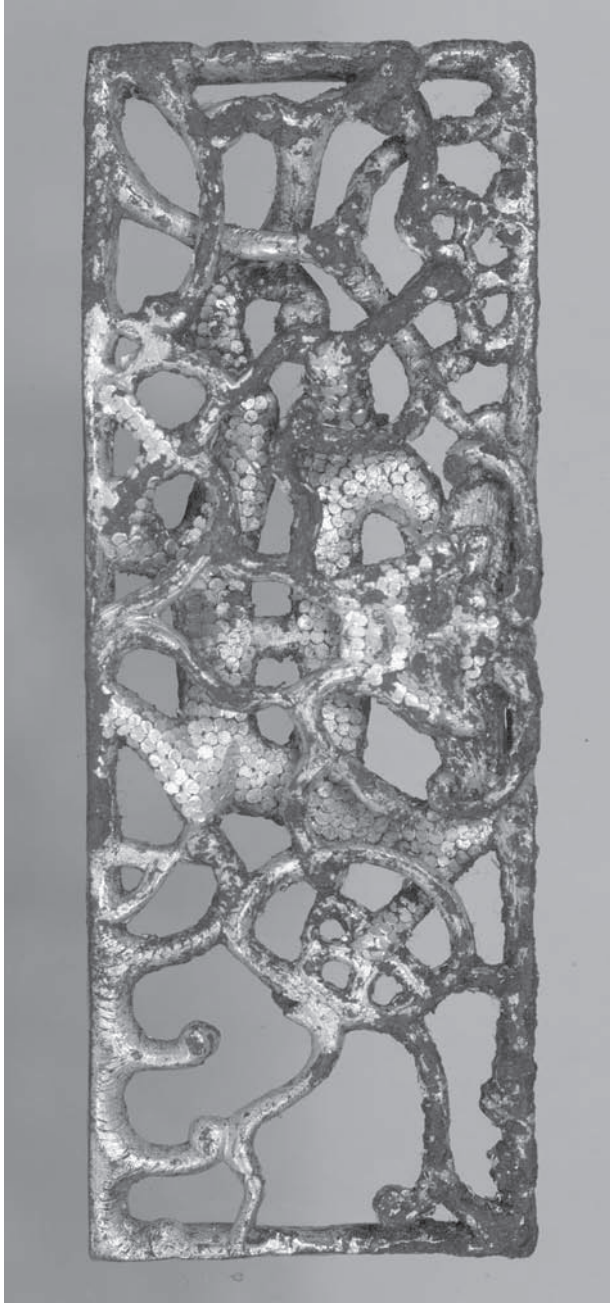


Fig. 6. Belt buckle, three-dimensional, sawn from iron and gilded in round discs. 14th/15th centuries. 11.5 by 4.3 cm (photo: Museum of Indian Art, Berlin).

PLUGGING THE GAP: MAMLUK EXPORT METALWORK 1375–1475

RACHEL WARD, LONDON

Scholars agree that production of inlaid brass vessels for the Mamluk elite declined dramatically between about 1375 and 1475. Only a handful of brass objects with inscriptions naming Mamluk patrons can be attributed to this period. Almost all of these are without inlaid decoration and all of them are markedly lower quality than the best mid 14th-century vessels. Even new buildings were furnished with recycled doors, lamps and candlesticks. The Mamluk historian Maqrizi, writing in Cairo in the early 15th century, confirms that inlayers were scarce and that much less inlaid metalwork was being produced. The reasons he gave can be verified by other historical sources and by numismatic evidence. Many craftsmen died in the plagues, which swept through the Middle East in the second half of the 14th century. The spending power of the Mamluk elite was drastically reduced during the political, social and economic turmoil which lasted from the end of the 14th through the first half of the 15th century. Recurrent shortages of copper, gold and silver made supply of the necessary materials both irregular and expensive.¹

It is surely indisputable that patronage of inlaid brass vessels by the Mamluk elite was negligible. However, a series of high-quality objects with European shields suggests that the industry itself did not collapse, and that some metalworkers turned to the European market instead. Foreign traders usually benefit from a weak economy and this period was no exception. The purchasing power of the European merchants went up as the rate of exchange went down and locals were keen to acquire a more stable currency. By 1400, Italian gold coins known as *ifranji* were eagerly accepted across the Middle East. Furthermore, these merchants, who brought copper in trade and

¹ See Allan 1984, for the historical and material evidence for the drop in Mamluk patronage of inlaid brass. A related series of plagues ('the Black Death') have been blamed for a similar decline in artistic activity in Europe in the second half of the 14th century; see Dols 1977.

gold and silver in currency, had privileged access to the materials necessary for the manufacture of inlaid brass vessels.²

The focus of this paper is three nearly identical brass dishes inlaid with silver and gold (figs. 1–3).³ Although the shape of the dishes is European and they bear European shields, they are made and decorated in Mamluk style with phoenixes, animal combats and exotic floral designs. They are predecessors of a much larger group of metalwork traditionally labelled ‘Veneto-Saracenic’ which are typified by a limited range of vessel shapes (especially trays, spherical incense burners and hemispherical lidded bowls) decorated with monotonously repetitive foliate designs and pseudo inscriptions. Large quantities of these were made for export to Europe in the late 15th and early 16th centuries.⁴ The dishes belong to an earlier and more experimental phase, when the export metalwork industry was becoming established. These vessels are less known than the ‘Veneto-Saracenic’ group but they reveal a good deal about how the export market began. In so doing they also help to fill a gap of approximately 100 years in our knowledge of the Mamluk inlaid brass industry.

The British Museum dish (fig. 1) measures 40 cm in diameter and is made of sheet brass, which was hammered to shape and finished on a lathe. The circular dish has a raised and lobed omphalos and its base is stepped before curving up into the cavetto and then out into the flat rim; its underside is undecorated. The front is engraved all over and then inlaid with large pieces of silver and gold sheet and a black organic material in the ground (to give the precious metal inlays greater contrast). The omphalos bears a European coat of arms—three bull heads on a plain ground—on a separate plaque

² Ashtor 1976, p. 586; Allan 1984, p. 91; Bacharach 1967.

³ The location of these dishes in museums in Berlin and London make them an appropriate subject for a paper in honour of Jens Kröger who worked for many years in one of the museums, from a colleague and friend who worked for many years in another.

⁴ The term ‘Veneto-Saracenic’ was coined to describe metal vessels, which were believed (mistakenly) to have had been produced by ‘Saracens’ in Venice. It is a misleading term: part-stylistic, part-geographical, part-ethnic and trebly imprecise as a result. It is now usually used to refer to the numerous vessels in distinctive style with foliate designs and pseudo inscriptions that were made at the end of the 15th century and early 16th century. The vessels discussed here are not usually included in the ‘Veneto-Saracenic’ group for purely stylistic reasons, and were omitted from Auld’s recent catalogue of more than 300 examples of Veneto-Saracenic wares (Auld 2004).

of silver. This is soldered on over the original shield, of which the outline only is still visible. Unfortunately, there is no way of knowing whether other arms are engraved beneath this plaque without causing damage to the dish. Around the shield are flying birds against a scrolling design. The sides of the omphalos are decorated with alternating triangles and the spaces between the lobes are each filled with a pair of birds. The base is decorated with four panels separated by roundels. Two of the panels contain confronted phoenixes either side of a palmette. The other two panels contain scrolling lotus and other elaborate blossoms either side of another large palmette. The four roundels contain pairs of animals in combat: an eagle on the back of a duck or goose, a lion on the back of a deer, an eagle on the back of a duck and a lion on the back of a bull. The cavetto is decorated with a series of quatrefoils formed from interlaced ribbons of silver containing, alternately, a pair of confronted birds and a five-petalled rosette. The flat rim has eight panels divided by small ten-petalled whirling rosettes. Two panels of racing animals (hare, deer, feline, sphinx, griffin, bovine) alternate with two panels of flying birds on a scroll design.

The Berlin dish (fig. 2) differs in some decorative details. The omphalos is decorated with winged animals in interlace instead of birds; running animals alternate with birds on the rim; there is a liberal scattering of rosettes in the animal roundels. The cheetah on the back of the deer paces forwards instead of biting the animal's rump. The eagle on the back of the duck has its head turned and wings outstretched in triumphant manner rather than pecking at the bird's eyes. The other bird combat is an uncomfortable compromise of the two designs, an eagle with wings outstretched pecking at the bird beneath. The phoenixes are faithfully reproduced, but the central palmette has been replaced by a lozenge. Since less inlay has survived, it is unclear whether it had gold as well as silver and black, but the inlay technique, using large pieces of sheet metal and no wire, is the same.

The dish at the Victoria and Albert Museum (fig. 3) has been cut down and the edges wrapped around iron wire for strength. It was probably once a dish with a flat rim like the others, but without a raised omphalos. The decoration is almost identical to that of the British Museum and was clearly designed for a dish with a raised omphalos; differences are limited to tiny details, such as forked rather than straight deer's horns.

Six more dishes of similar size, shape and decoration (including European shields) are known to me (three with raised omphalos and three without) and two of these are published here (figs. 10 and 11).⁵ The distinctive shape of the dishes, both with and without raised omphalos, is inspired by European dishes. Both types were also made in 15th-century Valencia in lustre pottery (imitating metalwork), with coats of arms that indicate that they were exported to Italy and elsewhere in Europe in addition to being popular among the *grandees* of Spain.⁶ There has been speculation that they may have been intended to act as receptacles for a ewer or chalice, but no containers of suitable dimensions survive and there is no sign of wear from regular contact with the base of another vessel. It is more likely that they were intended for display, as in the painting of *Dido's Feast* by Apollonio di Giovanni (c.1460) where dishes are propped up on a sideboard alongside the main dining table.⁷

Apart from the shields, most of the designs on these dishes can be traced back to Mamluk metalwork of the second quarter of the 14th century. Almost all of the motifs (phoenix, exotic blossoms, animal combats and processions, birds in interlace, knotted Kufic, lattice etc.) appear on the huge tray bearing the name of Sultan al-Nasir Muhammad, datable to the 1330s, although on the tray they are subordinate to the bold titular inscriptions that provide the focus of the design.⁸ The phoenix design recurs on other vessels made for the Mamluk court in the 1330s and 1340s. For example, phoenixes process around the base of a bowl in Palermo which was made for an officer of al-Malik al-Mansur, probably al-Mansur Abu Bakr (r. 1341), the son and immediate successor of Sultan al-Nasir Muhammad (fig. 4).⁹ The prevailing style in Europe during the 14th and first half of the 15th centuries was the Gothic. Mamluk brass vessels decorated with intricate designs of animals, birds and exotic foliage inlaid with gold and silver fitted well within this style. But figural designs were rare on Mamluk metalwork, especially after the 1330s,

⁵ Others include: Victoria and Albert Museum, inv. no. 2438–1856 (Lightbown 1981, fig. 313); Bargello, Carrand 350 (Spallanzani 1985, figs. 2a and 2b); Musée Jacquemart-André, I.1853 (unpublished); location unknown (Christie's 1999, lot 516).

⁶ Ecker 2004, pl. LXV–LXXIII (attributed 1430–1470).

⁷ Caiger-Smith 1985, fig. 69.

⁸ Allan 2002, pp. 90–95, [cat.] no. 29.

⁹ The title in the inscription was wrongly read by Staacke (1997, p. 104) as *al-maliki al-makhdumi*.

which is perhaps the reason that merchants were seeking inspiration from vessels, which were already antiques. The decline in the local economy would have made it easy for them to pick up examples of 14th-century metalwork from impoverished families anxious to supplement their income with hard currency from Europe.

These dishes demonstrate the close involvement of Venetian merchants at every stage of their production with detailed instructions for the type of vessel to be made, its shape, size and decoration. The layout, including details of decorative motifs, must have been drawn out by the workshop designer after discussions with the merchants and approved by them before being given to the inlayers to copy. The dish in the collection of the Victoria and Albert Museum (fig. 3) proves that the metalworkers were copying drawings: it is inconceivable that a craftsman copying a three-dimensional dish would include the decoration on the near vertical sides of the raised centre.¹⁰ This direct influence by a foreign merchant is a new development in the history of metalwork exported to Europe from the Middle East. Previously, fine objects of various media had found their way to Europe where they were treasured as exotica, but they were items acquired haphazardly by merchants or pilgrims in the market place.¹¹ For the merchants to commission and oversee the manufacture of metal vessels designed to their own specifications, they needed a regular and sustained presence in the city where the craftsmen worked.

Cairo and Damascus were the main producers of fine inlaid brass vessels in the 14th century, but there can be little doubt that these particular export wares were produced in Damascus because they are regularly described in European inventories as *domaschini*, *alla domaschina* etc.¹² Damascus was a favourite destination for European travellers during the 14th and 15th centuries and by the middle of the

¹⁰ Although the dishes are very similar, the proportions are slightly different, for example, the Berlin dish has squarer panels and so the phoenix necks are longer and their bodies shorter to compensate, which suggests that the drawings must have been copied freehand rather than traced.

¹¹ Shalem 1998.

¹² Spallanzani 1980, p. 106; Mack 2002, p. 144. Recent work by Howard on inventories of merchants living in Damascus and cognisant with the crafts there show that these descriptions are likely to be accurate indicators of provenance as care was taken to differentiate the work of Damascus from other cities. Howard 2003; Bianchi and Howard 2003. Furthermore, the merchants' dealings with the metalworkers would have made them well aware of the location of the metal workshops.

15th century it had a sizeable group of European residents.¹³ The metalworkers based there could compensate for the drop in Mamluk patronage by making more vessels for the European market.¹⁴ Metalworkers in Cairo could not do this because Europeans were not usually permitted to visit the Mamluk capital and so workers in luxury crafts such as inlaid metalwork would have had to move or change occupation when Mamluk patronage declined. The plagues, which decimated the numbers of craftsmen in Cairo, according to Maqrizi, do not appear to have had such a devastating impact on metalworkers in Damascus. Simone Sigoli, an Italian pilgrim who visited Damascus in 1384, after the worst of the plagues had been and gone, saw huge quantities of fine inlaid metalwork, enamelled glass and other crafts and enthused:

Really all Christendom could be supplied for a year with the merchandise of Damascus There are such rich and noble and delicate works of every kind that if you had money in the bone of your leg, without fail you would break it to buy of these things.¹⁵

Travellers describe watching the craftsmen at work and how the skills were passed down within families from generation to generation.¹⁶ Clearly craftsmen were still very much alive in Damascus in 1384. Timur's conquest of Damascus in 1401 must have affected this thriving industry, but there is a limit to how many individuals Timur could have removed to Samarkand—probably not many, as metalwork produced for the Timurid court shows little Mamluk influence. Damascus seems to have been less badly affected by the metal shortages which beset Cairo, probably because European merchants were bringing in metals for both trade and currency.¹⁷

Although European merchants operated within the Mamluk empire as soon as the ban was lifted in 1344 (the first Venetian galley arrived in 1345), they ran their trading operations from Alexan-

¹³ Bianchi and Howard 2003.

¹⁴ Howard 2003, pp. 250, 252. Inventories of local objects belonging to Venetian merchants in Damascus in the middle of the 15th century suggest that local crafts were still producing metalwork and other objects.

¹⁵ Mack 2002, p.1.

¹⁶ Ward 1993, pp. 21–22, provides a quote of Sigoli's description of family-based workshops in Damascus.

¹⁷ Allan 1984, pp. 90–91. The sultans collected gold, silver and copper from Damascus on several occasions.

dria, which was not a metalworking centre.¹⁸ It was not until the last quarter of the 14th century that relations between European countries and the Mamluk empire became calm enough to establish bigger trading bases elsewhere.¹⁹ By the 1380s there were regular sailings from Venice to Beirut and a substantial increase in trade direct with Syria.²⁰ To cope with this increased activity, the Venetians had expanded their base in Damascus. In fact the merchants were much freer in Damascus than anywhere else in the Mamluk empire: they lived outside the *fondacos* in private houses furnished with local goods.²¹ Their presence in the city and good local contacts would have enabled them to deal with craftsmen directly and to supply them with detailed instructions of their requirements.

The first sign of merchant involvement in the manufacturing process is the appearance of European arms within the decoration of an otherwise traditional Mamluk vessel. A round-bottomed bowl in Paris (fig. 5) is in the same shape as numerous bowls produced for the Mamluk court, but the decoration includes European shields instead of Mamluk blazons and flying birds instead of titular inscriptions. The problem was that most Mamluk vessels were not suited for use within a European household. The merchants began to direct the metalworkers to make more appropriate vessels. Some of these were vessels which already existed in the Mamluk repertoire. Small bowls with flat bases, which could be placed on European tables, soon became much more popular choices for export wares than round-bottomed bowls (figs. 6 and 7). Some of these early export wares still have traditional Mamluk decoration, including titular inscriptions, but names and pious titles have been removed (fig. 6).

The merchants also began to adapt or commission types of objects missing from the Mamluk repertoire. For example, Mamluk candle-

¹⁸ Ashtor 1976, p. 539.

¹⁹ The Venetians were anxious to establish trading links with the Mamluks, especially after alternative access to oriental goods via Little Armenia and the Crimea were cut off; see Ashtor 1978, pp. 306–307. However, according to Ashtor, the capture of Tripoli by the Genoese in 1355 and the crusade launched from Cyprus in 1366 created suspicions of all Europeans, which made trade difficult; see Ashtor 1976, pp. 541–550.

²⁰ Ashtor 1976, pp. 553–558. The first sailing to Syrian ports was in 1366 but fear of another crusade led to merchants and their goods being seized.

²¹ Ashtor 1976, p. 553; Howard 2003, p. 143; Bianchi and Howard 2003, p. 242; Mack 2002, p. 21.

sticks were too big for domestic use and those that arrived in Europe were often converted into deep bowls or stands.²² It was the Venetian merchants and Mamluk craftsmen who between them came up with a design for a small socket candlestick about 11 to 13 cm in height, which became one of the most successful export wares (fig. 8). More than thirty examples of this type of candlestick are known, some of them produced in pairs.²³ A Florentine inventory of 1390, which mentions Damascene candlesticks, confirms that candlesticks like these were being used in Italy by the end of the 14th century.²⁴ They continued to be made until the middle of the 15th century when a taller type with long slender neck was introduced (fig. 9).

The dishes (figs. 1–3) belong to the next phase in which many vessels were commissioned with blank European shields for completion on purchase. This is a significant development because it suggests that the merchants were no longer only ordering objects on behalf of their customers but were also commissioning vessels on their own account to be sold in their shops in Venice. Clearly the market in Venice was sufficiently buoyant for them to be prepared to take personal risk.²⁵ They were not only commissioning dishes; several of the small candlesticks and flat-bottomed bowls feature the same limited range of motifs (phoenix, animal combats, animal interlace, chinoiserie floral motifs etc.) and are likely to date from this period. The animal combats on the small candlestick in the British Museum (fig. 8) are almost identical to those on the dishes (figs. 1–3); even the detail of the lion with half a head of hair is the same. The large palmettes and lotus on the bowl in the Lamm collection (fig. 7) are similar to those on the dishes, and the panels of animal interlace compare specifically to the dish in Berlin (fig. 2). These objects bear signs of hasty manufacture. The decoration is both more repetitive and less finely executed. For example, the ground behind the inlays

²² See Staacke 1997, pp. 72–75, for a candlestick used as base for a large bowl.

²³ The sockets on the candlesticks that I have been able to measure have only two diameters but it is unclear whether this is a fluke of the casting or an intentional attempt to match standard candle sizes.

²⁴ Mack 2002, p. 140.

²⁵ Mack 2002, pp. 6, 22, 73, 76. Mack traces the increase in luxuries generally and oriental objects in particular in paintings and inventories of 15th-century Italy. For example, carpets, which appear only sporadically in the 14th century, appear much more frequently as the 15th century progresses.

is not recessed, which would have both speeded up the process of decoration and also cut the quantity of precious metal needed.

The empty shields, flat grounds, repeated designs and more schematic decoration suggest that these export vessels were being made in some quantity. In this context it is interesting that one of the reasons given by al-Jawhari and Maqrizi for the shortage of copper coins (*fulus*) in 1423 is that they were being made into vessels which could sell for high prices.²⁶ But who to? The economy was in such a state that neither the Mamluk elite nor the native population are likely to have had sufficient funds to purchase luxury wares; they must have been intended for foreigners. The date is significant. It is the year after Sultan Barsbay (1422–1438) implemented trading concessions with the Venetians, which allowed them more freedom than other European countries.²⁷ Barsbay's reign, which also saw the decline in power of the Karimi merchants, marks the beginning of the peak period of Venetian trading relations with the Mamluk empire.²⁸ In 1423 the Doge of Venice boasted that the city was receiving a forty per cent return on its investment in foreign trade; presumably a significant proportion of that was derived from the increased trade with the Mamluks.²⁹ Trade continued to increase throughout the 15th century—with the Venetians expanding their bases in Alexandria and Damascus and opening new trade centres in other Syrian cities.³⁰

²⁶ Allan 1984, p. 92. See al-Jawhari quoted as follows: "In this year [826/1423] new fulus were very rare, and the reason was the moving of them over the sea to the land of Yemen, and the making of them in workshops into vessels, dishes, cups, etc." *Idem* 1984, p. 92. See Maqrizi quoted as follows:

"Others made from them copper vessels, such as cooking pots, and sold them for thirty dirham a ratl. A group applied themselves to acquiring bits of iron, copper, lead, and tin; they separated each group of metal and made something suitable from it, and made much profit."

²⁷ These concessions had been negotiated in 1415 during the reign of al-Mu'ayyad Shaykh (1412–1421) but were suspended after his death and foreigners banned from staying more than four months on Mamluk soil. For this historical evidence, see Mack 2002, p. 22.

²⁸ Ashtor 1977, pp. 321–324.

²⁹ Mack 2002, p. 22.

³⁰ Ashtor 1977. Poor relations with the Ottomans (who took a number of Venetian colonies between about 1430 and 1479) further increased the trade between the Venetians and the Mamluks. For this information, see Mack 2002, pp. 22–23.

A date after 1423 fits well with other available evidence for the date of this group. Lustre pottery dishes with raised omphalos, European shields and figural designs were also made in Spain at this time.³¹ Various motifs, including the distinctive lotus with pierced petals and curving serrated leaves, recur on the few Mamluk vessels datable to the second quarter of the 15th century, such as the drum made for an amir of al-Mu'ayyad Shaykh (ruled 1412–1421) and the tray stand made for an amir of al-Ashraf Barsbay (ruled 1422–1437).³²

The Bargello dish, the only one in the group, which can be dated with some precision, demonstrates that they continued to be produced into the second half of the 15th century. Spallanzani has identified the arms as belonging to the Venier and Molin families and suggested that it was commissioned to celebrate the marriage of Marco di Antonio di Marco Venier to the daughter of Maffio di Filippo Molin in 1460.³³ The dish is decorated with a series of courtly figures seated between trees. It was obviously a very special commission and the design was worked out in detail before the manufacture of the dish because the omphalos has been given six shallow lobes (instead of the normal eight deep lobes) in order to create sufficient space for two shields of arms.

A pair of candlesticks heralds a new style for export wares in the second half of the century (fig. 9).³⁴ They are decorated with arabesques and foliate designs similar to those on the earlier vessels but they have no figural decoration. They bear the distinctive arms of Sigismondo Malatesta (1417–1468), an entwined S and I, which were the initials of his name and that of his lover Isotta degli Atti (1430–1470), and an entwined M, representing Malatesta. The arms were engraved by another hand, presumably after purchase in Italy,

³¹ For example Ecker 2004, cat. no. 67, attributed to Manises c. 1430–1470.

³² Drum, location unknown: Sotheby's 2000, lot 145. Tray stand, Victoria and Albert Museum, [cat.] no. 934–1884: Allan 1984, p. 87, pl. V.

³³ Several members of both families had been Consul in Mamluk cities, with responsibility for relations between the Venetian trading community and the Mamluk regime. The families were also active in trade; Consuls were not officially allowed to trade themselves but that did not stop other members of their family from doing so. Given these contacts, it would have been relatively easy for the dish to be specially commissioned—either by a member of one of the families themselves or by one of the merchants with whom they worked.

³⁴ The other candlestick was sold at Sotheby's on 17 October 1984, lot 135; its present location is unknown.

but assuming that they are nearly contemporary, the candlesticks must date between the beginning of Sigismondo and Isotta's affair in 1446 and Sigismondo's death in 1468. Perhaps they were bought and engraved to celebrate their marriage in 1456.³⁵ Sigismondo's arms are displayed on jousting shields, which became increasingly popular in Europe during the 15th century and gradually replaced the pointed shields seen on all earlier export wares. These candlesticks suggest that the fashion had reached Damascus by the middle of the 15th century. The nearly rectangular shape of the shields seems to pre-date the jousting shields with lobed tops that are seen on later 'Veneto-Saracenic' wares.

Two dishes with similar rectangular jousting shields, therefore likely to be close in date, are also without figural decoration (fig. 10).³⁶ This becomes the norm for export wares produced after the middle of the 15th century and reflects a change in taste in Italy. The Renaissance introduced an interest in pictorial space and henceforth Italian metalwork (and other media) was either decorated with figures illustrating a story set in real space or with flat foliate and geometric patterns (effectively creating the division between 'fine arts' and 'decorative arts' that still exists in Europe).³⁷ The two-dimensional figural decoration on Mamluk metal vessels, which had fitted well with the European Gothic style, began to appear naïve. Mamluk craftsmen could not or did not want to introduce spatial realism into their figural designs and had no tradition for historical or narrative depictions on metalwork. They chose the alternative route and replaced figures with geometric and arabesque designs to create intricate patterned surfaces, which were still acceptable, even admired, in Renaissance Europe.³⁸ These evolved into the designs

³⁵ This symbol is repeated throughout the decoration of the famous *Tempio Malatestiano* designed by Alberti and on various medals made for him. The other shield on the candlesticks bears an 'M', which may stand for Malatesta.

³⁶ The other dish with rectangular shield is in the Victoria and Albert Museum: Lightbown 1981, fig. 313.

³⁷ King 1990, p. 68: "Some animal patterns in the old style were twill woven in the fifteenth century, but from quite early in the century the new vegetable style became increasingly predominant." However embroidered panels still sometimes included figural scenes because the technique allowed a realistic depiction of space through subtle tonal shades and other details. Pottery too divides between the frankly decorative and the 'paintings on a plate' represented by majolica.

³⁸ According to Mack 2002, p. 4, the harmony of design seen in these objects was admired in Renaissance Italy.

seen on 'Veneto-Saracenic' vessels, which were being produced in huge numbers by the third quarter of the 15th century.³⁹

These early export vessels help to fill a long gap in our knowledge of Mamluk metalwork between about 1375 and 1475. They suggest that the bleak picture of the industry presented by Cairo-based historians was not true for Damascus. On the contrary, a lucrative European market there more than compensated for the drastic decline in Mamluk spending power. Innovative merchants cooperated with local metalworkers to create new forms of vessel decorated with figural motifs drawn from the golden age of Mamluk metalwork nearly 100 years earlier. Sultan Qaytbay (1468–1496) is usually credited with the revival of the inlaid brass industry.⁴⁰ These dishes demonstrate that the skill of inlaying brass vessels with gold and silver had never been lost.

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³⁹ Rising numbers of Mamluk metal vessels in Europe are reflected in the Medici inventories. In 1463 Piero de Medici owned thirty-six metal vessels from Damascus. In 1492 Lorenzo de Medici owned 107, but this number had increased to 160 by the time his possessions were dispersed in 1495. See Mack 2002, pp. 140 and 144–145.

⁴⁰ Atil 1983, p. 53; Allan 1984, p. 92.

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Fig. 1. Dish, sheet brass engraved and inlaid with gold and silver. Diam.: 40 cm. Damascus, c. 1423. The British Museum (inv. no. OA 1878.12-30.707).



Fig. 2. Dish, sheet brass engraved and originally inlaid with gold and silver. Diam.: 40 cm. Damascus, c. 1423. Berlin, Museum für Islamische Kunst (inv. no. I.542).



Fig. 3. Dish (cut down), sheet brass engraved and originally inlaid with gold and silver. Diam.: 40 cm. Damascus, c. 1423. The Victoria and Albert Museum (inv. no. 1738–1892).



Fig. 4. Bowl, sheet brass engraved and inlaid with gold and silver. Diam.: 20 cm. Damascus or Cairo, 1341. Galleria Regionale della Sicilia, Palermo (inv. no. 7322).



Fig. 5. Bowl, sheet brass engraved and inlaid with silver. Diam.: 21.3 cm. Damascus, late 14th century. Bibliothèque Nationale, Cabinet des Médailles (inv. no. 5621).



Fig. 6. Bowl, sheet brass engraved and inlaid with silver. Diam.: 15.9 cm. Damascus, late 14th century. Location unknown. Sold at Sotheby's on 20 April 1983, lot 289.



Fig. 7. Bowl, sheet brass engraved and originally inlaid with gold and silver. Diam.: 23.5 cm. Damascus, c. 1423. Collection of Carl Robert Lamm, Stockholm.



Fig. 9. Candlestick, cast brass originally engraved and inlaid with gold and/or silver. H: 17.1 cm. Damascus, 1446–1468. The Victoria and Albert Museum (inv. no. 2438 '56).



Fig. 8. Candlestick, cast brass engraved and inlaid with gold and silver. H: 12.5 cm. Damascus, late 14th century. Damascus, c. 1423. The British Museum (inv. no. OA 1878.12-30.721).



Fig. 10. Dish, sheet brass engraved and inlaid with gold and silver. Diam.: 37 cm. Damascus, mid 15th century. The British Museum (inv. no. OA 1878.12–30.708).



Fig. 11. Dish, sheet brass engraved and inlaid with gold and silver. Diam.: 40 cm. Damascus, mid 15th century. Berlin, Museum für Islamische Kunst (inv. no. I.3596).

THE ILLUSTRATED PAGE

JOSEPH'S GARMENTS: REMARKS ON COLOUR SYMBOLISM IN PERSIAN MANUSCRIPTS

EVA BAER, JERUSALEM

The approach of Western scholars towards colour symbolism has a long history and the subject has been discussed by scholars since at least the 19th century. In the following I intend to concentrate on Eastern-Islamic manuscripts which, as far as I know, have not aroused the interest of art historians. The question I am asking is whether in these manuscripts colour was also intended to communicate something to the viewer, or whether it was incidental, corresponding to the other colours used by the respective artists.

As a test case I selected the figure of Joseph (or Yusuf in the Arabic sources) and tried, by comparing the colour of his dress to reach at least temporary a conclusion. Needless to say, I also used important manuscripts that I was able to inspect personally, manuscripts in the Bodleian Library in Oxford, the Staatsbibliothek in Berlin, the Nationalbibliothek in Vienna and the library of the Israel Museum in Jerusalem.

As is well known, the biblical story was illustrated not only in Jewish, but also in Byzantine, Arabic and Persian manuscripts. Early Byzantine illustrations have been known on paper, textiles and stone since at least the 4th century, most of which were made public to us in the famous exhibition at the Metropolitan Museum of Art in New York in 1979, *Age of Spirituality: Late Antique and Early Christian Art. Third to Seventh Century*.

The legend of Joseph is told—though not illustrated—already in the Qur'an, and one has to assume that it has occupied the Islamic mind ever since. Unfortunately, up to the 12th century no visual documents on paper have come down to us. Moreover, to the best of my knowledge the Joseph legend does not occur in preserved Arabic manuscripts from the 13th and 14th centuries, so that we are only left with examples from the late Il-Khanid, Timurid and Safavid paintings only. We can not tell whether or not this is incidental.

The earliest Persian illustrated manuscript that came to my attention is the *Mi'raj Nama* in Paris completed in Herat 840/

1436,¹ where, according to Robinson, between the death of Prince Baysunghur in 836-837/1433 and the first appearance of Bihzad in about 884-885/1480, only nine illustrated manuscripts have survived. The manuscript shows Jacob and his son Joseph who, preceded by the archangel Gabriel, meet Muhammad on his journey through the third heaven. While the father wears a dark green mantle and overcoat, Joseph is clad in a beige or yellowish-ochre coat with long sleeves over a lilac undercoat or gown, seen only at the front. It seems that in Timurid and Safavid times both garments served the same purpose and were often interchanged.²

The next manuscript that came to my attention includes a picture of Joseph in Egypt who, enthroned in a kind of building seems to be asking his brothers, kneeling in two rows in front of him, about the fate of Yusuf. Painted also in Herat and completed on the last day of Sha'ban 860/2.8.1456, Yusuf wears a green coat which, bordered at the front with a white stripe, is slung over his shoulder under which he again is clad in a yellowish-ochre or beige undercoat.³

Another manuscript from the Timurid period, also copied in Herat, is a well-known copy of Sa'di's *Bustan*, dedicated to Sultan Husayn Mirza, illustrated by Bihzad and dated Rajab 893/June 1488.⁴ It depicts the seduction of Yusuf (fig. 1), who is completely clad in green, whereas Zulaykha wears a red coat with short sleeves. The scene, in full architectural setting, seems to go back to Jami who, writing just five years earlier, had described the seduction as it occurred in the palace built by Zulaykha for this purpose.⁵

In another manuscript of *Yusuf-i Zulaykha* by Amani⁶ which, according to style, was painted in Herat about 853-854/1450, Yusuf wears a red coat and a green gown. The latest manuscript examined is Attar's *Mantiq al-tayr*, Elliot 246, fol. 96r, in the Bodleian Library,

¹ Seguy 1977, p.16, fol. 17v and p. 11. For date see Robinson 1958, p. 63.

² Altogether there seem to be only a few manuscripts preserved that date from the Timurid period. See Lukens-Swietochowski 1972, pp. 40-41.

³ From Farid al-Din 'Attar, *Mantiq al-tayr*. Berlin Staatsbibliothek Ms.or.oct.268, p. 114a. Published in Stchoukine et al. 1971, p. 22, no. 17, and colour plates 1, 17. Manuscript examined by the author. See also same page, no. 16.

⁴ Cairo, General Egyptian Book Organisation, Adab Farsi 908, fol. 52v. Frequently reproduced. See for example Lentz and Lowry 1989, p. 294 and catalogue no. 146. For Sa'di see R. Davis, "Sa'di", *EI* 2, vol. VIII, pp. 719-723.

⁵ Golombek 1972, p. 28.

⁶ Berlin, Staatsbibliothek, Ms.or.oct.2302, p. 19a.

Oxford.⁷ Showing Yusuf sold as a slave, he stands on a golden vessel wearing a blue coat with long sleeves and a light green gown (fig. 2). The elderly bearded salesman who stands near to Yusuf suggests by his gesture that he is refusing the money offered by the bidders. Yusuf's head, surrounded by a flame-like halo, is a standard motif at the time and occurs in most of the Timurid and Safavid manuscripts.

Artistically speaking, the first half of the Safavid period, that is to say until the reign of Shah 'Abbas, did not decline in either quality or in its rich colour, from Timurid painting. More important to my mind is the fact that the number of manuscripts in which Yusuf figures increased considerably. Moreover, the growing belief in Shi'a and Sufi mysticism brought about a growing interest in the symbolic meaning of colour. This symbolism had already begun, it would seem, by the first half of the 15th century, namely in the early Timurid era, and reached its apex in the 16th to early 17th century in Safavid Iran. It was probably not incidental that two of the four manuscripts mentioned above were written by Farid al-Din 'Attar, a man extremely close to Sufism. He wrote of himself that even if he was not a member of the Sufi order he sympathised with them, wanted to imitate them and to be recognised as a Sufi. Moreover, one manuscript, namely the *Bustan*, was written by Sa'di, who was a Sufi par excellence.

The illustration of Sufi poets like 'Attar, Hafiz, Jami or 'Ali Shir Nava'i, to mention only some of the best known authors, greatly increased towards the first half of the Safavid era. One therefore gets the impression that in Safavid times artists preferred mystic or Sufi authors to Suni or other non-mystic writers.

One of the earliest manuscripts that came to my attention was another copy of Sa'di's *Bustan*, Bodleian Library, Marsh 517, which on fol. 59v again shows the seduction of Yusuf. In his *Descriptive Catalogue* Robinson says that it is similar to the Timurid copy but simpler in composition, and if painted by Bihzad must be later—Robinson dates it to 920-927/1515-1520, after Bihzad's creative period.⁸ Also the colour of Yusuf's garment is different: in this copy he is dressed in a yellowish-ochre coat with long sleeves and a green gown.

⁷ Robinson 1958, p. 48, no. 505. See also Schimmel 1999, p. 52.

⁸ Robinson 1958, p. 82. Cf. fol. 59v, no. 688.

As mentioned above, the most frequently copied and illustrated manuscripts were those of Jami, the composer of *Yusuf-i Zūlaykha* as well as of *Haft awrang*. The first example is taken from the *Yusuf-i Zūlaykha* manuscript in the John Rylands Library in Manchester,⁹ which on fol. 118r shows Yusuf entering Zūlaykha's apartment. This manuscript is dated 924/1518 and was executed in Shiraz. Yusuf wears a short-sleeved blue overcoat with golden decoration and a yellow gown, of which only the long sleeves and a little triangle at the front are visible.

Another *Bustan* generally attributed to Tabriz about 937-47/1530-40, again illustrating the seduction of Yusuf, is in the Österreichische Nationalbibliothek in Vienna.¹⁰ In this miniature, which I could inspect personally (fig. 3), Yusuf's green gown undoubtedly is more important than his lilac, short sleeved cloak. The palace, erected according to Jami especially for this purpose, shows—aside from the bed in its centre—four rooms with pictures of Zūlaykha trying to seduce Yusuf. It will be noted that in each of these rooms the colours of Yusuf's garments differ, none of them resembling the seduction itself, except—and this can only be conjectured—in the top chamber where he wears a lilac coat.

A few years later, probably in 940/October 1533, another copy of Jami's *Yusuf-i Zūlaykha*, which is kept at present also in the Bodleian Library, was made.¹¹ Yusuf's short-sleeved coat is lilac, while his undercoat is beige. The same manuscript contains on fol. 117r a picture of Yusuf in which the maidens, overcome by his beauty, cut their fingers instead of peeling the fruit.¹² Painted rather realistically, blood is flowing from their fingers and one of the overwhelmed maidens has fainted and fallen to the ground (fig. 4). This is another often repeated scene in which Yusuf, dressed in an orange-red coat and a blue gown, enters from the left and offers—or receives—from Zūlaykha a ewer.¹³

⁹ Ryl.Pers. 20. Published by Canby 1999, p. 35.

¹⁰ A.F. 103, fol. 73r. Duda 1983, vol. I, pp. 37-40 and pl. IV. Also reproduced in colour by Hillenbrand 1977, pp. 77-78, pl. 175.

¹¹ Robinson 1958, Ms. Hyde 10, fol. 72v, pp. 90-91, no. 697, and pl. 11 (black and white).

¹² Robinson 1958, p. 91.

¹³ According to the text of Jami she handed him a golden ewer whereas a maiden behind him holds a basin made of pure silver. The text is given in Persian and translated by Melikian-Chirvani 2000, p. 164. Published in Hillenbrand 2000, pp. 151-184 and pl. 14 (a black and white illustration of fol. 82b).

Under the rule of Bukhara Sultan Abu'l Ghazi 'Abdullah Bahadur Khan (reigned 963-1007/1556-1598) a number of manuscripts were copied and dedicated to him. Two of them are dated 972-973/1564-1565 and 973-975/1565-1568 respectively, while a third is dated 980/1572. The first is an Anthology of Jami, published by Melikian-Chirvani.¹⁴ The second is Jami's *Yusuf-i Zulaykha*, once in the Kevorkian collection and published by Sotheby's on April 23 1979, lot 160, and the third, a complete manuscript of the same text, is in the Israel Museum.¹⁵

According to Melikian-Chirvani, Bukhara was the home town of *Naqshbandi* Sufism, which Jami joined at a young age, and his Anthology is permeated with the spirit of this order. In the portion dedicated to Jami's *Yusuf-i Zulaykha*, only two paintings appear (pls. 13, 15, fols. 78v, 86r), in both of which Yusuf wears a green, long-sleeved overcoat under which a dark gown, or undercoat, is visible.

The second manuscript published by A. Soudavar¹⁶ contains five contemporary illustrations, three of which—nos. 80a, 80b and 80c—display Yusuf. Unfortunately they are reproduced in black and white and so far I have not found colour reproductions.

The third manuscript is in the Israel Museum¹⁷ and contains six scenes that illustrate the text. On fol. 61r—Yusuf in the slave market—the upper two-thirds of the picture are occupied by the caravanserai, in five windows of which one sees the sons of the merchants. Yusuf, dressed in a blue coat and brown gown stands to the left, watching the customers who offer gold or other merchandises as bids for the beautiful slave. Fol. 77r again represents Yusuf and a bearded man, both kneeling on a throne in a Persian garden, seeming to converse. It will be noted that Yusuf, as in the Anthology published by Melikian-Chirvani, wears a green overcoat, while the colour of his gown is orange. Similarly fol. 98r, depicting the maidens of Zulaykha cutting their fingers, shows Yusuf with the ewer, clad in a green robe under a pale green coat. Finally on fol. 122r, on which Yusuf, who by now has become the Great Vizier of Egypt, meets the old and blind Zulaykha (fig. 5), he wears the same garments as on

¹⁴ See note 13.

¹⁵ See Milstein 1994, no. 29, pp. 60-63.

¹⁶ Soudavar 1992, pp. 212-213.

¹⁷ Published by Milstein 1994, no. 29, pp. 60-63.

fol. 98r. For reasons not to be explained in this context, the scene is nearly identical with fol. 130 of the manuscript published by Soudavar (no. 80e), dated Bukhara 973/1565. It looks as if the artist of the Jerusalem manuscript copied the scene from the above-mentioned manuscript published by Soudavar, only changing the landscape and adding two riders at the bottom of the painting.

As mentioned before, Jami's *Yusuf-i Zulaykha* continued to be illustrated throughout the Safavid period. Thus the Bodleian Library possesses another beautiful illustrated manuscript—Greaves I—completed in 977/1569, which contains six miniatures that, though painted by different artists, give a good idea of the style of the time.¹⁸ On fol. 95v, for example, painted according to Robinson in Qazwin style and showing Yusuf dissuading Zulaykha from suicide, Yusuf wears a green, short-sleeved coat and a yellow, long-sleeved undercoat (fig. 6). On fol. 104r, showing again the scene in which the maidens of Zulaykha are overcome by the beauty of Yusuf, he wears an orange coat; on fol. 140v his coat is also blue, while his long-sleeved gown is orange. The angel who descends upon Yusuf makes the painting rather crowded.

In about 977/1570 two artists, called by Robinson A and B, illustrated Jami's *Haft awrang* (The Seven Thrones), which is also in the Bodleian Library, Ms. Elliot 149.¹⁹ Four paintings are dedicated to the story of Yusuf. On fol. 182v, representing him meeting Zulaykha in the street, his overcoat has short sleeves and is coloured vermilion, while his long-sleeved gown is green. In the scene of Yusuf sold as a slave (fig. 7) he sits on a golden "chair", wears a red cloak and light-blue, long-sleeved gown, similar to fol. 212r, except that the gown is much darker. In the last miniature painted by artist A (fig. 8), which shows the tempted Yusuf sitting together with Zulaykha on the same throne, his overcoat is beige while his gown, again with long sleeves, is also blue. This illustration, which was also published by Thomas Arnold in his *Painting in Islam* (pl. XXXIIa), reproduces the palace in which in more than seven chambers one sees the two heroes clad in differently coloured garments. Yusuf's attire in the main scene recurs only once, namely in the central panel, just above the couple.

¹⁸ Robinson 1958, pp. 140-141.

¹⁹ Robinson 1958, pp. 108-110, nos. 890-893. Nos. 890 and 893 were according to Robinson painted by artist B.

One of the most beautiful copies of the *Haft awrang* is kept in the Freer Gallery of Art in Washington DC²⁰ and is commonly known as the Freer Jami. It contains seven *masnavis*, a Persian poetic form that comprises a sequence of couplets that rhymes in pairs, and five—or in fact six—illustrations to *Yusuf-i Zulaykha*; the first, in which Yusuf is not depicted, is excluded from our survey. The manuscript, dedicated to Sultan Ibrahim Mirza (946-985/1540-1577), is unfortunately not dated, but according to historic circumstances it must have been illustrated between 963-965/1556-1557 or 977-978/1570 by a number of excellent artists. Working in a team for the Sultan's *kitabhana*, it was supervised by the calligrapher Muhibb-Ali, who according to Simpson must also have helped the Sultan to “develop the material and artistic program for the *Haft awrang*”.²¹ In one of the scenes, on fol. 105r, the caravan, which on its way to Egypt camped beside the well into which Yusuf was thrown by his brothers, is depicted. The left side of the painting is dominated by the members of the caravan, busy with all kinds of activities like cooking, eating, drinking, feeding and cleaning their horses, taking off their shoes, sleeping and so on. On the right side Yusuf is being rescued from the cave by a person who has lowered his bucket in order to draw water. The cave is occupied by the archangel Gabriel and Yusuf, the latter already grasping the rope and raising his left leg to get into the bucket. Both are clad in a short-sleeved mantle, which in Gabriel's case is green, while Yusuf's is red. In addition he wears a lilac long-sleeved undercoat and white trousers, and is depicted barefoot. It should be noted, however, that the colours of coat and gown recur in the sleeping person to the right of the picture, and the red mantle or coat is worn by many people in the caravan. The next picture with Yusuf shows him as a herdsman who grazes Zulaykha's flocks (fol. 110v), while she watches him from her open tent.²² Yusuf again wears a short-sleeved red coat over a green gown. The blue goat at Yusuf's feet seems, according to Simpson, to parallel Zulaykha, whose overcoat has the same colour. On fol. 114v Yusuf sits on the terrace of a garden pavilion talking, as it were,

²⁰ Simpson 1998. *Idem* 1997. Some of the miniatures were published by Welch 1976.

²¹ Simpson 1998, p. 34; Welch 1976, p. 110. Attributable to Muzaffar 'Ali.

²² Simpson 1998, p. 37. *Idem* 1997, fig. 83, pp. 130-132. Cf. Welch 1976, fig. L, p. 25, reproduced in black and white.

to Zulaykha's maidens. He wears a green, long-sleeved gown and a coat which in colour and ornament is echoed in the interior of the pavilion behind the arch-shaped entrance.²³ The inscription on top of it seems to enhance the Sufi aspect of the scene.

Two more miniatures of *Yusuf-i Zūlaykha* are included in the Freer Jami. In the first, fol. 120r, a guide of the palace guards begins to lead Yusuf, accused of his love of Zulaykha and sleeping with her, to prison, while an infant, carried in the arms of one of Zulaykha's maidens, testifies to Yusuf's innocence.²⁴ His red, long-sleeved, frontally buttoned coat hides a gown that according to the collar of the coat may be blue. The last painting, fol. 132r,²⁵ features the banquet given by Yusuf in honour of his marriage to Zulaykha. The groom, kneeling on a white rug more or less in the centre of the picture, is surrounded by guests, clerics and courtiers, while at the front servants are waiting with sugar cones and other sweets. In contrast to the other representations Yusuf's attire consists of a beige coat and a green, long-sleeved gown.

Neither in their content nor in their beauty can any of the other manuscripts be compared with the Freer Jami. They again stem from the middle to the end of the 16th century, vary in quality and, as we shall see, in symbolic meaning. The earliest, attributed to the mid 16th century, is in the Chester Beatty Collection; three are in the Bodleian Library, attributed to the second third up to the end of the 16th century, and two are in the Public Library of New York. Apart from the last two, which belong to the *Qisas al-anbiya*, all of them are taken either from Jami's *Haft awrang* or from his *Yusuf-i Zūlaykha*. In the first,²⁶ Yusuf is depicted in the market where he is to be sold. Seated under scales—probably to measure his weight—his vendor, a man of the caravan called Malik in the text, stands behind him, while the bidders in the foreground bear caskets to keep the money. Yusuf's robe, mentioned in the text, is red. No gown or other garment is shown. The other miniature, fol. 109r, represents again the maidens of Zuleykha who, viewing the beauty of Yusuf,

²³ Simpson 1998, p. 39. *Idem* 1997, fig. 86.

²⁴ Simpson 1998, p. 40. *Idem* 1997, fig. 89.

²⁵ Simpson 1998, p. 42. *Idem* 1997, fig. 93.

²⁶ Minovi et al. 1960, vol. 2, Ms. 216, fol. 72, pl. 43a, copied in 975/1550. All reproductions are in black and white.

cut their fingers instead of the fruit.²⁷ The miniature seems to be in good condition and its unusual realistic concept shows the blood trickling from their hands. Unfortunately I was not able to examine the manuscript in this library, so that the colour of Yusuf's clothes is not known to me.

As I said before, three manuscripts of *Yusuf-i Zulaykha* are kept in the Bodleian Library. The first, Ms. Marsh 431, fol. 71r, once again shows Yusuf being sold as a slave.²⁸ His short-sleeved coat is red, while the gown is light green. In the second, fol. 111v, in which Yusuf is accused of fathering a child, his coat is grey. His gown is not visible.

Attributed to the same date is a manuscript in Istanbul, Topkapı Sarayı Müzesi, H. 751, fol. 178.²⁹ It is said to have belonged to a copy of *Haft awrang*, executed in Shiraz, and depicts Yusuf, dressed in a red coat, as he apparently explains to Zulaykha some religious point.

Equally in Bukhara style, fol. 57v³⁰ belongs to another *Yusuf-i Zulaykha* manuscript in the Bodleian Library. In this illustration, Yusuf, clad in a white cloak, is drawn up from the well,³¹ whereas on fol. 103r one again sees the maidens who in admiration of Yusuf's beauty cut their fingers. Yusuf's coat is painted in light blue as is his gown or undercoat.

The manuscripts in the New York Public Library were all published by Barbara Schmitz, and two of them, Ms. N1 and N2, are included in the *Stories of the Prophets* by R. Milstein.³² Both are copies of the *Qisas al-anbiya* by Naysaburi. In the first, dated 18 Shawwal 984/8 January 1577, fol. 67v, Yusuf is united with his father Ya'qub and wears a red coat, whereas his brown gown is visible under the short sleeves of the coat.

The second copy is undated but belongs to the same period, that is to say between 1574 and 1581 (981-989). It is larger than N1 and

²⁷ Minovi et al. 1960, vol. 2, pl. 43b.

²⁸ Robinson 1958, no. 866, p. 107 and pl. XV, reproduced again in black and white. The other miniature is no. 877 on the same page.

²⁹ Thompson and Canby 2003, pl. 2.18, p. 45.

³⁰ See note 13.

³¹ Ms. Whinfield 12. See Robinson 1958, p. 131, no. 988. This as well as the other miniatures in this manuscript is not illustrated.

³² Schmitz 1992, pp. 115-122. Cf. Milstein et al. 1999, pp. 198-201, pl. IX. Since I did not see the originals I refer only to the manuscripts published by Milstein in colour.

contains twenty-seven against eighteen illustrations, five of which tell the story of *Yusuf-i Zūlaykha*. On fol. 48v Yusuf again arouses the admiration of the maidens who cut their fingers instead of the fruit. One of them has fainted and is supported by a lady. Yusuf, who carries the silver ewer and the golden plate, appears to the left, dressed like the enthroned person in a decorated dark-blue coat and a red, long-sleeved gown.³³

The last copy I inspected, Bodleian Library, Ms. Elliot 418, was dated by the calligrapher or the copyist to 1004/1595.³⁴ The calligrapher, like the illustrator, came from Bukhara. All thirteen illustrations refer to the story of *Yusuf-i Zūlaykha*, yet only seven—fols. 13v, 27v, 33r, 36v, 42v, 47r and 56r—depict Yusuf. On four folios, 36v, 42v (fig. 9), 47r and 56r (fig. 10), red and green dominate. In other words, only coat and gown interchange, but the colours remain the same. On two of the remaining three folios the coat is golden (fig. 11), whereas the gown is red or orange respectively. On fol. 27v the coat is orange while the gown is blue.

A few words on Timurid and Safavid costume. Stillman³⁵ in her analysis of fashion rightly stresses the decrease of Mongol against the growing impact of Iranian tradition, and the gradual discontinuation, felt particularly in textiles, of Chinese elements throughout the 16th century. More important for our investigation, however, is the length of the sleeves which—whether long or short—were interchangeable and could appear on the over- and undercoat alike. As to its fastening, the coat or *qaba* was often fastened in front by a row of buttons shown, for example, on Yusuf's coat in the Freer Jami, where the infant testifies to his innocence. Similarly the much larger flower or animal-headed buttons and pendants, typical for female attire, are clearly visible on the Jami manuscript of the Israel Museum (see notes 17 and 24).

Returning to the major problem: does the colour of Yusuf's garments convey a message to the reader of an illustrated text? With regard to the relation between the illustrator and the philosopher it seems that the attitude of the last to colours was at least ambiguous.

³³ According to the story in the *Qisas al-anbiya* it was Zūlaykha who called Yusuf into the hall.

³⁴ Robinson 1958, pp. 132-133, nos. 994-1006. Black and white reproductions of fols. 17v and 56r.

³⁵ Yedida Kalfon Stillman and N.A. Stillman: "Libas", *EI* 2 1960, vol. V., pp. 732-742.

Kubra, to cite just one example, omits to mention green when he talks about clothing, which as we know was the colour of the Prophet and holy men in general. Or, according to Annemarie Schimmel, Rumi had no predilection for a certain colour. Colours appear and disappear only as a reflection of God³⁶ who, according to Ruzbihan (522-606/1128-1209), wore a red mantle. Others based their interpretation on nature. Green was based on the colour of leaves, of vegetation, or the dome of heaven, while blue was the colour of water, of heaven or the sea. Others again based themselves on different moods and situations of the human soul, or on criteria which have no common denominator. It therefore seems doubtful that visual and literary traditions were indeed connected. Didn't the artists rely on pictures rather than on texts? Moreover, the relations between colour symbolism and the Shi'a creed, mentioned above, have not yet been fully established. Finally, other manuscripts not seen by me may lead to a different view on the symbolic meaning of Yusuf's gown. For the time being therefore I remain sceptical. Only future research may give a more definite answer.

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³⁶ Schimmel 1980, p. 69.

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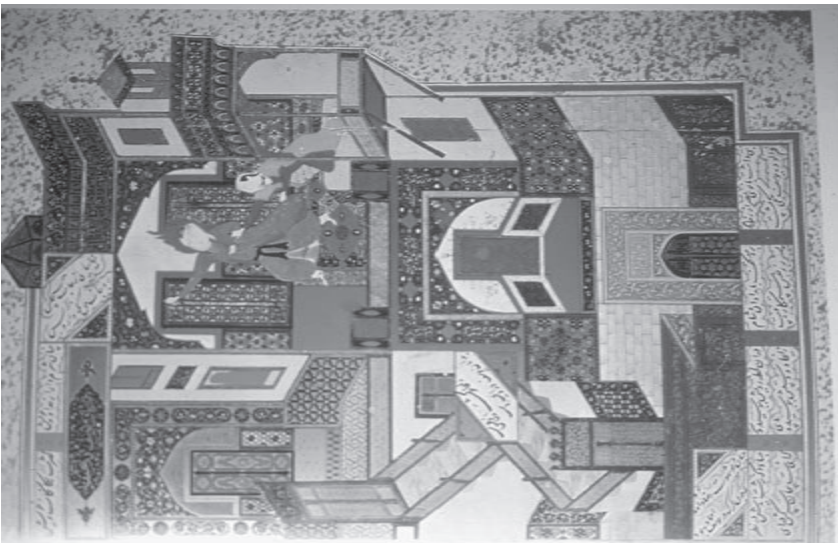


Fig. 1. The Seduction of Yusuf. Cairo, General Egyptian Book Organisation, Ms. Adab Farsi 908, fol. 52r.



Fig. 2. Yusuf Sold as a Slave. Oxford, Bodleian Library, Ms. Elliot 246, fol. 96r (courtesy The Bodleian Library).



Fig. 4. Zulaykha's Maidens Cutting their Fingers. Oxford, Bodleian Library, Ms. Hyde 10, fol. 117r (courtesy The Bodleian Library).

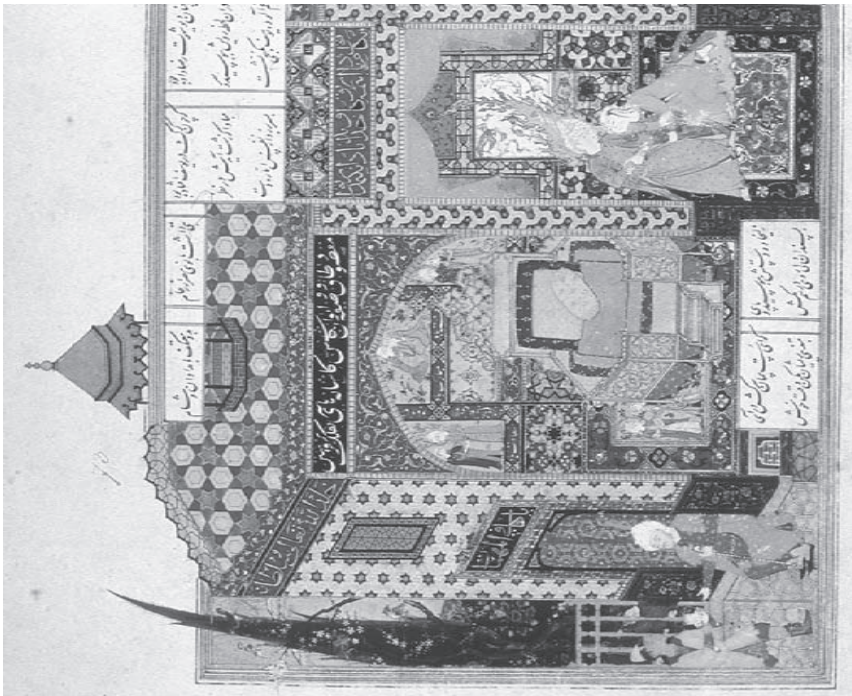


Fig. 3. The Seduction of Yusuf. Vienna, Österreichische Nationalbibliothek, AF 103, fol. 73r (after Duda 1983, vol. 1, pl. IV).

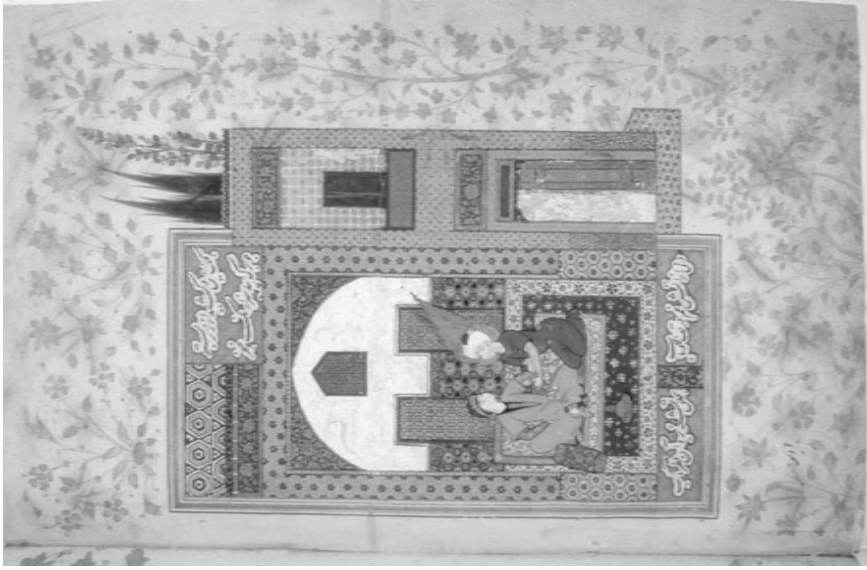


Fig. 6. Zulaykha Threatening Suicide. Oxford, Bodleian Library, Ms. Greaves I, fol. 95v (courtesy The Bodleian Library).



Fig. 5. Yusuf Meets the Old and Blind Zulaykha. A complete manuscript of *Yusuf-i-Zulaykha* by Jami. Bukhara 980/1572. Jerusalem, The Israel Museum, 5032.1.79, fol. 122r (after Milstein 1994, p. 63).

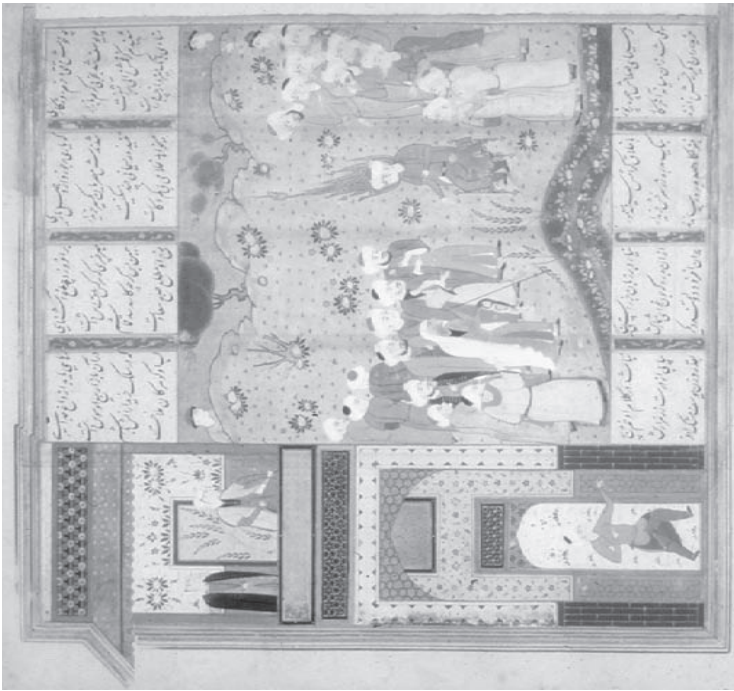


Fig. 7. Yusuf Sold as a Slave. Oxford, Bodleian Library, Ms. Elliot 149, fol. 190r (courtesy The Bodleian Library).

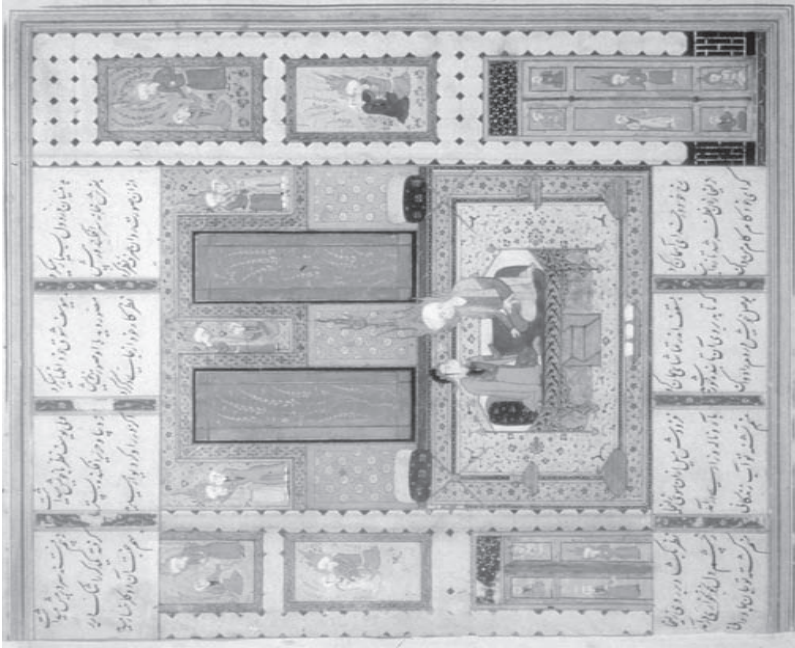


Fig. 8. Yusuf Tempted by Zulaykha. Oxford, Bodleian Library, Ms. Elliot 149, fol. 199v (courtesy The Bodleian Library).

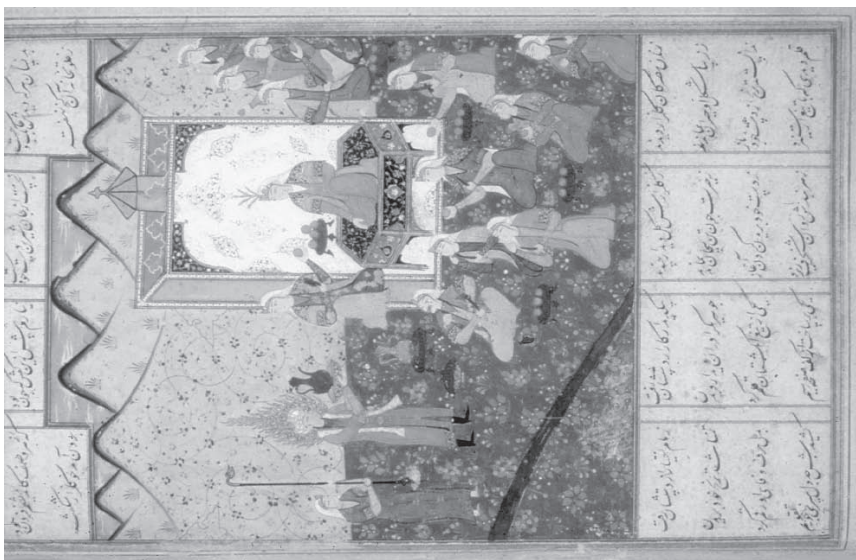


Fig. 9. Zulaykha's Maidens Cutting their Fingers. Oxford, Bodleian Library, Ms. Elliot 418, fol. 42v (courtesy The Bodleian Library).

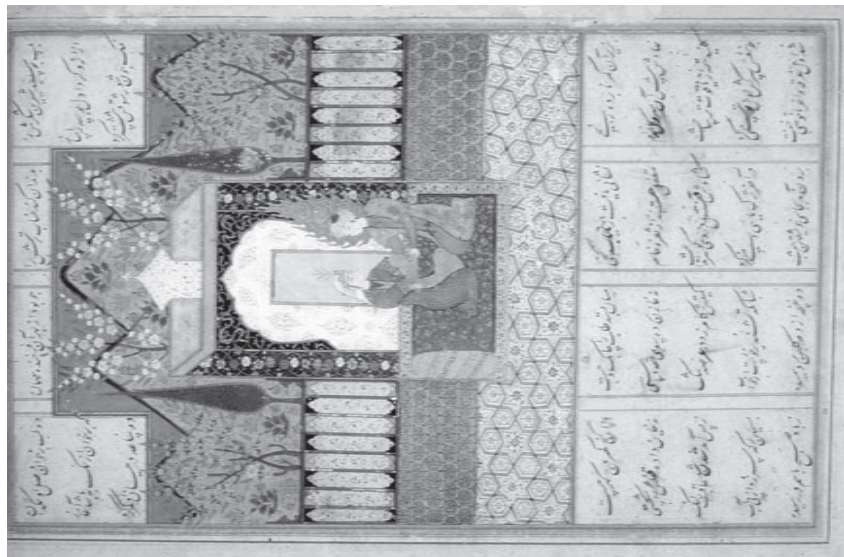


Fig. 10. Yusuf Wedded to Zulaykha. Oxford, Bodleian Library, Ms. Elliot 418, fol. 50r (courtesy The Bodleian Library).



Fig. 11. Yusuf and Zuleykha in a Fenced Garden. Oxford, Bodleian Library, Ms. 418, fol. 13v (courtesy The Bodleian Library).

IBRAHIM IBN ADHAM—DARLING OF THE ANGELS

ALMUT v. GLADISS, BERLIN

Among the collections of the biographies of Islamic mystics the moral conduct of the early ascetic Ibrahim ibn Adham had a particular fascination. Ibrahim, who in the 8th century was Sultan of the ancient city of Balkh in what is now Afghanistan, renounced his high social status and left his home and family in order to travel the world as a wandering dervish searching for divine knowledge. Whilst he himself forsook all luxury and lived in strict asceticism, he displayed extreme generosity towards his friends and companions, as is related in tradition and popular tales. The new ones, however, contain the comforting message that in the name of some ostensible justice he was rewarded with worldly items.

The Persian poet Farid ad-Din Attar (d. 1221), who breathed new life into the holy tales, which were in danger of becoming forgotten, offers the richest collection of anecdotes about the charismatic visionary.¹ In the mid 16th century the life of the well-known sultan became a popular theme of Persian miniature painting, which took the Sufi biographies of the Timurid poet Gazurgahi as the source for its portrayals. Ibrahim is represented as a sultan out hunting. He meets his son and his son's mother, after many decades of peregrination, in Mecca and with his brusque attitude towards his son is not entirely free of blame that the latter collapses at the unexpected meeting and, with a broken heart, exhales his last breath in front of the Kaaba. Ibrahim justifies his aloofness to his companions with a religious demand for the love of God alone, which he had sworn, and is finally shown mourning his dead son. When illustrating the holy man's life-story the Safavid artists certainly favoured the most dramatic scenario, as is shown by the Mecca pictures.²

The two pages in the Museum of Islamic Art in Berlin date back to the 18th century and belong to the albums acquired in India by the Swiss Antoine Louis Henri Polier during his stay there between

¹ Farid ad-Din Attar 1966, pp. 62-79.

² Gladiss 2005, pp. 16-17, pl. 4.

1758 and 1788.³ The illustrations refer to the ancient magic of the privileges enjoyed to varying extents by the Sufi as God's chosen one. The painting from Album I. 4598 (fig. 1) shows a holy man, distinguished by the golden nimbus, sitting under the shade of a mango tree. With his handsome figure, black hair and beard, he bears more resemblance to a prince than to an ascetic. Four angels carrying gifts are approaching him. In the foreground the scene is bordered by a stream with water fowl gathered on its bank. In the background, behind a row of mango trees, undulating meadows with individual groups of trees and grazing deer extend into the distance. On the right stands a simple mud hut, in front of which an ascetic sits absorbed in meditation, his face tanned dark brown from the lack of protection of a shade-giving tree, a walking-stick beside him. He is a picture of frugality: he has water to drink and a bowl of food. The Rajput-influenced Pahari style of the miniature is typical for the Himalaya foothills as they are portrayed in the hilly landscape abounding with deer. This style of popular art had its heyday in the 18th century.⁴

In the blue sky in the centre of the picture there is an epigram in Persian: *sultan ibrahim adham padshah-i balkh*, repeated on the frame, which explains the theme of the picture and refers to the holy man sitting under the mango tree, while next to the roof of the hut runs the inscription: *fakir Mutawakkil*, which is obviously a reference to the white-robed ascetic, who lives in it.

In the painting from Album I. 4594 (fig. 2), which Polier acquired in 1776, the holy Ibrahim is portrayed in accentuated fashion on a hill with a group of trees. Five angels are spread across the meadow, one of whom is kneeling down before the tray of food in order to serve him while the others are approaching from all sides with food and drink. Two more angels are floating down from the heavens. An aged ascetic is kneeling in the foreground and a stream flows across the bottom of the picture. Below it along the inside of the frame is written the legend in Persian: *hazirat ibrahim adham, padshah of Balkh*. The theme common to both album pages is inspired by an anecdote which presumably emerged in the 17th century and was originally

³ Inv. no. I. 4598, fol. 32: miniature 26.7 by 18.7 cm, with frame 40.8 by 28.4 cm; I. 4594, fol. 36: miniature 24.7 by 17.4 cm, with frame 39 by 27 cm (or 41.3 by 27.5 cm).

⁴ Archer 1952, pp. 83-84.

perpetuated by the Chishti Sheikh Allahdia, who in his holy script *Siyar al-Aqtab* describes the feeding of the ascetic Ibrahim ibn Adham by the angels. The author came from a family which had held important positions at the court of the Emperor Jahangir. His collection of twenty-seven biographies spotlighted the luminaries of the Chishti order, whereby he was probably inclined to integrate the celebrated Sufi Ibrahim of Balkh, which was then ruled by the Mughal, into this line of tradition. For the learned world the biographies were the standard work of Indian Sufism⁵, although the holy man's popularity spread beyond this circle. The Italian Niccolao Manucci, who lived in India from 1656 to 1717 and who came to know and write about many facets of the country, mentioned the cult surrounding him in his book *Storia do Mogor*.⁶

Inspired by Emperor Akbar's (1556-1605) preoccupation with the Chishti order and his annual pilgrimages to their great shrine in Ajmer, Mughal art of the 17th century dedicated itself to the historic and influential personalities of the Chishti movement and portrayed them just as often as contemporary religious leaders. An album page drawn around 1700 but modelled on an older work shows an imaginary meeting of six religious authorities whose lives spanned a period of more than two hundred years from the 12th to the 14th centuries: Abdul Qadir Gilani (d. 1166), Muinuddin Chishti (d. 1236), Qutbuddin Bakhtiyar Kaki (d. 1235), Baba Farid or Ganj-i Shakar (d. 1265), Sharafuddin Bu' Ali Qalandar (d. 1324) and Nizamuddin Auliya (d. 1325).⁷

In India it was not until later that Ibrahim ibn Adham was considered worthy of portrayal as a holy man and his picture was always linked with a memorable story, as H. Beveridge has shown.⁸ After the prince had left his kingdom of Balkh, he is said during his wanderings to have come one day to the banks of the Tigris, where he met a dervish who was provided with a plate of food by an angel each evening. Ibrahim settled down near him and began to meditate, whereby it happened that he also came to enjoy the privilege of being fed each day by angels, who brought him ten plates of food. The dervish became envious and he complained that Ibrahim, who

⁵ Sarwar 1985, p. 890.

⁶ Irvine 1907-08, vol. II, pp. 440-441.

⁷ Inv. no. I. 4595, fol. 30. Sarre 1904, pp. 143-147, fig. 4 with lecture by E. Mittwoch. Frembgen 2003.

⁸ Beveridge 1909, pp. 751-752.

had only recently converted to asceticism, should receive ten portions whereas for him there was only one plate, even though he had devoted his entire life to asceticism. Thereupon a heavenly voice was heard to say, "You were poor and always found it difficult to obtain your daily bread. But he was rich and gave up everything for my sake. Ten plates of food are only small compensation."

Hovering angels with golden vessels in their hands are commonly featured in Persian miniature painting as companions of the Prophet Muhammad. They swarm round him on his journey to heaven, their golden utensils serving to underline the solemnity of the occasion. The asceticism theme centres round the de facto privilege of being fed. The painting from the Album I. 4594 displays in the bottom right-hand corner a typically minute signature of the well-known artist Mihr Chand. He was engaged initially at the court of Shah Alam II (1759-1806) in Allahabad, where he portrayed the then forty-year-old ruler while sitting and reading on a garden terrace overlooking the Ganges. Shah Alam II returned in 1771 to the old capital city of Delhi and, after a palace revolution in 1788, was to be blinded. Around 1770 Mihr Chand entered service with the Nawab of Oudh, Shuja ad-Daula (1754-1775), and lived at court in Faizabad, where he produced several portraits of the prince and his family.

The Nawabs of Oudh held the holy Ibrahim in the highest esteem. Mihr Chand's painting, produced in the time before the album was put together in 1776, has an unsigned counterpart in the India Office Library with a Persian inscription on the back: *tasvir-i hazrat-i ibrahim adham*. Its identical dimensions show it to be a direct copy.⁹ The saint positioned in front of a group of trees is being served by five angels while two more angels float down from heaven. The informal arrangement of the angels across the page provides an alternative to the strict composition of the page from the Album I. 4598, which brings graphically to mind the whole power of heaven.

The illustrations of the story were inspired by the *Evangelicae Historiae Imagines*, a book of gospel illustrations, consisting of 153 engravings, produced in Antwerp in 1593. With the addition a year later of an accompanying text, this book became an impressive paupers' bible. It was used by the Jesuits in Goa, who between 1580 and 1773 maintained contacts with the Mughal court. There

⁹ Falk and Archer 1981, no. 367: Sultan Ibrahim Adham of Balkh. Murshidabad, c. 1760. 24.9 by 17.5 cm, with frame 35.5 by 23.1 cm.

they encountered a thankful audience, firstly in the worldly emperors Akbar and Jahangir (1605-1627), who admitted their curiosity about the Christian doctrine and had European works read and explained to them, for instance concerning the significance of angels, as the Jesuit missionary Jerome Xavier noted in his book *Mirat al-Quds* (Mirror of Holiness), published in 1609.¹⁰ An engraving by Hieronymus Wierix, “Angeli ministrant Christo—The Angels serving Christ” (*Imagines* plate 14), inspired Mihr Chand’s composition of his Ibrahim miniatures. It shows Christ sitting on a rock flanked by five angels, four of whom are kneeling before him. They serve him with food and drink while more angels float on a cloud down from heaven.¹¹ The engravings transported past events into a contemporary perspective and could be regarded as worthy of reverence and as sacred pictures which promise the human soul a successful therapy, as Jerome Xavier wrote on the subject of the Christian devotional images.

As is shown by the example from the Muraqqa in St Petersburg, the next Mughal miniatures dispense with the descriptive portrayal of the fervent but insignificant hermit.¹² In contrast, in the miniatures in the Museum of Islamic Art he provides a somewhat remote antipole to the actual star Ibrahim. The compositions characterise him as a spiritual leader and emphasise the hierarchic structures of religious order as sanctified by the angels, which, having constructed causality, guaranteed privileges to their chosen ones.

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¹⁰ Bailey 2004, pp. 148-161, especially p. 154.

¹¹ Thanks to Friederike Weis, Berlin, for important information.

¹² Akimushkin 1996, pp. 80-81, pl. 90, here the engraving “The Devil tempting Christ in the desert” (*Imagines* pl. 12) is named as a further source of inspiration. The miniature in Kühnel 1922, pl. 140, also orientates itself on the extrinsic model, albeit without eliminating the poor hermit.

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Fig. 1. Ibrahim ibn Adham, India (Oudh), third quarter of the 18th century. Museum of Islamic Art, Berlin, inv. no. I. 4598, fol. 32 (courtesy: Museum of Islamic Art).



Fig. 2. Ibrahim ibn Adham, India (Oudh), third quarter of the 18th century. Museum of Islamic Art, Berlin, inv. no. I. 4594, fol. 36 (courtesy: Museum of Islamic Art).

THE BERLIN INDIAN WORLD MAP

ELKE NIEWÖHNER-EBERHARD, KALME

In Islamic geography world maps are by no means uncommon. They can be found in early manuscripts and are usually no larger than the double page of a book. In contrast, the 18th-century Indian world map in the collection of the Berlin Museum of Islamic Art (fig. 1) measures 6.80 m² (260 x 261 cm),¹ making it more than ten times larger. Otherwise, however, it resembles the smaller book maps in that it follows all conventions which are considered typical of Islamic geographical science.

Three geographical traditions are incorporated into the map. Firstly, the earth is depicted as a flat disc in accordance with the so-called Balkhi tradition. Secondly, the inhabited world is divided into seven climes in Ptolemaic fashion. Thirdly, it has coordinates running along the equator and down a central north-south axis. These are elements of Islamic geography which were adopted at an early stage from ancient cultures and which were developed and retained until the time the Indian map was produced.² The map is also richly decorated with geographical names and explanatory inscriptions as well as with drawings illustrating selected places and depicting scenes from geography and mythology.

The map is made of cotton cloth painted with temperas and ink. The cloth has survived in its entirety, but the painting is damaged along three parallel horizontal folds and one vertical fold, and the illustration has been affected by mould stains.

¹ Inv. no. I. 39/68. Described by Klaus Brisch in: *Museum Berlin* 1979, no. 3, especially p. 12.

² An attempt to position the map in the context of Islamic cartographic literature is made by Tibbetts 1992, pp. 143-146, and again by Schwartzberg 1992a, especially pp. 507-508. Schwartzberg 1992b gives a description of the map on pp. 394-396. Both authors base their descriptions on that provided by Klaus Brisch (s. note 1), which is however in need of correction. Gole 1989, especially pp. 79-80, also uses Brisch's description as her source. Additionally she lists 35 of the 69 Indian place names written in the Hindi Devanāgarī script which she has obviously read personally, although these also require correction.

I. *The Cosmos of the Map*

The earth disc fills the square of cloth almost to the edge, leaving little room for the inscription which runs round all four sides. Within the disc a distinction is made between land and water in that land is left in the natural whitish colour of the cloth, whereas the oceans, rivers and lakes are coloured blue. Mountains are indicated by a pink colouring.

The map is south oriented (i.e. south is “at the top”), which is normal in Islamic geography. The inscriptions and illustrations do not however follow this alignment, making it necessary to move around the map in order to read all the inscriptions and view the illustrations from the correct angle. (Within the framework of this essay it is not possible to consider every detail of the map. The intention is rather to work out with the help of selected elements how the map is made up and how it is to be read.)

The southern half of the map is covered almost entirely with water. Only the African continent protrudes far into the southern ocean, as the southern tip of the Indian subcontinent does to a smaller extent. In the southern ocean near the equator are numerous islands, among which a red Portuguese caravel with a dinghy lies at anchor (fig. 2). In the middle of the ocean a large area has been left white to accommodate a poem and the maker’s inscription. South of the inscription there is a range of mountains running from west to east, forming a barrier to the south border of the map. According to the caption they are the “Southern Qāf Mountains”.

The largest landmass is to be found in the northern half of the disc. It consists of the Eurasian world as it was known to the cartographer, with the Islamic countries taking up a particularly large area. This world begins in the west with North Africa, with Portugal located to the west of the particularly prominent Nile, and extends in the east as far as China. In the north-west quarter of the map the Mediterranean and the Black Sea take up considerable room. On a peninsula in the centre of this area lies Istanbul (Constantinople), conspicuous in size and accentuated by a drawing of a kiosk (fig. 3). The north-western coast of the Mediterranean and Europe beyond are portrayed only vaguely with the sparse captions “Austria”, “Germany” and “France”. Obviously the cartographer had little knowledge of Europe, and his world view ended with the “Northern Qāf

Mountains”, stretching across Europe from south-west to north-east and constituting the border of the inhabited world.

Almost at the centre of the Asian landmass is the Caspian Sea (fig. 4), which, as is sometimes the case in Islamic literature, is called “Baḥr-i Ḳulzum”, a name normally given to the Red Sea.³ To the south and south-west of the sea many Persian cities have been mapped. In a westerly direction there are Caucasian, Turkish, North Mesopotamian and finally Syrian towns. To the south lies Mesopotamia, where six rivers flow together and into the Persian Gulf. One of those is the Euphrates, which has its source in a green-coloured range of mountains in Africa and which flows in a right-angle around Arabia and Mecca, marked by the black square of the Kaaba (fig. 5).

South-east of the Caspian Sea a large area is taken up by the fluvial system of the Indus. Its sources are in the Kashmir Mountains where Kabul and Badakhshan are indicated on the map. Further south-east lies India. Here several rivers are drawn in with very winding courses. A large damaged area on the map prevents us from identifying the sources of these rivers, and has obliterated the estuaries as well as the sources of rivers further north. Two of them flow west into the Caspian Sea, one being the Murgab (which in fact silts up in the desert east of the Aral Sea). North of the Murgab are deserts, including the Turkmenian and Kipchak Desert. North of the Caspian Sea the inhabited world again ends with the ‘Qāf Mountains’, beyond which is the location for the popular story of Gog and Magog from the Romance of Alexander (fig. 6).

In the far east of the map are areas with Turkish-Mongolian names. Four rivers flow here in a north-south direction into the sea east of India. Along the border with the surrounding band of blue-coloured ocean, the mainland stretches far to the south, although the cartographer’s knowledge of the area seems to have been limited to the word “China”. Instead of containing additional place-names this area is given over to texts explaining Ptolemy’s Seven Climes. In the ocean west of this area of land there are several large islands covered with drawings of humans, animals and plants. The captions explain that these are mythical places (figs. 7 and 8).

³ D. M. Dunlop, *Baḥr al-Ḳhazar*, *EF*² I, p. 931a.

II. *The World as a Disc—the Balkhi Tradition*

In Islamic geography the representation of the earth as a disc is attributed to the work of Abū Zaid al-Balkhī (849-934) and his school of cartography in Baghdad, which in turn was based on Greek tradition. According to this tradition the inhabited world is surrounded by the ocean, which takes up the other half of the sphere which the earth was considered to be, although it was not deemed necessary to portray it as such. Cartographers concentrated on depicting the land masses in the shape of a disc, while indicating the oceans merely by surrounding the land with a ring. Beyond this all-encompassing sea lay the Qāf Mountains, a mythical region inaccessible to man. On the Indian world map the encompassing sea is shown as a thin blue band. The Qāf Mountains are divided into separate ranges and, in contrast to older maps drawn in the Balkhi tradition, they no longer lie beyond the ocean but rather within the ocean-circle, in those areas on which the cartographer had no additional information, i.e. Europe, Northern Asia, the Southern Ocean.

One of the older Balkhi traditions was to extend the African continent to the east, so that on those maps a large part of the southern half was covered with land, called “terra incognita” on Ptolemaic maps.⁴ The Indian cartographer does not comply with this tradition; indeed he portrays Africa as protruding far south into the Indian Ocean but nevertheless as a circumnavigable continent. In this he either follows the cartographer Abū Raiḥān al-Bīrūnī (973-1050), who in the early 11th century drew a corresponding map, even though it was somewhat schematic,⁵ or he makes use of new information brought by the Portuguese to India on the sea-route around Africa. The drawing of the red Portuguese caravel in the Indian Ocean (fig. 2) and references on the map to several islands in that ocean which were Portuguese territory show that the cartographer knew of the Portuguese presence in these oceans.

⁴ Alai 2001, p. 448a.

⁵ Edson and Savage-Smith 2004, p. 63f. and fig. 32.

III. *The Division of the World in Seven Climes—The Ptolemaic Model*

Around 150 AD Ptolemy wrote in Greek not only a book of astronomy but also a book of geography, both of which were translated into Arabic in the early 9th century. In several texts on the map the Indian cartographer makes references to Ptolemy's "geography" and, like many of his predecessors, adopts his concept of dividing the world into seven climate zones. He does this rather schematically, marking in, north of the equator and parallel to it, seven segments of the same width. At the eastern edge of the map, where the little known and sparsely annotated area of China lies, he comments on the seven climes of the "Greek scholars", according to whom a clime is 360 degrees in length. This infers acceptance of the fact that the earth is a globe, whereby only 180 degrees are covered in land and the rest is water. As previously mentioned, only the land-covered parts of the climes are shown on the map.

The length of each individual clime from east to west is given in "farsakh".⁶ The first clime north of the equator is said to be the equivalent of 24,000 km, which is slightly more than half of the modern calculation of the length of the equator, a remarkably precise specification for the 180 degrees (half the earth's circumference) portrayed here. The length specification remains the same for all seven climes, indicating that the maker of the map was not aware that longitudes decrease in size towards the north. Not only the length but also the width of each clime is specified, increasing towards the north, although on the map the climes are portrayed as being identical in width.

Following the dimensions are the names of the seven planets which are assigned to the individual climes. These include the sun and the moon. The planets appear for a second time in the poem written in the area left blank in the southern ocean. There, each of the seven planets is listed with its supposed attribute and the sphere in which it circles above the earth. Two additional spheres surrounding the planets are called the "Place of the Signs of the Zodiac" and the "Course of the Fixed Stars".⁷

⁶ Arabic, for Persian "farsang", Greek "Parasange". 1 farsakh is approx. 6240 m.

⁷ Edson and Savage-Smith 2004, pp. 10-15, 22-24; W. Hartner, Falak, in: *EP* II, pp. 761-763; Paul Kunitzsch, Nuġġūm, in: *EP*², VIII, pp. 97-105, here p. 101.

IV. *The World as a Globe—Division into Degrees of Longitude and Latitude*

It is generally accepted that Ḥamd Allāh Mustaʿfī Ḳazwīnī (d. after 1349) was the first person to divide maps into degrees in order to define exactly the location of places, but a map exists which was drawn in the mid 11th century with a scale along one side.⁸ On the Indian map the equator and a north-south axis are each denoted by a red line marked off with numbers. Measuring is done in tens from the edge to the centre, where the lines meet at the 90 mark. This means that from both east to west and south to north 180 degrees of an imaginary round earth globe are shown on the map. It is not yet possible to say which model the cartographer used for this division into degrees. He has noted the latitude and longitude of some places (e.g. Baghdad, Constantinople, Isfahan and Bukhara). The latitude measurements are almost identical with those accepted today, whereas the longitude measurements are dependent on the positioning of the zero meridian on the equator and they therefore differ from today's standard measurements.

The coordinates make it possible to specify the precise location of a place, although the positioning on the map is by no means exact, since places are marked by a square in which the name is written. Because the place names differ in length, the squares are automatically of different sizes. They are particularly large when characteristic, well-known buildings of a city, such as the Kaaba in Mecca (fig. 5), are also portrayed within the square. Because of this the location of only a few of the cities is actually consistent with reality. Only the position of the cities in relation to one another is reasonably accurate and in the Islamic heartlands, the Arabian Peninsula, Syria, Mesopotamia, Egypt, Turkey, Persia and India, places are grouped together more or less correctly.

V. *The World Explained—Inscriptions*

The inscriptions on the Indian world map are predominantly in Persian (and Arabic lettering). Places in India also bear names in the Hindu script Devanāgarī.

⁸ Edson and Savage-Smith 2004, p. 75.

All place names and most of the geographic names are written in Persian. There are also quotations from Persian literature and from several Arabian works of geography. The comments on the Alexander Romance are with one exception also in Persian and are accompanied by explanatory illustrations. The poem of Ṭhanā'ī,⁹ which fills the white space in the southern ocean, is also in Persian, as are the inscriptions around the edges of the square of cloth and the four couplets outside the encompassing sea on each side. Short quotations from geographic works whose title or author is cited by the cartographer are in Arabic: the “Geography of Ptolemy”,¹⁰ the “*Kitāb al-Madārik*” (“Book of Perception”, author unnamed),¹¹ or “Muḥammad Ibn Mājid” (“in his Book” or “in the Book of the Sea”).¹² There are also quotes in Persian from Muḥammad Ibn Mājid, although it is not clear whether the writer quoted from a Persian translation or translated the original Arabic text into Persian himself. I have found fourteen quotations from eleven sources, while two texts could not be identified as quotes on account of their illegibility.

Much of the writing is difficult to read, because in some places it has been done carelessly, or because on the damaged parts of the map it is either almost illegible or has been partially destroyed. Sometimes it seems that a note on a place has simply been scribbled in. The inconsistent alignment of the writing also makes reading more difficult. The inscriptions around the edge are to be read from the outside, but the inscriptions near the edge quite often not. For instance in India, which lies quite far to the east, the placenames are to be read looking from the west, and in the black square on the northern edge of the map, the “Place of Darkness” and the “Spring

⁹ Ṭhanā'ī was a Persian poet from Mashhad, who went to India after 1577, first to the court of the Mughal Emperor Akbar, before he later followed minor princes. He died there 1587-8. He wrote a Diwan of approximately 5,000 couplets; cf. Munibur Rahman, Ṭhanā'ī, in: *EP*², X, p. 439.

¹⁰ M. Plessner, *Baṭlamīyūs*, in: *EP*², I, p. 1100 and particularly p. 1102a, and S. Maqbul Ahmad, *Djuḡhrāfiyā*, in: *EP*², II, pp. 577b-578a.

¹¹ The work is quoted in connection with an island north of the 7th clime. I have not yet been able to establish which work is involved.

¹² The correct spelling would be Aḥmad b. Mādjīd. The famous Arabian navigator lived in the second half of the 15th century and published numerous works. It is not clear which one is referred to here. Cf. S. Maqbul Ahmad, *Ibn Mādjīd*, in: *EP*², III, pp. 856-859.

of Life”,¹³ the writing has to be read from the south, i.e. looking over the whole 2.60 m of the map.

The scribe’s handwriting indicates that he was Persian-speaking. This was not unusual in the 17th and 18th centuries in the Islamic parts of India and in particular at sovereign courts, where Persian influence dominated cultural life. Nor is it strange that the same scribe could understand and write Arabic. It cannot be said with certainty whether he himself was able to write the Indian place names in Devanāgarī, or whether he required help from another person. J. E. Schwartzberg surmises that a Hindu could have had command of all three languages and thus been able to produce the map.¹⁴

The names of places and rivers, deserts and mountain ranges must be considered to be the most important inscriptions. Very many can be substantiated historically, although there are some which I was not yet able to verify. In some cases a comment is added to the name, which can be sometimes very short as in “large city” (for Mashhad, Tabriz etc.), or a longer description, as for instance for Constantinople: “Capital city of the Emperor of Rūm, 20 farsakh in circumference. Nowhere else will men who travel the world see in a city such splendour, such a population and such public orderliness.” Names are given to regions in Central and North Asia, in China, Europe and Africa, usually in the form of “Region/Empire (or King) of...” e.g. “Dār-i Malik-i Inglīs” (=England) or “Malik-i Rūs” (=Russia). Sometimes there are more precise explanations, for instance in the ocean to the east of India we read “Kūčīn Island, where cloves are to be found”. In Africa a diamond mine is marked and east of Mecca lies Noah’s grave. Several islands in the Indian Ocean are described as being in the possession of the Portuguese, Dutch or English.

Quotations from geographic works are mainly used to explain geographic phenomena, in which ocean the sun rises and sets, or to indicate the distance between points separated by the sea. Information bordering on the mythical is also given in the form of quotations, for example the localisation of the “Eternal (or Blissful) Islands” (Jazā’ir

¹³ Both are themes from oriental legends included in the Alexander Romance, cf. Spiegel 1851, pp. 29, 62. About the various traditions of the Alexander Romance cf. Alexanderroman in: *Kündlers Neues Literaturlexikon* 1996, vol. 18, pp. 79-91.

¹⁴ “Knowledge of Persian and the Arabic script was not uncommon among educated Hindus in eighteenth-century India, whereas this did not hold for Muslims and the Devanāgarī script”, Schwartzberg 1992b, p. 394.

al-Khālida)¹⁵ west of Africa, or the tale of a sailor shipwrecked on an island in the eastern ocean who fed himself on birds' eggs and grew a coat of feathers. He was sent to the King of the Franks and with a diet of meat and salt regained his original appearance.

Certain elements of the Alexander Romance which are connected with mythical places also fall into the category of legend. The recording of such places, in particular the localisation of the region of Gog and Magog in the far north-east, has a tradition which is centuries old.¹⁶ On the Indian map the cartographer has often added an illustration to the text. The texts explain briefly the events which took place at the denoted location, for instance in Africa: "Two trees which spoke to Alexander and gave him news of death" (fig. 9).

The Persian inscription around the edge of the map is divided in content into two parts. It begins in the west with dimensions of the inhabited and uninhabited worlds, followed by specifications of individual countries (e.g. Hindustan, China, Najd, Maghreb, Syria). Distances are given in farsakh and are not accurate, although they may reflect the then popular perception of the relative size of the different countries. In this respect map and text are not always consistent. India for instance is said to be 12,000 farsakh and the "Land of the Franks" 10,000, but on the map the two areas each take up no more space than Africa (Maghreb, Zandj and Habasha), which is said to be only 5,000 farsakh in size. These measurements are credited to 'Alī b. Abī Ṭālib, who "knows the length and the breadth of the inhabited world".¹⁷

The second part of the inscription round the edge of the map begins in the east and contains a quotation "from Idrīs, the prophet before our prophets", passed down in the "Book of Ṭhamāra".¹⁸ This quotation is concerned with the division of the earth into three circles. Two of them, the equator and the north-south circle, are understandable when one accepts that the earth is a globe. A third

¹⁵ D. M. Dunlop, al-Djazā'ir al-Khālida, in: *ET*², II, p. 522.

¹⁶ For instance the map from a manuscript dated 1020-1050 in Edson and Savage-Smith 2004, pp. 82-83, fig. 49.

¹⁷ S. Maqbul Ahmad, *Djughrāfiyā*, in: *ET*², II, p. 576a.

¹⁸ Idrīs is here the prophet mentioned in the Koran, see G. Vajda, Idrīs, in: *ET*², III, p. 1030f. The Book of Ṭhamāra is the Arabic translation from the Greek "Karpos", a pseudo-Ptolemaic work which also exists in a Persian translation by Naṣir al-Dīn Tūsī, see M. Plessner, Baṭlamiyūs, in: *ET*², I, p. 1101b, and C. Brockelmann GAL, S I, p. 932.

circle, which “divides the earth into four parts”,¹⁹ is also referred to as the “true meridian line” (line of the horizon, a term used in the nautical science of the Indian Ocean) and may have been understood by the maker of the map as being the circle into which he had mapped the disc of the earth. In this connection the seven climes are mentioned once more with the statement that on this map each clime extends in length over 180 degrees, “but each clime is different in width.”

The poem of *Thanāʿī* in the southern ocean tells of the nine spheres of the heavens and of the twelve Signs of the Zodiac. Next to it is the name of the person who commissioned the map: Sayyid ʿĪsā *Khān Bahādur*.²⁰ There would have been room for more details, but they have been omitted.

VI. *The World Painted—Illustrations*

In addition to the text the Indian world map contains many separate illustrations, most of them small. Two larger illustrated areas are conspicuous: one being in Africa where, in addition to different types of trees, elephants, rhinoceroses, and black-skinned people wearing skirts have been drawn to match the landscape. It must be presumed that these drawings were added to compensate for the sparsity of text, due to a lack of knowledge about the interior of the African continent. The second large scene is to be found in the north-east corner of the map, where the peoples Gog and Magog from the Alexander Romance are portrayed armed with spears (fig. 6). They are separated from the inhabited world to the south by a high, greenish-blue coloured range of mountains, in the centre of which is the barrier built by Alexander against them. A text south of the barrier comments on its construction and another text tells us that Alexander built it at the request of a king who had been tormented by the said peoples.²¹

On the large islands in the ocean east of India (fig. 7), there are illustrations of humans and mythical creatures. The captions refer

¹⁹ S. Maqbul Ahmad, *Djughrāfiyā*, in: *ET*², II, p. 580a.

²⁰ A person of that name who could have been the client has not yet been identified.

²¹ For the Gog and Magog see E. van Donzel and Claudia Ott, *Yāʿdǰūdǰ wa-Māʿdǰūdǰ*, in: *ET*², pp. 231-234.

to the people sitting on the largest island as the “long-legged ones”, who are supposed to live in India,²² and to others as the “lion-heads”. Two further people with long shapes hanging down from their heads are called the “long ears”.²³ Between these islands lies the island already mentioned, where a shipwrecked sailor grew a coat of feathers. A bird is sitting on a tree, with the explanatory caption to the east. To the west follows the Island of the “Nasnās”, creatures part ape and part man, which populate the island in large numbers (fig. 8).²⁴ The tip of the island is crowned with a tent-like structure. There are naked women swimming in the sea, but this is not explained. There are also naked women swimming in the northern Mediterranean (or more correctly the Black Sea), although the barely comprehensible inscription on a square-shaped island in the same area, just beyond the seventh clime, seems to state that the cold weather in the area made bathing impossible. The horses swimming in the Caspian Sea also remain unexplained.

All the mountain ranges have been carefully drawn. They are generally coloured pink, filled out with the contours of mountains and hills and covered with small plants. Only two greenish-blue coloured mountain formations are different in character, depicted as stones drawn close together to give the impression of rocky crags. One such mountain range is in Africa and represents the cataracts through which the Nile flows, while the other is the rocky mountain formation of the Gog and Magog. Also in Africa are the pink-coloured “Mountains of the Moon” where the Nile rises from many sources. On the summit of these Mountains of the Moon stands Alexander’s legendary palace.

Also worthy of mention is a palace-like building by a river in India. Because the map is badly preserved at that spot, possible explanatory inscriptions no longer exist. Since this is the only building portrayed in India, it is conceivable that it is the palace of the person who commissioned the map.

²² “Name of a people in India, said to have legs thin and ductile, like leathern straps; they pretend to be lame, and importune travellers to carry them on their backs, when they strangle them by a twist of their legs (comp. the tale of the Old Man of the Sea in the *Arabian Nights*)”, Steingass 1957, s.v. “duwāl-pāy”.

²³ “A race of men whose ears are so long that one serves them for a mattress, and the other as a counterpane”, Steingass 1957, s.v. “gīlīm gošān”. This topos is also to be found in the Alexander Romance, where it is attributed to the Gog and Magog, see Spiegel 1851, p. 30.

²⁴ F. Viré, Kird, in: *EP*, V, pp. 133a-b.

VII. *Reflections on the Origin of the Map*

The Indian world map must have been produced by a cartographer well versed in the tradition of Islamic geography, because all elements included in it are an inherent part of Islamic cartography. The earth is drawn in the manner of the Persian-influenced Islamic tradition as it was known in India.²⁵ This is also true of the quotations from mythology, most of which are recorded on earlier maps. Only the rich illustrations and inscriptions are unusual, although they can be ascribed to the fact that Indian maps were often illustrated,²⁶ and of course that a map of this size provided sufficient room for them.

The map cannot have been intended to be hung up, for then it would not be possible to read much of it correctly. But when it was spread out on the floor, it would not have been completely legible over the more than two and a half metres of its width. It is conceivable that it was not only stored folded, but also used folded, i.e. in sections. This may be inferred from the vestiges of the folds.

“To be sure that the content of a map has been fully understood it is necessary to know the intent of the cartographer,” says Susan Gole.²⁷ And that seems to be the biggest problem with this Indian world map. At least the Devanāgarī inscriptions and the style of the miniatures, which indicate that it originates from Rajasthan or the Deccan plateau,²⁸ leave no doubt that the map was produced in India. The fact that more towns are recorded in Rajasthan than on the Deccan plateau would seem to make Rajasthan more likely.²⁹ It is also generally accepted that it was made in the 18th century, although in which part of that century is debatable. Should for instance the use of the name “Anbir” for the town which was renamed “Jaipur” in 1728 be taken to mean that the map was produced before that date? And what is the significance of the fact that Agra is named “Akbarabad”, although that name, which was vested on the town in the mid 17th century, was never generally accepted? Constantinople, which in the 18th century had long belonged to the

²⁵ Schwartzberg 1992a, p. 507f.

²⁶ Schwartzberg 1992a, p. 508. See also examples collected by Susan Gole (Gole 1989).

²⁷ Gole 1989, p. 15b.

²⁸ Schwartzberg 1992b, esp. p. 394 and Gole 1989, p. 28b.

²⁹ Schwartzberg 1992b, p. 395, advocates a Deccan origin.

Ottomans, is still referred to as the capital of the “Emperor of Rūm”. One can only assume that the cartographer did not orientate himself on current circumstances but instead used older models, for his aim was to tell of the wonders of the world and of stories related to them, rather than to produce a representation of the modern world.

The map was a commissioned work, as we know from the short text which contains the name of the client. It can only have been used for representative purposes and for general edification, for it is too inexact, too playful, too large, and too delicate to serve scientific or practical purposes such as orientation during a journey. J. E. Schwartzberg surmised that the map was produced essentially for decorative purposes.³⁰ It is said that in 964 AD the Fatimid Caliph al-Mu‘izz had a world map made out of silk “in yearning for the holiness of God”.³¹ Did an Indian ruler act here in similar fashion? In any case it can be said that this Indian world map portrays the world in accordance with the specifications of Islamic geographical tradition, embellished with text and illustrations, which serve to provide information and greater vividness.

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³⁰ Schwartzberg 1992b, p. 396.

³¹ Halm 2003, p. 411: “On it were portrayed the zones of the earth, its mountains and seas, cities, rivers and roads, a quasi-geography. And there were also pictures of Mecca and Medina as they present themselves to the beholder, and every city, every mountain, all places, rivers, oceans and roads were marked with their names in gold, silver or silk” (quoted from al-Maqrīzī, *Khiṭat*).

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Fig. 1. Indian world map, 18th century, Museum of Islamic Art Berlin, inv. no. I. 39/68 (photo: museum).

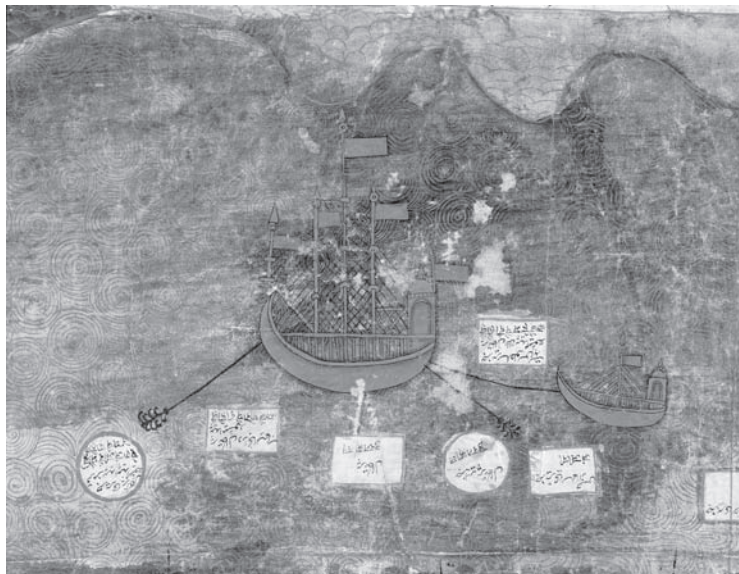


Fig. 2. Indian world map, detail: Portuguese caravel with dinghy and anchors between rectangular and round islands in the Indian Ocean. Looking at the boat, the captions for the islands are upside down.

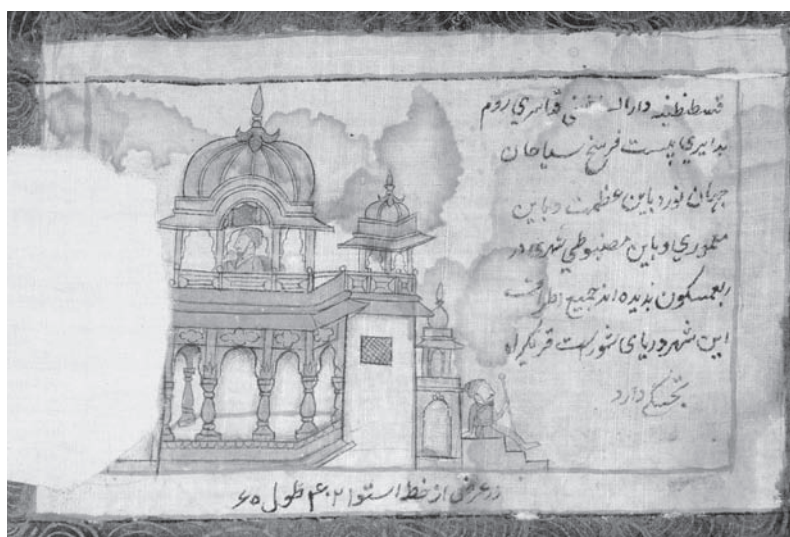


Fig. 3. Indian world map, detail: Constantinople (Istanbul) on a peninsula in the Mediterranean, marked by a kiosk with a domed roof.

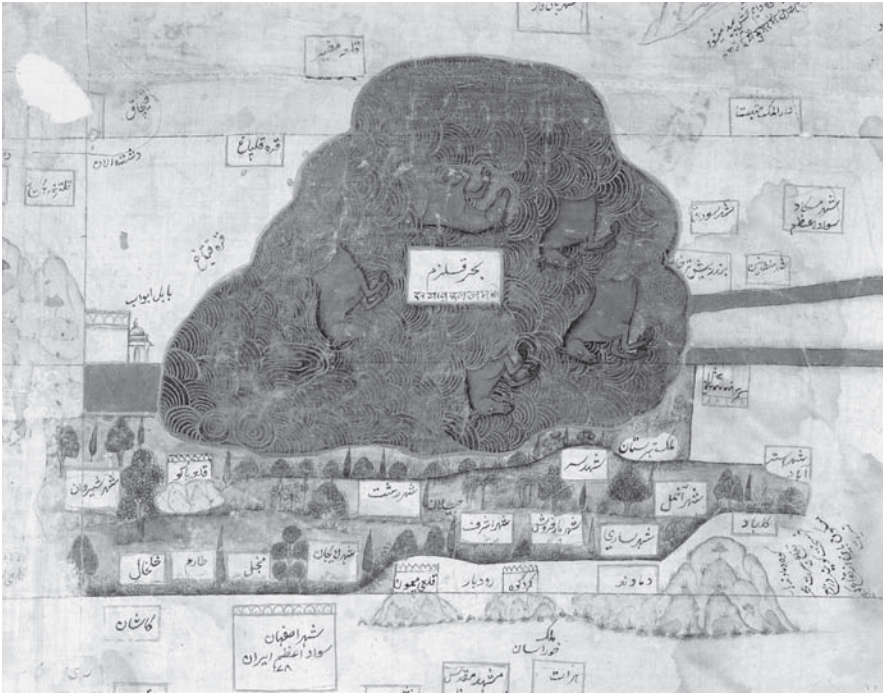


Fig. 4. Indian world map, detail: the Caspian Sea with horses swimming in it. To the south are the wooded Persian coastline and the pink-coloured Mount Damavand.



Fig. 5. Indian world map, detail: the Kaaba in Mecca.

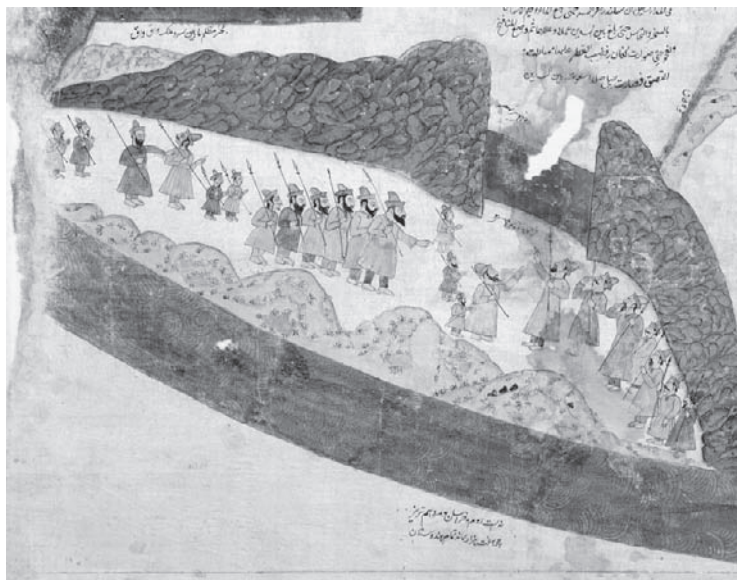


Fig. 6. Indian world map, detail: the peoples of Gog and Magog, separated from the rest of the inhabited world by the barrier which Alexander built against them between two green-coloured mountain ranges.



Fig. 7. Indian world map, detail: islands in the eastern Indian Ocean. On the “Island of the Thin-legged Ones” people are sitting among trees. Below right is the “Island of the Lion-Heads” and on the left the “Island of the Long Ears”. Naked women are swimming in the sea.



Fig. 8. Indian world map, detail: the Island of the Nasnās, apelike creatures, in the eastern Indian Ocean.



Fig. 9. Indian world map, detail: Africa, passage of the Nile through mountain cataracts on which two trees are standing which “spoke with Alexander and gave him news of death”.

BEHIND THE PICTURE:
THE OTHER SIDES OF THE BOSTON–NEW YORK
REST AFTER THE HUNT

ELEANOR SIMS, LONDON

One of the most celebrated of later 16th-century Safavid paintings is a large double-page image of a dozen men gathered in a woodland glade. Presumably a hawking party is represented—three of the men wear sturdy gloves, and birds of prey rest upon their wrists; and presumably they have gathered for a midday meal under the sun of a golden sky, for a plucked bird is being roasted on a spit in the foreground. This idyllically pastoral picture has long been divided in two, the right half in the Boston Museum of Fine Arts since 1914¹ and the left half in The Metropolitan Museum of Art since 1912.² Both unsigned and undated, the painting is in the ‘ripest’ of 16th-century Qazvin styles, that associated with the Safavid bibliophile prince Ibrahim-Mirza ibn Bahram-Mirza, whose life was prematurely terminated in 984/1577.³ Its figures seem larger than those of the illustrations in the manuscript most frequently associated with him, the *Haft Aurang* of Jami in the Freer Gallery of Art;⁴ and its original purpose still remains unclear: each half has very wide and elaborate borders, and I have occasionally wondered whether the painting and the borders, together, might actually have been intended for some independent purpose, rather than having been conceived as an illustration for a manuscript, or even for an opening image in such a manuscript.

¹ Francis Bartlett Donation of 1912 and Picture Fund, acc. no. 14.624. Coomaraswamy 1929, pp. 43–44, no. 63, pls. XXXVI–VII; Gray 1961, p. 158 (in colour).

² Rogers Fund of 1912, acc. no. 12.223.1. Dimand 1944, figs. 18–19; *idem* 1958, fig. 26. For both halves together see Grube 1962, pp. 114–115, cat. no. 92; *idem* 1968, p. 199, cat. no. 77; Welch 1979, pp. 214–217, cat. no. 85. Only the right half is reproduced in colour; for colour reproductions of both halves see Sims 2002, pp. 230–231.

³ Minorsky 1959, p. 162.

⁴ Acc. no. 46.12. Simpson 1997.

In favour of the argument is that the margins, drawn in gold and silver and showing animals and birds in landscapes, are integral to the painting. Although they are not executed on the same paper as the image, they were completed and set as a frame around the picture before it was finished; this is evident from the painted passages of rocks and foliage protruding through the rulings onto each golden margin. They too are neither signed nor dated, but there is some reason to suggest that they might be the work of Ibrahim-Mirza himself, for—in the words of a devoted chronicler—this talented prince “... had golden hands in painting and decorating”.⁵ Whether the suggestion can be sustained is, ultimately, not here so important as it is to note that, of all the recorded contemporary Iranian parallels for gold-drawn margins, these superb compositions are among the finest of the genre. For which reason, and in the light of his own publication on the margins of an important 16th-century Safavid manuscript, the dispersed Sarre *Yusuf u Zulaykha*,⁶ I had thought to make a modest offering to Jens by further exploring these borders.

When it came to the actual writing, however, I thought I ought first to re-examine the pictures; I soon realised that I had never really looked at the reverse of each half of the painting: doing so was an imperative. Once that pleasant task had been completed,⁷ I was faced with the imperative of time—or rather, the lack of it—in which to write up whatever I might be able to add to the subject. The solution that presented itself was to discuss the reverse sides of the paintings, which display handsomely adorned calligraphic compositions. Not only of interest in themselves, these pages are also of interest to anyone concerned with the arts of the Iranian book in the later 16th century, or receptive to further details of fine Safavid albums long since dismembered and dispersed. Moreover, in studying them I have been fortunate in having Manijeh Bayani as a collaborator, for it is she who read the poetry, identified the central calligraphies on each side as works by a scribe greatly esteemed by Ibrahim-Mirza,

⁵ Minorsky 1959, p. 183.

⁶ Kröger 2004, pp. 239–253.

⁷ With the gracious assistance of Julia Bailey, Woodman Taylor and Angie Simonds at the Boston Museum of Fine Arts; and, at The Metropolitan Museum of Art in New York, with the help of Stefano Carboni, Annick Des Roches, Tim Caster and Britt Eilhardt: I am deeply indebted to them all, as well as to Claus-Peter Haase, for his timely delivery of the Toby Falk Memorial Lecture in London, on 17 May 2006.

and provided information on the careers of the other calligraphers assembled on these two folios.

Most illustrations of the *Rest After the Hunt* concentrate on the picture and its glittering margins and ignore the fact that each half is actually a complex, composite paper structure rather larger in size than is the combined surface of painted image and golden margins. The overall dimensions of each composite folio are virtually the same: the Boston half measures 48.2 by 33 cm and the New York half is slightly larger, 48.3 by 33.2 cm. The papers framing the image-and-margin construct and constituting the outer borders of the calligraphy are also the same: on the painted sides the outer borders are of marbled paper with a fairly heavy, coarse golden spatter; on the calligraphic sides the outer borders are a darkish teal-blue spattered with the same coarse gold. Whether the marbled mounts were the original frame for the double-page painting and its wonderful gold-and-silver margins or whether they represent a second stage, one that preserved the painting together with others, both calligraphies and drawings, is perhaps still conjectural. Less conjectural is that, in a further stage of their existence, the album in which the two halves of the *Rest After the Hunt* were mounted must have come to Paris, at one time the central marketplace in Europe for the Iranian arts of the book. There, presumably, they were separated and sold: one to Victor Goloubew (between 1908 and 1911, as he himself tells us),⁸ which eventually came to the Museum of Fine Arts in Boston, and the other acquired directly for the Metropolitan Museum in 1912, the year which Goloubew eulogised as “... la féerie du livre, les Mille et une Nuits de l’orientalisme bibliophile!”⁹

In the centre of the reverse side of each folio (figs. 1 and 2)¹⁰ is a large inscription, two couplets of poetry beautifully written and set on a diagonal; each is surrounded by other poems or literary quotations, smaller in calligraphic scale but thematically related to the central text. Such compositions are sometimes called *qit‘a*—denoting either ‘a piece’, as of a poem or a poetic quotation, or an entire calligraphic composition. In the case of the latter, the orientation is usually vertical and the central text, most commonly poetry and usually two or four *bayts*, placed so that the writing is on a forty-five

⁸ Coomaraswamy 1929, p. 5.

⁹ Coomaraswamy 1929, p. 5.

¹⁰ See Coomaraswamy 1929, pp. 43–44, pl. XXXVII.

degree angle and often surrounded by other calligraphies: in other words, the classical 16th-century disposition.¹¹ Both the Boston and the New York folios are so arranged and their contents are also, broadly speaking, thematically similar, although each page is quite different in its material details as well as in its impact. A linkage between the two folios, however, is established by a single scribe: it is virtually certain that both the central *qit'a* on the New York folio and the couplets written in the outer, vertical panels on the Boston folio are the work of a well-known calligrapher of the earlier 16th century, Mir 'Ali Haravi (d. 951/1544–45). Although neither is signed as such—the Boston folio bearing the single word “‘Ali” and the New York folio the words “the needy ‘Ali *al-katib*”—the quality and similarity of the calligraphy and the overall period subsumed by the painting, the style of the calligraphic assemblage, and two specific dates (on the Boston folio), have suggested to Manijeh Bayani that both signatures are those of Mir 'Ali of Herat.¹² His appearance on the Boston page is undated and flanks the central *qit'a*, an anonymous pair of couplets that summarise the overarching theme of this pictorial-and-calligraphic construct—love and its pains and fleeting pleasures:

Despite my insanity, every day
 You appear even more adorned/embellished
 Your intention is to drive me insane
 I am [already] insane, what else do you command?¹³

Mir 'Ali Haravi, then, is the earliest of the three calligraphers 'present' on these folios, a master of the prior generation who was much admired and collected by Ibrahim-Mirza and his circle. The works of the other two are also signed and dated, in 973/1565–66 and in 991/1583–84. As the latter date is less than a decade after Ibrahim-Mirza's premature death in 984/1577, it reflects the connection with this connoisseur, even at some distance, while it also furnishes a date before which the album could not have been compiled. It occurs adjacent to the central *qit'a* on the Boston page, a pair of couplets by Khwaja Hasan al-Dihlavi, copied (on a very large scale) by Qutb

¹¹ Simpson 1997, pp. 252–253.

¹² Minorkey 1959, p. 155; Schimmel 1987, pp. 32–36 and *passim*; p. 34 (where a divergent death-date, “probably ... in 1556”, is suggested); Simpson 1997, pp. 250, nos. 100, 255–156, 268, nos. 24, 310, fig. 211.

¹³ Translated by Manijeh Bayani.

al-Din Muhammad of Yazd. His adult life was spent in Baghdad, as both a calligrapher and a biographer, perhaps the reason he is also known as *qissa-khwan*.¹⁴ His recorded works appear to remain few in number—only two, one dated 978/1570–71 and written in Baghdad, the second dated 988/1580–81;¹⁵ the *qit'a* on the Boston page adds a third (dated 991/1583–84), the latest in what still appears to be a small series.

The third hand on this page is that of Salim Nishapuri, a pupil of the famed Shah Mahmud *al-nishapuri*, and who worked (and also died) in Mashhad, in 990/1582–83.¹⁶ His calligraphy quotes part of a *ghazal* of Jami; it is found in the upper, horizontal cartouche of this page, where he also interweaves the information that these lines were written “in Mashhad, the Holy, the Luminous” during the year 973/1565–66.¹⁷ Mehdi Bayani has noted nine recorded works in his hand and thus the Boston example adds (at least) a tenth, specifying both date and place.

This complex *qit'a* composed by three hands in scripts of at least four sizes (measuring, overall, 33.8 x 22.2 cm) is further enhanced by the use of subtly coloured papers, some with unusual patterns. Qutb al-Din Muhammad's text is written on pinkish paper decorated with gold floral sprays, and a creamy wash shading some of the larger petals and leaves; it is entirely framed by a lazily drawn golden floral and foliate scroll on a light teal ground. The paper on which Salim Nishapuri's *qit'a*, at the top, is written, is pinkish-cream in colour and very finely dusted with gold; there are delicate but large golden whorls on the rectangle, at the upper left, where “Ali”—Mir 'Ali Haravi—has signed his name; while a rectangular panel of coral with golden interlacing vines and flowers runs across the top of the composition.

The New York page is different in content and quite different in its appearance, albeit as classical (for the later 16th century) in disposition. The ornamented surface framing the central text measures 34.5 by 20.3 cm. As observed above, this text is almost surely written in the hand of Mir 'Ali Haravi and, while also being anonymous, was

¹⁴ Simpson 1997, p. 364; Khadiv-Jam 1967, pp. 666–676.

¹⁵ Bayani 1969, vol. III, pp. 813–814. Quoted by Schimmel 1987 as *Tadhkira-i khushmuisan*.

¹⁶ Bayani 1969, vol. I, pp. 282–284.

¹⁷ Translated by Manijeh Bayani; cf. Coomaraswamy 1929, pp. 43–44.

aptly chosen as an accompaniment to a painting in which physical attractions feature:

O thou, by whose lips the name of Jesus Christ has become alive
[And] whose eyes have made thousands clearly powerless (?)

The commotion caused by your lips is agreeable, yes,
Everything from the beautiful one is pleasant (in Arabic).

The needy 'Ali *al-katib*¹⁸

Written large and set on the usual diagonal, the script has been reserved against golden 'clouds' (*tahrir*) that are further enhanced with blue floral scrolls. The diagonal setting of the calligraphic lines has a somewhat jagged and asymmetrical outline, effected by the size and slant of the script; this is not uncommon, as many other contemporary *qit'a* compositions attest.¹⁹ The outer border of the composition is provided by a dozen *bayts* cut from a manuscript of the *Bustan* of Sa'di, and arranged to frame the central *qit'a*: six couplets from the end of the seventh story and another six from the eighth, in which Sa'di relates his visit to the Temple of Somnath.²⁰ This text is bordered on both sides by coral-coloured frames carrying fine golden blooms on a loping stem. Between them and Mir 'Ali's calligraphy is a bewildering plethora of floral scrolls in narrow bands arranged as multiple lapis-edged frames, all having a similar density of design and scale. Closest to the central *qit'a*, the borders are of turquoise-green with large golden blooms on a loping scroll; next comes a set of intermediary borders of coffee-coloured paper on which polychrome gold-outlined flowers, vaguely reminiscent both of Timurid floral scrolls and of cloisonné enamels, are painted; lastly, the resultant triangular interstices, of cream-coloured paper, have intense lapis-blue *rumi*-style arabesques in the same hue as all the borders on the folio, including the central calligraphy.

Surely the two assemblages mounted on both reverse sides of this large and suggestive later Qazvin painting are the work of different craftsmen with different levels of skill and imagination. Perhaps there was a great difference of age between them, and the assembler to

¹⁸ Translated by Manijeh Bayani.

¹⁹ For good examples, see especially Simpson 1997, figs. 188, 192.

²⁰ It is a pleasure to acknowledge assistance with this detail from Robert Skelton, who tracked down references when my own sources were temporarily unreachable.

whom fell the ornamentation of the back of the New York folio was still learning his metier. Or perhaps not: his composition is sophisticated enough to respond to the content in both size and proportion and thus the ‘frame’ differs slightly from that on the reverse of the Boston folio, being both somewhat longer but also somewhat narrower (34.5 x 20.3 cm, as opposed to 33.8 x 22.2 cm). He carefully respected Mir ‘Ali’s calligraphy around which he constructed his page, easily accommodating his design to the protruding diagonal stroke of the letter *kaf* at the beginning of the second and fourth lines of the text (fig. 2). Moreover, for all of the differences of these two folios, no other folios similar in size, papers, and composition immediately come to mind with which they may be compared, although they surely survive and will in due course be identified.

That the primary verbal message of both calligraphic folios should reflect the underlying pictorial theme of the picture they back is only to be expected from a work made in this most literate and sophisticated, and also over-precious, milieu. The connection between Ibrahim-Mirza Safavi and one of the calligraphers he most admired can hardly be coincidental. If the reflection seems more distant than might have been expected, perhaps the distance is to be accounted for by the lateness of the date, which can be no earlier than at least 991/1583–84: patronage of the arts was no doubt sustained in an uncertain manner in the years before the young Shah ‘Abbas acceded to power, in 995/1586–87. Whatever the case, this brief study of the calligraphies mounted behind the Boston–New York *Rest After the Hunt* will, I hope, serve as a preliminary study to that still-proposed exploration of the golden margins surrounding the painting and the golden margins on its other sides—one of the many brilliant achievements of Ibrahim-Mirza ibn Bahram-Mirza Safavi.

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Fig. 1. The reverse side of the *Rest After the Hunt*. The Boston folio (acc. no. 14.624). Museum of Fine Arts, Boston, Francis Bartlett Donation of 1912 and Picture Fund.

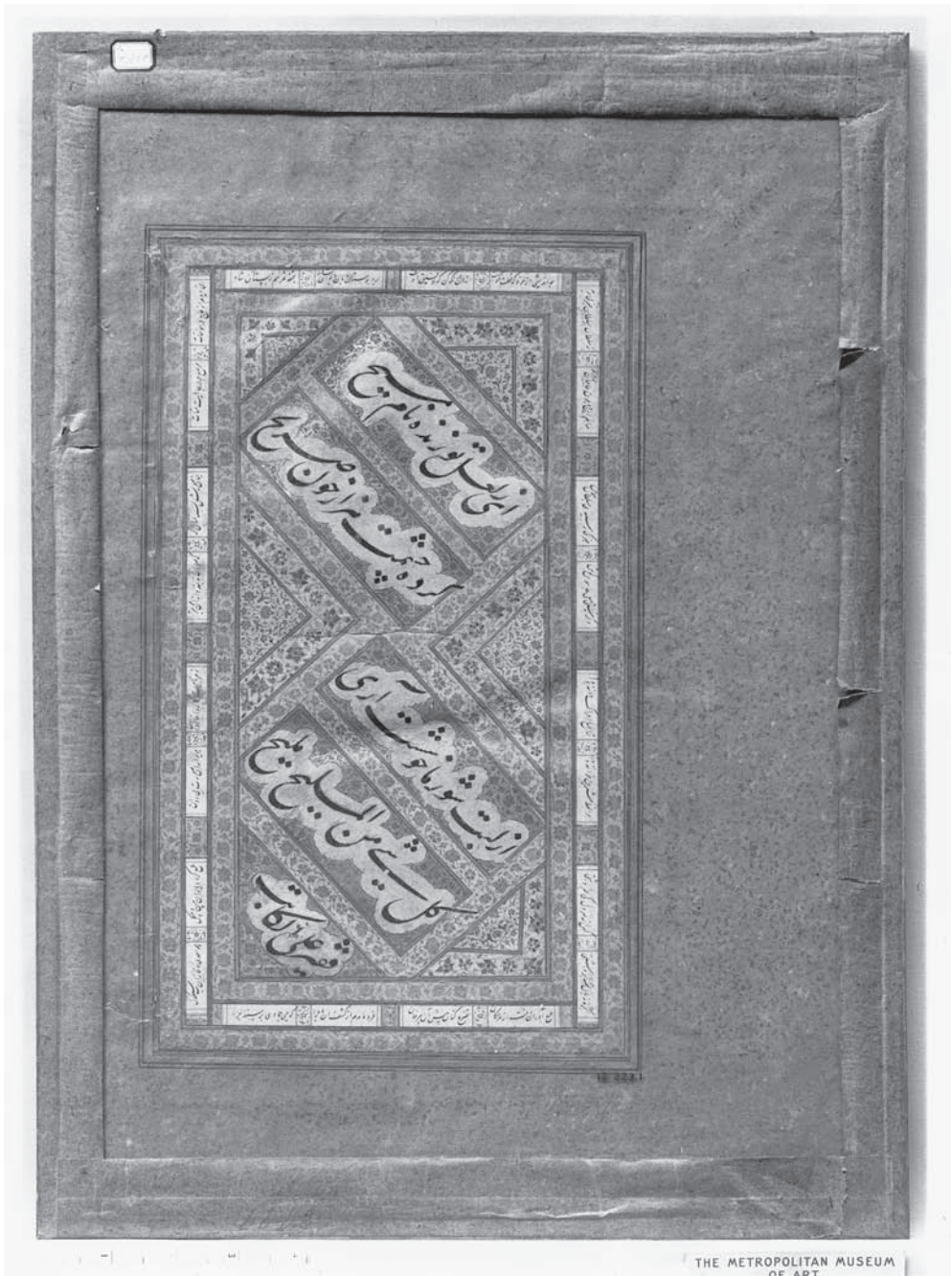


Fig. 2. The reverse side of the *Rest After the Hunt*. The New York folio (acc. no. 12.223.1). The Metropolitan Museum of Art, New York, Rogers Fund of 1912 (before conservation).

ISLAMIC ART AND THE WEST

ORIENTAL THEMES IN THE WORK OF MORITZ VON SCHWIND

SILKE BETTERMANN, BONN

Moritz von Schwind (1804-1871) is known to have been primarily a painter of romantic fairytale themes and historical compositions. His depictions of scenes from medieval German history, his allegorical and mythological compositions, but above all his illustrations of German folktales and literary fairy tales are among the most popular works of inventive art of the 19th century. They shaped the artist's reputation not only among his contemporaries but indeed for all time. On the other hand, the works in which Schwind concerned himself with Islamic subjects went virtually unnoticed. This may be due in part to the fact that most of them were painted when he was a young man, but it is also true that in the 19th and early 20th centuries those topics were generally considered to be less important than romantic themes taken from European literature.

It must be admitted that in comparison with his paintings of themes taken from German history and folklore, Schwind's portrayals of oriental subjects make up only a fraction of his surviving work, but there is evidence that he actually painted more. The first essays which deal with Schwind's work, published in the late 19th and early 20th centuries, contain references to portrayals of oriental subjects which no longer exist. In addition to various pencil and ink drawings,¹ mention is made of an unfinished oil painting depicting the meeting between Charlemagne and the ambassador of Harun al-Rashid, which probably took an intermediate position between the paintings of subjects taken from German history and those depicting

¹ In this respect a list of Schwind's work compiled shortly after his death in 1871 by Lukas von Fühlich is particularly revealing. It mentions for instance a pencil drawing called the "Pursuit and Abduction of an Oriental Princess" which was in the possession of the Dresden Kunstgenossenschaft and an ink version of the same subject owned by the Legationsrat v. Schober (Franz von Schober, 1796-1882) (Fühlich 1871, p. 115). A drawing (formerly in the possession of Prof. Schulz) and an oil painting entitled "The Crusader Returning Home" (Schack-Galerie, Munich) touch the oriental theme only marginally (Fühlich 1871, p. 115).

oriental themes.² Furthermore, the essays mention two sketches for handicraft objects decorated with themes from the Islamic Orient. One is referred to as “Aladdin’s Wonderful Lamp” and the other is a sketch for the decoration of a goblet lid showing “Hafis in the Tavern”.³

Since these works themselves have been lost and no early reproductions exist which would provide a clue as to their appearance, this article deals only with those of Schwind’s works which still exist today, or at least whose appearance can be reliably reconstructed, and which have as their subject themes taken from the Islamic world. With one exception these works were all painted when the artist was a young man, more precisely in the 1820s when Schwind lived in Vienna, was part of a circle around Franz Schubert (1797-1828) and studied at the Vienna Academy of Art under Leopold Kupelwieser (1796-1862), Peter Krafft (1780-1856) and Ludwig Ferdinand Schnorr von Carolsfeld (1788-1853). Various sources show that during this period, the young artist’s life and work were less influenced by his studies at the academy than by his sanguine circle of friends, who were characterised by enthusiasm for art. They would meet to make music or to read together, visit the opera and exchange opinions on works of art.⁴ This stimulating atmosphere provided the inspiration for most of Moritz von Schwind’s portrayals of oriental themes.⁵

At the centre of the young artist’s preoccupation with the Orient stood the illustration of selected stories from the *Thousand and One Nights*, to which Schwind turned his attention several times in the

² The same theme is to be found in the five illustrations on the rule of Charlemagne which Schwind produced in 1856 for Friedrich Bülow’s *German History in Pictures* published by the Dresden company Meinhold & Sons (cf. Weigmann 1906, p. 360).

³ Führich 1871, p. 124.

⁴ Cf. in regard to Schwind’s youth letters by the artist and his friends, published by Stoessl and Gärtner (Stoessl 1924, pp. 19-70; Gärtner 1986, pp. 5-40) as well as Holsten 1996-97, pp. 9-11, and Gott dang 2004.

⁵ In addition to the works described below Schwind created some figures dressed in oriental costumes and serving as decorative enrichment in a wedding procession. They can be found on page 29 in the series of ink drawings produced by Schwind in spring 1825 under the impression left by a performance of Wolfgang Amadeus Mozart’s opera *Le Nozze di Figaro*. (Until 1939 in the possession of Joseph and Hermine Hupka, Vienna; later Vienna, Städtische Sammlungen; in 2004 restored to the heirs of the Hupkas; in 2006 on the market. Cf. for this series in general Bettermann 2004, pp. 9-19; auction catalogue Sotheby’s, London, 13.6.2006, lot no. 14.)

years around 1825. The anthology had been made very popular in Europe during the 18th century through numerous translations and imitations, but its popularity achieved a new height at the beginning of the 19th century when the Romantic Movement rekindled interest in fairy tales and folklore. The oriental tales were admired for their richness of fantasy and their exoticism, and at the same time were considered to be the expression of the oriental character.⁶ Moreover, in the first quarter of the 19th century the general relationship between Orient and Occident became closer and Europeans had more opportunity than ever before of travelling in the Orient, just as an increasing number of oriental persons were to be found in the capital cities of Europe and in Vienna in particular.⁷ This also led to an increased interest in oriental literature in general and the *Thousand and One Nights* in particular. Around 1800, twelve previously unknown manuscripts of different origin containing different versions of the anthology were made public in Europe,⁸ and a number of new translations were published.⁹

Moritz von Schwind's first known involvement with themes from the *Thousand and One Nights* was in 1824. A large format pencil drawing which was formerly in the Arnold Otto Meyer Collection is dated that year. It shows "Scheherasade, in a chamber decorated with flowers, lying at the feet of the Caliph and telling him stories".¹⁰ The drawing was signed and dated in mirror writing and therefore was probably intended to be the master for a reproduction printing. The drawing's size (42.5 by 56.5 cm) suggests that it was not done as an illustration for a book, but rather as a preparatory drawing for a single sheet print.

⁶ Schiller 1926, pp. 77-78.

⁷ Schiller 1926, p. 79.

⁸ Cf. for the individual manuscripts Schiller 1926, pp. 80-81.

⁹ The most important translations published in the late 18th and early 19th centuries were: 1781-1785—German translation of the Galland Edition by Johann Heinrich Voss, Bremen; 1790—German translation of the Chavis-Cazotte translation by Fr. Just. Bertuch, Gotha; 1806—French edition by Caussin de Perceval; 1811—English edition by Jonathan Scott; 1820—German adaptation for young persons by A. L. Grimm; 1822—expanded new edition of the Galland Edition by Edouard Gauttier; 1823—German translation supplemented by previously untranslated stories, by Josef Hammer and August E. Zinserling, Tübingen. (From Schiller 1926, pp. 74-97.)

¹⁰ Boerner 1914, lot no. 26. The whereabouts of this drawing are unknown.

At the same time as Schwind was producing his first works with oriental themes, the first complete German version of the *Thousand and One Nights* was being produced in Breslau by the orientalist professor Maximilian Habicht (1775-1839) in collaboration with Friedrich Heinrich von der Hagen (1780-1856) and Karl Schall (1780-1833). This translation was published by Josef Max in 1825¹¹—parallel to the publication, begun in the same year and continued until 1843, of an Arabic edition of the text of a Tunisian manuscript which had formed the basis for Habicht's German translation.¹² A year later in Vienna, Anton von Haykul and Michael Lechner published a twenty-volume edition of Habicht's translation which appears textually to correspond entirely to the Breslau edition of 1825.¹³ However, each volume of the Viennese edition also has as a frontispiece a full-page engraving of a particular scene from the anthology, explained by a note above the illustration and by a caption underneath it.

Moritz von Schwind drew a total of four of these frontispieces—the illustrations for the fourth to seventh volumes.¹⁴ He created scenic illustrations which record a specific moment taken from the respective story.¹⁵ As a representative example of this type of picture, the illustration for the fifth volume (fig. 1) shall be described here in more detail. It depicts the wealthy merchant's son Aly Schach,¹⁶ who deceived his mistress and as a result was wrongly accused of theft by

¹¹ Habicht 1825. Cf. introduction by Karl Martin Schiller to his new edition of the tales in regard to the history of the translation by Habicht, Hagen and Schall and the three editors (Schiller 1926, vol. 12, pp. 97-102).

¹² Habicht 1825-1843.

¹³ Habicht 1826. The wording of the title and an examination of individual texts (done only randomly for this article) indicate that this is the same text version as the original edition of 1825.

¹⁴ The other illustrations were done by Peter Fendi (1796-1842), Albert Schindler (1805-1861) and a hitherto unidentified artist referred to on the engraving plates alternately as "Yauman" or "Yaumann". The engravers were Joseph Berkovetz (mentioned 1817-1835), who produced most of the engravings (included those made from Moritz von Schwind's drawings), and János Blaschke (1770-1833).

¹⁵ Schwind produced the illustrations for volume 4 (The Story of Nureddin-Aly and Bedreddin-Hassan, 107th Night; Habicht 1826, vol. 4, pp. 96-97), volume 5 (The Story of Aly Schach or the False Caliph, 192nd Night; Habicht 1826, vol. 5, pp. 187-188), volume 6 (The Story of Abulhassan Aly Ebn Bekar and Schemselnihar, favourite of Caliph Harun Arreschyd, 201st Night; Habicht 1826, vol. 6, pp. 39-40) and volume 7 (The Story of Prince Amgiad and Assad, 239th Night; Habicht 1826, vol. 7, pp. 86-87). Cf. also Hafner 1977, pp. 227-230.

¹⁶ To facilitate the identification of the individual stories in Maximilian Habicht's translation of the oriental text, form and spelling of the Islamic names used here follow Habicht's spelling in his edition of 1827.

her, now lying in a dungeon loudly bemoaning his misfortune and his pain. While he is lamenting, a young girl steps out of the wall “shining like the sun after a thunderstorm” and says to him, “Young man, this night you have caused me much concern”.¹⁷ Aly Schach tells her of his misfortune and she decides to help him with the aid of a magic ring. For the meeting between Aly Schach and the fairy, Moritz von Schwind devised a dungeon in the form of a medieval or Byzantine vault. On the floor lies a prisoner naked from the waist up, whose shaved head and moustache show him to be oriental. He is turned towards a figure shaped like a European angel whose gesture with her raised right hand is reminiscent of the Annunciation of the Virgin Mary. Her long locks, the flowing robe, the wand in her left hand and the light behind the figure also serve to conjure up such associations. This is therefore a scene based entirely on European art tradition, with the prisoner’s clothing being the only reference to the Orient. The same orientation towards European paragons is also to be found, in varying forms, in the other three frontispieces which Schwind drew for the Viennese edition of the tales. With regard to the treatment of the subject, the perspective and the clear spatial structure, as well as to numerous details, these depictions completely follow European viewing habits and are thus basically not different from other early 19th-century frontispieces.

However this is not true of the vignettes drawn by Schwind as decoration for the title pages of the second, expanded edition of Habicht’s translation, published a year later by Josef Max in Breslau.¹⁸ Each of these illustrations consists of three elements: a central illustration is flanked by two annexes, which are either arabesque or figurative. The result is a composite work which combines narration

¹⁷ Habicht 1826, vol. 5, pp. 187-188.

¹⁸ Habicht 1827. It is not known exactly when Schwind began work on the vignettes, since none of the sketches today preserved in Dresden is dated. Hyacinth Holland and Martin Schiller assume that the first drawings were done as early as 1823. Certainly the first contact between Schwind and the Breslau publishing house could have been made that year, for Schwind’s close friend Franz von Schober (1796-1882) stayed in Breslau on various occasions between 1822 and 1825 and during one of these visits may have met Josef Max and spoken for the artist. (Cf. Holland 1873, p. 19; Schiller 1926, vol. 12, p. 101.) It should be noted here that two of Schwind’s illustrations are based on stories not included in the volume of the 1827 edition which they precede. This too suggests that he began work on the illustrations at an early date before the exact layout of the Breslau edition had been determined.

with decoration and is thus perfectly suited to supplement the text of the title pages (figs. 2-6).¹⁹

As a whole, the series of illustrations stands out because of the extraordinary variety of content matter reproduced in the main scenes and in the side-annexes. In his choice of scenes for the illustrations Schwind placed particular emphasis on splendid or dramatic moments in the stories. Six vignettes, for instance, show variations of court scenes, receptions and audiences which are illustrated with great enthusiasm for decoration and ornament. As examples we may take the opening and closing scenes of the cycle (illustrations 1, 15), or the portrayal of the awakened sleeper, which presents a court scene with all the necessary resplendent architecture, courtiers and dancers (illustration 7, fig. 4 left). Dramatic scenes are just as well represented in the cycle as splendid ones. In the twelfth picture, which shows the combat between Prince Habib and the various demons of the underworld, form and content reach a peak in the reproduction of the dramatic story (fig. 5). But also the vignettes illustrating the story of Prince Assad (illustration 6), or that of Sindbad the Sailor (illustration 3), stress the particularly dramatic and adventurous aspects of the oriental text.

In addition, Schwind's illustrations nicely reflect the gaiety of the tales, which plays a particularly prominent role in the last volumes of Habicht's edition, when anecdotes from the lives of simple people, roguish tales and morality tales are related. The humour of these stories is very suitably illustrated in the vignette for the eleventh volume, which is composed of themes from three different stories, as well as in the picture for the fourteenth volume showing the discovery of the corn thief.

As far as content is concerned, the scene from the *Thousand and One Nights* which Schwind chose for the cover of the fifth volume can be considered exceptional (fig. 3), because it shows a relatively

¹⁹ Schwind produced for Josef Max small-scale drawings done in pen and ink, pencil and brush, 12 of which are preserved in the Cabinet of Prints and Drawings in Dresden (different sizes from 11.8 x 9.9 cm to 13.2 x 10.6 cm; two different types of paper; inv. nos. 1908-170 to 1908-181). The whereabouts of the sketches for the first three volumes of the series are unknown. The transfer to the plate was done by George Watts (working around 1820-1827 in Leipzig), as was mentioned by Goethe in his notes on the vignettes (Goethe 1999, p. 503).

Since an identification of the individual scenes and themes portrayed by Schwind has previously never been published, it should be inserted here; see annex at the end of the article.

unimportant episode from the story of Prince Beder—the reunion between Queen Gülnare of the Sea, who was Beder’s mother, and her family. To illustrate this episode Schwind created a perfectly composed scene full of lyricism, in which he was able to act out all his pleasure at depicting beautiful fairies and sea-creatures. So it can be assumed that the choice of this particular theme for one of the title-page vignettes resulted from the young artist’s personal preference²⁰ and that this would explain the noteworthiness of the illustration. For not only the choice of the theme but also the skilful combination of main picture and annexes,²¹ and the charming incorporation of various human figures in different poses into the given form of the picture, give this illustration an outstanding position among the vignettes for the *Thousand and One Nights*.

In the diversity of the themes they embrace and in the unusual style of their formal arrangement, Schwind’s vignettes seem remarkably original, which apparently did not go unnoticed by the young artist’s contemporaries, as can be seen in the evaluation of the series, which Johann Wolfgang Goethe (1749-1832) published in *Über Kunst und Altertum* a year after the pictures appeared. In it he writes, “However varied and colourful the *Thousand and One Nights* may be, these pictures are none the less surprisingly diversified; crowded without being confused, enigmatic but clear, baroque but meaningful, fantastic without being caricatures, whimsical but tasteful, altogether original, so that we know of nothing similar either in subject matter or treatment.”²²

²⁰ Throughout his career Schwind repeatedly took up the topic of water creatures, for instance in his etchings for Eduard Mörike’s (1804-1875) “Geschichte von der schönen Lau” (1868; Weigmann 1906, pp. 468-490) or in his series of watercolours for the “Märchen von der schönen Melusine” by the same poet (1868/1869; Vienna, Österreichische Galerie, Graphische Sammlung, inv. no. 2105; Weigmann 1906, pp. 500-520).

²¹ Only two other illustrations in the cycle use this form of composition and arrange the whole vignette as a single scene: the previously mentioned illustration for volume 12, showing Prince Habib’s struggle against the demons and monsters of the underworld (fig. 5), and the one for volume 14 with the anecdotal portrayal of the discovery of the grain thief.

²² “Wie mannigfaltig-bunt die Tausend und Eine Nacht selbst seyn mag, so sind auch diese Blätter überraschend abwechselnd, gedrängt ohne Verwirrung, räthselhaft, aber klar, barok mit Sinn, phantastisch ohne Carricatur, wunderbar mit Geschmack, durchaus originell, daß wir weder dem Stoff noch der Behandlung nach etwas Aehnliches kennen.” (Goethe 1999, p. 503).

Regarding Schwind's feeling for the oriental tales which he illustrated here, the remarkably close orientation of the illustrations towards the original texts is of particular interest. Only five vignettes contain minor inaccuracies, which cannot be matched exactly with a specific passage from the text.²³ All the other pictures attempt to illustrate as many details from the story as possible, sometimes with an almost embarrassing accuracy.

An example of the very extraordinary fidelity to the text to which Schwind obviously felt himself committed will be considered here with the help of the example of the vignette for the second volume of the anthology (fig. 2). In it the artist tries to combine within one picture as many consecutive details from the story of the "Third Kalender" as possible. Thus we have as central motif in the middle of the main picture the Magnetic Mountain with the brazen horseman on its summit, as is related in the story. In the foreground we see the wrecks of several ships with men in the water in between them. This is obviously an account of the shipwreck suffered by Prince Agib's ship at the beginning of the tale. Behind the wreckage there is a man holding on to a wooden plank and swimming towards the Magnetic Mountain, a theme which is also explicitly referred to in the text. On the right-hand side of the picture stands the brazen rower, who in his boat will bring Agib away from the island. At his feet lie the three metal magic arrows with which the prince shoots the brazen statue off the summit of the Magnetic Mountain. The figure on the left corresponding to the rower represents the bird Roch, who is bringing Agib, stitched up in a sheepskin, to the palace of the forty princesses. The palace itself can be seen below the bird. In the text it is explicitly described as being "covered entirely with gold panels, emeralds and other precious jewels",²⁴ a descrip-

²³ The scroll and lamp next to Sindbad (illustration 3), the urn with sceptre next to Assad (illustration 4), the figures of the monsters which fight against Habib (illustration 12, fig. 5), the surroundings in which the discovery of the grain thief takes place (illustration 14) and the complete arrangement of the final picture (illustration 15). The most interesting example with regard to Schwind's relationship to the text is the deviation from the original in the scene which precedes volume 14 and which shows the discovery of the grain thief. Here Schwind embellishes the rather tritely told story and turns what is referred to in the text as just a "house" into a room furnished in great detail with a stove, a ladder and various elements providing the atmosphere of an attic. Apparently he only felt able to interpret a scene so freely when exact details were missing from the text.

²⁴ "(...) ganz mit Goldplatten, Smaragden und anderen kostbaren Edelsteinen

tion which Schwind has also absorbed into his picture. And finally the arabesque on the left-hand side shows at the very bottom the bunch of keys which enable Agib to gain access to the interior of the magic castle, thus sealing his fate. They are tied together with a wreath of blossoms, symbol of Agib's former life of happiness in the palace. Above it can be seen a man's face, contorted with distress, which is blurred in the area of the right eye, indicating the mutilation of the ten men as well as the hero, who all lost their right eye for entering the forbidden rooms in the palace of the princesses. As many elements of the story as possible are therefore transferred to the illustration with the greatest meticulousness imaginable, in order to offer the expert viewer and reader in a sort of scholarly puzzle all the different allusions to the text. In this way Schwind adopts a style of book and title-page illustration which was exceedingly popular at the beginning of the 19th century and which can, for instance, be found in the arabesques of Eugen Napoleon Neureuther (1806-1882) and Adolph von Menzel (1815-1905).²⁵

How differently the artist dealt with literary models in later years can be clearly demonstrated by a comparison between one of the vignettes from 1827 (fig. 6) and a later rendition of the same theme. In the 1860s, when he was working for his own private enjoyment on his *Reisebilder*, Schwind once again harkened back to the scenes from the *Thousand and One Nights* and produced a small sketchily executed oil painting of the story of the *Magic Horse* (fig. 7).²⁶ Whereas, like the other pictures in the 1827 series, the early illustration is dominated by the attempt to follow the text as closely as possible, the later oil painting treats the subject much more freely. For instance, in 1827 the horse, which is said in the story to be made of wood, is represented as such. Its coat has a wooden texture and its movements are stiff and awkward, creating an explicitly artificial impression. Forty years later the wooden horse has developed into a Pegasus-like animal, very much alive and leaping into the air. It has grown wings, giving it a distinct aura of magic and supernatural energy. Vignette and oil painting also differ from each other with regard to the large

bedeckt", 61st Night; Habicht 1827, vol. 2, p. 27.

²⁵ Cf. Busch 1985, pp. 55-89.

²⁶ Oil on canvas, 29.5 by 20.5 cm; according to Weigmann painted around 1860; Vienna, WienMuseum, inv. no. 18.558. Incidentally this is the only existing portrayal of an oriental theme known to have been done by Schwind after his departure from Vienna in 1827 (Weigmann 1906, p. 426).

and conspicuous stirrup on the saddle of the magic horse, which is mentioned in the text²⁷ and therefore reproduced accurately in the 1827 vignette. In the later portrayal Schwind completely ignores this motif and also neglects other details of the clothing of the two protagonists which would characterise them as being oriental. The clothing of the princess hardly differs from that of European ladies as Schwind had portrayed them over and over in the course of his life. Only the headdress of the Persian prince is oriental in character, whereas his flowing cloak and hose-like trousers are more reminiscent of late medieval European clothing.²⁸ Apart from the visible differences in the treatment of the subject between Schwind's early and later adaptations of the story, the atmosphere created in the two illustrations is also completely and strikingly different. The text tells of how the Prince of Persia frees the Princess of Bengal from the palace of the Sultan of Kashmir. It is said in the story that the rescue takes place in the presence of the ruler and his courtiers, but no mention is made of the Sultan of Kashmir's reaction to the abduction of the princess whom he coveted as his wife.²⁹ Correspondingly in Schwind's early vignette the figures who watch from the ground as the magic horse rises into the sky show no angry reaction, but rather stare, amazed, up into the heavens. By contrast, in the later oil painting, the two figures which stand for the court of the Sultan of Kashmir are gesticulating wildly, thus demonstrating their helpless anger at the event they have just witnessed. All in all, the translation of the scene in the oil-painting of the 1860s can be described as Schwind's attempt to interpret the emotional and dramatic content of the oriental tale beyond the level of the written text, whereby he formally consolidated the illustration done in his younger years while increasing its expressiveness and at the same time dispensing with superfluous details.

In view of the remarkable accuracy with which the oriental texts are reproduced in Schwind's early works, one must ask how authentic his individual portrayals of these themes actually are and on what he could have modelled them. In almost all his works of the 1820s which take up themes from Islamic-oriental culture, Schwind clearly

²⁷ 402nd Night; *Habicht* 1827, vol. 9, p. 140.

²⁸ Cf. for corresponding portrayals by Schwind of medieval European clothing his cycle of frescos in the Wartburg, 1854-1855 (Weigmann 1906, pp. 330-347).

²⁹ 402nd Night; *Habicht* 1827, vol. 9, pp. 140-141.

took great pains to portray his figures in costumes which were as true to original as possible, whereby he orientated himself generally towards the clothing which was worn in the Ottoman Empire.³⁰ For that there was a wealth of illustrated material available in the form of series of engravings which had been published during the 18th and early 19th centuries and which also inspired other artists in the 1820s.³¹ Furthermore, in the part of Vienna in which Schwind lived he could often see in natura clothing of exotic and oriental appearance, for the area had a very mixed population which included eastern European Jews and Levantine merchants.³² Only when no visual aids were available did the young artist use his imagination to create a motif,³³ which was evidently the case with his architectural illustrations in particular. These appear very seldom in his portrayals of oriental subjects, but when they do, they are usually creations of pure fantasy.³⁴ The only exception is the vignette done in 1827 for volume 8 of the *Thousand and One Nights*, which illustrates themes from the story of Aladdin (fig. 4 right). Between two colossal ghost figures³⁵ the mighty palace can be seen which the Genie of the Lamp built for Aladdin's future wife Princess Badruldur.³⁶ A

³⁰ Cf. for instance the clothing of the two sisters in the illustration for volume 10 of the 1827 edition of the *Thousand and One Nights* or that of the ruling couple in the final scene, in which Schwind for once deviates from the oriental original by using a European crown for Sultan Schachriar's royal insignia.

³¹ Representative of the many publications of the 18th and 19th centuries is the richly illustrated monograph in six volumes by Antoine Ignace Melling (Melling 1812), which appeared in a German translation in 1815.

³² Thanks to Gudrun Roller, Munich, for the kind information.

³³ A typical example is the representation of the execution scene in volume 13 in which Schwind portrayed a typically European gallows scene, because he obviously had no access to genuine oriental portrayals of an execution.

³⁴ This tendency is already evident in the frontispieces for the Vienna edition of the *Thousand and One Nights* from 1826. (Cf. for instance the portrayal of the flight of the Prince of Persia in volume 6.)

³⁵ It is of particular interest and characteristic of Schwind's close orientation to the text that he decided to draw not only the Genie of the Lamp (right annexe) but also the Genie of the Ring (left annexe), who is often ignored in illustrations of the story.

³⁶ Schwind shows however not just the palace, but portrays a specific scene from the tale—the one in which the princess and her entourage enter Aladdin's palace. In the text it says literally: "Als die Nacht anbrach, nahm die Prinzessin von ihrem Vater Abschied. (...), und endlich ging die Prinzessin aus ihren Zimmern und trat den Zug an, während Aladdins Mutter ihr zur Linken einherschritt und hundert Sklavinnen in der prachvollsten Kleidung ihr folgten. Alle die Musikchöre, die seit Ankunft der Mutter Aladdins nicht aufgehört hatten zu spielen, hatten sich jetzt

direct iconographic source is available for the structure of this magnificent building—there is a clear connection with the architecture of the Royal Pavilion in Brighton regarding the configuration of domed elements, the shape of the domes themselves and the design of the windowed façade. The architecture of the Royal Pavilion, constructed in 1815-1822 by John Nash (1752-1835), may have been known to Moritz von Schwind through various publications, in particular an extensive series of aquatints published in 1826.³⁷

The analysis of the 1827 cycle of illustrations has above all made clear how important it was to the young Moritz von Schwind to produce pictures which accurately reproduced the text. This tendency, which runs through the entire cycle of vignettes for the *Thousand and One Nights*, prompts us to interpret two other illustrations done in the 1820s as portrayals of a particular text, even though it has yet not been possible to identify a specific theme. These are two drawings which are now in Munich and which were clearly intended as illustrations for the cover of a book.³⁸ On the page which was probably intended as the front cover, under an arch made up of plant motifs, there is an old man sitting in front of palm trunk with a large, open book on his knees. He appears to be reading out of this book to a child standing next to him. At his feet there is a water-basin. The

vereinigt und gingen dem Zuge voran, ihnen folgten hundert Trabanten und eine ebensogroße Anzahl schwarzer Verschnittenen in zwei Reihen mit ihren Befehlshabern an der Spitze. Vierhundert junge Edelknaben des Sultans, die in zwei Zügen auf beiden Seiten einhergingen und Fackeln trugen, verbreiteten einen Lichtglanz, der im Verein mit der Erleuchtung der beiden Paläste des Sultans und Aladdins den Mangel des Tageslichts auf eine wunderbare Weise ersetzte." (At night-fall the princess took leave of her father (...) and finally the princess left her rooms and led the procession, Aladdin's mother walking on her left and a hundred of slave-girls dressed in splendid clothes following. All the musicians, which hadn't stopped playing since Aladdin's mother had arrived, assembled and went ahead, followed by an hundred of Grandees and just as much black eunuchs in two lines with their commanders ahead. Four hundred young pages with torches marching in two convoys created a brightness that together with the illumination of the two palaces compensated the absent day-light in a marvellous way.) 336th Night; quoted from Habicht 1825, vol. 8, pp.15-16. Schwind has elaborated the subject of the princess's festive entourage in all amplitude and enriched it with appropriate additional details such as the portrayal of two dogs either barking at each other or playing.

³⁷ "Nash's Views of the Royal Pavilion", dated 1826, published 1827 (cf. Conner 1979, p. 147).

³⁸ Two ink drawings on one page, each 14.4 by 11.2 cm, according to Weigmann produced around 1823. Munich, Staatliche Graphische Sammlung, inv. no. 1921:66 (Weigmann 1906, p. 24).

rear page (fig. 8) shows a female figure standing in front of the rising or setting sun, framed by a wreath which has an abundance of arabesque ornaments running through it. Whereas the old man's clothing is oriental in style (he is wearing a turban, a voluminous robe stretching down to his feet and shoes with upward pointing toes reminiscent of Ottoman footwear), that of the young woman cannot be ascribed to any historical model. Indeed it is more reminiscent of the fantasy clothing common in Egyptian scenes painted in the early 19th century.³⁹ The woman is wearing a long robe under a wide cloak which she is holding closed at her breast with both hands. Around her neck she has an elaborate necklace in the style of antique jewellery. Her head is covered with a veil held in place by an Egyptian-style crown made of a coiled snake. In her entire appearance and pose this figure reminds us of a priestess taken from either an antique or an oriental theme.

As in the vignettes for the *Thousand and One Nights*, Schwind made rich use here of arabesque ornamentation, which on both pages makes up the frame within which the figures are shown. The old man is sitting under an arch made up of various plant elements such as palm branches, grapes and sunflowers. Birds and snakes can be identified, as well as arrows, pointed at both ends, to left and right. The young woman is standing in a laurel wreath which has been supplemented with flowers and oak-leaves and into which a wide variety of individual elements has been incorporated.⁴⁰ Although it is not impossible to find symbolic meanings for almost all details contained in the two arabesque frames, they remain of a general type and lead to no logical conclusion. On the other hand, the truly meticulous way in which Schwind used the text as a model for the illustrations in his vignettes for the *Thousand and One Nights*, which were produced at approximately the same time,⁴¹ leads us to assume that in this case too the various themes incorporated into the arabesques make

³⁹ Cf. for Egyptian revival in the first quarter of the 19th century Syndram 1989, pp. 39-57.

⁴⁰ Clockwise from bottom left are to be seen: a turban on a cushion, a snake crawling out of a skull, a bookcase with an hourglass in front of it, a window in which a child can be seen, a walking stick and a shoulder bag together with a small axe, a pair of scales in front of an open book, four spheres reminiscent of gold coins, a nest with a pair of doves, a wall with a round, barred window along which a snake is crawling with a branch with leaves in its mouth, and finally a spade stuck in the ground.

⁴¹ Weigmann's dating of the Munich drawing to the middle of the 1820s is based

a reference to something very specific.⁴² Since, however, the cover design was never actually used for a publication, it has not yet been possible to identify the text concerned and use it to interpret the iconography and symbolism of the two pictures.⁴³

This also applies to the most elaborate work with an oriental theme which Schwind produced in the 1820s—a quite large watercolour and ink drawing, done with the utmost care (fig. 9).⁴⁴ With regard to the richness and complexity of the illustration, the variety and subtlety of the colouring and the fineness of detail and ornamentation, this picture represents the zenith of Schwind's occupation with oriental themes. It shows a group of people, dressed very differently, who are gathered on and next to a platform. The posture of the individual figures, many of whom are pointing with outstretched arms while others are engaged in lively conversation, suggests that the figures are present at some spell-binding event which is taking place before their eyes, invisible to the beholder of the picture. In addition to men and women in Ottoman dress, Schwind has portrayed people whose clothing is reminiscent of the Boyars but also a West European man with 16th-century cap and beard and a monk with a forked beard, dressed in European fashion and holding an open leather case probably containing medical instruments. Furthermore there is a veiled woman dressed in Syrian clothing and men whose headwear suggests that they could be Albanians or Janissaries.

In spite of the richness of its detail it has so far not been possible to establish an association between this picture and a specific topic. The most plausible explanation was made by Friedrich Gross, who suggested that the scene shows spectators at a tournament.⁴⁵ This would satisfactorily explain the great attention being paid by the figures. On the other hand, the conspicuous dominance of the motif of smoking—many of the figures are holding long pipes and one even

not only on the style of the portrayals but also on the choice of theme and is still generally accepted today (Weigmann 1906, p. 24).

⁴² Cf. for interpretation of Schwind's arabesques in general Busch 1985, pp. 90-107.

⁴³ This knowledge seems already to have been lost shortly after Schwind's death, because not even the otherwise so well informed Otto Weigmann was able to produce exact identification.

⁴⁴ Watercolour with body colour, ink over pencil, partly gilded, on paper; 13.1 by 40 cm; around 1826; Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Kupferstichkabinett, inv. no. SZ 3 (Weigmann 1906, p. 48).

⁴⁵ Holsten 1996-97a, cat. no. 54.

seems to be attempting to catch the smoke with his hands—could indicate that the picture was possibly done for advertising purposes, for instance as a shop sign for a Turkish coffee house or something like that.⁴⁶

Finally we should look at two watercolours which Schwind probably also painted in the 1820s. Their whereabouts are unknown, but they were reproduced in Otto Weigmann's monograph from the early 20th century (fig. 10).⁴⁷ They both take up a pseudo-oriental theme taken from a text by the English statesman and man of letters Joseph Addison (1672-1719). In the 159th issue of his magazine *The Spectator* of 1 September 1711, Addison published an essay with the title *The Vision of Mirza*, in which he recounts the story of an oriental scholar, purportedly taken from a manuscript he had found in Cairo but which is actually pure fiction.⁴⁸ In flowery language reminiscent of the Bible he tells how the scholar Mirza, who is meditating and praying on a rock above the city of Baghdad, meets a spirit in the guise of a shepherd, who starts playing a flute. The spirit takes the scholar by the hand and affords him a visionary view of the fate of mankind. As a symbol for the errors and temptations of earthly life he shows him a broad river valley, enshrouded in fog and dark clouds, with a bridge which is being crossed by human figures, before pointing out an ocean with what are clearly the islands of the blessed, although the ocean too is partly covered in black, impenetrable clouds.⁴⁹

As in his other early works, Schwind follows the text very accurately in the two watercolours of Mirza's vision. The first picture (fig. 10 right) shows a bearded old man in oriental dress contemplating on a rock, while standing behind him, a little higher up, there is a youthful genie in a short antique shepherd's tunic playing the flute. An oriental city with minarets can be seen on the plain below the mountain. In the second scene (fig. 10 left) Mirza is floating among

⁴⁶ A similar figure of a Turkish smoker is shown e.g. on the painting *Mädchen vor dem Lotto* by Peter Fendi (oil on canvas, 1829; Vienna, Österreichische Galerie Belvedere, inv. no. 2177).

⁴⁷ Watercolour over preparatory drawings (presumably in pencil), 11.5 by 14.5 and 9.5 by 11.4 cm; according to Weigmann done around 1825; formerly A. Otto Meyer Collection, Hamburg (Weigmann 1906, p. 49).

⁴⁸ Addison never actually travelled to the Orient, so it may be presumed that this vision is entirely his invention. (Cf. Addison 1856-62, vol. 1, pp. XIII-XIV, Addisonian Chronology.)

⁴⁹ Addison 1856-62, vol. 2, pp. 499-503.

dark clouds next to a youthful figure, now with the appearance of an angel, who is holding his hand and showing him the visionary view of eternity.⁵⁰

As this review has clearly shown, all of Moritz von Schwind's works on oriental subjects are strikingly similar in that they are bound strongly to the texts by which they were inspired, despite all their richness of fantasy and ingenuity. Of course this is due in part to the fact that many of them were intended as book illustrations, but it is also indicative of a basic principle present in Schwind's treatment of historical or foreign topics. In his later works, too, the artist always took pains to find reliable models for his works and to make the content of his pictures conform to those. Apart from that, the original way in which the early oriental pictures combine historical accuracy with wondrous enchantment hints at a characteristic of Schwind's style of interpretation which was to show itself again later in the great historical works of the artist's mature life.⁵¹

Apparently Schwind's preoccupation with the Orient was confined more or less to his youth and disappeared quite abruptly with the young artist's move to Munich in 1827. This means that the special atmosphere in Vienna may well have been an intrinsic element for creating the conditions in which Schwind took an interest in the Islamic Orient—as was also true for a number of other subjects on which he worked. It would however be wrong to assume that oriental themes were of only marginal interest to Schwind, as is evident by the existence of the oil sketch *The Magic Horse* (fig. 7). For that belongs to the *Reisebilder*—a series of paintings in which the mature artist took up once again motifs, ideas and subject matter of his youth which he retrospectively estimated as having been of particular importance to his work and his life.

⁵⁰ Since the whereabouts of the two watercolours are unknown, it is not possible here to provide more detailed information on the portrayals and the style. The poor quality of the sole surviving reproductions of the pictures does not allow an assessment.

⁵¹ Cf. on the question of historical accuracy in Schwind's painting Gross 1996.

Moritz von Schwind's illustrations for the Habicht "Thousand and One Nights" edition of 1827

To help identify the individual motifs, the respective nights and page numbers of the story directly referred to in Schwind's illustration are given here.

Illustration 1

Main picture—in the night after her marriage to Sultan Schachriar, Scheherasade tells the first of her stories. At her feet sits her sister Dinarsade, who is present at Scheherasade's request and who had asked to hear the story.

Arabesque left—sword and skull symbolising Scheherban's power.

Arabesque right—wreath of flowers and crescent moon symbolising Scheherasade's talents.

(Related text—end of the introduction to the *Thousand and One Nights*; Habicht 1827, vol. 1, pp. 33-35.)

Illustration 2 (fig. 2)

Main picture—Prince Agib is shipwrecked in front of the Magnetic Mountain, on the summit of which stands the statue of a brazen horseman.

Annexe left—the palace of the forty princesses; below it the key to the individual chambers of the palace opened by Agib; in the sky above the mythical bird Roch, who carried Agib to the palace.

Annexe right—the brazen rower who takes Agib away from the island in his boat; below him the three arrows with which Agib destroys the statue.

(Related text—The Story of the Third Kalender, 57th-66th Nights; Habicht 1827, vol. 2, pp. 106-143.)

Illustration 3

Main picture—Sindbad, who during his fifth voyage is forced to carry an old man on his back, takes out a gourd in order to make wine in it.

Arabesque left—rudder blade and ship's mast alluding to Sindbad's voyages in general; between them one of the monkeys used by Sindbad and his merchant friends to harvest coconuts; the elephant's tusks below are a reference to the seventh voyage, during which Sindbad goes elephant hunting.

Arabesque right—anchor and ship's mast as evidence of Sindbad's voyages in general; the scroll could refer to various places in the text of the sixth or seventh voyages.

(Related text—Fifth, Sixth and Seventh Journeys of Sindbad the Sailor; 87th-93rd Nights, Habicht 1827, vol 3, pp. 4-35.)

Illustration 4

Main picture—Harun Arreschyd and his vizier Giafar hide in a boat on the banks of the Tigris and observe from their hideout the magnificent ship of the false caliph Aly Schach.

Arabesque left—turban and standard as a reference to the caliph.

Arabesque right—lute as an allusion to the power which Aly Schach's mistress holds over him through her lute-playing and singing.

(Related text—The Story of Aly Schach or the False Caliph; 189th-192nd Nights; Habicht 1827, vol. 4, pp. 83-111.)

Illustration 5 (fig. 3)

One scene covering main picture and side annexes—Gülzare, the daughter of the King of the Sea but sold as a slave, receives a visit from her mother, brother and five cousins in the palace of the King of Persia, situated at the water's edge.

(Related text—Beginning of the Story of Prince Beder of Persia and Princess Giaehare of Samandal; 265th Night; Habicht 1827, vol. 6, p. 66.)

Illustration 6

Main picture—Prince Assad, who has fallen asleep by a well in Queen Margiane's garden, is discovered by Behram's men.

Arabesque left—urn, probably an allusion to Assad's hiding-place in a cemetery; the sceptre behind it and the chain of office above may refer to the power of the fire-worshippers, to the power of Amgiad who rose to become great vizier, or indeed that of Queen Margiane.

Annexe right—dungeon vault with chain, shackles and torch as a reference to the fire-worshipper's dungeon in which Assad is held prisoner.

(Related text—The Story of the Princess Amgiad and Assad; 242nd-248th Nights; Habicht 1827, vol. 5, pp. 143-175.)

Illustration 7 (fig. 4 left)

Main picture—Abu Hassan, who has been deceived into believing he is a caliph, awakes in the bedroom of Harun Arreshyd. He receives the homage of the court and afterwards issues orders to the vizier and the chief of police.

Arabesque left—Abu Hassan's wife Nushatulawadat, who pretends to be mourning her dead husband.

Arabesque right—the laid out body of Abu Hassan, who is feigning death.

(Related text—The Story of the Awakened Sleeper; 292nd-315th Nights; Habicht 1827, vol. 7, pp. 12-132.)

Illustration 8 (fig. 4 right)

Main picture—entrance of the Princess Bedrulbudur into Aladdin's palace, built by the forces of magic.

Arabesque left—the Genie of the Ring, whom Aladdin freed from the underground treasure vault of the African magician.

Arabesque right—the Genie of the Lamp, who helps Aladdin, e.g. by building the palace in the middle picture for him.

(Related text—Aladdin or the Magic Lamp; 320th-336th Nights; Habicht 1827, vol. 7, pp. 155-163, and vol. 8, pp. 3-18.)

Illustration 9 (fig. 6)

One scene covering main picture and side annexes—the Persian Prince Firuz Schah liberates the daughter of the King of Bengal from the clutches of the Sultan of Kashmir by flying away with her on an artificial magic horse before the very eyes of the sultan and his court.

(Related text—The Magic Horse; 391st and 402nd Nights; Habicht 1827, vol. 9, pp. 86-88 and pp. 140-141.)

Illustration 10

Main picture—the dyer Asem greets the two maidens who guard a magic palace in the wilderness where the sisters of the ghost queen occasionally bathe in a pool.

Arabesque left—the robe and the belt of one of the witch-princesses which give Asem power over her and enable him to marry her.

Arabesque right—the magic drum with which the magician Bahram creates a storm in the desert.

(Related text—The Story of Asem and the Ghost Queen; 454th-455th Nights; Habicht 1827, vol. 10, pp. 232-241.)

Illustration 11

This is the only vignette which combines three themes taken from completely different short stories.

Left picture—a schoolmaster is being helped up out of a well by his pupils, but he plunges back down into the depths because when he has to sneeze the boys, who have learned good manners from him, cross their arms in front of their chests and cry "God bless our venerable teacher!"

(Related text—The Story of the Weak-Loined Schoolmaster; 467th Night; Habicht 1827, vol. 11, pp. 68-69.)

Centre picture—delirious with opium, a fisherman mistakes the street in the moonshine for a river and throws out his line. Instead of a fish a large dog takes the bait.

(Related text—The Story of the Opium Eater and the Kadi; 478th Night; Habicht 1827, vol. 11, pp. 116-117.)

Right picture—after consuming an opium drink a farmer, coming from the market, takes a rest under a tree. He confuses the voice of a magpie with a human voice and sells the bird his cow.

(Related text—The Story of the Opium Eater and his Wife, 479th Night; Habicht 1827, vol. 11, pp. 122-123.)

Illustration 12 (fig. 5)

One scene covering main picture and side annexes—Prince Habib is fighting with a magic sword, also referred to in the text as a sabre, against monsters from the underworld.

(Related text—The Story of Prince Habib and Princess Dorrat-al Gawas; 515th Night; Habicht 1827, vol. 12, pp. 89-93.)

Illustration 13

Main picture—Giafar, the great vizier of Harun Arreschyd, stops at the last second the execution of the unfortunate Attaf, who has been falsely accused of murder and despite being innocent has in his desperation confessed the deed.

Annexes left and right—boxes of books with thorns and roses symbolising the good and bad luck of Giafar and Attaf as foretold in a book full of prophecies from Caliph Harun Arreschyd's "Cabinet of Curiosities" which thus make a reference to the background story.

(Related text—The Story of Attaf of Damascus; 546th and 549th Nights; Habicht 1827, vol. 13, p. 3 and pp. 20-21.)

Illustration 14

One scene covering main picture and side annexes—The discovery of the corn thief who lay hidden under a cauldron.

(Related text—the fourteenth story from the "Tale of King Azzaher Rudnuddyn Bibars al Bundukdary"; 940th Night; Habicht 1827, vol. 14, pp. 216-217.)

Illustration 15

Main picture—splendid court scene which shows Scheherasade next to King Schachriar, framed by a garland of roses and with a crescent moon above the pair.

Arabesques left and right—torches entwined with garlands of roses symbolising the happy outcome of the background story of the *Thousand and One Nights*.

(Related text—conclusion of the anthology; 1,001st Night; Habicht 1827, vol. 15, pp. 229-232.)

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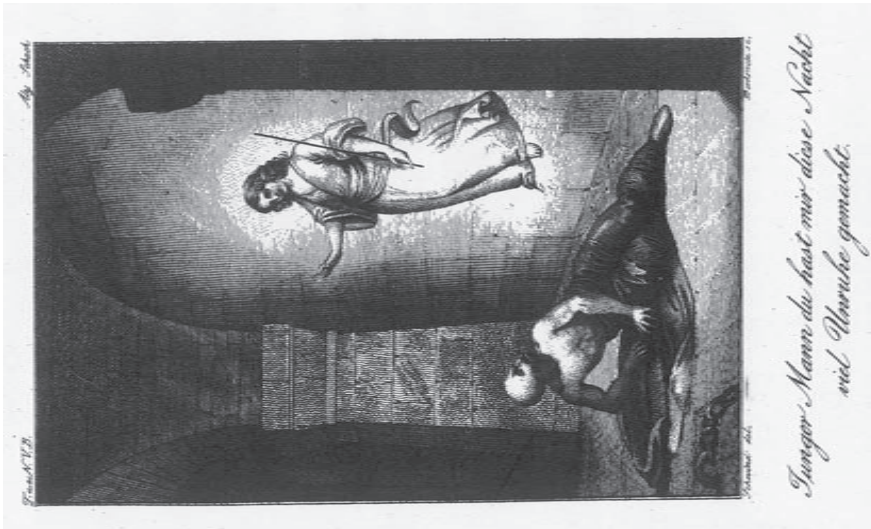
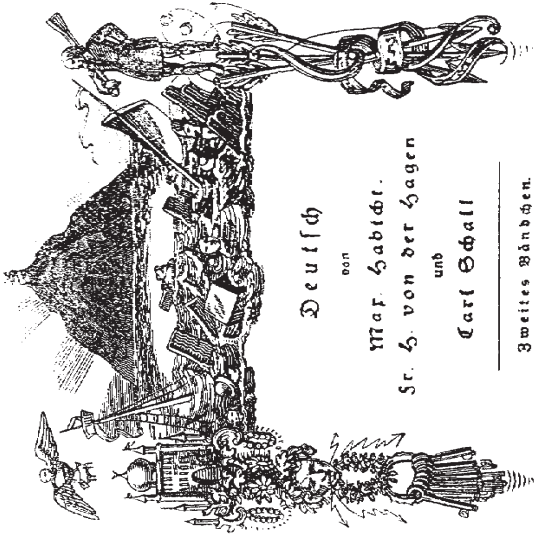


Fig. 1. Aly Schach in the Dungeon. Etching by Joseph Berkovetz after a drawing by Moritz von Schwind, 1826 (after Habicht 1826, vol. 5, frontispiece).

Tausend und Eine Nacht.
Arabische Erzählungen



Deutsch
von
Mor. Habicht.
Sr. G. von der Hagen
und
Carl Schall
Zweites Bändchen.

—
Zweite
bremenher Ausgabe

Breslau,
im Verlage bei Josef Mor. und Comp
1827.

Fig. 2. Title page of the second volume of the *Thousand and One Nights* (Breslau edition, 1827) with a title vignette by Moritz von Schwind, 1827 (after Schiller 1926, vol. 12, without pagination).

Tausend und Eine Nacht.
Arabische Erzählungen.



Deutsch
von
Mor. Habicht.
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und
Carl Schall.

Fünftes Bändchen.
—
Dritte
vermehrte Auflage.

Breslau,
im Verlage bei Josef May und Comp
1827.

Fig. 3. Title page of the fifth volume of the *Thousand and One Nights* (Breslau edition, 1827) with a title vignette by Moritz von Schwind, 1827 (after Schiller 1926, vol. 12, without pagination).

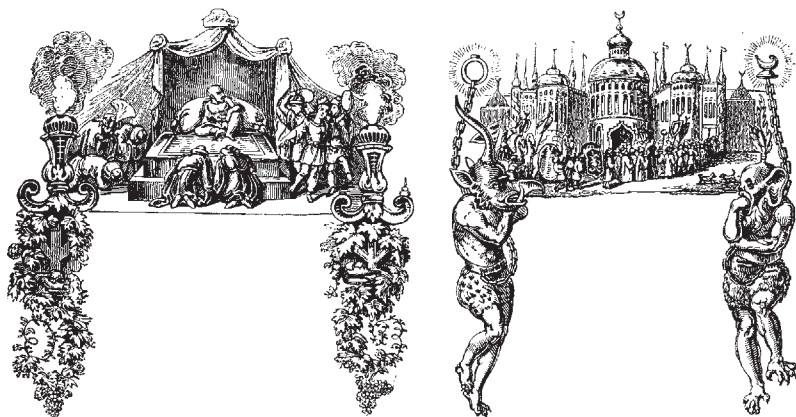


Fig. 4. Title vignettes of the seventh and eighth volumes of the *Thousand and One Nights* (Breslau edition, 1827). Wood engravings by George Watts after drawings by Moritz von Schwind (after Weigmann 1906, p. 46).



Fig. 5. Title vignette of the twelfth volume of the *Thousand and One Nights* (Breslau edition, 1827). Wood engraving by George Watts after a drawing by Moritz von Schwind (after Weigmann 1906, p. 47).

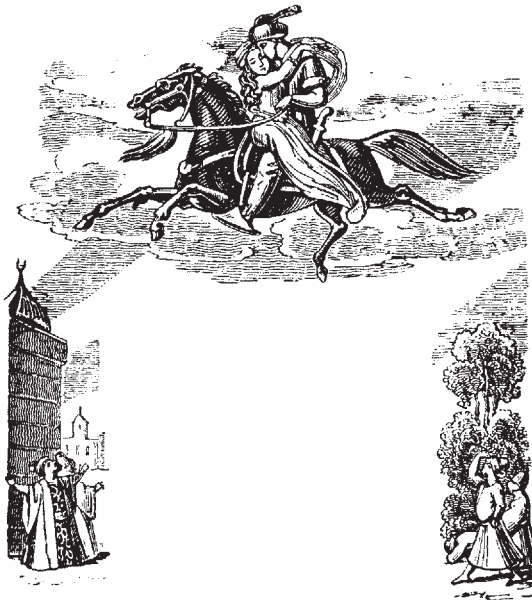


Fig. 6. Title vignette of the ninth volume of the *Thousand and One Nights* (Breslau edition, 1827). Wood engraving by George Watts after a drawing by Moritz von Schwind (after Weigmann 1906, p. 47).



Fig. 7. Moritz von Schwind: *The Magic Horse*. Oil on canvas, 29.5 by 20.5 cm. About 1860. Vienna, WienMuseum, 18.558 (photo: WienMuseum).



Fig. 8. Moritz von Schwind: Drawing for a book cover. Ink on paper, 17.0 by 12.5 cm. About 1823. Staatliche Graphische Sammlung Munich, 1921:66 (photo: Martina Bienenstein).



Fig. 9. Moritz von Schwind: Oriental Party on a Gallery. Watercolour and body colour, ink over pencil, partly gilded, on paper. 13.1 by 40 cm. About 1826. Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Kupferstichkabinett, SZ 3 (after Weigmann 1906, p. 48).

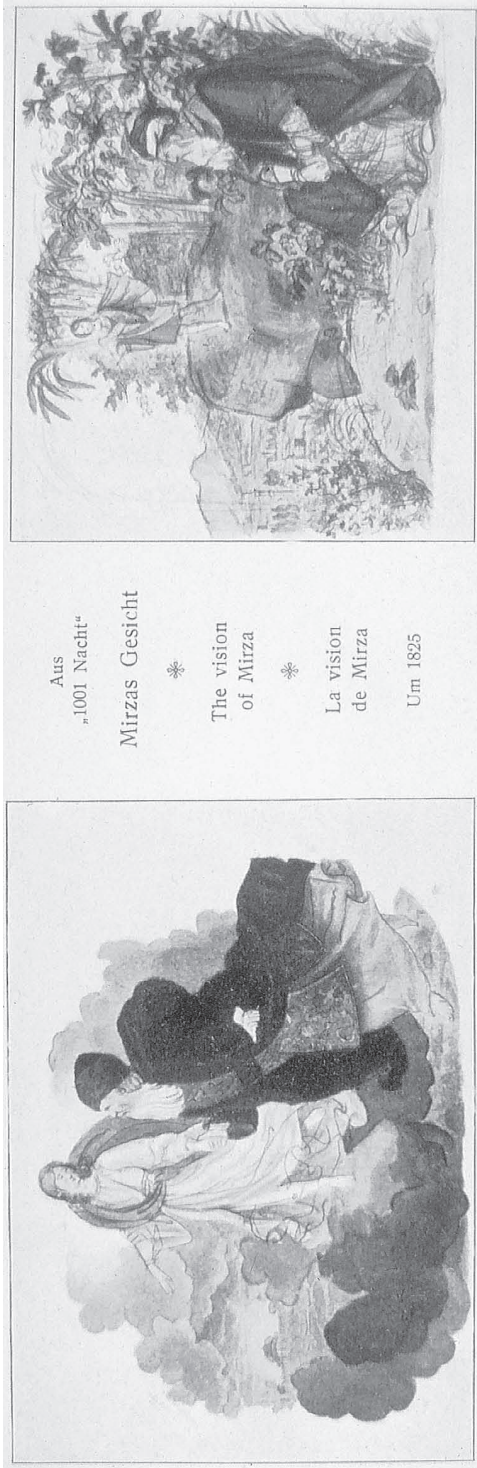


Fig. 10. Moritz von Schwind: The Vision of Mirza. Two watercolours over pencil drawings, 11.5 by 14.5 cm and 9.5 by 11.4 cm. About 1825. Formerly in the A. Otto Meyer Collection, Hamburg (after Weigmann 1906, p. 49).

THE ISLAMIC-ORIENTAL CARPET IN GIOTTO'S FRESCO *CHRISTMAS MASS AT GRECCIO* IN ASSISI

WERNER BRÜGGEMANN, LÜBECK*

To follow the meandering paths of learning is an attractive though somewhat bizarre undertaking when considering the role played by Giotto in the history of the oriental carpet, for the scholar cannot fail to notice the many inconsistencies which have attached themselves to the great artist's name in the course of one century of research. Such efforts would be of interest as a research exercise in the history of scholarship but rather unproductive with regard to the study of the oriental carpet and I shall therefore abstain myself from writing a review.

Instead I shall take up the conclusion reached by John Mills in 1983 in a synthesis of his hitherto published studies of the depiction of carpets in European painting. In it the author vehemently contradicts the popular assertion that in one of his frescoes in Assisi or in the Arena Chapel in Padua, Giotto had depicted an example of the few surviving so-called Konya carpets of the 13th century.¹ Mills is right. He does, however, go on to say: "There are no representations in paintings of before about 1300 of anything that can plausibly be accepted as a carpet."² Since that covers the period of Giotto's work in the Upper Basilica in Assisi, one must assume that Mills was unable to detect any depiction of a carpet in the frescoes there. In that point he is mistaken.

In Assisi, the twenty-eight scenes from the life of St Francis contain not only numerous depictions of patterns on Trecento silk, but also four portrayals of floor carpets. My evaluation of these facts is based entirely on publications which appeared before 1997, when the region was hit by an earthquake. The pictures show that the frescoes had long been in a ruinous condition and any evaluation

* Author's note: all drawings illustrated in this article were made by Gerd Schneider.

¹ Mills 1983, p. 12.

² *Ibid.*

made today of the design and colours must be considered in the light of that restriction.

The following frescoes document Giotto's depiction of carpets in the Upper Basilica of Assisi: *Christmas Mass at Greccio* (fig. 1), *St Francis preaching before Pope Honorius III* (fig. 2), *The Dream of Pope Gregory IX* (fig. 3) and *The Apparition to Fra Agostino and to Bishop Guido of Assisi* (fig. 4). All these four carpets can be detected in any of the popular illustrated books, although without the help of a magnifying glass the carpet depicted in the *Christmas Mass at Greccio* can easily be overlooked, and the carpet patterns in two other frescoes in Assisi (figs. 2 and 3) could at a quick glance even be mistaken for floor tiles. Only the carpet illustrated in *The Apparition to Fra Agostino and to Bishop Guido of Assisi* (fig. 4) is clearly visible, even if it does not exactly leap out at the beholder.³

There are several reasons why this paper concentrates solely on the carpet in the *Christmas Mass at Greccio*, the main one being that there is a certain doubt as to whether the depictions of carpets in the examples illustrated in figs. 2, 3 and 4 are actually of oriental carpets, or more precisely of knotted carpets.⁴ If we assume that this is Italian silk-weaving, then the detached, touching or overlapping circular shapes must have had their heyday in the Duecento, meaning that Giotto's choice in this fresco must be judged to have been a recourse to older tradition. It is rarely possible to say with certainty from where such patterns came to Italy, particularly in the case of the interweaving of overlapping circles. Brigitte Klesse cites Persian models of the 10th to 12th centuries.⁵ At the same time the carpet expert may think of similarly sophisticated carpet patterns found on miniatures of the Timurid dynasty and be tempted to evoke their predecessors.⁶ For this reason it even seems possible that Giotto did have an oriental carpet in mind rather than a Byzantine one. On the other hand there are no known models for the patterns of the carpets in the frescoes in Assisi which appear in figs. 2 and 3. At best, the most important motif in the carpet depicted in the scene

³ My interest in Giotto's portrayals of carpets was awakened by detailed reproductions of them in Gantzhorn 1990, pp. 100-113.

⁴ Kurt Erdmann speaks of the carpet depicted in the scene of *The Apparition to Fra Agostino and to Bishop Guido of Assisi* as being a "not yet knotted Byzantine carpet". See Erdmann 1929, p. 274, note 1 (referring to fig. 4, p. 264).

⁵ Klesse 1967, p. 37.

⁶ Briggs 1940, fig. 8, p. 23.

of *St Francis preaching before Pope Honorius III* (fig. 2) could be considered to be derived from the circle patterns of the carpet depicted in *The Apparition to Fra Agostino and to Bishop Guido of Assisi* (fig. 4).⁷ And finally, Kurt Erdmann dates the pattern of the carpet in *The Dream of Pope Gregory IX* (fig. 3) to the late 13th century.⁸

The carpet in the choir of the church of Greccio (fig. 1) seems to run up the few steps to the altar and under the baldachin, and then back down behind the altar, as it is portrayed by the artist. It has the shape of a runner with a narrow border, and whereas its length is hidden from us, it appears to be about one metre in width. The detail photograph (fig. 5) reveals only the composition of the pattern, but nothing of the ornamental motifs at which the artist must originally at least have hinted. We are aware of a rapport between unconnected primary eight-pointed stars and likewise unconnected secondary cross shapes offset on a monochrome ground.

The knowledgeable aficionado is probably already familiar with this combination of motifs, which seems to have been at the height of its popularity during the Italian Trecento, and therefore in Giotto's lifetime. In her study of the silk-weaving of that era Brigitte Klesse names more than one hundred examples, a third of which she attributes to Giotto and his school.⁹ In other words, this was the most frequently used pattern in the Trecento and therefore was an everyday matter for the great artist. From his first day in Assisi Giotto must also have been regularly exposed to it. In the Lower Church, which was completed as early as 1230, there are four highly visible examples: as the painted underside of a band which spans the nave, in marble as decoration of the walls of the staircases leading to two opposite chapels, and also as a frame around the portal.

Has architectural ornamentation anticipated textile ornamentation in this case too? A glance into the Italian Duecento would seem to confirm this. The traveller to the south of the country and certainly to Sicily is confronted in almost every Arab-Norman building with the pattern to be discussed here. No wonder that Ernst Grube calls it a "classical" pattern.¹⁰ Its classicism at that time is based not

⁷ Gantzhorn 1990, p. 112.

⁸ Erdmann 1929, p. 293, note 3.

⁹ Klesse 1967, pp. 38-49 and cat. no. 23-110.

¹⁰ Grube and Johns 2005, p. 20; Grube's analysis of the Fatimid painting on the

only on the maturity that comes with age, which indeed we do not know exactly, but also on the fact that band decoration was often preferred to the field decoration from which it had developed. We often find them both juxtaposed, usually in an important function such as the border of a surface or as its texture. And, ultimately, the Arab-Norman ornament had already occupied most of its medial possibilities: it is to be found on exterior and interior walls, in stone and marble, as a mosaic or in wood, as a quotation in fresco painting and even carved from ivory. It cannot therefore be ruled out that the use of this ornament already reached a zenith in Sicily in the 12th century.

But our concern is with a different question: how did this pattern, reproduced in a carpet, get into one of Giotto's frescoes? Let us revert to the textile ornament. The noticeable difference between Giotto's silk patterns (drawing 1)¹¹ and his carpet patterns (drawing 2) lies in the natural small format of the one and the equally natural large format of the other, but also in the unconnectedness of the primary and secondary figures in the carpet pattern, which is not to be found in the textile patterns. And last but not least, a "colour change of the ground in individual compartments, which was emphatically employed by the Giotto workshop in painted wall-hangings",¹² is not identifiable in the carpet pattern. Compared with the silk patterns, the architectural ornamentation in the Lower Church comes much closer to the carpet pattern, for it also displays a comparably large format, as indeed do the earliest examples of the pattern found on buildings (see here drawing 6). The only difference between the carpet pattern and the architectural ornament is the unconnectedness of the large motifs.

In addition to the comprehensive work by Brigitte Klesse, there are two other studies, in which the "cross-shaped eight-pointed star pattern", as I choose to call it after Ettinghausen, plays an important role.¹³ These are the above-mentioned essay by Amy Briggs published in 1940 and that of Richard Ettinghausen first pub-

wooden ceiling of the nave of the Cappella Palatina; our pattern provides here, as in the Cathedral of Cefalù, the ornamental structure of the wooden ceiling.

¹¹ The walls beneath the frescoes in the Upper Basilica in Assisi are also decorated in part with this textile pattern.

¹² Klesse 1967, p. 40; the author speaks of the influence of so-called West Islamic "Alhambra textiles".

¹³ Brüggemann 1993, p. 187.

lished in 1977; Ettinghausen refers in his article to both Briggs and Klesse.¹⁴

Of greater importance for us is the essay by Briggs, because it alone is carpet-oriented and because the author, like Klesse, bases her study on Persian miniatures from the Timurid dynasty. These miniatures show 15th-century carpet patterns and among them is exactly our cross-shaped eight-pointed star pattern. The author assigns to it the title of Type II within a series of eight diagrams fundamental to the Timurid carpet.¹⁵ Scholars who are interested in our pattern or who are considering the small-pattern Turkish Holbein carpet, consistently use as evidence¹⁶ a miniature by Bihzad (drawing 3), and I shall do the same.

Some of Briggs' trains of thought in connection with our topic should be emphasised. In her opinion:

1. The patterns of the Timurid carpets are highly developed, to such an extent that they cannot be imagined as not having a predecessor within the medium of the oriental carpet (in this respect Briggs is in agreement with Rudolf M. Riefstahl¹⁷).
2. The design of the small-pattern Holbein carpet (drawing 4) is closely related to the cross-shaped eight-pointed star pattern.¹⁸
3. The large different motifs of the Holbein carpet are unconnected, in contrast with the majority of Timurid carpets.¹⁹ Briggs' aesthetic evaluation of this fact ("detached, static, frozen"), also in agreement with Riefstahl, fails to take into account the development of the Turkish carpet, and has therefore proven to be of temporary validity.
4. There is a startling conformity between the composition of Timurid carpets and that of silk-textile carpets of the Italian Trecento, for instance in Duccio's *Maestà*, in three of Giotto's frescoes in the Arena Chapel in Padua, as well as in some of the frescoes in Assisi.²⁰ (A classification and analysis of this evidence can be found in Klesse's study.)

¹⁴ Briggs 1940 and Ettinghausen 1984.

¹⁵ Briggs 1940, fig. 2.

¹⁶ Briggs 1940, fig. 25.

¹⁷ Briggs 1940, p. 40; here and elsewhere the reader can sense in the background Riefstahl's important essay (Riefstahl 1931).

¹⁸ Briggs 1940, p. 39.

¹⁹ *Ibid.*

²⁰ *Ibid.*, p. 29.

At this point I take the liberty of mentioning my own contribution. In 1993 I published a fragment of brocaded flatweave from Anatolia, which has since been carbon-dated and the composition of which corresponds with that of the cross-shaped eight-pointed star pattern (drawing 5).²¹ My analysis establishes a close formal connection between an early fragment of our pattern from Samarra (9th century, drawing 6), the above-mentioned Timurid example (Bizhad, around 1485, drawing 3) and this Anatolian flatweave, which dates from the 15th/16th centuries. A variation, also brocaded, will be considered below.

Richard Ettinghausen deals quite differently with the cross-shaped eight-pointed star pattern. He judges it to be an example of “conformity in Islamic art” and provides us with eight further pieces of evidence from the history of Islamic art taken from the 8th/9th to the 18th centuries.²² Three of these pieces of evidence involve carpets: the depiction of the carpet in the miniature of Bizhad and two Moghul Indian carpets from the 17th/18th century. Ettinghausen shows very clearly how the internationality of such artefacts expresses itself on the one hand as being linked in time and space, and on the other hand as being dispersed throughout the gamut of material media.

What do these examples, which could easily be augmented but which have never been categorised, actually tell us?

1. They all come from the Eastern regions.
2. We cannot identify their exact source, although the Sasanian-Persian region would at least be worthy of a guess.
3. Another conjecture involves the original medium: according to Klesse architectural ornamentation may have given birth to our pattern and our brief excursion into Arab-Norman architecture seems to confirm this.²³
4. Its historical heydays cannot be reliably ascertained; with the exception only of the previously mentioned Sicilian architectural ornamentation of the 12th century and the silk-weaving of the Italian Trecento. According to Klesse their patterns reached Italy from the western Islamic world (Spain), an observation which in no

²¹ Brüggemann 1993, plate 94, especially text p. 187 and drawings 123-126.

²² Ettinghausen 1984, p. 99.

²³ Klesse 1967, p. 48.

way contradicts the probability of an Eastern source,²⁴ a thought which is reinforced by the Umayyad-Fatimid line of ornamentation in Sicily.

And what do we learn from this evidence with regard to the importance of the cross-shaped eight-pointed star pattern in the history of Islamic-oriental carpets? It must first be admitted that we do not possess any concrete evidence from before the 15th/16th centuries. All the older pieces of evidence for the presence of our pattern in oriental carpets, from the early 13th century onwards, exist only as depictions in illustrations. The sources are quickly listed:

1. Two Syrian books of gospels from around 1220 with depictions of Whitsun; Christ's disciples on altar steps which are covered with a carpet (fig. 6).²⁵
2. Giotto's *Christmas Mass at Greccio*, his fresco in the Upper Church of Assisi (approx. 1300).
3. Timurid miniatures from throughout the 15th century.

The extraordinary importance of our only and comparatively early Anatolian piece of evidence is becoming ever clearer, that fragment of brocaded flatweave (drawing 5). Its tangible existence gives rise to thoughts which lead in different directions and which we shall allow to develop below, in order that we may at last understand the depiction of our pattern in Giotto's fresco.

I begin with a piece of general knowledge. It has been shown that in Anatolia brocaded flatweave often contains patterns handed down from knotted carpets. It cannot be discounted that in this case we are also confronted with such a transmission. But if that were so, how could it have taken place? The neighbouring Persian society provides us with no concrete clues for such developments in textile production, but we do find there certain preconditions within the evolution of patterns, which could shed light on the Anatolian issue. Once again I refer to the miniature by Bihzad (drawing 3) depicting our pattern in a carpet. In addition, Timurid miniatures are also related to the small-pattern Holbein carpet (drawing 7). Briggs and Riefstahl have also drawn attention to this parallel, but what do these two patterns really have in common? I shall try to render Briggs' observations more precisely in my own terminology.

²⁴ *Ibid.*

²⁵ Gantzhorn 1990, figs. 194 and 195.

In Bihzad's cross-shaped eight-pointed star pattern (drawing 3), the eight-pointed stars and cross-shaped figures are arranged in offset rows, whereas the Timurid pattern (drawing 7), which might have influenced Holbein's ornament, contains octagons and quatrefoils arranged similarly in a cross-shaped pattern. Not only are the primary motifs of the two patterns, eight-pointed star and octagon, geometrically related, but also their secondary partners, the cross-shape and quatrefoil. In addition, both designs use the small-pattern quartering as a principle of composition. This close formal relationship might mean that when one pattern is used the other could also be expected to appear.²⁶ This is the case in Persia, but also in Anatolia. For there we usually find not only the pattern of the Holbein carpet but also a carpet pattern with eight-pointed stars and cross-shapes. This is proved by our precious fragment of flatweave (drawing 5). And fortunately there is support for that piece of evidence: the face of one of the most remarkable bags (Turkish: *çuval*) bequeathed by Anatolia (drawing 8)²⁷, presents us with an ornamental picture which is in fact indebted to both patterns. Again it is made of brocaded flatweave, but that is hardly surprising because *çuvals* have proved themselves to be particularly good bearers of older traditions. We put on record that both the Persian carpet of the Timurid dynasty and the Turkish carpet knew the cross-shaped eight-pointed star pattern. And furthermore, in both regions we encounter the Holbein pattern.

The remarkable coexistence in Persia and Anatolia of two important and closely related patterns, which are even joined by a third companion with the silk-weaving of the Trecento, does of course not preclude the possibility that they existed consecutively. Whereas it can be said that in silk-weaving the composition of Holbein pattern and cross-shaped eight-pointed star pattern were contemporary, the process in Persia and Anatolia may have taken a different course. A scholar who would refer to Herzfeld's find in Samarra (drawing 6) and to Ettinghausen's discovery of a (presumably earlier) silk pattern,²⁸ and who propagates the hypothesis of the Eastern, and possibly Persian, origin of the pattern, cannot hesitate to put an earlier

²⁶ According to Klesse this affiliation exists also in the silk weaving of the Italian Trecento; Klesse 1967, pp. 38-49.

²⁷ Brüggemann 1993, pl. 104, text p. 193, drawing 135.

²⁸ Ettinghausen 1984, p. 99.

date on its assimilation into the medium of carpet-making; certainly before its first-known traces appear in the Timurid period. This Amy Briggs thinks, too. But how early is it? The only clue is provided by the depictions of carpets in the above-mentioned Syrian gospel books of 1220 (fig. 6), since models for them could have come from Persia.

The situation in Anatolia is different. The existence of our pattern is documented by its repeated presence in brocaded textiles over a period of many centuries, pointing to an earlier existence in knotted carpets, but, in contrast with the Holbein pattern in the Timurid miniatures, we possess no early evidence, and unlike the Persian tradition we can find no evidence of it in other media. I nevertheless contend that the Anatolian cross-shaped eight-pointed star pattern is, in the same manner as the small-pattern Holbein carpet, an early adoption from a neighbouring region of the East. Is there evidence for this temporal relationship? Yes, there is.

And this brings us back to Giotto. Not only does the evidence point to the fact that it is a knotted carpet which covers the altar steps in his fresco, but that it is indeed a Turkish carpet. Here we must go into more detail: in its character, the little of the pattern that is visible suggests a carpet pattern, with its generous layout, the empty ground of its field and its large-format motifs. Incidentally Klesse attributes to the artist "a completely new understanding of how to portray cloth". She speaks of an "empathy for that which is commensurable with cloth" and even goes on to show how he uses the pattern to "interpret the cloth".²⁹ It is a fact that an expert looks at the pattern and recognises immediately that it is a carpet pattern.

But how do the Turkish characteristics express themselves? It is the freedom of the large motifs within the fields, their detachment, in which we catch sight of the complete history of pattern composition in the Turkish region (with the exception of the Lotto Pattern) and which even dominates Turkmenian carpet-making. I will not conceal the fact that Briggs also saw a tendency in this direction in the Timurid carpet (see drawing 7) and that Klesse too detects something similar in the silk patterns of the Trecento, but in both these cases the occurrence does not define the style, as it does with the Turkish carpet. This means that Giotto must have had access to

²⁹ Klesse 1967, p. 25.

a 13th-century carpet, and not an early Ottoman carpet, but rather a product of the Rum-Seljuks. A general statement by John Mills lays the foundation for such a possibility: "Near Eastern carpets must have come to be known in Italy at the latest by the 13th century", whereby he makes reference to Seljuk Anatolia.³⁰ Nor should we forget that Giotto was one of the first painters whose depictions made possible a better understanding of the so-called Turkish "animal carpets". Nowadays, when we are confronted more and more often with the tendency to assign Konya carpets to the 14th rather than the 13th century,³¹ Giotto's carpet portrayal in his *Christmas Mass* becomes increasingly significant. For if that tendency should prove to be correct, the cross-shaped eight-pointed star pattern could in fact be one of the handful of Rum-Seljuk carpet patterns which we should have to classify as being older than the venerable carpets from Konya and Beyşehir. Even if ruins or monuments from that period no longer exist, the presence of our pattern in the Anatolian flatweave allows us to formulate the hypothesis that they may have existed, or indeed that they must have existed.

The value of this hypothesis will ultimately be decided by the correct evaluation of the artist's authenticity. How credible is Giotto? Statements on that subject belong in the category of the previously mentioned inconsistencies in scholarly research. I shall simply compare an early opinion expressed by Bode with one expressed almost a century later by Gantzhorn. Bode writes: "Each building, each contemporary piece of furniture, the textile patterns and ornaments which appear in the works of Giotto and his successors seem in comparison to the originals to be only shortened hieroglyphic symbols. The same must be assumed of the oriental carpets which we find in their pictures."³² Gantzhorn asserts: "It is Giotto to whom we owe the most and at the same time most exact illustrations."³³ The number of illustrations is actually much smaller than Gantzhorn assumes and their precision should be considered with more refined approach, in comparison for instance with Dutch painting of the 15th century, while Bode's phrase "hieroglyphic symbols" is in no way appropriate when describing Giotto's style in his reproduction of the material world.

³⁰ Mills 1983, p. 12; Bode had incidentally also expressed the same opinion.

³¹ Most recently Denny 2003, p. 17.

³² Bode 1892, especially p. 47.

³³ Gantzhorn 1990, p. 100.

On the other hand, Bode's epithet "shortened" is appropriate, although I should prefer to use the term "abbreviated". With great disappointment Bode misses border patterns, secondary motifs, and indeed every kind of detail. Nevertheless, interpreters of Giotto's work speak of a new realism, of "reproduction with a hitherto undreamed-of truth",³⁴ which embraces "the whole wealth of the perceived world",³⁵ every type of material, even the "physical presence of objects".³⁶ Truth can only mean that even when the artist has felt free to confine himself to allusion, he has never falsified the truth. We should therefore never presume that abbreviation may be accounted for by carelessness or even contempt for an object, no more than it is due to an inclination towards playful fantasy.

While Giotto's subjects do not gain the distinct independent existence achieved later by the Dutch painters, they are nevertheless presented very naturally. Their appearance in the reality of a room is decided within a scale of importance (i.e. more or less abbreviated) by the artist alone. For instance, he chooses merely to hint at the pattern of a curtain in the background of a fresco by foregoing the complexity of its linear structure, whereas he reproduces in the most minute detail the complex pattern on the hangings of a throne or on the background of a crucifix, in other words objects which have an important function within the picture (see for example drawing 1). The carpet in Giotto's *Christmas Mass*, placed in the bottom right-hand corner of the fresco, takes up just 1/50th of its surface area. The markings of its pattern are barely visible to the naked eye and therefore we consider an abbreviation of the linear composition of the pattern to be absolutely appropriate. This too is a point which reflects the artist's sense of realism. But we should trust the little evidence that is available. I repeat: Giotto has probably bequeathed to us the ornamental structure of a 13th-century Rum-Seljuk carpet.

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³⁴ Battisti 1990, p. 18.

³⁵ Hetzer 1981, p. 24.

³⁶ Bellosi 1981, p. 79.

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Fig. 1. Giotto, *The Christmas Mass at Greccio*, fresco in the Upper Basilica of San Francesco in Assisi around 1300 (after Ruf 2004).



Fig. 2. Giotto, *St Francis preaching before Pope Honorius III*, San Francesco in Assisi (after Ruf 2004).



Fig. 3. Giotto, *The Dream of Pope Gregory IX*, San Francesco in Assisi (after Ruf 2004).



Fig. 4. Giotto, The Apparition to Fra Agostino and to Bishop Guido of Assisi, San Francesco in Assisi (after Ruf 2004).

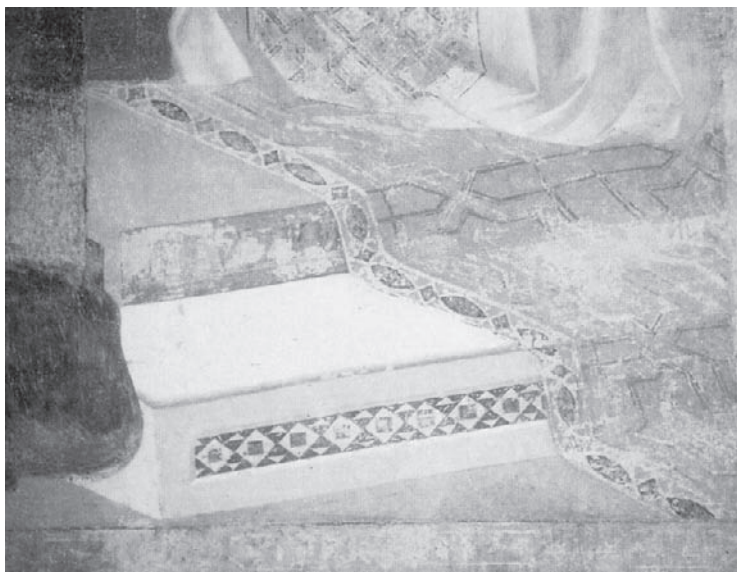
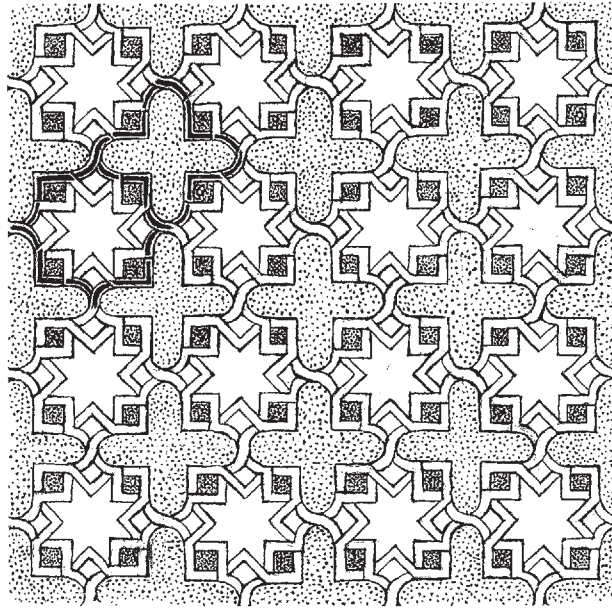


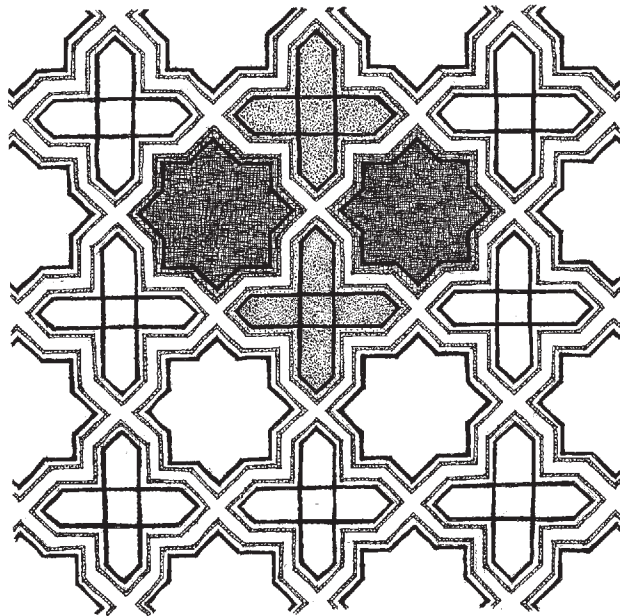
Fig. 5. Giotto, *The Christmas Mass at Greccio*, detail from fig. 1 (bottom right) (after Gantzhorn 1990).



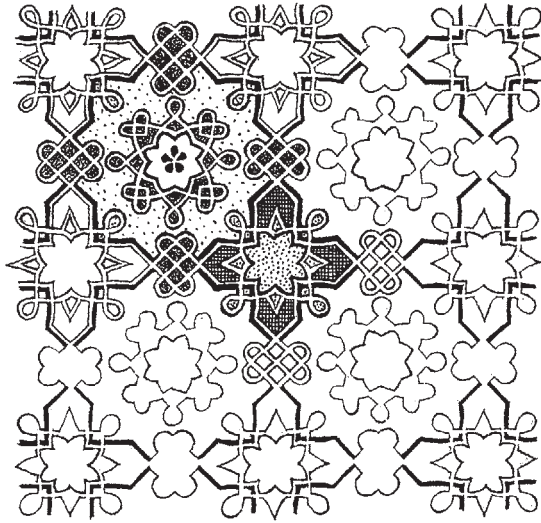
Fig. 6. Syrian Book of Gospels, *Whitsun*, around 1220; London, British Museum, Cod. add. 7170 (after Gantzhorn 1990).



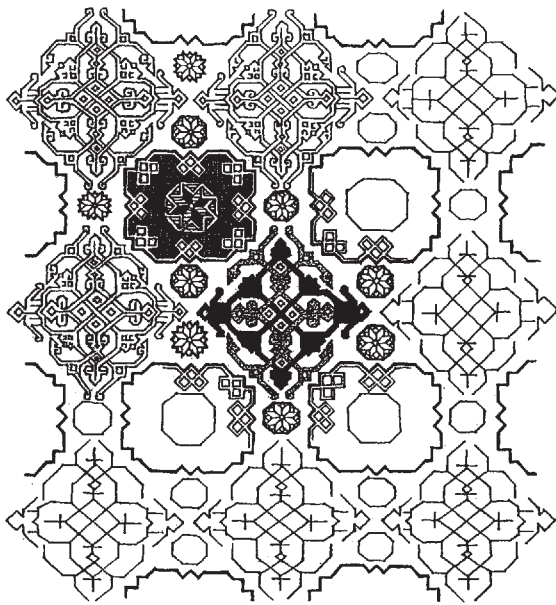
Drawing 1. Cloth pattern as background to the body of Christ in a crucifix by Giotto, Santa Maria Novella, Florence, around 1300.



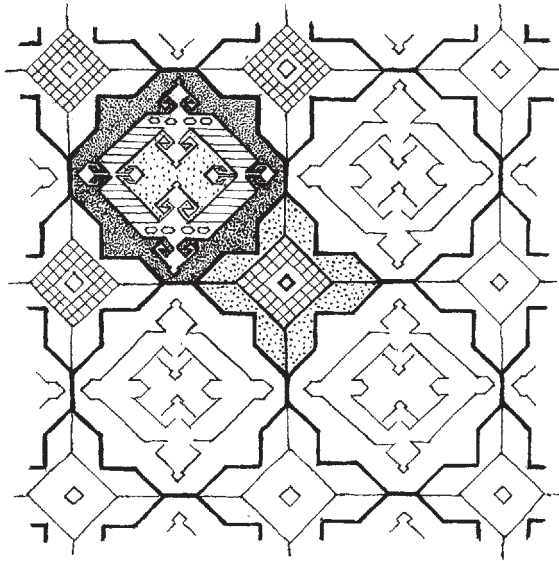
Drawing 2. Carpet pattern in Giotto's fresco *The Christmas Mass at Greccio* (figs. 1, 5).



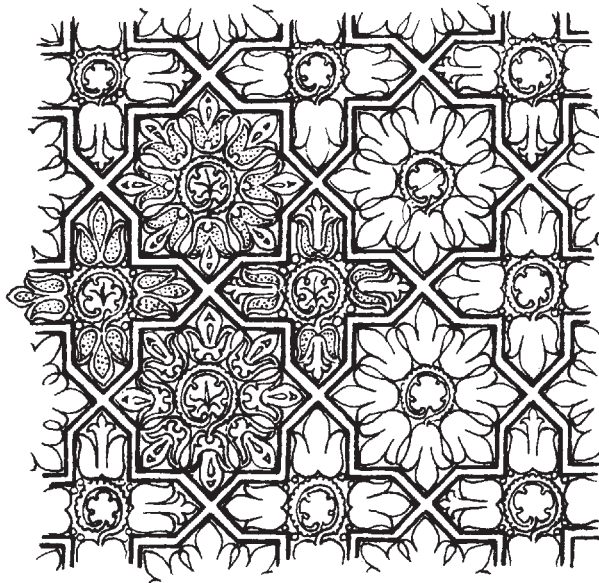
Drawing 3. Carpet pattern from a miniature by Bihzad, *Sultan Husain Mirza in a Garden*, Herat, around 1485 (after Briggs 1940, fig. 25).



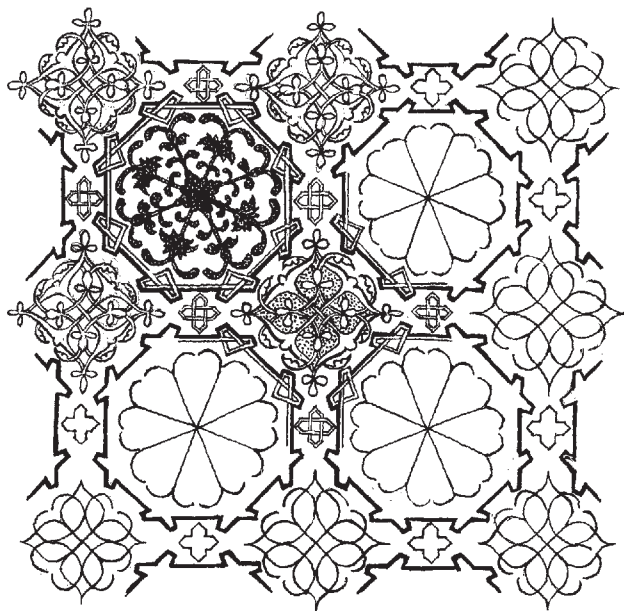
Drawing 4. Holbein pattern from a carpet in the Wher Collection, Switzerland, 16th century (after Gantzhorn 1990, p. 257).



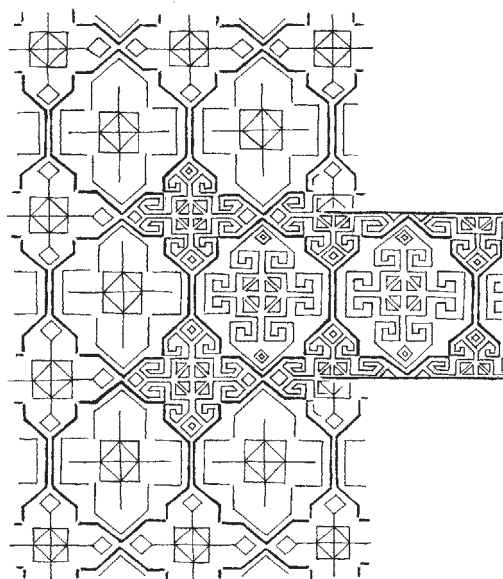
Drawing 5. Cross-shaped eight-pointed star pattern in brocaded Anatolian flatweave, 15th/16th century (after Brüggemann 1993, pl. 94).



Drawing 6. Cross-shaped eight-pointed star pattern in stucco, Samarra, 9th century (after Herzfeld 1923, fig. 234).



Drawing 7. Carpet pattern resembling a Holbein pattern in a Timurid miniature (*Shahnameh* for Sultan Ali Mirza, late 15th century; after Briggs 1940, fig. 53).



Drawing 8. Cross-shaped eight-pointed star pattern on the front of an Anatolian bag (*cuval*), 19th century (after Brüggemann 1993, pl. 104).

LOUIS COMFORT TIFFANY'S JOURNEY TO NORTH AFRICA IN 1870 AND THE INFLUENCE OF ISLAMIC ART ON HIS WORK

ANNETTE HAGEDORN, BERLIN

I. *The Art of the Islamic World and the Decorative Art Movement in the USA*

Between 1870 and 1880 a movement arose in the USA similar to the European Arts and Crafts Reform, although it came somewhat later. During that time American society underwent dramatic economic and social upheavals, as described by Roger B. Stein in 1986,¹ which obviously also had an effect on art and culture. During the search for a new approach to decorative art the European Reform Movement was closely observed and many of its theories were adopted. Many American artists and businessmen visited Europe for the International Exhibitions as well as many European artists came as immigrants to America,² all of which led to an increased exchange of ideas. In this way an awareness of the Islamic orient spread through America. Although the oriental countries did not take part in the "Centennial" Exhibition in Philadelphia in 1876,³ an interest in Islamic art is nevertheless evident from various pavilions which the exhibition architect Frank Furness (1839-1912) designed in Neo-Moorish style.⁴

The Neo-Moorish style soon began to be used in the interior decoration of the villas of wealthy American industrialists and busi-

¹ Stein 1986, pp. 22-51.

² An example: John Bennett, who came from Stoke-on-Trent, the centre of English pottery production. After achieving early success in Britain, he emigrated to New York in 1878. Pottery in: Frelinghuysen 1986, p. 218. Now in the Metropolitan Museum of Art, New York, inv. no. 1984.448.3. An artist who took the same route was Frederick Hurten Rhead, who immigrated in 1902 to the USA and in 1904 became director of the Roseville Pottery Company in Zaneville, Ohio. He subsequently worked for various firms before setting up his own company in 1917. After going bankrupt he joined the American Encausted Tiling Company as an employee in 1917. See Greene Bowman 1999, pp.176-183.

³ See Çelik 1992, pp. 167-168.

⁴ See Brazilian exhibition pavilion in: Çelik 1992, p. 167.

nessmen (fig. 1), as shown by the smoking room designed by Louis Comfort Tiffany (1848-1933) in 1880 for the house of John D. Rockefeller⁵. Tiffany, who began his artistic career as an interior decorator, was instrumental in introducing oriental details into the interior furnishings of the American high society.⁶ Parallel to this development a new interest arose for the art of the Islamic world, best demonstrated in quantity and quality by the collections of Edward C. Moore (1827-1891)⁷ and Henry O. Havemeyer (1847-1907) in New York. Both collections contained a large number of excellent objects from all genres of Islamic decorative art.⁸

Edward C. Moore in particular was to gain great importance not only as a collector but also as propagator of the development of American decorative art, especially with regard to Tiffany's works. As chief designer in the silverware department of Tiffany & Company, he later established within the company a school for silversmiths with European standards of quality. Moore had originally learned his trade as a silversmith in different small companies in the New York area before becoming acquainted with European methods of training during visits to Paris in 1855 and possibly 1867. In the mid-1870s

⁵ Brooklyn Museum of Art, inv. no. DA 46.43, in: O'Neill 1986, p. 138.

⁶ Edwards 2000, p. 185: "The desire to incorporate the Orient into one's everyday life was facilitated by the burgeoning import business, of which Tiffany and Company was the premier American provider. Such entrepreneurial ventures acquired materials directly from the Orient but also imported goods of western fabrications that were intended to approximate oriental originals."

⁷ About Moore's cooperation with Tiffany and their business connections: Jenkins-Madina 2000, pp. 76-80. The author describes here how Edward C. Moore, son of the silversmith John C. Moore, became interested in Islamic art and started to use it as a model for his own work. Edward C. began a cooperation with Tiffany shortly before his father's death. He produced silverware and designed adornments for Tiffany's glasses. In 1868 Tiffany bought out Moore's company and made Edward head of the silverware department of the flourishing Tiffany Company. Edward bought pieces for his collection on the art market and also probably direct from Persia. After E. C. Moore's death the *New York Times* wrote on 29.11.1891 that his collection had a total value of 100,000 dollars (today's equivalent: approx. 2,000,000 dollars). According to its owner's last will it was to be donated to a museum. Approximately 1,500 items of the highest quality came into the possession of the Metropolitan Museum of Art in New York, including 96 Persian and Arabic glass objects. Being a silversmith he had also collected many Islamic metal pieces of art from the 12th-14th centuries.

⁸ Many objects from these collections are to be found today in the Metropolitan Museum, New York. On this subject: Anonymous 1907, pp. 105-106. These and other articles are in the archives of the Tiffany Company in New York. They are referred to in the "Dictionary" of the catalogue: O'Neill 1986, p. 473.

he began to make Tiffany familiar with the Islamic decorative art contained in his own collection.⁹ Moore's personal enthusiasm led to his collecting oriental and East Asian art from various countries, originally as models for the designs of his own company and later, after he joined the Tiffany company, he made them available also to Tiffany's designers. In addition to his collected objects he also possessed several hundred books on oriental art. Personally Moore preferred Japanese art as his source of inspiration.¹⁰

One known product of Moore's collaboration with Tiffany is a silver gilt tea service, believed to have been produced around 1888, known as the Saracenic Tea Service.¹¹ The individual pieces of the service are decorated with adornments in Moorish style and in the colours red, blue and yellow. The restriction to the primary colours complies exactly with the demands of the English architect and art theoretician Owen Jones (1809-1874), who was also respected in the USA.¹² According to Jones's theory, which he had developed during his study of the wall decorations of the Alhambra, only the primary colours could have any real value as decorative colours.¹³

⁹ Tiffany's collection of Islamic glass no longer exists as an entity after the company's stock was sold off at various auctions in New York after 1934. In 1946 oriental objects were auctioned off for good. See Parke-Bernet Galleries 1946. Three glasses (cat. nos. 504, 507, 508) were later in the possession of Ray Winfield Smith (see Smith 1957). One glass from Smith's collection (no. 508) is today in the collection of the Corning Museum of Glass: inv. no. 59.1.512. This is a small blown and marvered Fatimid glass, the surface of which has become iridescent through being buried in the ground. It is assumed that Tiffany was drawn both by the iridescence and by the combination of the miniature size and the decorated surface of this small vessel, because he drew the inspiration for his own production of Favrite-glass from antique and Islamic glass. In Carboni 2001, cat. no. 43, pp. 126-127.

¹⁰ Jenkins-Madina 2000, pp. 78-79. This relationship with original models is also known in the study collections of European potteries. The author researched and studied this in the archives of companies in Great Britain, France, Hungary, the Czech Republic and Germany. Not only original Muslim pottery was acquired but also the most important published study-books were bought for the companies' libraries. In these the companies' designers looked for inspiration for their own products. The author plans the publication: *Islamic Style European Pottery of the 19th Century*. On tiles of this time Hagedorn 2005.

¹¹ The Metropolitan Museum of Art, New York. Gift of a friend of the Museum, 1897. Inv. no. 97.1.1-4. Pl. in: Edwards 2001, p. 183.

¹² 1880 the American edition of Jones's *Grammar of Ornament* was published in New York, which taught American artists and designers. Lynn 1986, p. 55.

¹³ See Jones 1856, Proposition 14-34. In it he describes the function of the three primary colours and of what he calls the secondary colours mixed from two primary colours, and the composition of decoration. The Propositions 21, 22, and 23 apply

The Saracenic Tea Service was designed as a unique exhibit of the Tiffany Company and was not intended to be reproduced.¹⁴ Public reaction was enthusiastic and in an article published in 1898 the service's designer was acclaimed to be 'the Genius of American Silversmiths' and the service itself described as "one of the most artistic silver sets ever produced by the hands of an American Silversmith".¹⁵

II. *Tiffany's Training and Early Knowledge of the Art of the Islamic World*

Louis Comfort Tiffany was born the son of Charles Louis Tiffany, owner of a silverware and jewellery company founded in 1837. He was reluctant to enter his father's business and instead began training as an artist.¹⁶ In 1868 he decided to travel to Paris and study under Léon-Charles-Adrien Bailly (1826-after 1868).¹⁷ With his decision to move to Paris a period of intensive preoccupation with the art and culture of the Islamic Orient began for Tiffany. The political links which France as a colonial power had to Islamic countries, particularly in North Africa, meant that Paris had become a focal point of interest in the Orient, both in an economical and a cultural sense. It was a natural consequence that not only people who had visited the Orient but also artists began increasingly to collect art from Islamic countries.¹⁸ And so in the second half of the 19th cen-

definitely to the tea service with regard to the colour composition and others could also be considered to apply.

¹⁴ Edwards 2000, p. 183.

¹⁵ Both quotations from Edwards 2000, p. 183 after an article in *The Jeweler's Circular and Horological Review*, 36, no. 7 (16 March 1898), p. 166.

¹⁶ Koch 1999, p. 30.

¹⁷ Léon-Charles-Adrien Bailly was not a particularly well-known painter. In several art history texts Léon Adolphe Auguste Belly (1827-77), a member of the Paris school of Orientalist painting, is named as Tiffany's teacher. Because Belly lived in Paris from 1862 after travelling to the Orient, Tiffany may possibly have known him, but Belly was never his teacher. Längle in 1999 assumed that Belly was an important art teacher for Tiffany, who visited his atelier when he stayed in Paris, (Längle 1999, p. 9).

¹⁸ On this: Glenn Lowry in an unpublished lecture at the Institute for Advanced Studies (Princeton, 27.3.1992) at the symposium "Collecting the Art of the Others—Culture and State". See Möllers 1992. The author gives a total of 92 names of collectors in the whole of France. Not all known names of Paris collectors were found by Möllers. These names were found by the author in 19th-century international publications. Möllers' list of collectors: Möllers 1992, pp. 167-179.

ture Paris could boast more than fifty collections of Islamic art, the most important of which were opened by their owners for purposes of study. The genre of Orientalist painting was also very popular, which meant that in addition to genuine collectors, artists and painters also acquired objects of Islamic art for use as decoration in their own works.¹⁹

In Paris Tiffany was not only able to see the actual objects of art, but in the lively atmosphere of the city he met other decorative artists who had their ateliers there. In this way the influence of Islamic art in all areas of arts and crafts in France, which was evident in the products of many companies, must have become clear to him.²⁰

III. *Tiffany's Trip to North Africa*

When Tiffany returned to New York in the spring of 1870 he had already been able to gain quite a profound insight into the beauty of the art of Islamic countries. As a painter he entered into a brief cooperation with the landscape painter and Orientalist Samuel Colman (1832-1920), with whom he undertook a painting trip to the Pacific coast in spring 1870.²¹ In the summer of the same year he invited the painter Robert Swain Gifford (1840-1905) to accompany him on a trip to Europe and North Africa. (Tiffany did not therefore, as has always been supposed, travel with S. Colman to North Africa. It was a coincidence that Colman happened to be in North Africa in the same year.²²)

On the basis of a thorough analysis of the hitherto published paintings, drawings and watercolours done by Tiffany and Gifford during the journey, as well as of the published excerpts from Gifford's journalistic writings, it is today possible to reconstruct the route taken by the two artists more precisely than Gerald M. Ackerman could in his separate biographies of them. Gifford and Tiffany travelled

¹⁹ Paintings by several painters. Plts. in Ackerman 1994, Benjamin 1998, Thornton 1983 and 1985.

²⁰ The important ceramic artists Théodore Deck, Léon Parvillée and Edmé Samson also had ateliers in Paris, and the very famous artist of glassware Philippe-Joseph Brocard produced in Paris. Other companies had salesrooms in Paris.

²¹ Edwards 2000, p. 161. The author tells of Colman's journeys to the American West and to Europe and North Africa. This is information first given by Ackerman 1994, pp. 66-68 and Craven 1976, pp. 16-37.

²² See Ackerman 1994, p. 68.

in 1870 from Tangiers (Morocco) across the Atlas Mountains and through part of the Sahara as far as Algeria (Algiers, Constantine) before going to Egypt (Cairo and a cruise on the Nile). Apparently Tiffany also visited Spain before the trip.²³

In a letter to his family which contains a description of the Moroccan city of Tangiers, Gifford illustrates vividly the strong impressions gained by the two artists during their trip.²⁴ A painting by Tiffany has survived, which was done in gouache technique and entitled *Algerian Shops*. The fact that this painting was not done until 1895, clearly shows how long the topic 'the Orient' continued to fascinate Tiffany.²⁵

On the last stop of their journey, in Cairo,²⁶ Tiffany put his feelings on record. A comparison between Islamic buildings in Cairo

²³ Other stops could be reconstructed with Gifford's notes and his publications, which today are in libraries in New York and in the Tiffany archives. Ackerman 1994, p. 212.

²⁴ Article in: *New York Evening Post*, 9.11.1870, republished in: Ackerman 1994, p. 92: "We have been here [in Tangier] nearly a month, and have found it, thus far, the most interesting place we have visited (...) Tangier is a very peculiar place, the people having had very little intercourse with the opposite coast, (...) it has been visited less than any of the other cities on the African coast. (...) Everything about the place is peculiarly oriental in character. (...) It is built upon a high bluff overlooking the ocean; its white houses look like huge square blocks of stone, and the whole is topped by several minarets and tall palm trees (...). Market days, of which there are two—Thursday and Sunday—the people come from the country in great numbers and congregate in a field outside the walls of the town with the articles they have for sale. It is a perfect Babel; everybody is jabbering at the same time, accompanied by the cackling of hens, the crowing of cocks, the braying of asses, loud quarreling, and almost every kind of noise one can imagine. Trains of solemn, long-necked camels, heavily laden with grain, melons and other products of the country, and driven by half-naked, splendidly formed fellows, wind slowly around and down the rough roads among the old tombs of saints. Gaily dressed soldiers armed with long guns and mounted on splendid Arabian horses, decorated with rich trappings, dash along past you: old sad-eyed, gray bearded Arabs sit cross-legged, holding some poor struggling chicken by the legs and patiently await a customer. The women bring in bundles of wood on their backs (...), in addition to their load of wood, they usually carry a baby strapped to their shoulders. Quite a variety of fruits is offered for sale, and also some very curious specimens of earthenware. One of the principle attractions on the market day is the 'snake charmer' and he really does some remarkable things with his trained reptiles."

²⁵ Gouache on paper, The Baltimore Museum of Art, Baltimore, Maryland, contribution of Mrs Alvin Thalheimer to the Fanny Thalheimer Memorial Fund. See Ackerman 1994, p. 213.

²⁶ It seems that Gifford and Tiffany followed exactly the route that Samuel Colman had travelled twenty years before, and which was one of the main travelling routes the Orientalist painters chose. For information on favoured travel destinations

and their representation in his pictures makes it clear that his paintings are subjective interpretations of what he has seen, rather than exact renditions of the truth. Such variations can for instance be observed by comparing Tiffany's painting *On the Way between Old and New Cairo* (fig. 2) of 1872 with a photo taken around 1870 by the Paris photographer Emile or Henri Béchard (fig. 3), which shows the same prospect. In Tiffany's picture the Muhammad Ali Mosque within the citadel is reproduced almost photographically, whereas the remains of the Old Tombs have been changed completely, in so far as the 14th- and 15th-century Mamluk tombs have been pushed back in order to accommodate groups of figures in the foreground of the picture.²⁷

IV. *The Influences of the Trip to the Orient on the Work of Louis Comfort Tiffany*

After their return Tiffany and Gifford declared themselves Orientalists [sic]. They exhibited the works they had produced during their trip and possibly also drawings which they had acquired in the Orient as well as oriental costumes.²⁸ The exhibition was a great commercial success and Gifford alone had receipts of 900 dollars. In the following years Tiffany displayed watercolours with oriental themes at exhibitions of the National Academy of Design in 1871 in New York and the International Water Colour Society in 1873 in New York and received a warm reception from the press.²⁹ In 1876 he took part in the World's Fair in Philadelphia with three oil paintings and six watercolours. With the founding in 1877 of the Society of American Artists, which was influenced by William Morris's ideas, Tiffany finally and irrevocably turned his attention to decorative art and interior architecture.³⁰

in the 19th century: Benjamin 1998, pp. 11-12. The second time Tiffany travelled in 1875 to Egypt with his fiancée. See Ackerman 1994, p. 214.

²⁷ *On the Way between Old and New Cairo*, c. 1872, oil on canvas. Brooklyn Museum of Art. Gift of George F. Peabody, April 1906, Brooklyn, New York. See: Ackerman 1994, p. 209. Edwards 2000, pp. 164-165 describes the figural staffage and the colourful setting of the painting that give it the atmosphere: "Ultimately, the picture is about the relationship between color and light, rather than about the place" (p. 165).

²⁸ Ackerman 1994, p. 212.

²⁹ *Ibid.*

³⁰ Kaplan 1999, pp. 48-57 and McKean 1988, p. 13. This firm existed only until

How much influence the architecture and art he saw during his trip actually had on Tiffany's personal style of interior architecture can only be ascertained through an analysis of pictures of his interiors which appeared in contemporary publications. Alice Frelinghuysen supplied some clues in her contribution to the catalogue of the Tiffany exhibition in Hamburg in 1999.³¹ However, it was not her intention to give a comprehensive description of the details, but rather to explain Tiffany's interiors against the background of American aesthetics. The fact that she was able to supply evidence of obvious oriental details is hardly surprising considering the general cultural fashion trends of the late 19th century. According to Frelinghuysen, Tiffany used Moorish pillars, pseudo-Moorish inlays, exotic lamps, oriental carpets, glasses designed to look like Islamic mosque-lamps, stylised flowers and leaves inspired by Islamic themes, sofas upholstered with Turkish brocade and Turkish coffee pots. In addition there were "oriental objects of all sizes and tropical plants (...) arranged on shelves and terraced platforms".³² In other words, to furnish his rooms Tiffany also used original objects, which at that time could still be bought for a reasonable price. This conformed exactly to the taste of collectors of oriental art such as Havemeyer and Moore, who wanted to live with their collections.³³ But some-

1883, and immediately afterwards Tiffany founded the Tiffany Glass Company. (Frelinghuysen 1999, p. 37).

³¹ Joppien, pp. 37-41, p. 45.

³² Frelinghuysen 1999, p. 41 and p. 39. She says that for his New York house of 1892 the collector Havemeyer used, in addition to pieces from non-Islamic countries, Spanish-Moorish pottery and other Islamic objects (*ibid.* p. 41 and p. 43). Henry Osborne Havemeyer (1847-1907) and his wife Louisine (1855-1929) were in Tiffany's days two of the most important collectors in the USA. Havemeyer looked for advice from important art dealers. In the course of time he bought 560 objects of Islamic decorative arts and carpets. The Havemeyers also knew Edward C. Moore. Jenkins-Madina supposes that the silversmith Moore and also the Havemeyers were most fascinated by Islamic metalware. Havemeyer also knew Tiffany and both went to the Centennial Exhibition in Philadelphia. The Havemeyers also visited the Columbian Exhibition of 1893 in Chicago. They travelled together in 1906 to Egypt. Havemeyer donated the pottery and metalworks he bought from art dealer Dikran Kervorkian in Paris to the Metropolitan Museum of Art. He first met Kervorkian at the exhibition in Chicago 1893 (Jenkins-Madina 2000, pp. 84-85).

³³ The pattern of the tiles described by Frelinghuysen as Persian is actually a 16th/17th-century Turkish Ottoman pattern from the main production centre Iznik. "Tiffany filled the rooms with windows, glassware, pottery, enamels, textiles, and lamps from his own studios as well as his collections of ancient glass, Near Eastern ceramics and tiles, prints, tsuba, armor, and netsuke, and Native American baskets and pottery." Anonymous 2005, p. 1.

times European imitations of Islamic objects were also used.³⁴ Various European potteries which had sales outlets in North America supplied at that time tiles with designs which were either copies of Ottoman patterns or had been inspired by them.³⁵

For the interior design of his own residence, the villa Laurelton Hall³⁶ which he built in 1902 on Long Island, Tiffany also drew inspiration from the oriental world. The central question to be raised in connection with the whole oriental fad is how much knowledge of the history and religion of the Islamic world did the producers and buyers of oriental art in Europe and the USA actually have, and what did they associate with the term 'Orient'. In the course of her research on Laurelton Hall the author came across evidence that Tiffany referred to the place as being "Persian".³⁷ On the one hand the word "Persian" could have been used here to describe the general perception of oriental ambience, because more so than the North African countries or the Ottoman Empire, in the second half of the 19th century Persia was considered to be the epitome of oriental culture.³⁸ At the end of the 18th century men of letters such as Gottlob Ephraim Lessing, Voltaire and Christoph Martin Wieland had already drawn attention to the wisdom of the East. In his *Scattered Leaves*, a collection of *oriental tales for young people* published in 1786, Herder drew attention to the importance of epigraphs for the development of a virtuous character.³⁹ In the 19th century Europeans

³⁴ See Edwards 2000, p. 185.

³⁵ With regard to the pottery of the companies Minton (Stoke-on-Trent), Craven, Dunnill & Co. (both in Jackfield), Zsolnay (Pécs, Hungary) and Cantagalli (Florence, Italy), information exists in the archives of these companies about their worldwide trade: Hagedorn 2005.

³⁶ This was the name of a hotel building that Tiffany demolished in order to build his own residence. On this: McKean 1988, p. 142.

³⁷ Burlingham 1999 refers to Tiffany 1917, pp. 43-44. On the same topic: Duncan 1989, pp. 90 and 96. Duncan refers to Howe 1913, pp. 377-379 and De Kay 1911, pp. 468-472. Duncan 1989, p. 90 points out that it was never a close proximity to archaeological models which accounted for Tiffany's excellence, but rather the way in which he used coloured glass elements to modify those models: "Likewise, one of the major terraces, despite its Algerian ceiling and niches, was built around a living pear tree, and glass tiles with a pear motif surrounded the opening, just as bunches of glass daffodils adorned the many columns." Duncan 1989, pp. 90 and 91.

³⁸ This can clearly be seen in the legend, which was popular throughout Europe, that Ottoman Iznik patterns had been the creation of Persian craftsmen (cf. Hagedorn 1999, pp. 15-16).

³⁹ "Aber woher sollen wir diese Tugendbilder nehmen, wenn sie nicht da sind?"

were able to acquire profound knowledge of levels of intellect and education in oriental countries.⁴⁰ On the other hand Tiffany may well have had a specific Persian model in mind. With its informal grouping of buildings within a landscaped park, the layout of Laurelton Hall is indeed reminiscent of the ideal Persian garden,⁴¹ as it was passed down from pre-Islamic times and as it has been regularly put into practice in Persian gardens since the beginning of the Islamic period.⁴² These gardens reflected with their streams, ponds and small, airy pavilions the concept of paradise of the pre-Islamic and Islamic Orient,⁴³ with which Tiffany may have been familiar. Particularly the pavilion and profuse canals of the so-called Daffodil Terrace at Laurelton Hall (fig. 4) are reminiscent of the estates of Persian rulers. There the royal hall, which always commanded a view into the garden, was the most important building (fig. 5).⁴⁴ In the 19th century too, under the rule of the Qajar monarchs, similar estates were constructed along the lines of the older models.⁴⁵ It is therefore quite feasible that Tiffany consciously referred to Persian models, although admittedly it has not yet been established just how

(...) Goldne Sittensprüche und Regeln sind freilich von unschätzbarem Wert: frühzeitig gelernt, geben sie unserm Geist, wenigstens unserem Gedächtnis, einen schönen Vorrath [sic] zukünftiger Bemerkungen auf die Reise des Lebens." Herder 1786, p. 585. "But whence should we take these figures of virtue when they are not there? (...) Golden moral sayings and rules are clearly of immeasurable value: if learned early they give our mind, or at least our memory, a wonderful stock of future comments for the journey of life." (Trans. John Simons).

⁴⁰ See Walther 1985, pp. 565-566.

⁴¹ Persepolis.

⁴² Pinder-Wilson 1976, pp. 78. He tells of the Italian merchant Ramusio (travelled in Persia 1511-20) who thus described the gardens of Tabriz: "The palace stood in the centre of what must have been a vast garden. There was an enclosing wall with portals in its north, south and east sides. The eastern entrance had a *bālākhāne* with galleries looking on to the garden and out wards on to a great *maydān*." There was another gallery in the southwest corner of the garden "which from one end to the other has seats of the finest marble" and "supported from one end to the other by columns of fine marble: in front of it there is a fountain, as long as the gallery, of fine marble likewise, which is always full of water and is twenty-five paces broad. (...)"

⁴³ For the old Persian perception of paradise and the term *paradeisos*: see Wiesehöfer 1999, p. 19.

⁴⁴ Isfahan, *Čihil Sutun*, Diez 1944, pp. 82-84. Pavilions in Gardens: Artist unknown (Iran, early to mid 19th century): "Still Life in Front of Palace Garden with Cat"; "Still Life in Front of a Garden with Birds and Rabbit". Both in Diba and Ekhtiar 1999, pp. 214-215.

⁴⁵ Scarce 1992, pp. 331-332. Also references in Diba and Ekhtiar 1998, pp. 30-35 and pp. 37-40.

he could have acquired his knowledge of such residences and the perceptions of paradise connected with them. Perhaps E. C. Moore's large library contained literature on Persian architecture, for instance the various magazines of the 19th century which often published illustrations of Qajar palaces.⁴⁶

Not only did Tiffany take oriental culture as his direct inspiration for the general layout and interior design of Laurelton Hall,⁴⁷ but also for individual items of furnishing. This is made clear by a lantern which he designed for the loggia of the house (fig. 6).⁴⁸ In its basic form, a blunted hexagonal pyramid which has a rounded upper part with a lifting lug affixed at its apex, this falls back directly on 15th- and 16th-century Islamic lamps which were mainly produced in Egypt in the late 15th and early 16th centuries (fig. 7).⁴⁹ In its shape and size Tiffany's luminary copies the Egyptian models exactly, but there is a vital difference in the material from which it is made. Whereas the Egyptian pieces are made entirely of embossed and open-work metal, Tiffany only used that material for the forming and supporting parts of his lantern. For the transparent side panels of the lower part he used coloured glass set in lead. For the decoration of the individual glass panels, however, he fell back again on Islamic models. Egyptian hanging-lamps made of metal often have large cartridge-like motifs, with writing or decorative tracery in the middle, on the panels which make up their base. Correspondingly, Tiffany's lantern is decorated with simple square motifs alternating

⁴⁶ Flandin 1851, Coste 1867, Curzon 1892. Flandin (1809-1876) visited West and South Iran in 1840-1841 on behalf of the Paris Académie des Beaux-Arts. He was in charge of an archaeological expedition. Coste (1787-1879) had penned his work for the Ministry of State Buildings and Fine Arts on the basis of a trip to Persia. Flandin and Coste edited excerpts from their joint complete works until 1867. Lord George N. Curzon (1859-1920) travelled in Iran and published in 1892 the book *Persia and the Persian Question*, which also contains many illustrations. Tehran and Isfahan are described in detail in the illustrated guide *La Perse* by Louis Dubeux published in 1841.

⁴⁷ Other parts of the interior which cite oriental-Islamic models include for instance the walls in the fountain courtyard of Laurelton Hall which incorporate niches designed like Persian muqarnas vaults (McKean 1988, ill. 111), the visual separation of the garden terrace, into which a sort of Moorish horseshoe arch is integrated (McKean 1988, p. 131) or the wall hangings in the fountain courtyard, which depict tiled panels from the Topkapi Saray (McKean 1988, p. 136).

⁴⁸ New York, Metropolitan Museum.

⁴⁹ Two examples of such lamps are for instance to be found in the collection of the Museum of Islamic Art, Berlin. Inv. nos. I 4500 and I 4502. Ill. in: Gladiss 1985, pp. 127-130.

with round forms filled with tracery-like ornaments. These round decorative elements are clearly based on Islamic models, but only with regard to their general form and the impression they create. The forms inside the circles are reminiscent of oriental tracery, but compared with oriental ornaments they have been reduced in size and simplified in form, whereas the form of the individual elements which make up the “pseudo tracery” endows the tracery with vitality and dynamism.

It is therefore a free adaptation and interpretation of the original oriental motif instead of being a faithful copy. This approach is clearly demonstrated by the overall impression made by the lantern. Whereas the Egyptian lamps achieve their decorative effect by means of a complicated, small scale pattern with which the whole surface is decorated, the lantern from Laurelton Hall impresses primarily with the colours of the glass used. On the whole it is a good example of how Tiffany used his experience of the Orient, gained thirty years earlier, in the development of his personal artistic style at the beginning of the 20th century, and of how he was still inspired by Islamic models.

The same approach can be seen in the decorative glasswork which Tiffany produced in the same period, as is to be shown here by an analysis of vases which he made at about the same time and which he designed very much in the style of Islamic rose water sprinklers. Rose water sprinklers made of coloured glass were produced in Persia from the 17th/18th century onward, particularly in the area around Shiraz (fig. 8). They are distinguished by their characteristic shape, designed to facilitate the pouring of the valuable rose oil: a bulbous lower section with a long, s-shaped neck of irregular width which opens into a wide mouth with a stretched, pointed lip. These rather bizarre and exotic glasses were very popular in Europe at the end of the 19th century and provided Tiffany with a source of inspiration when he was experimenting with new materials and shapes for glass vessels around 1900.

And so he created a whole group of vases which adopted exactly the shape of the Persian models⁵⁰ and which were obviously also intended to copy the Islamic originals with regard to the visual impres-

⁵⁰ A vase in the Ferdinand Wolfgang Nees Collection (Wichmann 1972, cat. no. 258) and one in the collection of the Deutsche Bank AG (Wichmann 1972, cat. no. 259).

sion created by the materials used in their production.⁵¹ Those originals were made of coloured glass (often blue) usually decorated with colour overlays. Sometimes particles of colour would be added to the glass compound, giving the surface an iridescent quality, particularly on the neck of the vessel where the glass is relatively thick.⁵² Exactly the same effect can be found in several of Tiffany's vases which copy the rose water sprinklers. They were made from so-called Favrite-glass, a material developed by Tiffany in 1894 which has an iridescent, shimmering surface and which has an effect somewhere between thicker lustre glass and translucent glass.⁵³

Whereas in these examples Tiffany emulated the oriental vessels so exactly that he could be thought almost to have been copying them, in other cases he began to vary and alienate the shapes, as can clearly be seen in a vase which is today in Vienna.⁵⁴ The bulbous shape of its lower part and the wide and stretched mouth are still reminiscent of Persian vessels, but in comparison with those models Tiffany made the general shape smoother by aligning the diameter of the body and neck and by straightening the neck. He also added a bulge halfway up the neck. This is an element which is nowhere to be found in rose water sprinklers, but seems rather to be derived from East Asian double gourd vases.⁵⁵ As described above in the case of the lantern for Laurelton Hall, the tendency to adapt and combine familiar models in order to produce new forms is also evident here.

Finally, in connection with Tiffany's preoccupation with Islamic glass, it should be considered that, in their shape and general appear-

⁵¹ Tiffany's vases resembling Persian rose water sprinklers were much admired at the World's Fairs around 1900 and were copied by various European glass producers, for instance by the glass foundry in Klostermühle Loetz (Wichmann 1972, p. 92) and by Amedé de Caranza, who was born in Istanbul and who worked around 1900 for the Copillet company in Noyon (Grover 1970, pp. 94-96. Makus 1981, pp. 51-52.)

⁵² Wichmann 1972, p. 91.

⁵³ Tiffany showed his so-called Favrite-glass in public for the first time at the World's Fair in Chicago in 1893. That was the first presentation of this glass decorated with lustre effects and faked iridescence of weather-beaten old glass. Tiffany travelled to Egypt twice (1870 and 1908), to study these effects on antique glasswork (Weiss 1966, p. 270).

⁵⁴ Vienna, Austrian Museum of Applied Art (MAK), inv. no. 11488/Gl. 1989. In: Wichmann 1972, cat. no. 255.

⁵⁵ On various occasions Tiffany produced copies and variations of East Asian double gourd vases (Leipzig, Grassimuseum, inv. no. 01.496; ill. in: Joppien 1999, p. 152, cat. no. 100).

ance, the Persian rose water sprinklers have a distinct floral character and are reminiscent of parts of the blossoms of different species of orchid.⁵⁶ The same feature can be seen in numerous glass objects produced in the Tiffany workshops around 1900. It is therefore quite conceivable that it was his preoccupation with Persian glass which inspired Tiffany to transmit floral forms into glass.

In comparison with the total production of the Tiffany studios, which so emphatically took up and defined the style of European and American Art Nouveau, models from oriental Islamic art played however only a minor role. Very few of the objects produced by the company at the beginning of the 20th century can be convincingly linked with Islamic *objets d'art*. This is in direct contrast with the way in which Tiffany designed his private residence Laurelton Hall in 1902 to 1904.⁵⁷ There, there are a surprising number of direct references to models taken from the world of Islamic art and numerous individual themes which more or less openly cite the style of Islamic art. A difference thus emerges between the successful manager of the Tiffany Studios, committed to the trends of the international Art Nouveau movement and the somewhat eclectic public taste predominant around 1900, and the private person Louis Comfort Tiffany. For as a private person Tiffany seems to have still been possessed by his experience of the Orient even thirty years after his journey to North Africa. And so in his own way he remained the "Orientalist" which as a painter in 1870 he had openly declared himself to be.

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⁵⁶ Wichmann's interpretation that the jars are an imitation of cobra snakes in an attacking position seems rather unlikely (Wichmann 1972, pp. 91-93).

⁵⁷ The young architect Robert L. Pryor (*1879) assisted with the actual construction, but the ideas as well as the conceptual and architectural planning of the residence can be traced back entirely to Tiffany himself (McKean 1988, pp. 129-130).

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Fig. 1. L. C. Tiffany, Salon of the house of George Kemp, New York, 1879. First published in: *Artistic Houses*, 1883/84, vol. 1 (from: Joppien 1999, p. 39).



Fig. 2. L. C. Tiffany, "On the Way between Old and New Cairo, Citadel Mosque of Muhammad Ali, and Tombs of the Mamluks", c. 1872; oil on canvas, 118 x 185.6 cm (framed). Brooklyn Museum of Art, New York, Donation of George Foster Peabody, April 1906 (from: Ackerman 1994, p. 209).



Fig. 3. Studio of Henri and Emile Bécard, active 1869-90s. "Tombs of the Mamluks and the citadel of Cairo", Cairo, c. 1870; albumen print. Museum Ludwig/Agfa Photo-Historama, Cologne.



Fig. 4. L. C. Tiffany, Laurelton Hall, c. 1910, Fountain Court. The Metropolitan Museum of Art, acc. no. 1978.646.18, gift of Robert Koch (from: McKean 1988, p. 134).



Fig. 5. Isfahan, Čihil Sutun, c. 1647 (from: Pope 1969, p. 103).



Fig. 6. L. C. Tiffany, Lamp from the loggia of Laurelton Hall, 1902-04; bronze and lead glass panels. H: 90 cm. The Metropolitan Museum of Art, New York, acc. no. 1979.10.1 (from: McKean 1988, p. 132).



Fig 7. Mosque-lamp. Egypt, 15th century, before 1517. From the mosque of Gebze/Turkey. Sheet brass, engraved, pierced, the cupola added later. H.: 73 cm; diam. 39 cm.

Probably brought to Gebze by Çoban Mustafa Paşa, who was governor of Egypt in 1522. He ordered a number of buildings to be erected in Gebze. Museum für Islamische Kunst, Berlin, acc. no. I. 4500.



Fig. 8. Rose water sprinkler, Persia, 19th century. H.: 35 cm. Blue glass, splayed foot ring, globular body, the neck with an s-shaped curve, the upper part of the mouth with an extension. museum kunst palast, Düsseldorf, inv. no. 12414.

ARCHITECTURE AND ARCHITECTURAL
DECORATION

NOTES ON THE ORNAMENTATION OF THE DOMES IN IRANIAN SACRED BUILDINGS

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Since the time of Seljuk rule, Iranian architecture has been characterised by domed buildings. The southern and northern domes of the Great Mosque of Isfahan have served as exemplary models for the following centuries; they in turn have to be seen as influenced by the preceding architecture of the mosque of Duvazdah Imam in Yazd (429/1037). There is no evidence of decoration in the dome of the mosque of Duvazdah Imam; an inscription with surah 2:255-256 runs around its foot. Nevertheless, it cannot be ruled out that the vault was originally decorated. As early as the third quarter of the 11th century, the domes of the Great Mosque of Isfahan reveal a varying programme; the southern dome (479-480/1086-87) is changed into a bower by soaring palmetto tendrils that follow the ribs of the dome and through which little stars become visible in the vault (fig. 1).¹ The northern dome (481/1088), however, is presumed to have served as the ruler's audience chamber and was conceived as a "rotating firmament", as suggested by Oleg Grabar. In this way the old concept of the princely claim to cosmic rulership is subtly reinterpreted (fig. 2).² This form of decoration is also adopted in later Seljuk domes. Thus the vault of the mosque of Ardistan, dating from 446-450/1055-58, is coated by a net of regularly distributed stars (fig. 3), and, similarly, the vault of the mosque of Gulpayagan (509-510/1116) shows an extended geometrical pattern of stars (fig. 4).

A new concept of dome decoration can be observed in Ilkhanid buildings inasmuch as the vault is now divided into two zones. The apex of the dome forms a unified whole, from which forms concentrically arranged stars spread out. Although the apex of the dome of the

* I want to express my gratitude to Prof. E. Jochum for the translation of the German text into English. I also have to thank Prof. L. Korn for putting his brilliant slides of the domes of the Masjid-e Imam and Masjid-e Jum'a in Isfahan, of the mosque in Ardistan and the mosque in Gulpayagan at my disposal.

¹ Grabar 1990, pp. 49-50, pl. 21.

² Grabar 1990, pp. 50-51, pl. 36, 45.

mosque of Varamin (726/1326) has been destroyed, it is nevertheless evident that the centre was set off by means of a circular shape (fig. 5). In the areas decorated with stars that expand like a net and extend from the circle of the dome's apex all over the vault, there appear in a compact Kufic script the words *Allah* and *Muhammad*; these names can also be found in the zone, which extends beyond the area of the net of stars.

The fragments of the central painted decoration in the dome of the Masjid-e Baba Ali in Na'in (700/1300) show a blossom-like ornament radiating in concentric circles, the pattern of which can be reconstructed if compared to the completed ornamental one in the mausoleum of Sayyid Rukn al-Din in Yazd (725/1325, fig. 6). In the centre of this mausoleum in Yazd there is a star radiating into six directions, made up of two triangles and surrounded by a circle from which radiate petals (of a lotus?) in seven rings that are enclosed by yet another ring. This central motif is surrounded by a ring of very delicate palmetto ornaments; they radiate outwards and lead to loosely formed drop-like shapes of varying size. Although the drop- and bud-like forms seem to be vegetal, they are in fact delicate bands of script. This outer circle with the drop-like shapes is missing in the mosque of Na'in.

A similar bipartition can be seen in the dome of the Friday mosque of Yazd (777/1365, fig. 7). Its centre is structured as a vortex radiating into eight directions, concentrically expanding into a star-like shape with nine spheres. The vortex is surrounded by a net of complex star-like shapes, built on a hexagonal structure and expanding downwards in steps; they thus seem to continue the interior rotating movement.

Eva Baer has shown that the motif of expanding stars can also be found on a 13th-century bowl from Kashan, in whose centre there is a phoenix surrounded by a circle (fig. 8).³ Baer interprets the bird as a sun bird, replacing the eagle as a sun symbol.

A densely structured net of small star- and rosette-like forms covers the vault of the dome in the mausoleum of the Tuman Aqa in Shah-e Zindah/Samarqand (808/1404-05); it radiates from a central star with twenty-four points (fig. 9). The net, loosely laid around the centre in concentric rings, becomes more and more compressed as

³ Baer 1998, p. 103.

it reaches the base of the dome and thus appears to move around the central star.

The bipartition of the dome decoration, consisting of a centre and radiating rows of stars, is retained in the domes of the Safavid mosques. The apex of the dome of the vault of Shaikh Lutfallah in Isfahan (1010-1019/1602-16) includes a turquoise star, radiating into eight directions; from it a web of delicate tendrils emanates in seven spheres (fig. 10). Scholarship usually defines this motif as sunburst pattern, especially so since the light appears to extend to the base of the dome in form of a net. This net motif creates a delicate pattern of yellow tendrils, which stands out against a blue ground and is made part of extending loops with alternating motifs. The tendrils in the main dome of the Masjid-e Imam (1037-1039/1628-29) appear to be extensions of the light beams radiating outwards from an equally turquoise central star in the manner of an ever-widening blossom with a multitude of rows of petals. In reality the central star is completely separate; the ring of its outer points does, however, reach into the blue area of the dome's base (fig. 11). The light of the sunburst pattern merges with the rings of spiraling tendrils in such a way that it decreases on its way to the base of the dome, whose blue colour becomes more intense. The centre of the light is therefore located in the apex of the dome.

Looking back at the motifs defined so far, one can distinguish two types of ornament:

- (1) the starry firmament which appears in two different versions: once as a vault covered with small stars in a regular pattern (Ardistan); and also as a starry vault visible through a bower of tendrils (Isfahan);
- (2) as a vault of heaven whose movement is indicated by a rotating star with five points (Isfahan), or by vortex-like forms (Yazd).

The apex of the dome is marked by various forms: rosettes with six petals, stars with sixteen or twenty-four points, stars with six points composed of two triangles laid on top of each other, or vortex-like forms. All circular forms in the apex are surrounded by rings of various colours, leading to the ornaments of the vault. In most cases these ornaments are arranged in concentric circles round the centre; they appear only occasionally as drop-like beams or networks of tendrils.

In various ways all these ornamental forms represent the dome of heaven and embody, according to Lisa Golombek, the divine order of the cosmos.⁴ Both views, which associate the decorated dome with the dome of heaven referring to the divine cosmic order, originate in antiquity and are ultimately based on archetypal concepts.⁵ It is, however, surprising that forms whose origins date far back into prehistory have been retained through the centuries.

Unfortunately no decorated domes from pre-Islamic times have survived in Iran; only walls of Sasanian domed temples or palaces still exist. We do know, however, and not only through written evidence, that domes were depicted as starry firmaments; in the beautiful bowl of the Cabinet des Médailles of the Bibliothèque Nationale in Paris (no. 76 in the inventory of 1634), Khusraw is placed in the centre, in the zenith surrounded by stars.⁶ There is proof that the Iwan of Taq-i Kisra in Ctesiphon was also regarded as the vault of heaven with its stars and that it was decorated accordingly.

In the motif of the six-lobed rosette in the dome's apex we can recognise a later reception of the seven planets as depicted in decorative programs of antiquity and late antiquity, the centre of which was usually occupied by Jupiter or the sun (fig. 12). This arrangement is repeated for instance in the dome of the tomb of Shad-e Mulk in Samarqand, dating from 773-85/1371-83 (fig. 13).

The dome as bower, through which one can see the stars, also belongs to the tradition of late antiquity, as can be ascertained to a certain degree in the dome in front of the mihrab of the Great Mosque of Cordoba (fig. 14a).⁷ The ten-pointed star on the omphalos-like boss is expanded into a net, as we have seen in the dome of the mosque of Varamin. A ribbon, twisted like a cord, encloses this motif, which in turn appears to continue as a wave-like radiating nimbus and as a whole evokes a beautiful astral shape (fig. 14a). From the edge of the dome tendrils on a golden ground run along the segments of the fluted dome towards this star, while bands of star-like motifs run on the ribs of the dome (fig. 14b).

In any case, the motif of the central and radiating star has to be interpreted as the depiction of a cosmic order, while the meaning

⁴ Golombek and Wilber 1969 I, p. 206.

⁵ Lehmann 1945, pp. 21-22, Smith 1950, p. 82.

⁶ Ghirshman 1962, fig. 401.

⁷ Stern 1976, pls. 3-5.

of the star, especially the blue-painted star, remains open. Stars and rosettes decorate the zeniths of Iranian domes; they also appear in a bright turquoise colour, as for instance in the apex of the domes of the Safavid mosques of Isfahan. But it is not only the shapes of the six-, eight-, twelve- or sixteen-pointed stars that can be traced back to models in antiquity, in which the numbers of four and eight have to be understood as the cardinal points, six, as mentioned earlier, as the planetary system, and twelve as the number of months.⁸ This also applies to the changeable circles around the centre, which indicate the course of the day, year, or time in general, and to the rotation of forms or to the vortex in the zenith. All these elements were adopted in the construction of Islamic domes; it remains doubtful, however, whether this iconography was known in the Iranian world of the pre-Islamic time. It is more likely then that these ideas were part of occidental influences, which were brought to Iran with the Islamic expansion. But, as already indicated, there was no mere reception; the forms were rather reconceived and underwent changes.

There is, as mentioned previously, a star with six points in the zenith of the dome above the tomb of Sayyid Rukn al-Din in Yazd (725/1325), formed by two triangles (fig. 6). A similar star defines the dome's apex in the mosque of Malatya (645/1247); it is, however, formed by the word *Muhammad* in Kufic script, surrounded by a ring of concentric circles (fig. 15). Wavy lines seem to spring out of the central circular section of the dome leaving the impression that the dome rotates. The hexagon formed by the word *Muhammad* circumscribes the centre of the dome's apex, the highest point of the vault, which is evidently marked by a small circle.

In this way the 'Dome of Heaven' motif, so important in the decoration of domes in antiquity, is taken up again. Although it is no longer to be found in existing domes, we have knowledge of it through mirror images in the floor mosaics of the late antiquity and in the floor mosaics of the main bath hall of the Umayyad palace of Khirbat al-Mafjar of the 8th century.⁹ There is a variant of this motif in the beautiful dome of the Great Mosque of Yazd (725/1325), referred to earlier.

⁸ Lehmann 1945, pp. 8, 9.

⁹ Sourdel-Thomine and Spuler 1973, pl. 52; see church of Zay near Gadara: Piccirillo 1993, fig. 680, church of St Theodore in Gerasa, fig. 526.

Thus, the rotating five-pointed star in the northern dome of the mosque of Isfahan has to be understood as a representation of the rotating cosmos, a concept which, with a mathematical logic of unbelievable originality, surpasses the antique model and corresponds to a new world view. A similar idea seems to underlie the pattern of stars in the dome of the mosque of Gulpayagan; basically, however, it remains a mathematically construed and hence a logical astral system, which reflects the cosmos.

The motif of the vortex is known from earliest times, as prehistoric pottery of the third millennium demonstrates; evidently, it was retained as a symbol of the moving sun through the millennia (fig. 16). As previously shown by Richard Ettinghausen, this motif is deliberately adopted in the decoration of vessels in Ilkhanid times and plays an important role in ceramics as well as in metalwork.¹⁰

A variant of the motif of radiation from the centre to the base of the dome can be found in the Timurid tomb of Shad-e Mulk Agha in Samarqand (773-85/1371-83). Instead of expanding in concentric circles, the motif now leads radially to the ground (fig. 13). Accordingly, a star with eight points, whose beams run to the foot of the dome, dominates the apex of the vault in the small tomb of Shah-e Zindah, while, as noted previously, small patterns of stars line the segments like a carpet. Drop-like forms with suns emitting six beams, each surrounded by six stars, are placed in the centres of the segments. According to Lisa Golombek, there is "within the sun . . . another microcosm as if it were the germ of a new universe", a concept that corresponds to medieval astronomy and its belief that, as noted previously, the universe consists of the sun and six planets.¹¹

A central solar system, from which all rays reach to the foot of the dome and which encompasses the vault, is presented by the dome of the tomb of Gur-e Mir in Samarqand, datable around 807/1404 (fig. 17). If the restorations are correct, a ring of beams encloses a golden, omphalos-like centre, which in turn is surrounded by four concentric rings and evokes an impression of outward radiation because of the rings' expanding bud-like forms. Without further investigations it cannot be decided whether this centre has to be seen as a sun or as a golden "omphalos" whose rays travel along the dome. The radiating "light" seems to continue, after a small break, as delicately shaped

¹⁰ Ettinghausen 1984, p. 341.

¹¹ Golombek and Wilber 1969, p. 239.

golden palmetto tendrils; actually, however, these tendrils grow from the base of the dome towards the sun without touching it. It is as if they merely participate in its lustre.

Another star, which recalls an exploding sun, can be seen in the tomb of Tuman Aqa at the northern end of the necropolis of Shah-e Zindah in Samarqand. It was built in 808/1404-05 by Tuman Aqa, one of Timur's wives. A red star with twenty-four 24 beams, painted in fresco, occupies the zenith; seven rows of blossoms in the shape of stars, placed on top of hexagons, lead towards it (fig. 9). By analogy to the starry dome in the *Salón de Comares* in Granada, one is tempted to see here the seven heavens of the universe, grouped around the throne of God.¹²

This interpretation of heaven as the source of light is manifested in the "sunburst pattern" in the domes of Safavid mosques, such as the *Masjid Shaikh Lutf Allah* (fig. 10). To a certain degree the bipartition of the central motif and of the attached decoration, as derived from antiquity, is retained; because of the radiating and expanding net or because of the drop-like structure, the decoration produces an effect of unity. Again, this takes up the idea of the "heaven of blossoms", shining through the grating, as already shown in the southern dome of the *Masjid-e Jum'a* in Isfahan, but also in the dome in front of the mihrab of the mosque in Cordoba (fig. 14b). In the centre there is the turquoise star with eight points, from which the stars of delicate tendrils emanate in seven spheres. Here again one is tempted to recognise the seven spheres of heaven, revolving round the centre, or the seven steps of paradise, distinguished by an abundance of blossoms.

Summary

The idea of the firmament, which has dominated the ornamentation of occidental domes since antiquity, can also be found in medieval Iranian domes. The scheme of the depiction of the cosmos with six planets on domes has been handed down as much as the eight-pointed star which symbolises the four cardinal points of the compass. The temporal element of the changing days and years is represented by differently coloured rings laid around the centre; the

¹² Cabanelas-Rodriguez 1988, pl. XXV.

representation of space and time or rather of the moving cosmos is made evident by vortex-like forms. The latter, however, belong to an archetypal stock of forms that has been retained over the millennia, presumably in folk art, only to be reintroduced later into the higher arts.

There are two artistic forms in which Iranian Islamic art surpasses the models of antiquity and later antiquity: these are the “rotating” star with five points in the northern dome of the Great Mosque of Isfahan and the sunburst patterns, the emanations of light of the Safavid domes in Isfahan, which enclose and bind together the space of the entire dome. Here, one is tempted to recognise the influence of mystical concepts that had an impact on the shape given to these constructions. In a far more abstract manner one may even speculate that in the light-suffused domes in the tombs of the great mystics, such as the muqarnas dome of 'Abd as-Samad in Natanz (707/1307, see fig. 18) or the muqarnas dome of Khvajah Ahmad Yasavi in Turkestan, the moving cosmos is depicted.¹³ In works of art, whose foundations rest on mathematical forms, a beautiful cosmos is created, aesthetically unsurpassed, which reflects divine creation and harmony in a unique artistic way that could not have been achieved in antiquity.

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¹³ Blair and Bloom 1995, pl. 11, Golombek and Wilber 1969, pl. 126.

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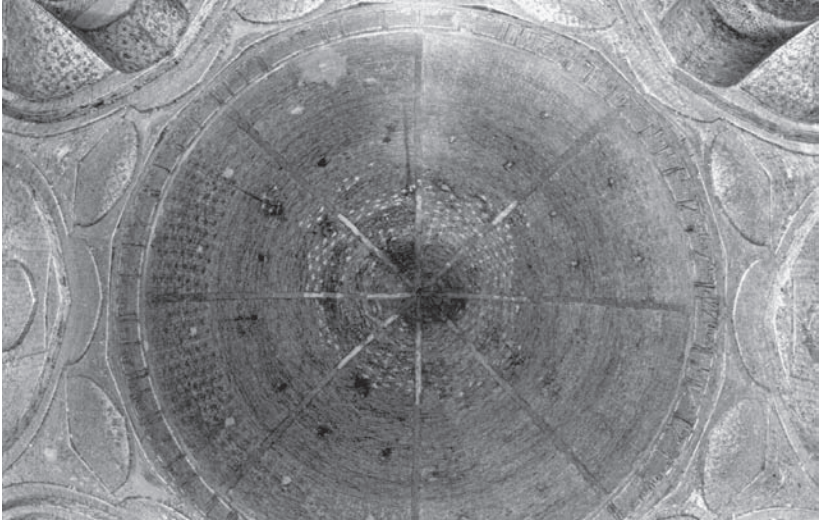


Fig. 1. Isfahan, Great Mosque, southern dome (photo: L. Korn).

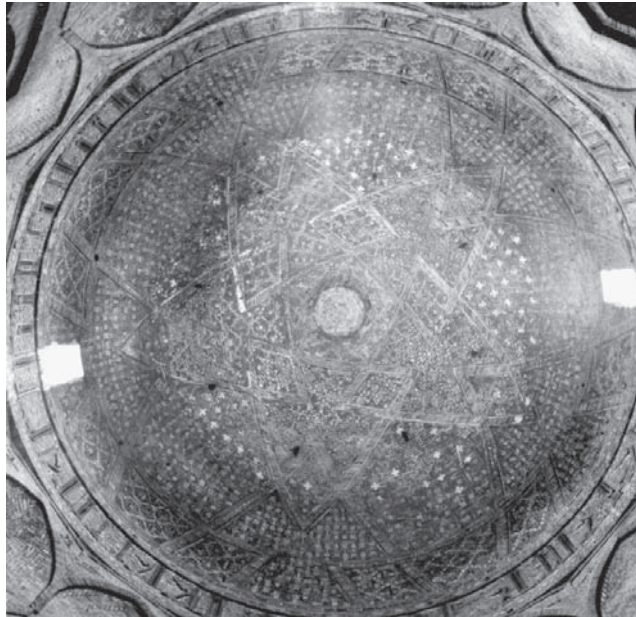


Fig. 2. Isfahan, Great Mosque, northern dome (photo: L. Korn).

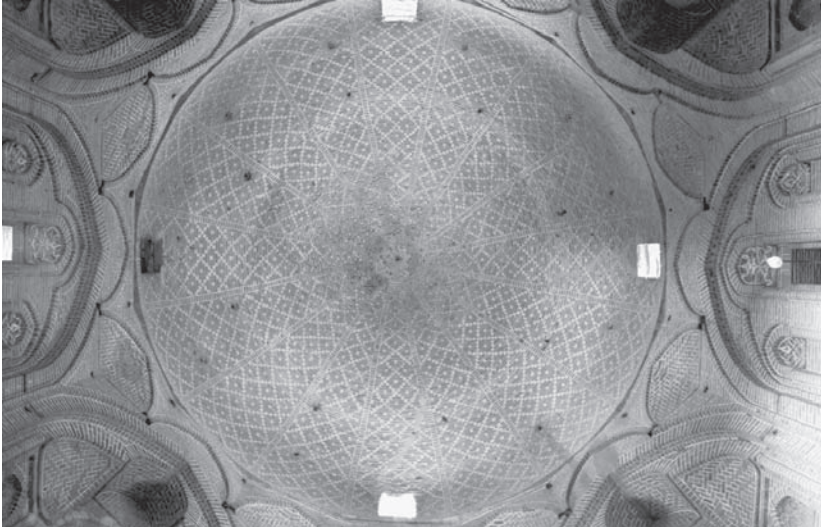


Fig. 3. Ardistan, Great Mosque, main dome (University of Bamberg, Bildarchiv).

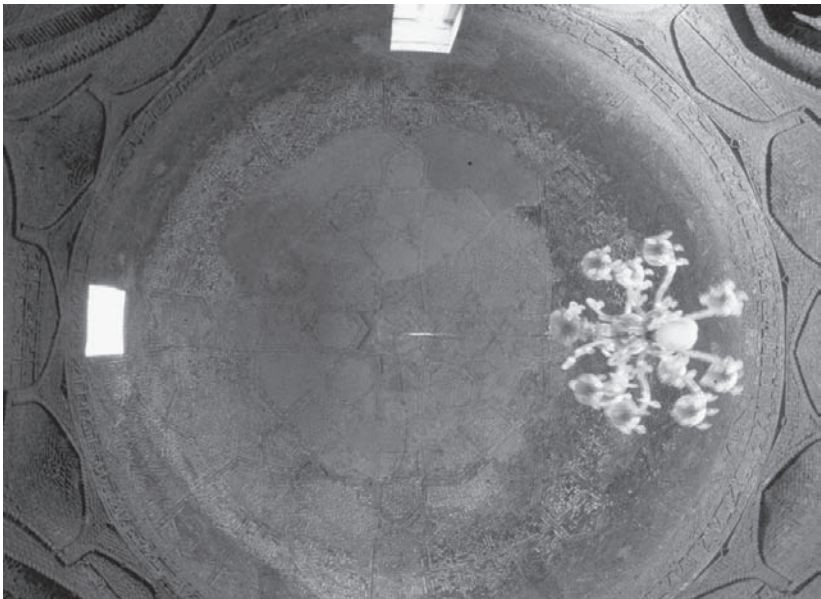


Fig. 4. Gulpayagan, Great Mosque (photo: L. Korn).

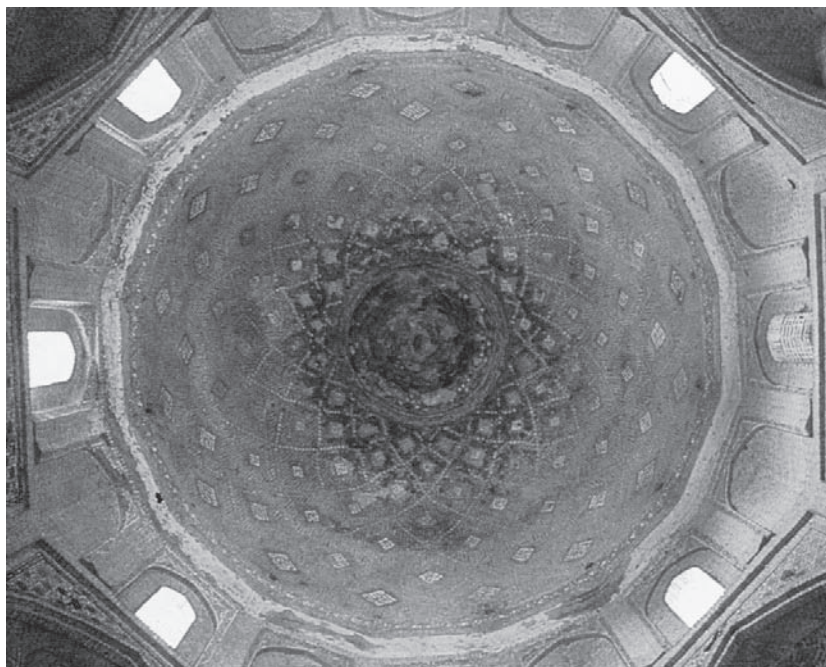


Fig. 5. Varamin, Great Mosque (after Blair and Bloom 1995, pl. 16).



Fig. 6. Yazd, Mausoleum of Sayyid Rukn al-Din (University of Bamberg, Bildarchiv).

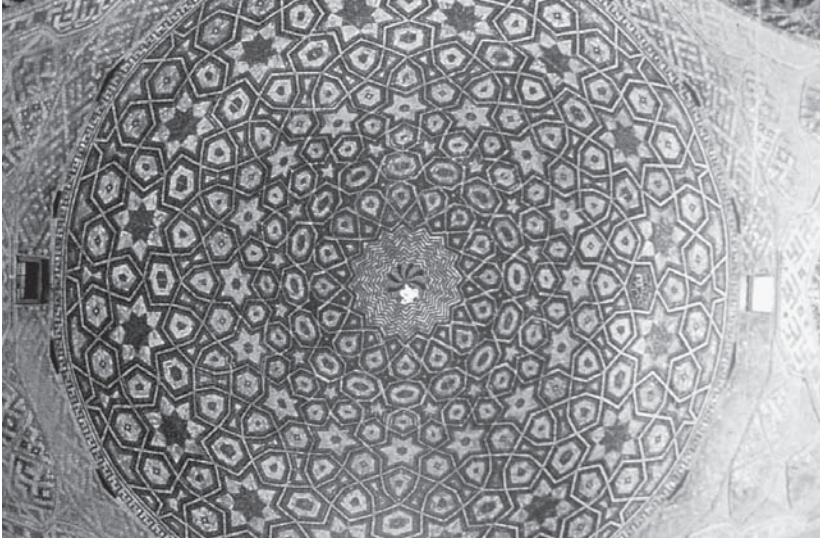


Fig. 7. Yazd, Great Mosque (after Hattstein and Delius 1991, p. 395).

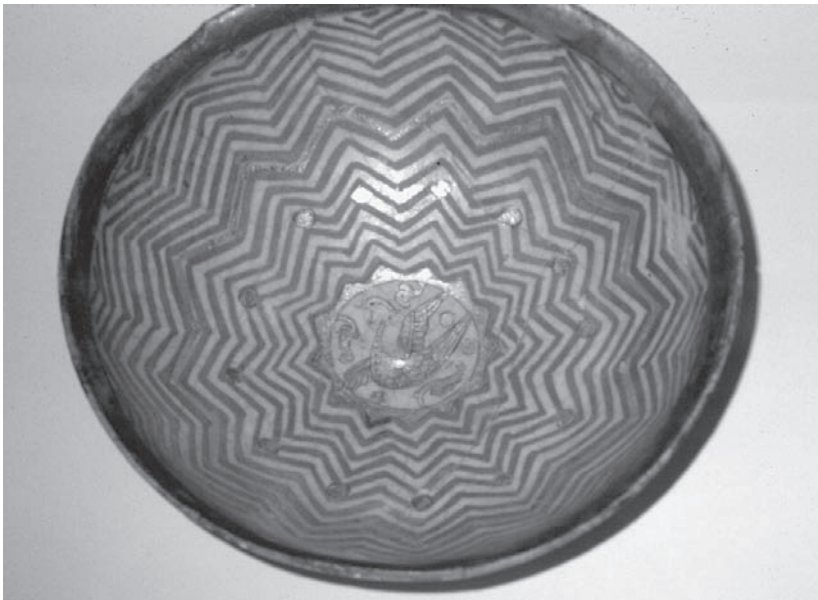


Fig. 8. Tehran, National Museum, bowl from Kashan (photo: author).

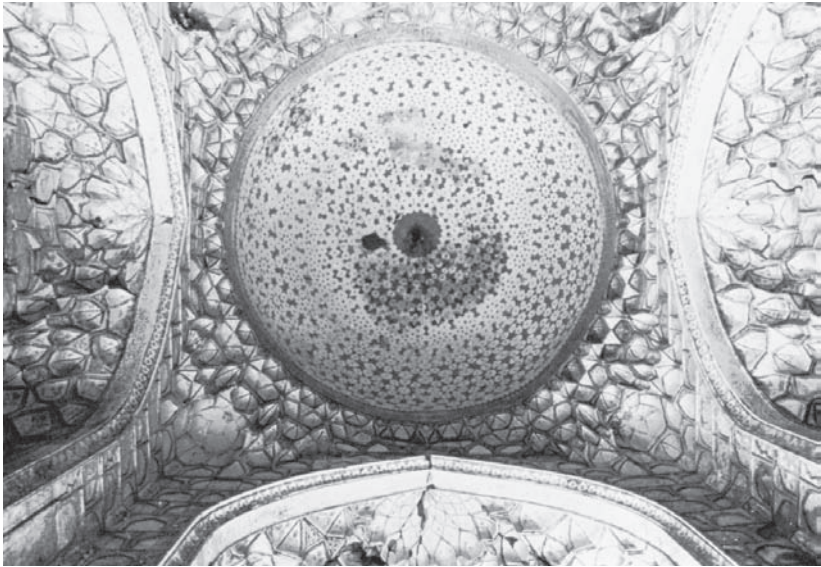


Fig. 9. Samarqand, Shah-e Zindah, Mausoleum of Tuman Aqa (after Golombek and Wilber 1969, pl. 45).

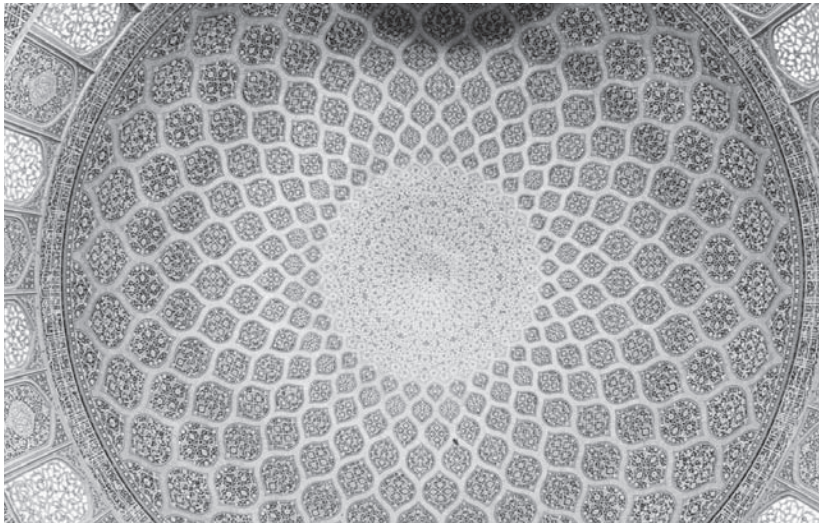


Fig. 10. Isfahan, Mosque of Shaikh Lutfallah (photo: L. Korn).

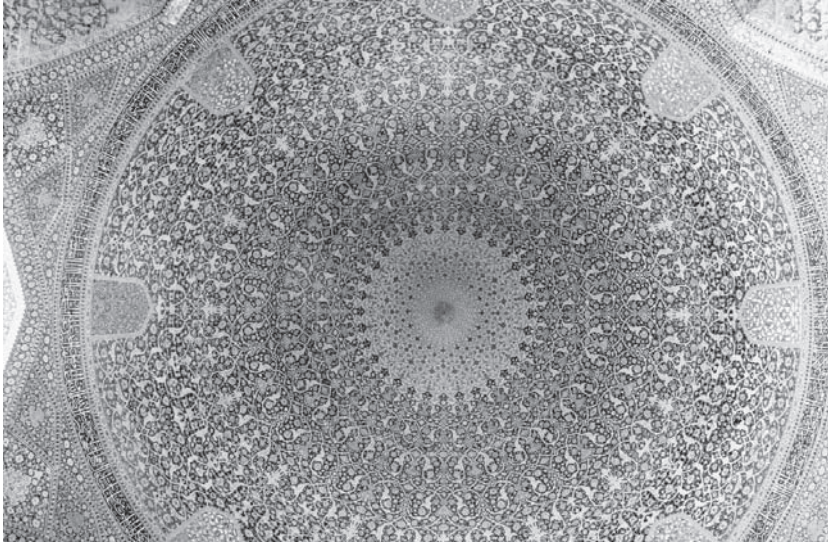


Fig. 11. Isfahan, Masjid-e Imam, main dome (photo: L. Korn).

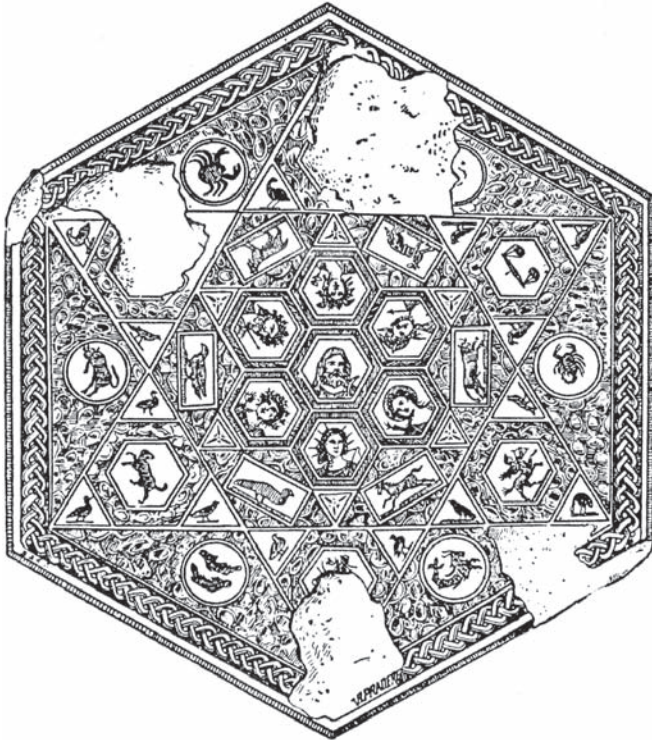


Fig. 12. Zaghuan, Mosaic Floor (after Lehmann 1945, ill. 9).



Fig. 13. Samarqand, Shah-e Zindah, Tomb of Shad-e Mulk Agha (after Golombek and Wilber 1969, pl. 25).



Fig. 14a. Cordoba, Great Mosque, dome in front of the mihrab (after Stern 1976, pls. 3-5).

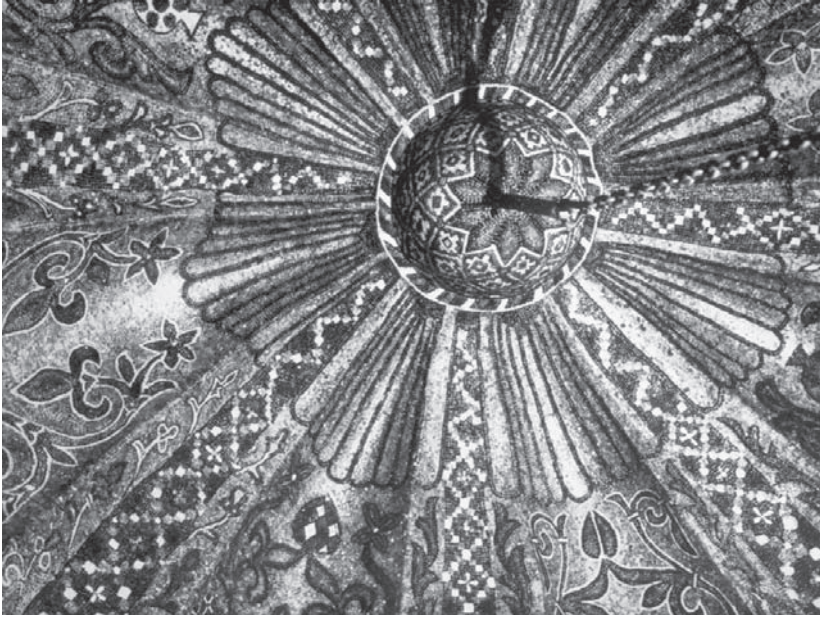


Fig. 14b. Detail of fig. 14a.

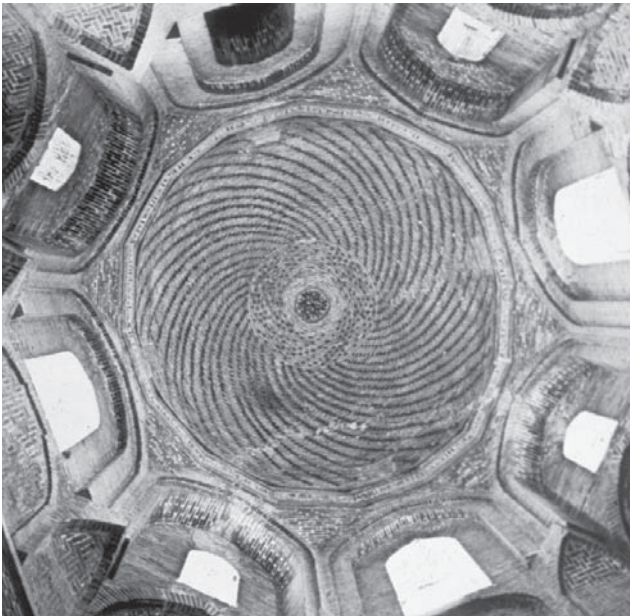


Fig. 15. Malatya, Great Mosque (after Barry and Michaud 1996, pl. 188).



Fig. 16. Bowl found in Samarra (after Ettinghausen 1984, fig. N).

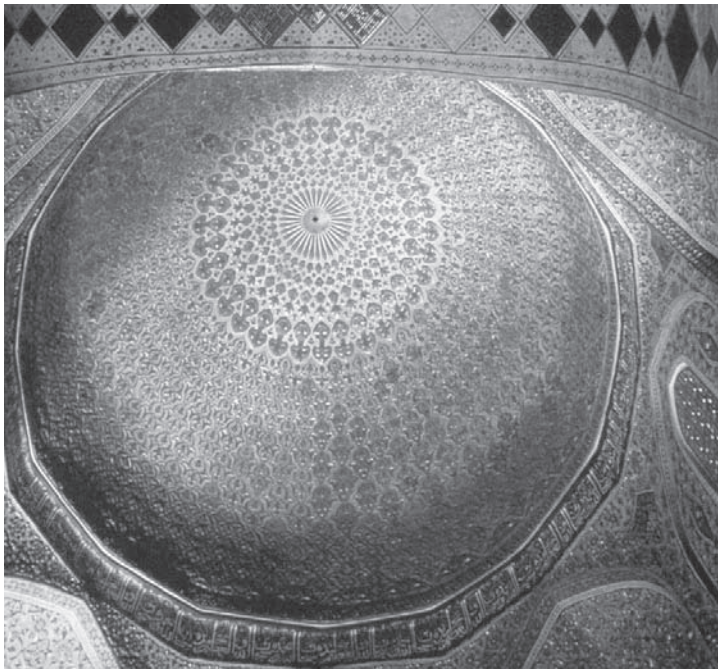


Fig. 17. Samarqand, Tomb of Gur-e Mir (after Hattstein and Delius 1991, p. 421).

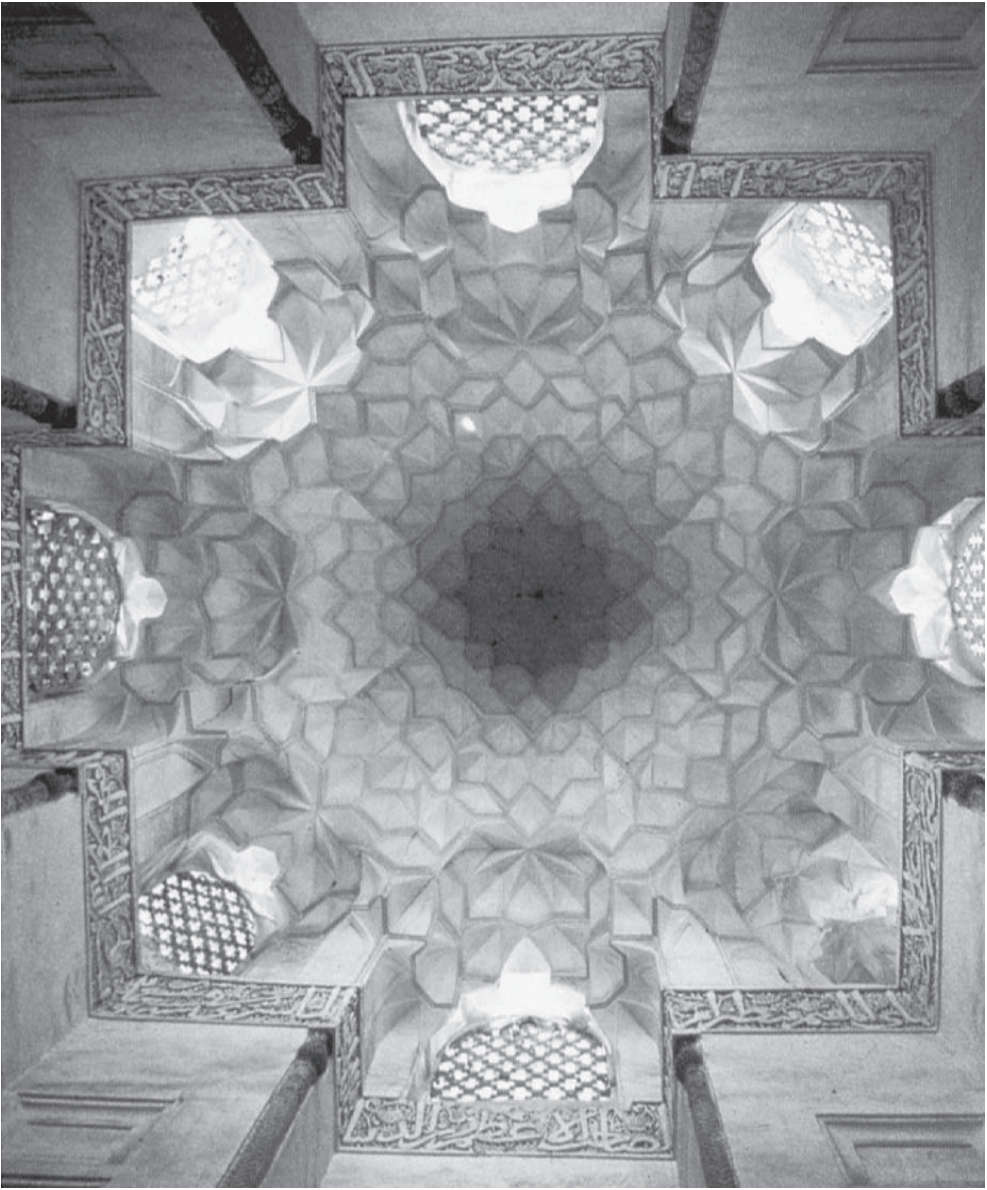


Fig. 18. Natanz, Tomb of 'Abd as-Samad (University of Bamberg, Bildarchiv).

THE DEVELOPMENT OF STUCCO DECORATION
IN NORTHERN SYRIA OF THE
8TH AND 9TH CENTURIES AND
THE BEVELLED STYLE OF SAMARRA

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With his precise analysis of the “Bevelled Style” ornament on a series of stucco panels from houses and palaces in Samarra, Ernst Herzfeld initiated an entirely new evaluation of Islamic art. Until then—and with many scholars still until much later—art history had been mainly concerned with the observation and history of motifs and their rambles and mutual contacts between cultures or had tentatively started to ask for the interpretations of ornament. Now all of a sudden a corpus of material was made available, which by its diversity and strangeness seems to have taken away the art historians’ breath for a while. Herzfeld’s presentation of the three stucco ornament styles, to which he added some wood and marble fragments from Samarra, was so detailed and comprehensive, from the technical aspect to the definition of style and motifs, as to make his volume on the “Wandschmuck” exemplary for a concise ornamental analysis—for those who read German. Relying greatly on studies by Richard Ettinghausen, Ernst Kühnel formulated general considerations about the character (“das Wesen”) of ornament in Islamic art as the conceptual element of abstraction, which have recently been questioned as slightly unprecise in the postulation of an “Islamic” background to the theory of arabesque ornament.¹

Jens Kröger in his attentive analysis of stucco decoration from Ktesiphon, Nizamabad and several other places, follows Ernst Herzfeld’s descriptive method. His minute observations of single objects and—if archaeologically documented—their architectural context, as well as his stylistic criteria, allow him to differentiate Parthian, Sasanian and early Islamic organisation of ornament motifs (“glie-

¹ Herzfeld 1923; Ettinghausen 1944, pp. 251-267; Ettinghausen 1979, pp. 15-28; Kühnel 1949; Kühnel 1977; comp. Hees 2006, pp. 89-112, not as yet quite convincing in the arguments, though.

dernde Mustersysteme").² These allowed him to establish the first well-defined chronological series of stucco design and techniques. We hope to understand his work on mainly pre-Islamic material only as the first volume of a series of further studies—he has lived almost daily with the Samarran stucco collection in the Berlin Museum of Islamic Art since the city's reunification and has surely felt the challenge of continuous studies which he can now complete without administrative interruptions.

Herzfeld's definition of the three main Samarran styles expressly avoided a chronological series. It starts with an overall description of the group which he initially called the "First Style" (later labelled as Samarra C) and which has since become famous for some authors as a token of an Islamicate identity manifested in artistic abstraction, although this interpretation was rejected by others: "The drawing is dominated by the principle of a total covering of the field, the perfect horror vacui. No trace of the background remains visible."³ As motifs he recognises plane features in them in certain relations to each other and separated by curved lines, and warns right at the beginning to beware of trying to trace "motifs" (Muster) drawn by these lines. Interestingly in his language he uses terms which we later find in the definitions of modern abstraction in painting and the arts, a case for further special studies. He briefly announces that "in the First Style, which was destined for [artistic abstraction] by the principle of its drawing, the methods of its designs and the nature of its vegetal ornament, the birth of the arabesque is performed".⁴

Richard Ettinghausen had observed one possible forerunner of the technique of bevelling and "complete coverage" by an ornament on the back of some Sasanian seals and further parallels in wooden and stucco ornament from 9th- to 10th-century Central Asia,⁵ and had asked whether possibly the style originated from a Central Asian Turkish impact on Samarra. In his contribution to the Pelican History of Art volume on early Islamic art,⁶ he courteously attributed the origins of this idea to Ernst Kühnel,⁷ who drew a distant connection with the animal style of Central Asia and added some compara-

² Kröger 1982, especially pp. 245-248.

³ Herzfeld 1923, especially p. 10.

⁴ Herzfeld 1923, p. 6.

⁵ Ettinghausen 1979, p. 17.

⁶ Ettinghausen, Grabar and Jenkins-Madina 2001, pp. 54-59.

⁷ Kühnel 1929, vol. 6, p. 136, 395; Kühnel 1947, pp. 201-203.

tive material for a Turkish origin of the Bevelled Style, in metalwork ornament like belts, which might have arrived with Turkish slaves and mercenaries in Samarra. Both depended on scanty published material from Central Asia, which has been published more recently again by Soviet scholars who also drew the parallel to the Samarra style, e.g. Akhrarov and Rempel', from among others a reconstructed domed hall in the Samanid palace of Afrasiab.⁸ The main corresponding objects are now dated to the 10th century: the Mihrab of the Mausoleum of Arab Ata, dated 977-78; the stucco from the supposed domed hall and the bevelled style in carved wooden column capitals from Oburdon and Urmitan; and the wooden Mihrab from Iskodarsk in the Historical Museum in Tashkent.⁹ The main comparative feature linking the Central Asian animal style and the later vegetal motifs and the Samarra styles of carvings has been the avoidance of any plane interval as a background. But as Herzfeld already remarked, this is not the only speciality of the Samarra stuccos: here, the greater achievement is the fluent interlacing of lines, planes and dots to form a new composition with partly oscillating allusions to grotesque heads and other forms, which may or may not be intentional and which the artist left to the viewer's imagination. This liberty is another step on the way towards "abstraction", which Oleg Grabar has defined in his "Theory of Intermediaries in Art".¹⁰

Closer observation now does not make it any easier to decide on the aesthetic impact of slave armies on the style of the caliphal court in Samarra. The helplessness of art historians may be seen from the arguments of Maurice Dimand for Indian antecedents of the second, flat Samarran style.¹¹

It was only in 1973 that Oleg Grabar emphasised again the aesthetic achievement of the early Islamic artists in Samarra and defined more clearly the widespread effects of it as a caliphal style on Tulunid Egypt and as far as Morocco and into Iran and Central Asia. His evaluation of the Samarran style as unsuitable for figurative representations shows how despite his many valuable considerations he

⁸ Akhrarov and Rempel' 1971, who define three archaeological periods of stucco fragments from an unknown beginning somewhere in the 8th until the end of the 10th century, especially pp. 8, 31, 55.

⁹ Akhrarov and Rempel' 1971, pp. 113-123.

¹⁰ Grabar 1992, especially pp. 8-12.

¹¹ Dimand 1952, pp. 64-68.

falls short of a genuine recognition of this achievement. Even if he tones down his remarks in the postscript to the second edition of his *The Formation of Islamic Art*¹², in his further studies like *The Mediation of Ornament*, Grabar emphasises his impression of the limited claim of Islamic ornament as mainly pleasing the eye and, as he coined it, of “terpnopoietic” intention, and we wonder whether this conforms to the qualities necessarily connected with the creative forces and effects of “art”.

Indeed the temporary appearance of this particular style, and its limited success among several other stylistic trends in the various regions of the vast empire, do not foster our impression of its high value, if we try and connect it with allegedly Islamic demands of the artist to refrain from “naturalistic creations”. So Grabar and other interpreters seem to be justified in their sweeping treatment of this design. Also the very large number of repeated slight variations, and the even greater number of stucco walls to be expected in the ninety per cent of unexcavated areas of the city of Samarra, may give the impression of a tiring experiment among many others.

But recent archaeological finds in Northern Syria help us to consider the steps which led to the creation of the Samarran style and we believe that they point to a steadily developed concentration in artistic expression, which perhaps became one of the decisive bases for the so-called uniformity of Islamic art. This degree of abstraction seems to have transgressed a border between the still representational and more or less stylised vegetal forms and the non-geometrical, illusionist expressions of an art which implies the mental and perhaps emotional involvement of the beholder.

Of course, the sole concentration on North Syrian examples of earlier stucco ornaments means a reduction in the art-historical significance of the development of a caliphal style, but examples of Iraqi and Iranian as well as Central Asian stucco finds are scanty, and until now do not present a similar coherent sequence of stylistic development as we think we can provide in Syria. Archaeology in Syria is exceptionally rich in recent results and well supported by the national Antiquities’ Directorate.

Our first archaeological acquaintance with hitherto unknown antecedents of Samarran stucco was made when we joined the excavations of the German Archaeological Institute in Raqqa under the

¹² Grabar 1987, pp. 210-212.

unforgotten Michael Meinecke 1985-94. The astonishingly large motifs of vines and grapes on panels flanking gateways and doors of the so-called East and West Palaces of the court of Harun ar-Rashid, when he used Raqqa as his residence (796-808), disturbed us by their crudeness and restricted range of motifs. Other vertical friezes and some lower parts of stucco niches showed smaller vegetal motifs organised in sequences of geometrical frames, rhombic or round, as are known from some other North Syrian sites, and al-Hira in Iraq and stations of the Darb Zubayda in Saudi Arabia. Some similar slabs had been published from the early Syrian excavations in other palaces of that court, and few fragments of more refined workmanship were found, some even with single letters of an Arabic inscription from the supposed great palace of the caliph. From the Great Mosque of ar-Raqqa/ar-Rafiqqa originate some alabaster capitals in various museums with ornaments very similar to or directly in the bevelled style, which together with a few similar stucco fragments are, according to Meinecke, to be dated to another caliph's stay in ar-Raqqa, that of al-Mu'tasim in 837-38.¹³

Small parallel finds in Northern Syria to the famous Southern Umayyad stucco building ornaments in Khirbat al-Mafjar and Qasr al-Hayr ash-Sharqi were published after the excavation of a garden pavilion outside the walls of Rusafa.¹⁴ The excellent, precise carving of the pearl friezes and scrolls raises great hopes for further finds in the palaces of Hisham and sets the stylistic model for this period. Their main difference to the Abbasid stuccos lies in the careful handling of outlines and "naturally" moved surfaces of the organic forms, which later tend to become imprecise and slightly irregular.

The hopes of finding larger Umayyad remains in the excavations of Madinat al-Far on the Balikh, which we believe to be the Hisn Maslama ibn Abdalmalik of the Arab sources, have until now not been fulfilled. The early Abbasid structures on the site are too extensive to permit the clear definition of buildings at the lower

¹³ The stucco finds are to be published by Schmidt-Colinet in the excavation reports Raqqa IV (Schmidt-Colinet [in press]); a first report by Michael Meinecke mentions the earlier publications of stucco in Northern Syria/Mesopotamia (Meinecke 1991); in a preliminary essay he expounds his idea that the rare motif of a vine with leaves and grapes in opposed vertical directions and some others may be influenced by Palmyrene stone reliefs, "Abbasidische Stuckdekorationen aus ar-Raqqa", in: Finster, Fragner and Hafenrichter 1999, pp. 247-267.

¹⁴ Ulbert 1993, pp. 213-231, pl. 54-57.

construction level, founded around 710 by that Umayyad prince and general of the Byzantine wars. But until any contrary evidence comes to light, a central building in the town with a pavilion in a courtyard and a hamam structure next to it (S.10 and 15), might belong to the original period. The building has some stucco fragments which apparently fell off before the site was abandoned and which are now safeguarded in a small depot. They show rather well single carved slabs and more summarily treated objects forming the decoration and lining of architectural features like arches and squinches, medallions, doorway frames; some of them were already published by the present author on other occasions.¹⁵

These arches and squinches from the building S.10 and 15 belong to the less refined carvings, which in the *Festschrift* for Christian Ewert we compared to some Ktesiphon and Ma'arid stuccos of early Islamic date, and we still believe them to belong possibly to the Umayyad period despite their summarily treated features, because of the well-defined background spaces between the flower and palmette motif. The latter are carefully carved, with slightly more dynamic composition, rather distant from any of the Samarra and Raqqa styles. They could be taken as provincial remnants of the upper-class architectural decoration from Ktesiphon, which are unfortunately not precisely datable. Both are unrelated to the Southern Umayyad stucco work, but resemble a (northern) Iraqi school with parallels in stone reliefs and much earlier rock carvings. Another smaller fragment of a stucco front of an arch (fig. 1) is less carefully executed, with irregular petals of the flower and rushed incisions in the leaf indicating the ribs. It is of the same type of connected alternate motifs combined by stalks or double bands in "continued sequence" which Jens Kröger has noted as appearing not earlier than in the Islamic period.¹⁶

A single slab, perhaps from an opening or a doorway frieze of the central octagon in S.10 (fig. 2), was found displaced in a heap of debris mixed from two construction levels.¹⁷ Our impression is that it shows an interesting combination of the two styles. The central vertical frieze shows an organically rising, waving stem with

¹⁵ Haase 2001, p. 19, fig. 9, stucco arch with Kufic inscription, perhaps late Umayyad/early Abbasid; Haase 2004, p. 50, fig. 1: arch decoration, perhaps pre-Abbasid, and p. 57, note 8.

¹⁶ Kröger 1982, pp. 245-246.

¹⁷ Already published in: Damascus 1996, p. 191, photo 2.

two-petaled leaves, executed in excellent carving with deep surface incisions and mouldings. But the lateral friezes with an alternating series of downbent feathery leaves and figs (?) with many triangular impressions on the surface and on the other side a summarily carved palm trunk, resemble the quick work of a school which does not reflect the Mediterranean Late Antique vegetal style and which we have labelled “(Northern) Iraqi”.

Another enigmatic piece is the fragment of a stucco capital darkened by ashes from a hypocaust but found in the same mixed debris in S. 10 and obviously originally belonging to a wall niche or gallery in half relief (fig. 3). The stucco is excellent with a finely fashioned smooth surface, the incisions most accurately executed and smoothed in the loops. In place of the corner volutes between the acanthus fronts, a five-leafed flower on a stalk bent upwards with two drilled holes and two further drills beneath the sepals is preserved on one side, with a small leaf with one drilled hole pointing downwards from the same stalk. The careful execution of the round acanthus ribs and the smooth curves make it appear one of the best stucco pieces from Madinat al-Far. With the typical shape of the five-part leaf with drilled holes it belongs to the group of small-scale vines and other vegetal motifs which appears in several rooms of the double mansion on the so-called “citadel” of Madinat al-Far in its main occupation period, which was not the first period there (S. 21). Given the better quality of the stucco treatment and due to the difficulties in comparing the stratigraphy in the “citadel” to that of the town, it is not impossible that this capital belongs to the first period in the town (S. 10). No exact parallel is known to us, but it resembles neither the Late Antique nor the “Iraqi” style. In the *Festschrift* for Christian Ewert we hinted at the close resemblance between the fragments of two six-petaled medallions with their delicate surfaces and precisely carved rhombic friezes and small niche calottes in stucco from the Afrasiab excavations.¹⁸

In the double mansion on the citadel mentioned above, the fine small vine ornaments were found in the same room as a wall cupboard decorated with flanking vertical friezes (fig. 4) in the thick coarse manner of the large vines flanking doorways in the palaces of Raqqa from the period of Harun ar-Rashid. It seems very strange to see these distinct modes of representation combined in one room,

¹⁸ Haase 2004, p. 57, note 7.

and one is inclined to believe that one was added later—but which one? Both modes of representation have their antecedents in pre-Islamic Iranian stucco work, but not in exactly the same motifs. The placard seems to be an ancient feature of Iraqi houses and was traditionally decorated, but the comparable niche found in the excavations in Kharab Sayyar is decorated in a much more simple way, and others are not yet recorded. Another example of the large type of stucco motifs complicates the chronological problem even more. The vertical door panel was found at the room door of the mud-brick constructions in the upper part of the stone building on the “citadel” (S. 12) and is unfortunately not preserved (fig. 5). The large trumpet leaves or flowers stretching out alternately with downward-looking trefoil leaves look more “naturalistic”, and as they show no sign of further surface décor, they may originally have been painted. Also the pearl frieze is of better quality in its execution than elsewhere in Madinat al-Far and Raqqa. Until further evidence we tentatively date them earlier than the Harun ar-Rashid period coarse stuccos, and believe that the fine small-scale stucco motifs were introduced a bit later.

Of these we get a better picture of the beginning of a stucco coating of the lower side of a niche arch (fig. 6) from the same room of the double mansion (S. 21).¹⁹ In order to do so, we can compare it with door panels photographed during the British excavations in al-Hira in Iraq (fig. 7). In the Madinat al-Far example, the sequence of the organising geometric fields is more simple—a medallion and a rhombus as opposed to the medallion and the rhombus with curved outlines in al-Hira. As far as the picture allows us to observe, the small-scale vines filling them in organic composition are similarly delicate in execution. A similar treatment of stucco carving and modelling was used on the same wall as the niche for a larger panel of medallions (not preserved) under a frieze with crenellations (fig. 8). The latter are filled with the same small-scale vine spandrels in slight variation, and the intervals with elongated swallow-tail leaves. The alternation is rather elaborate and recalls the best Umayyad arch and crenellation ornaments from Qasr al-Hayr al-Gharbi and Qasr al-Hayr ash-Sharqi as well as the stone reliefs in the Four-Iwan building of Amman citadel. The whole wall at Madinat al-Far gave a coherent picture of decoration, except for the placard.

¹⁹ Haase 2004, p.52, fig. 5.

Only in one trench did we find better evidence for the stylistic sequence of stucco ornament in Madinat al-Far. At the west wall of a large house on the northern side of the *decumanus* of the town (S. 34) an as yet unidentified room or vestibule was partly excavated (fig. 9). That outer side of the west wall had been altered somewhat later and a small protruding bank was found to have been built over fallen down or laid down stucco slabs for consolidating the floor. Whereas a northern wall going off that west wall may belong to the original plan, in spite of an old plastering on that west wall continuing behind it, the rest of the plastering of the west wall had been renewed. The slab fragments on the floor are evidently the oldest of three types of stucco (fig. 10) and show a large acanthus scroll with swelling stalk and spiralled leaves, no drill holes but ribs of leaves elegantly sculpted in three levels with a smoothed surface. In Madinat al-Far this is the closest in style to the Mediterranean tradition and in our opinion belongs to the Umayyad style. The second period is represented at the north wall by a broad vertical frieze of alternated round and petalled medallions with vines in the small-scale fine carving (fig. 11). The third example strangely added at head height to the west wall seems to be the only example so far discovered in Madinat al-Far of one of the Styles of Samarra (fig. 12). The small horizontal frieze shows a deeply incised, slightly irregular and coarse relief of recognisable vegetal forms, part of the surfaces hatched unsystematically. This resembles the technique of the Samarran style 2 (B), but the treatment of the edges announces the Bevelled Style 1 (C), but in a crude attempt to copy it. The proximity of the three styles in such a trench is most surprising to us but may be seen as an attempt to assemble disparate forms, though the one on the floor was no longer visible.

On the citadel an interesting building was excavated (S. 33) with the plan of an Arab *bayt*—a large hall with four flanking rooms of two different sizes. This hall shows the use of stucco ornament on certain architectural features, like on the four wall pillars at the two longer walls, at a doorway and above a low bench like in the palaces of Raqqa. The ornaments consist of narrow and broader vertical friezes, as in other places, and they seem to recall textile decoration of the lower part of walls. At one doorway the stucco frieze with deep incisions but soft, rounded edges displays more careful workmanship than the third period piece in S. 34 (fig. 13). The vegetal forms appear coarse in their outlines and fill most of the background area.

They seem to represent a forerunner of the Samarran styles 2 and 1 (B, C), but their relationship to the other stuccos is not yet clear. Those at the walls (fig. 14) remain more closely related to the style of the fine small vine decoration, but with different motifs, and those at the (prayer?) niche above the bench (fig. 15) resemble examples from Raqqa. A period around the end of the 8th century seems plausible from this relationship.

The excavations at the early Islamic period site of Kharab Sayyar, a larger town than Madinat al-Far and about 40 km towards the north-east, around a Bronze Age tell, brought to light stucco panels, which we think date from the next stylistic period, in the main rooms (D and H) of a large house which underwent at least two alterations. This shows the longevity of occupation and the interest of the inhabitants in “updating” their style of decoration whenever the building technique needed restoration.²⁰ The representative room of one house was only decorated near the entrance door above the bench with four equally wide friezes of stucco ornament (fig. 16). Three of them belong most probably to a (prayer?) niche with a central narrow panel and two borders; the fourth is the door panel. The latter and the central panel are decorated with Samarra 1 (C) motifs in Bevelled Style, rather carefully executed. The borders give fine examples of Samarra style 2 (B) and prove the persistence of this style or the contemporaneity of it outside Samarra as well. The eclectic character of this niche is a most interesting example of the “composite idea” in early Islamic art. The bevelled friezes show clearly recognisable vegetal forms in symmetry, starting below with drop-like leaves flanking a germ leaf which ends in a three-fold form that can also be interpreted as a crown. The latter proceeds as a linear prolongation on each side and opens for the repetition of the motif. In the door panel, an excerpt from a larger motif appears with lancet leaves pointing downwards and drop-like features upwards. Both are more ‘vegetal’ than the Samarran examples of the Bevelled Style. The same motif appears more fully in the angles of two square fields flanking the main field in the representative room of an adjoining house. The whole wall (fig. 17) is in the Bevelled Style technique, but rather summarily drawn. The detail of the right field (fig. 18) shows irregularities which point either to an early phase of usage of that style or to a less experienced workshop. A close-up (fig. 19)

²⁰ Compare preliminarily: Meyer 1999, pp. 303-309.

explains the cutting of the—possibly pre-modelled—motif in outline with strokes of a knife or blade.

The stylistic sequence we have tried to follow in stucco ornament still has an uncertain chronology due to the lack of clear dates from coins or by other means for the houses or the rooms in the Jaziran region. Even if the resemblance with dated earlier Syrian and later Iraqi decorations is evident, the differences in workmanship and style keep these examples slightly apart from the mainstream development. Except for very few pieces, they show regional “rustic” irregularities, which does not mean that they appear less attractive, especially if they appear *in situ* only after several frustrating campaigns of finding displaced fragments. We cannot as yet decide whether this negligent workmanship should only be taken as a sign of wishful copying from the quickly changing creative centres at the caliphal courts or whether it might not be the regional schools which started developing fresh styles. The more naturalistic outlook of the examples of Bevelled Style in the Jazira region could be taken as an antecedent of the more abstracted forms in Samarra which later on spread into other regions, but they could also be interpreted as using innovative techniques while remaining more conservative in the motifs than the caliphal workshops. Anyhow, the new material offered from recent excavations gives examples for a development within a relatively short period—between *c.* 730 to 840—and it is exciting enough to compare it with other stylistic developments in that fruitful period of the formation of Islamic art and in this region of competing traditions between the Near and Middle East.

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Fig. 1. Madinat al-Far, fragment from stucco decoration of an arch front.



Fig. 2. Madinat al-Far, stucco slab from S. 10.



Fig. 3. Madinat al-Far, stucco capital from S. 10.



Fig. 4. Madinat al-Far, large Raqqa-style vine in stucco, flanking a placard (S. 21).



Fig. 5. Madinat al-Far, stucco door panel with large tree (S. 12).



Fig. 6. Madinat al-Far, lower side of the arch of a niche, stucco frieze (S. 21).

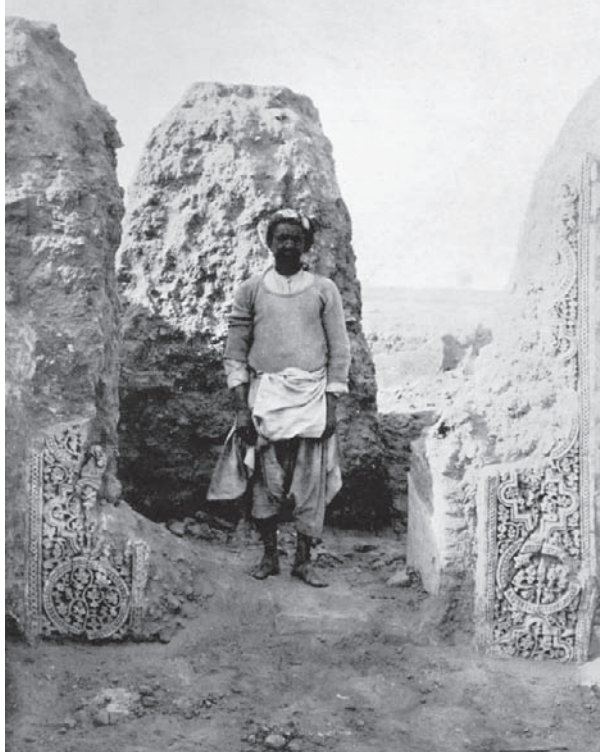


Fig. 7. Al-Hira, stucco door panels, from D. Talbot Rice, "The Oxford Excavations at Hira", *Ars Islamica*, I, 1934, fig. 3.



Fig. 8. Madinat al-Far, stucco wall frieze with crenellation (S. 21).



Fig. 9. Madinat al-Far, three periods of stucco ornament, the first on the floor already removed (S. 34).



Fig. 10. Madinat al-Far, first of the three styles of stucco ornament (S. 34).



Fig. 11. Madinat al-Far, second of the three styles of stucco ornament (S. 34).



Fig. 12. Madinat al-Far, third of the three styles (S. 34).



Fig. 13. Madinat al-Far, stucco ornament on pillar or doorway in the hall of a large Bayt mansion (S. 32).



Fig. 14. Madinat al-Far, the same hall with further stucco ornaments (S. 32; photo: Renate Schmitz, Düsseldorf).



Fig. 15. Madinat al-Far, stucco (prayer?) niche ornament, in the same hall (S. 32; photo: Renate Schmitz, Düsseldorf).



Fig. 16. Kharab Sayyar, four friezes in the large house, room H.



Fig. 17. Kharab Sayyar, north wall of room D in the large house (photo: Uwe Dettmar, Frankfurt).



Fig. 18. Kharab Sayyar, detail from the right square (see fig. 17).



Fig. 19. Kharab Sayyar, detail from stucco frieze on the east side of room D.

VĒH ARDASHĪR AND THE IDENTIFICATION OF THE RUINS AT AL-MADĀ'IN

STEFAN R. HAUSER, HALLE

“On that day of battle Ardashīr received the title Shāhanshāh. (...) Then he went from al-Mawṣil to Sūristān, i.e. the Sawād, and took possession of it for himself. On the banks of the Tigris, opposite the city of Ctesiphon (which is the city that forms the eastern part of al-Madā'in), he built a city on the western side, which he called Bih Ardashīr.”

Ṭabarī, *Ta'riḫ al-rusul wa'l-mulūk* I, 819 (Bosworth 1999, pp. 14-15).

The area of al-Madā'in, 25 to 35 km south of present-day Baghdad in central Iraq, is one of the largest complexes of ancient settlement in the world. From the founding of Seleucia-on-the-Tigris (around 300 BC) until the Muslim conquest of Ctesiphon (in AD 637) it was the administrative, economic and cultural centre of the great oriental empires of the Seleucid, Arsacid and Sasanian kings. In addition to the two consecutive royal capitals, the counterparts to Rome and Constantinople, a number of additional major towns were situated in the immediate vicinity. Of particular importance were Vēh Ardashīr, founded in AD 230 by the first Sasanian King of Kings, Ardashīr, and Vēh Antioch Khusrau, founded in AD 540 by Khusrau I for the deported population of Roman Antioch. Following the Muslim conquest the cities lost their importance and declined in scale. But its population dropped sharply only after al-Manṣūr had founded Baghdad in 145/762.¹ Muslim geographers continued to describe the most famous sights, the White Palace (Qasr al-Abyad) of the Sasanian Kings of Kings and the vault ascribed to Khusrau Anushirwan, the Īwān or Tāq-i Kisrā, which today serve as prime examples of Sasanian achievements in architecture. But the cities shrank to villages and were abandoned one after the other. Over time large parts of the ruins of the former glory were washed away by the Tigris, submerged by water and clay and turned into tilled land in modern times. Thus, when archaeological research began,

¹ Morony 1982, pp. 20-22.

the location of the various cities within the area was uncertain. Even today it is still a matter of debate.

This article will again take up the discussion of the localisation of the various ancient cities within the vast area of ruins. In part I it summarises older approaches to the question, followed by a discussion of the evidence for the name of the enigmatic “round city”(II). Part III discusses the city walls suggesting a new reconstruction which enables one to reconcile most of the earlier ideas on the identification of ruins. The results are summarised in part IV, which hopes to shed some further light on the former situation of cities in the al-Madā’in area, which formed the centre of the Near East for nearly a millennium and a centre of Jens Kröger’s scholarship for the last thirty years.²

I. Attempts to Localise the Cities of al-Madā’in

Written evidence for the cities of al-Madā’in is abundant in Roman, eastern Christian, Jewish and Islamic sources. They offer a plethora of different place names. This is partly the result of different names for one and the same city in the various languages at various times, partly a reflection of the rise and disappearance of settlements over time, and partly caused by differing ideas about the definition of the area belonging to al-Madā’in. According to Ya’qūbī, writing in the later 9th century, the area of al-Madā’in consists of five cities. Three of them he located on the eastern river bank: al-‘Atūqa with the White Palace of the Sasanian kings, Asbānabr, which has the great Īwān of Kisrā and the tomb of the prophet’s associate Salmān al Fārisī, and further south ar-Rūmiyya, a city built by (and for) the Romans. On the western side he lists Bahurasīt and Šābāt.³

² I am grateful for the opportunity to offer a piece of mutual interest as a small token of gratefulness to Jens Kröger for his scholarly friendship. “Ctesiphon” was the reason for our first meeting in 1991. At the end he presented me all the notes he had collected about the Arsacid period tombs excavated there in 1928. In his unusual unselfishness he also helped in every way to publish this assemblage. The resulting article, Hauser 1993, owes much more to him than the bare acknowledgement might have suggested.

³ The cities of ar-Rūmiyya, two miles south of Asbānabr on the eastern side, and Šābāt, a whole farsah south of Vēh Ardashīr west of the Tigris (Ya’qūbī, *al-Buldān*, 221), are therefore excluded from the following discussion. The identification of ar-Rūmiyya presents a small problem in itself. Balādhūrī, *Futūh*, pp. 263 and 274

Ya'qūbī's description differs from those given by later geographers as Ḥamza al-Isfahani and especially Yāqūt in the 13th century, who include seven cities in their list of towns belonging to al-Madā'in. While these Muslim historians and geographers of the 10th to the 13th centuries sometimes liberally applied the name to the wider area in which they described specific sites and the contemporary villages within the ruins, earlier authors generally use the term in a much more restricted sense just for the sites of Ctesiphon and Vēh Ardashīr.⁴ This is already manifest in the account of Balādhurī and especially Ṭabarī, who use the term in this restricted sense in their more detailed records on the Muslim conquest. They take up the definition we find in the manifold Roman, Syrian Christian and Talmudic sources from the 2nd to the 7th centuries AD. These mostly report contemporary historical events and thereby shed light on the topography of the cities. The various written sources were extensively collected and discussed from the 19th century on.⁵ In his magisterial discussion Streck showed that Seleucia, founded around 300 BC, was situated on the western bank of the Tigris. It was supplanted by Vēh Ardashīr (Bahrāsīr in Arabic) founded in 230 AD, which according to all Muslim sources was on the western bank.⁶ Vēh Ardashīr probably also incorporated an older village called Coche.⁷ On the eastern bank of the Tigris he firmly established Madīna al-'Atīqa and Asbanabr/Asfānabr (Aspānbur in Arabic) with the Īwān or Tāq-i Kistrā. Still the various sites had to be identified on the ground within the agglomerate of ruins which cover approximately 30 square kilometres, twice the size of ancient Rome.

mentions a city of that name on the western side of the Tigris, probably ancient Seleucia which sometimes appears as ar-Rūmiqan. Most authors locate ar-Rūmiyya on the eastern side and identify it with Vēh Antioch Khusrau (Jundio Khusrau), cf. Ali 1968-69, pp. 429-433; Fiey 1967a, pp. 25-28. Šabāt will be discussed at another occasion, cf. Fiey 1967a, pp. 12-14; Ali 1968-69, pp. 434-436.

⁴ Cf. Ali 1968-69, pp. 422-424. On other geographers of the 10th century see n. 44.

⁵ The Islamic sources were collected by Streck 1901, pp. 246-279 and briefly summarised by Le Strange 1905, pp. 33-35. A newer compilation is Ali 1967, translated in Ali 1968/1969. The history of Seleucia and Ctesiphon with all pertinent sources was discussed in Streck 1917, pp. 1-64.

⁶ Balādhurī 1968, p. 262; Ṭabarī I 820; Ḥamza 1884, p. 46; Yāqūt I 768. Cf. Streck 1901, pp. 262-264; Ali 1968-69, pp. 433-434.

⁷ "Ihre Auferstehung feierten Seleukia und Coche (...) später unter dem ersten Sasanidenkönig Ardašīr, jedoch unter dem neuen Namen Bahurāsīr. Vielleicht deckt sich Bahurāsīr nur mit Seleukia (...)", Streck 1901, pp. 272.

Attempts to identify the various ruins by western scholars started already in the early 19th century when James Rich visited the area in 1810. He described the Tāq-i Kisrā and noted the city walls on both sides of the river Tigris. He was the first to identify them with the twin cities of Seleucia on the western and Ctesiphon on the eastern side of the river.⁸ He was followed by Ernst Herzfeld, who likewise assumed that the Tigris divided Seleucia in the West and Ctesiphon on the eastern side of the river.⁹ The western city walls, called aş-Şur, would thus surround Seleucia, while the walls on the eastern bank, called at-Tuweiba, would delineate Ctesiphon. Based on pottery of the 7th to the 13th century collected on his site survey Herzfeld also identified Tell Bārūdā, the main complex of ruins in the western part of the “round city”, as Vēh Ardashīr.¹⁰ Following Streck’s idea that Seleucia was replaced by Vēh Ardashīr, he believed that the latter—which was consistently called “Seleucia” in Syriac sources—was built on top of the older Seleucia. Therefore, the area on the western side surrounded by circular walls had to be Seleucia and Vēh Ardashīr.

With reference to Herzfeld, in 1928 Eduard Meyer, Oscar Reuther and the Deutsche Orient-Gesellschaft (in the following: DOG) applied for a permit to excavate the east bank of the river (Ctesiphon and ar-Rūmiyya) and the western part of the “round city” (Seleucia).¹¹ Soon after his arrival in Iraq Reuther realised that Seleucia was in fact located in the ruins called Tell Umar which were west of a marsh which Herzfeld had never been able to cross.¹² At Tell Umar the University of Michigan had already started to excavate in search of old-Babylonian Opis, Sumerian Akshak in December 1927.¹³

⁸ Rich 1836, pp. 404-405.

⁹ Herzfeld admired Rich’s work: “Mit seinen Memoirs on Babylon beginnt das Wiedererstehen dieses Symbols einer langen, alten Epoche der menschlichen Zivilisation, das Koldewey nach 100 Jahren zu Ende geführt hat. Richs Residence in Kurdistan habe ich oft, auch in Kurdistan selbst, gelesen, ein unerreichtes Vorbild aller Reisewerke”, Herzfeld 1919, p. 314.

¹⁰ Herzfeld 1920, p. 52: “... muß er [i.e. Tell Bārūdā] die Reste des von Ardashīr I. gegründeten und bis in das arabische Mittelalter besiedelten Ortschaft Bahrasīr unter sich bergen.”

¹¹ Cf. Meyer 1929; Reuther 1930, pp. 1-5. On the excavations see Kröger 1982, pp. 11-13 and passim. On Meyer’s role for the excavations, see Hauser 2005, pp. 520-521.

¹² Herzfeld 1920, p. 50, reports that on five visits he was never able to cross the Khor west of aş-Şur.

¹³ Cf. Waterman 1931, pp. 1-6.

One month after his arrival in Iraq Reuther had to report to the DOG that their permit did not include Seleucia.¹⁴ The relocation of Seleucia afforded a new hypothesis on the identity of the “round city” or rather its western part encircled by the walls called aş-Şur. Reuther now identified the entire “round city” as the old centre of Ctesiphon, the Madīna al-‘Atīqa. He based his reasoning on his co-operator Walter Bachmann’s important observation that the former marsh west of aş-Şur was an old riverbed. If Seleucia and Ctesiphon were—as written sources indicated—divided just by the river¹⁵, the ruin across the Tigris from Tell Umar had to be Ctesiphon.¹⁶ As such it is shown on the site plan prepared by Bachmann, which is one of the main achievements of the brief and intense explorations and excavations by the DOG, and still the best available map of the area (fig. 1). Like Herzfeld before, the German mission collected pottery from the Sasanian period to the thirteenth century at Tell Baruda, proof of continued occupation. A small Parthian necropolis served as evidence that earlier settlement had existed in the area of the “round city”.¹⁷ While the argument appeared sound, the ultimate reason for this reconstruction was never made explicit. Like Streck and Herzfeld, Reuther assumed that when Vēh Ardashīr supplanted Seleucia in 230 AD, it had been founded on top of Seleucia. Their identity seemed indicated by ancient sources which alternatively, and seemingly interchangeably, used the names “Coche” or even “Seleu-

¹⁴ Reuther, Report 5 of 7/12/1928, pp. 5-6. Reuther’s reports are stored in the Museum of Islamic Art in Berlin. I would like to thank Jens Kröger, who made them available to me.

¹⁵ Prokopius, *The Persian War* II. 28.4: “Seleukia und Ktesiphon (...) are separated by the Tigris only, for they have nothing between them”; cf. Gregory of Nazianz, Oratio V 10 mentioning Ctesiphon and Coche as “furnished with equal defences as far as regards garrison and artificial protection, so closely united with it that they appeared to be one city, the river separating both between them.” Since Streck and Herzfeld had dealt with the sources, Reuther saw no reason to give them anew in his preliminary report, Reuther 1930.

¹⁶ Reuther 1930, pp. 4-5: “Der Tigris hat sein Bett seit dem Altertum verlegt—und zwar wiederholt—und fließt heute mitten durch Ktesiphon, zu dem die bisher als Seleukia geltende, vom Halboval der Stadtmauer umfaßte Stadtanlage gehört, offenbar als der größere Teil der Altstadt.”

¹⁷ Reuther 1930, p. 9: “Wenn das heute vom Tigris durchströmte Maueroval die Altstadt von Ktesiphon, die Madīna al-‘atiqa, umschloß, so mußte es auch die Lage des parthischen Ktesiphon umfassen. Oberflächenfunde (...) veranlaßten uns zur Untersuchung [..., einer] offenbar zu einer ausgedehnteren Nekropole gehörige[n] Grabanlage.” On the small necropolis consisting of two vaults cf. Hauser 1993.

cia” for Vēh Ardashīr.¹⁸ Given the identity of both places, there had been no need to look for a specific place for Vēh Ardashīr. The idea must have been shattered when Reuther learned that Seleucia was further west than previously assumed. But already on his first visit Bachmann detected medieval pottery at Seleucia (Tell Umar) which served as proof for Vēh Ardashīr’s location and to reinforce the traditional opinion of the identity of both cities. Since the position of Asbanabr, the part of Ctesiphon which included the Īwān-i Kisrā, seemed indisputable, the “oval city” had to be the older part of Ctesiphon, the Madīna al-‘Atīqa.¹⁹

Unfortunately, scarcity of money caused by hyperinflation prevented further campaigns by the DOG. Otherwise Reuther would certainly have taken up the topic again, since his reconstruction had become more than doubtful as a result of the American excavations at Seleucia which did not produce any post-Arsacid levels.²⁰ A substantial Sasanian administrative centre like Vēh Ardashīr had to be looked for somewhere else.

It was not until 1966 that Giorgio Gullini, head of the new Italian mission to the area, took up the topic again.²¹ His reflections were caused by the results of the first season of the Italian mission in

¹⁸ In particular Syriac texts use “Sliq”, i.e. Seleucia as name. Until the 9th century the catholicos, the head of the important Christian Church in the Sasanian Empire, was the bishop of the see of “Seleucia-Ctesiphon”. Synods met in “Seleucia” until 676, the catholicos moved to Baghdad in 780, the main church of Coche remained in use until at least 1318, cf. Fiey 1993; Baum and Winckler 2000; Jullien and Jullien 2002. A Christian theological seminar existed at “Seleucia” at least until the 11th century, Fiey 1967b, pp. 406-408.

¹⁹ Meyer 1929; Reuther 1930.

²⁰ Cf. Hopkins 1972. Only minor Sasanian rebuilding was documented at Tell Umar.

²¹ Judging by the importance and size of the cities it seems astonishing how little archaeological research has been carried out outside Seleucia. After the first successful campaign of the DOG inflation made further work impossible. A second campaign was organised together with the Metropolitan Museum in 1930/31, cf. Kühnel 1933. A third campaign was planned and approved for 1939. Italian excavations at Tell Baruda were conducted from 1964 to 1970 and again 1974-75, cf. the various preliminary reports in *Mesopotamia* 1-7, 1966-77. Possibilities for field research in the area was limited during the reign of Saddam Hussain, partly due to the existence of two of the most controversial facilities of modern Iraq, the atomic reactor Osiraq to the north of al-Madā’in, and a factory officially used for agrarian research, but allegedly for the production of chemical weapons situated approximately at the location of Vēh Antioch Khusrau. After the US-led invasion and the accruing deterioration of public order and civil life it seems doubtful if and when Iraq will welcome archaeological fieldwork again.

1964. The Italian excavations within the western, low-lying part of the “round city” had so far produced ten building levels dating to the Sasanian period and one level of Parthian (Arsacid) burials in an “alluvial layer”. Missing Arsacid period layers (and erroneously suggesting a later date for the small necropolis found in 1928), Gullini questioned the identification of the “round city” with the Madīna al-‘Atīqa of Ctesiphon. In contrast to older approaches he assumed that Vēh Ardashīr had not been build on top of Seleucia, but a short distance away at an older village called Coche (fig. 2). Based on his interpretation of Ammianus Marcellinus’s description of Julian’s attack on Ctesiphon in 363, he assumed that Vēh Ardashīr/Coche had been on the eastern bank of the Tigris across from Seleucia. Because the latest coins found in his excavations belonged to Perōz (459-484), he assumed that the former riverbed identified by Bachmann fell dry only in the later 5th century when the river moved to its present course, splitting the “round city” in two.²² The “round city” he identified with Vēh Ardashīr/Coche and located the old city of Ctesiphon further north in the ruins called Ma‘arid, where the DOG had unearthed various houses.²³

Gullini’s reading of Ammianus Marcellinus, the temporary location of Vēh Ardashīr on the eastern riverbank, and the change of the riverbed in the 5th century were univocally rejected.²⁴ In addition, later campaigns also provided evidence for continued occupation at least until the later 6th century.²⁵ The basic observations which caused Gullini to develop his new hypothesis about the changes in the riverbed were thus rendered invalid. But the identification of the “round city” with Coche/Vēh Ardashīr, and the re-location of Ctesiphon further to the north at Ma‘arid and further west, met different responses. Some scholars objected that the missing Arsacid layers in the Italian excavations would not indicate their complete absence in the entire city,²⁶ and if so, the argument would speak equally

²² Gullini 1966, 25 and fig. 1.

²³ Gullini 1966, pp. 22-26. On the German excavations at Ma‘arid see Kröger 1982, pp. 80-136.

²⁴ Fiey 1967, pp. 4-6; Gall 1969, pp. 82-83; Kröger 1982, p. 7; Oppenheimer 1983, p. 228; Hauser 1993, pp. 327-328.

²⁵ Göbl 1973.

²⁶ Gall 1969, pp. 83.

against the identification with Coche, being an Arsacid period village.²⁷

Gullini's idea of the identity of the "round city" with Vēh Ardashīr was taken up by Jean Maurice Fiey, who—with some important deviations—further refined the argument.²⁸ On aerial photographs of the area he located a possible third former riverbed winding around west of Gullini's Ctesiphon and passing between the walls of aṭ-Ṭuweiba and the Tāq-i Kīra.²⁹ In a close analysis of sources he argued that the Tigris moved away from the ancient riverbed next to Seleucia already in the 1st century AD. This, in the long run had caused Seleucia's decline. His idea found support in Christian Syriac texts which discriminate between "Sliq Kharawta", the ruined city mentioned in the context of martyria in the neighborhood of Tell Umar, and "Sliq", i.e. Vēh Ardashīr.³⁰ He also correctly pointed out that Pliny (NH 6.30.122) writing before AD 79 had stated that Ctesiphon was founded three Roman miles (4.5 km) away from Seleucia, which in turn had been founded at the confluence of the royal canal, the Nahr Malkha, with the Tigris.³¹ Sources later than the 3rd century, nevertheless, consistently refer to the immediate neighbourhood of Seleucia (Sliq), i.e. Coche or Vēh Ardashīr, to the river across from Ctesiphon.³² If the river had moved away from ancient Seleucia, the only possible solution was that the city newly (or re-)founded by Ardashīr did not overlap with the Seleucid

²⁷ Hauser 1993, pp. 328. A positive identification of Arsacid levels at Ma'arid is likewise missing. Coche is first mentioned as a village close to Seleucia by Arrian (book 10) in connection with Trajan's campaign in 116. Its later identity with Vēh Ardashīr and (New Seleucia) is proven by Ammianus Marcellinus 24.5.3 who mentions "Coche quam Seleuciam nominant", and by Gregory of Nazianz, Oration V 10, quoted above. The identity of Seleucia with Vēh Ardashīr is indicated by Theophanes, *Chronography* 323. "He crossed over the pontoon bridge to the city there, called Seleucia by us and Gouedesir by the Persians."

²⁸ Fiey 1967a; 1967b.

²⁹ Fiey 1967a, pp. 4-5 and map p. 37.

³⁰ Fiey 1967a, pp. 5-9; Fiey 1967b, pp. 410-411; Oppenheimer 1983, p. 231. While the American expedition did not report any post-Arsacid material, the Italian excavations unearthed a middle to late Sasanian tower and some glass (and probably pottery) at Tell Umar, cf. Invernizzi 1967, pp. 24-25; Negro Ponzi 2002, pp. 64. Some late Sasanian to early Islamic material pointing to low intensity use of the area was found in the Archive square, Negro-Ponzi 1970-71. These findings corroborated Bachmann's earlier observations. Ammianus Marcellinus reports that in 363 Julian visited a deserted city close to Coche. This city was certainly the old Seleucia, cf. also Oppenheimer 1983, p. 227.

³¹ Fiey 1967, p.10.

³² Cf. Fiey 1967, pp. 14-21.

foundation, but was located east of it in the “round city”. This must have been built next to the river on its western side. In all reports on Heraclius’s expedition against Khusrau II in 628 and on the Muslim conquest of al-Madā’in in 637, Behrasīr (Vēh Ardashīr) is consistently described as a large strongly fortified city on the western riverbank across from Ctesiphon.³³ Thus Fiey concluded that the Tigris could not have destroyed the walls of the “round city” before the later 7th century.³⁴ He concluded that a second change in the riverbed must have occurred after the 7th century. “From 100 to after the 7th century” he saw the river passing between the walls of aṭ-Ṭuweiba and the Tāq-i Kīsrā (fig. 3).

Fiey’s reconstructed riverbed was accepted by Oppenheimer,³⁵ but dismissed by Kröger who correctly pointed out that research on the topography by Bachmann and Adams did not allow for the reconstructed 300 m wide riverbed between the walls of the “round city” and Sasanian palatial area, but only for a very narrow passage. Reluctantly Kröger decided to retain Reuther’s designation of the ruins.³⁶

II. The “Round City”—Vēh Ardashīr?

Fiey’s arguments for the identification can be supported by the archaeological evidence, which fits the written sources. The only evidence for pre-Sasanian occupation in the area of the “round city” is a small, probably square structure partly excavated in 1928.³⁷ Its wall with regular recesses might have belonged to a tower or a post. The structure has been dated to the later 1st century BC or early 1st century AD. Already in the 1st century it was rebuilt and later

³³ Gregory of Nazianz, Oration V 10; Procopius, *The Persian War* II 28.4.9. Movsēs Daskhurants’i II.13, cf. Greatrex and Lieu 2002, pp. 218; Balādhūrī, *Futūḥ al-buldān* 262-263; Ṭabarī I 2428: “The city was protected by trenches, guards and all sorts of military gear” (quoted after Juynboll 1989, p. 9) and I 2432.

³⁴ Fiey 1967, pp. 4-6.

³⁵ Oppenheimer 1983, map on p. 233. There are two major deviations in his map. On the one hand he did not follow Gullini’s (and Fiey’s) doubtful reconstruction of a larger city area for Ctesiphon in the swamps east of Ma’arid. On the other hand he dated Fiey’s riverbed east of aṭ-Ṭuweiba only to the mid-1st to 3rd/4th centuries. The reasons for this are not given in the accompanying text. For sources on Maḥoza see Oppenheimer 1983, pp. 187-193.

³⁶ Kröger 1982, p. 7; followed by Hauser 1993, p. 328.

³⁷ Hauser 1993.

abandoned. In the mid 2nd century the ruin was transformed into a burial site, when two large vaults were dug. The structure was situated exactly opposite the eastern corner of ancient Seleucia in a distance of approximately 1 km across the Tigris. The structure will have served as an eastern outlook or bridgehead for Seleucia. When the Tigris changed its course towards the east in the 1st century AD this bridgehead fell out of use and became re-used as a burial site.

In the Italian excavations in the southwestern part of the “round city” eleven levels were excavated. After the first campaign the oldest architectural level, level X, was dated to the mid 3rd century, based on coins of Shapur I.³⁸ Later a hoard of coins by Ardashīr I was found beneath the even earlier level XI.³⁹ Also below level X and XI graves were found surrounded by alluvial clay. Gullini dated the burials to the 1st century BC/AD and considered them part of the necropolis of Seleucia or Coche, but not of Ctesiphon, because “a ‘cohabitation’ of living and dead would not have been possible for the followers of Mazdeism”.⁴⁰ Reconsidering the published plans it seems that the tombs’ layout conforms to the alignment of the walls. Therefore, a relation between the tombs and the architecture appears probable. In-house burial beneath the floor is an old Mesopotamian custom which was widely spread during the Arsacid period throughout Babylonia.⁴¹ Furthermore, in-house burials belonging to upper levels were excavated in later campaigns indicating that less strict rules applied.⁴² Independent of the date for the tombs, the oldest architectural remains in the large-scale Italian excavations belong to the beginning of the Sasanian period. Although this does not exclude older layers at other places—which should even be expected, if Coche was incorporated into the new design—it indicates the foundation or at least enlargement of the settlement probably in the reign of Ardashīr.

The latest settlement activity in the “round city” is found on Tell Baruda where Herzfeld already collected pottery of the 7th to the 13th centuries. His findings were confirmed by a test trench on the southern side of Tell Baruda in 1928 and by Italian excavations in

³⁸ Cavallero 1966; Gullini 1966, pp. 22-24.

³⁹ Cavallero 1967, p. 51.

⁴⁰ Gullini 1966, p. 25. This was correctly rejected by Gall 1969, p. 83 pointing to other examples of intra-mural burials.

⁴¹ E.g. Hauser 2000, pp. 214-215 and in particular Hauser in press.

⁴² Venco Ricciardi 1968/69, pp. 66-67.

1974. Both unearthed levels from the later 6th to probably the 13th centuries.⁴³ This result fits well with Islamic written sources which consistently describe a settlement at Bahurasīr, which is the only known settlement on the western side of the Tigris.⁴⁴ Yāqūt and al-Qazwīnī mention a smaller settlement in the 13th (7th) century.⁴⁵ Around 1400, Mustawfī even purports that Madā'in and Rūmiyya were deserted and only Bahurasīr still had some settlement.⁴⁶ Although no pottery of the 15th century has yet been identified, Tell Baruda is the only place on the western side of the Tigris which shows permanent settlement from the Sasanian period to at least the Mongol invasion. Since the sources agree that the only settlement on this side of the river is Bahurasīr or Vēh Ardashīr, this is further confirmation for the identity of the "round city" with the foundation of the first Sasanian King of Kings.

The above discussion furnished the following results. The older German attempts to identify the ruins were misled by the hypothesis of physical overlap of Seleucia and Vēh Ardashīr. Since the Tigris river had changed its course in the 1st century towards the east there was sufficient space between Seleucia and the Tigris for the foundation of a new city. As first argued by Gullini and Fiey this land was used by Ardashīr for the foundation of Vēh Ardashīr, also called Coche, (New) Seleucia or Bahurasīr.⁴⁷ According to 3rd- to 7th-century sources the cities of Vēh Ardashīr and Ctesiphon were both attached to the river Tigris and connected by a bridge. Since later written sources only refer to the village still extant at present

⁴³ Herzfeld 1920, p. 52; Kröger 1982, p. 5. 11; Venco Ricciardi 1973-74. In both cases earlier levels had not been reached before excavations were terminated.

⁴⁴ Tenth century geographers disagree on the settlement at al-Madā'in. Muqaddisī, who uses al-Madā'in for both sides of the river tells that Madā'in "is a flourishing city, most of its buildings are from bricks; its mosque is in the market," *Aḥsan at-Taqāsīm* 115, quoted after Ali 1968-69, p. 421. This agrees with Ibn Rustah (*Al-A'lāq an-Nafīsa*, p. 186): Madā'in "has two Friday mosques, and markets. In the eastern side of it is a palace built by the Sasanian Kings who resided there, it has also the famous Īwān. In the western side of the city, there was a fire temple whose expenditure is said to be as twice as the revenue of Fārs," Ali 1968-69, p. 421. On the other hand Ibn Ḥawqal (p. 244) describes al-Madā'in as a small village east of the Tigris with imposing ruins founded by the Sasanians.

⁴⁵ Yāqūt (p. 447): "Madā'in is a small town, looks like a village. In the eastern town there is the Īwān and the tomb of Salmān al-Fārisī," quoted after Ali 1968-69, pp. 421-422. Qazwīnī, *Āthar* 303-305; cf. Krawulski 1978, p. 493.

⁴⁶ Le Strange 1905, p. 35.

⁴⁷ In agreement with Fiey 1967, p. 36, I prefer to use Vēh Ardashīr, not Coche.

day Tell Baruda, they give no indication as to when the Tigris broke through the city walls of Vēh Ardashīr. Furthermore, the exact position of the Tigris until then remains an open question.

III. *The Circular City*

“When Sa’d arrived at Bahurasīt, the Arabs lay in a circle around it with the Persians secure inside.”

Ṭabarī I 2428

Central to any positive identification of the relation between Vēh Ardashīr, Ctesiphon and the river Tigris between the 3rd and (at least) the 7th is the so-called “round city”. It is therefore very surprising that nobody ever addressed the problem that the city usually called “round” is oval at best.⁴⁸ Although this was noticed, of course, it was not identified as a problem. The “round city” is commonly reconstructed from the impressive remains of ancient city walls on both sides of the Tigris. On the western bank its outer wall is called aṣ-Ṣur. In 1928 Bachmann documented its standing structures for more than 3 km (fig. 1).⁴⁹ On the eastern side two stretches of walls of 750 and 1,500 m in length are called at-Ṭuweiba. Even at first glance it is obvious that these walls could have never formed a circle. While aṣ-Ṣur in the west is shown as a nearly perfect circle with a diameter of circa 2,860 m in Bachmann’s plan,⁵⁰ the walls

⁴⁸ In 1993 in a talk between doors this was remarked upon by Dietrich Huff. I am very grateful to him for pointing to the obvious which finally triggered this article.

⁴⁹ Wachsmuth 1930, p. 221 asserts that in the gaps between the standing structures the wall was still visible on the ground. A huge stretch of aṣ-Ṣur was lost in the south between Rich’s visit to the site in 1810 and Herzfeld’s visits a hundred years later, cf. Reuther 1930, p. 4. That the Tigris shifted its course also during the 20th century is obvious, if we compare Bachmann’s site map of 1928, more recent maps and modern satellite images.

⁵⁰ According to Bachmann’s map the walls of aṣ-Ṣur show minor variations in the radius. High resolution satellite images for most of the area are now available in the internet at earth.google.com. Intense study of these images allowed following the walls for several hundred metres. The deviations in radius within the north-western part of the walls were confirmed. They also show that since 1928 the Tigris moved further west and destroyed further parts of the wall. In Bachmann’s map there is a slight discrepancy in the radius between the walls west of Qasr bint al-Qadi, i.e. in square L VI, and the southern tip of the walls in M VII south of the Tell Baruda. The latter seems to slightly bend outwards. High resolution satellite images of the south-western part including the Italian excavation areas have become available at

of aṭ-Ṭuweiba bear little relation to either a circle or even an oval form. They follow a general north-south direction. Only to the north and south of the ruin identified as Asbānabr the walls curve towards the west. The northern tip of the walls finally bends back north.⁵¹ The evident deviation from a circle was of course observed by the German team. Reuther described the city as “oval”, arguing that: “beide Mauerzüge ergänzen sich zu einem geschlossenen Ring von der ungefähren Form eines Ovals von 3300 m größerem und 2800 m kleinerem Durchmesser. Die Abweichungen vom regelmäßigen Verlauf der Ovale mögen bei der Ṭuweiba zum Teil auf den von Norden kommenden Kanal zurückzuführen sein, der im Nordosten in die Stadt eintrat und hier ein Einbiegen der Mauerlinie veranlaßte.”⁵² That aṣ-Ṣur and aṭ-Ṭuweiba belonged together was never questioned again, the integrity of the oval or “round city” was never doubted. On the contrary, later graphic renderings progressively approximated its supposed form. Gullini already smoothed the edges of aṭ-Ṭuweiba, and in Fiey’s drawing the city took on a nearly circular form which bore little resemblance to Bachmann’s detailed topographic map (fig. 3).⁵³

In fact the walls on both sides of the river are difficult to fit together, in particular as the walls of aṭ-Ṭuweiba close to the present Tigris do not point towards aṣ-Ṣur. Their connection seems highly doubtful. This is augmented by the results from unpublished excavations in 1929 when the German archaeologists probed into the walls on both riverbanks. At aṣ-Ṣur the excavations revealed a wall 10 m wide and still up to 13 m high, set on a brick foundation. U-shaped towers of 9.3 by 9.3 m were projecting from the wall, 38.3 m

Google Earth after the article was finished. They confirm the idea that in assembling the map from the field-drawings and notes of Bachmann, this stretch of the walls was mounted with a little deviation of 1 degree. Another mistake happened with the map of Seleucia. An overlay of Bachmann’s map and satellite images show that the excellent plan of Seleucia in its entirety was placed too far west from aṣ-Ṣur, cf. fig. 4. It is therefore impossible to make an exact match of Bachmann’s map and modern satellite images. Bachmann’s work and his remarkable accuracy nevertheless leave us in awe. Please note, that Bachmann’s north and current geographical north differ by 1 degree.

⁵¹ Additional spots of ruins are indicated also to the north of the walls. It is difficult to decide whether they belonged to the more southerly walls and were in fact their continuation which would result in a different course of the walls towards Ma’arid.

⁵² Reuther 1930, p. 9.

⁵³ Gullini 1966, fig.1; Fiey 1967, fig. on p. 37.

apart from each other. The wall showed recesses at regular intervals between the towers.⁵⁴ These results have been largely confirmed by the Italian excavations.⁵⁵ Contrary to Reuther's statement in the preliminary report the excavations at aṭ-Ṭuweiba furnished little resemblances. In Reuther's weekly report to Berlin he declared the walls on the eastern riverbank consisted of varied parts. The one excavated part showed them only 2.5 m wide with nearly half-round protruding towers instead of the U-shaped towers at aṣ-Ṣur. The two towers excavated at aṭ-Ṭuweiba measured 3.9 by 3.3 m at a distance of 19.8 m from each other. The only correspondences to aṣ-Ṣur were the use of varying brick sizes (of 36 to 40 cm) and rather wide butt joints.⁵⁶ The differences are so fundamental that there is little reason to believe that the walls of aṣ-Ṣur and of aṭ-Ṭuweiba have ever belonged together. Without doubt we have ruins of two different sites.

But where was Vēh Ardashīr then? For a solution we should concentrate on the walls of aṣ-Ṣur. As mentioned earlier, those form a nearly perfect circle. Its diameter is difficult to determine exactly, because Bachmann's plan and satellite images show minor deviations in the radius. Given the diameter of circa 2,860 m they are in a range of less than 1%.⁵⁷ If we attempt to reconstruct a full circle from the available measurements, a circular city would have encompassed part of present day Tigris and tracks of low lying, repeatedly flooded land on its eastern bank.⁵⁸ Most of the wall has been destroyed by the shifting river. The centre of the city would be situated centrally in Tell Baruda, close to its present summit. QuickBird images show this as a marked hill of approximately 12 m in diameter which is pockmarked by digging holes (figs. 4 and 5).⁵⁹

⁵⁴ Reuther 1930, pp. 6-8.

⁵⁵ Cavallero 1967, pp. 45-46 and figs. 19-22. She discriminates several phases of repair in the walls. The last phase had distances of 35.92, 31.25 and 35.80 m between the towers which had diameters between 10.30 and 10.80 m.

⁵⁶ Reuther, Report 11 to the DOG on 20/2/1929. The measurements are taken from the drawings housed in the Museum of Islamic Art, Berlin. I am grateful to Jens Kröger for this information.

⁵⁷ They might be explained as results from various restorations, cf. Cavallero 1967, p. 46.

⁵⁸ The walls are still well defined on satellite images, in particular in the northern part. About half of the structures documented by Bachmann have been lost since. Some parts are obviously used as roads or canals, cf. earth.google.com.

⁵⁹ There is one problem with this reconstruction which should not be concealed. Bachmann's map (fig. 1) shows ruins between aṭ-Ṭuweiba and the Tigris in N/O

A reconstruction of Vēh Ardashīr as a circular city re-opens a discussion of the location of Ctesiphon and the Tigris (fig. 6). Sources from the 3rd to the 7th centuries completely agree that Vēh Ardashīr and Ctesiphon were twin cities only divided by the Tigris (see Procopius and Gregory of Nazianz above). Fourth-century Roman authors address them as the “most noble Persian cities”, Ṭabarī even refers to them as the “two royal cities”.⁶⁰ The impression of their unity was intensified by their connection via a bridge. According to Ibn Ḥawqal it was made from bricks, while other sources describe it as a pontoon bridge.⁶¹ It was called the Maḥoza bridge in Talmudic sources.⁶² Following the various accounts the twin cities appeared to ancient authors and inhabitants like one. This is particularly manifest in the Talmud where the boundaries of both cities combined are considered as the boundary for movement on Sabbath.⁶³ Likewise the see of the Christian catholicos carries the names of both cities and was enthroned at the “great church of Kokhé, which is in the royal cities of Seleucia and Ctesiphon”.⁶⁴ The term al-Madā'in for

V/VI. While most of them are included by the circle, parts of them remain outside. The distance between aṭ-Ṭuweiba and the ruins is 150 m. These ruins could be interpreted as attached to the city between its round walls and the river.

⁶⁰ Festus, *Breviarium* 24: “Cochem et Ctesiphontem urbes Persarum nobilissimas cepit”; Eutropius, *Breviarium* 9,13,1; Ṭabarī I 858. The anonymous chronicle of 724, 137, narrates that the Persians led captives “to their cities Selok and Kaukaba, which are called Ardashīr and Ctesiphon”, quoted after Greatrex and Lieu 2002, p.17.

⁶¹ Ibn Ḥawqal 245; Theophanes A.M. 6118 (323 and 326) in connection with events of AD 629, cf. Greatrex and Lieu 2002, p. 216; *The Chronicle of Seder Olam Zuṭa*, cf. Oppenheimer 1983, p. 191, reporting on events around AD 500; Oppenheimer 1983, pp. 181-182 Giṭṭin 6a. Yāqūt, *Buldān* II, 40, 57, 982 (quoted after Ali 1968-69, pp. 424). Ṭabarī I 837 relates Shapur I awakened in his palace by the noise on this bridge and ordered a second one to be built, cf. Bosworth 1999, pp. 52-53.

⁶² Oppenheimer 1983, pp. 181-182, 191.

⁶³ Oppenheimer 1983, p. 198: ‘Eruvin 57b. Oppenheimer identified Maḥoza of the Talmud solely with Vēh Ardashīr. This is not supported by his sources which stress the difference between townspeople from Maḥoza and land folks. None of the texts referring to Maḥoza indicates only one specific city on either side of the river. The texts usually refer either to Ctesiphon and Vēh Ardashīr, or to Maḥoza, pointing to the latter’s encompassing meaning. The wide use of the term is obvious in the Khuzistan Chronicle, where Sasanian Kings of Kings invariably leave for Azerbaijan or to the West from Maḥoza, the place where Shahrvarez also kills the boy king Ardashīr, cf. Greatrex and Lieu 2002, pp. 229-237. It seems preferable to assume a parallel use of “Maḥoza” to the use of “al-Madā'in”, both denoting the entire complex of cities on both sides of the river.

⁶⁴ Fiey 1967a, p. 17 with n. 127.

both cities in Islamic sources obviously takes up the contemporary designation.

Islamic authors agree that al-Madā'in encompasses both sides of the river, the western side dominated by Bahrasīr.⁶⁵ The cities across the river they variously call Ctesiphon, Madīna al-ʿAtīqa and Asbanabr. The changing use of these names has created uncertainty as to their relation and meaning, largely caused by Yāqūt. At various places in his work he offers contradicting descriptions, distinguishing between Ctesiphon and Asbanabr, but locating the Īwān-i Kīsrā at Ctesiphon and finally identifying it as part of the White Palace.⁶⁶ The 13th-century author is thus in conflict with older sources which strictly distinguish the Īwān-i Kīsrā from the palace of the Sasanian (and earlier) kings.⁶⁷ The latter is uniformly located at Ctesiphon or al-ʿAtīqa, the former located at Asbanabr. The tomb of Salman, the early Persian follower of Mohammed who played a role as negotiator during the conquest of al-Madā'in, is also found there.⁶⁸ As both sites still exist, the localisation of Asbanabr presents no problem. Asbanabr is considered a far later foundation than the larger Madīna al-ʿAtīqa to the north of it. While according to Ya'qubi both, or rather their respective centres, were one mile apart, Khatīb sees both of them attached to each other, an impression also conveyed by descriptions of their conquest in 637.⁶⁹ Al-ʿAtīqa, is portrayed as the oldest and largest part of the Sasanian complex of al-Madā'in. Dīnawarī explicitly mentions Ctesiphon as another name for Al-ʿAtīqa, while sometimes the name Ctesiphon might include Asbanabr

⁶⁵ Ali 1968/69, p. 423 assumes that Yāqūt restricted al-Madā'in to the eastern side of the Tigris, because he did not include Vēh Ardashīr in his list of the five cities. But as mentioned Yāqūt's use of place names in relation to al-Madā'in is highly inconsistent (see below). Khatīb in the 11th century explained that Vēh Ardashīr was built by Alexander (Ali 1968/69, p. 424). In my view this legendary ascription is repeated by Yāqūt when he includes "the city of Alexander", i.e. Vēh Ardashīr, in his list of the cities of al-Madā'in.

⁶⁶ Cf. the various passages given by Ali 1968/69, pp. 422-424.

⁶⁷ Ibn Rustah, *al-ʿAlāq an-Nafīsa*, p. 186; Iṣṭakhrī, *Masālik* p. 86; Ibn Ḥawqal, *Sūrat al-Ard* I, p. 344, cf. Ali 1968/69, p. 421.

⁶⁸ For Asfanabr = Tāq-i Kīsrā (plus Salman Pak) see Ya'qubī, *al-Buldān* p. 321; Khatīb, *Tārīkh Baghdād* I, p. 128; Muqadassī, *Aḥsan at-Taqāsīm* p. 122; Yāqūt, *Buldān* I, p. 237. On Salman's role during the crossing of the Tigris and the negotiations: Ṭabarī I 2435-6. 2441, cf. Juynboll 1989, pp. 16-18, 21.

⁶⁹ Ya'qubī, *al-Buldān* p. 221; Khatīb, *Tārīkh Baghdād* I, p. 128, cf. Ali 1968/69, pp. 423-424; Ṭabarī I pp. 2434-2435, cf. Joynboll 1989, pp. 15-16.

as well.⁷⁰ Since Asbanabr is the present-day Salman Pak, the ruins of Ma'arid should form part of ancient al-ʿAtīqa. The White Palace of the Sasanian (and earlier) kings was situated in al-ʿAtīqa. Also the bridge across the Tigris was situated between Vēh Ardashīr and al-ʿAtīqa, since Ṭabarī relates that Shapur was awakened in his “royal palace at Ctesiphon [i.e. the White Palace, S.R.H.], by the anguished clamor of the people” on the bridge.⁷¹

The ʿEruvin narrates that the Tigris separated Vēh Ardashīr and Ctesiphon by “more than 141½ (cubits)”.⁷² If correct, this points to an extremely narrow riverbed. Presently the Tigris south of Baghdad is mostly between 180 and 300 m wide. Within Baghdad the dykes on both sides are 150 to 500 m apart. Still there are several passages in the Tigris of approximately 120 m. Just south of the point where the standing wall of aṣ-Ṣur meets the Tigris, the river is only 90 to 100 m wide.⁷³ Narrow passages generally occur behind sharper bends of the river after which the river contracts. Based on calculations of modern situations the Maḥoza bridge would thus probably have been at a distance of 150 to 250 m behind a sharp bend at the point where both cities were closest. This point was probably not far from where Bachmann gives the westernmost tip of aṭ-Ṭuweiba. At this point the reconstructed circular wall of Vēh Ardashīr with a radius of circa 1,430 m would have met these walls (fig. 5). But this does not explain aṭ-Ṭuweiba's existence. As we have seen, the walls, at least in the part probed in 1929, are very small for a fortification. For most of its length the walls accompany the outline of Asbanabr. Their design nevertheless does not follow closely, but repeats the curving typical for riverbanks. An interpretation as dykes protecting Asbanabr or Salman Pak would be a likely explanation for their form. Judging from satellite images they certainly served this purpose for some time. Whether they came into existence during the Sasanian period can only be answered by further excavation. The distance between the reconstructed circular wall and aṭ-Ṭuweiba would provide a comfortable bed for the Tigris. It therefore seems plausible

⁷⁰ Ṭabarī 842. 1062, cf. Bosworth 1999, p. 61. 401; Dīnawarī, *al-Akhhār at-Ṭiwāl* 11. 38-39; cf. Ali 1968/69, p. 424.

⁷¹ Ṭabarī 837, translation Bosworth 1999, p. 52.

⁷² Oppenheimer 1983, p. 198: ʿEruvin 57b.

⁷³ It soon opens up again and passes Tell Baruda 400 m wide before contracting to 200 to 280 m again south of the Tāq-i Kīra. North of Baghdad there are even narrower passages of less than 100 m.

that the river once passed between the circular walls of Vēh Ardashīr and aṭ-Ṭuweiba, protecting the quarter called Asbanabr.

We should certainly expect dykes protecting Vēh Ardashīr which probably used a pre-existing bend in the river, which in turn might coincide with the dyke documented in L I-III by Bachmann (fig. 1). That the bridge between the cities was nevertheless a precarious affair is indicated by its design as a pontoon bridge. Destruction by the Tigris in the later 4th century is remarked upon in the *ʿEruvin* which mentions a wall of more than 70 cubits, either part of the city wall or extending from it, which was swallowed by the river.⁷⁴ But ultimately the entire set-up of the city walls and the bridge will have depended on the diversion of Tigris water into the massive canals used during the Sasanian period. As demonstrated by Adams, the already extensive canal systems of the Arsacid period were again massively enlarged by the Sasanians, who fundamentally reshaped the “landscape and its water resources”.⁷⁵ The Nahrawan canal north of Samarra drew away plenty of Tigris water. In addition the waters of the Diyala river were mostly led into the Katul al Kisrawi, which made the three districts of the “Diyala plains (...) virtually the heartland of Sasanian strength”.⁷⁶ The canals not only allowed the expansion of the limits of agriculture, they also helped to regulate the floods of the Tigris.⁷⁷ Negligence in their maintenance might have been one factor in the downfall of the Sasanian Empire.⁷⁸ It certainly meant the end of the circular city of Vēh Ardashīr.

⁷⁴ Oppenheimer 1983, p. 198.

⁷⁵ Adams 1965, p. 82.

⁷⁶ Adams 1965, p. 73. For an extensive discussion of the waterworks and their impact cf. Adams 1965, pp. 73-82.

⁷⁷ On the floods in the later 4th century and the unprecedented flood in 629 which destroyed the canal system further south and created the Khor, see Le Strange 1905, p. 27. Adams 1981, p. 213 discusses the vulnerability to damage of such a complex system which “presupposed a centrally supplied staff of specialists, and perhaps the capital resources of the imperial treasures, as well”.

⁷⁸ Adams 1965, p. 82: “Salinization, silt accumulation in the canals, and the destructive effects of floods and changes in the river courses all were combined with administrative collapse, political upheaval, and ultimately, invasion and occupation by outside forces.”

IV. *The Nimbus of Power*

Circular cities were a rare type of city plan throughout the ages, albeit not entirely unknown.

The most prominent example is probably the Abbāsid capital Baghdad founded by Caliph al-Mansūr in 145/762. Built around the royal palace like “a giant nimbus of power encircling the ruler”, it was the “expression of the new order”.⁷⁹ The monumental circular city had a calculated diameter of 2,638 m.⁸⁰ Parallels are usually drawn to circular cities of the Sasanian period, specifically from the reign of Ardashīr.⁸¹ Of the eight cities allegedly founded by him only Ardashīr Khurrah (Glory of Ardashīr), i.e. later Firuzabad, has been systematically explored and mapped.⁸² Huff describes it as “a perfect circle of 1950 m diameter, divided into twenty sectors by a precise geometric system of twenty radial and several concentric streets”.⁸³ The city had four main gates and a 40 m-high tower in the middle of the city which served as the centre for a radial system within and outside the town and also as a visible connection to Ardashīr’s palace Qal’a-ye Dokhtar, situated at the entrance to the plain at 5 km distance.⁸⁴ Ardashīr Khurrah was probably founded before Ardashīr became King of Kings. Darabgird, where Ardashīr, according to Ṭabarī, grew up and started his career, might have served as a model.⁸⁵ Darabgird and Ardashīr Khurrah also share

⁷⁹ Hillenbrand 1994, pp. 392-393.

⁸⁰ Herzfeld in: Sarre and Herzfeld II 1920, pp. 106-139, figs. 180-184; Lassner 1970, pp. 178-195, figs. 1-14; Meinecke 1996, pp. 144-145.

⁸¹ Hillenbrand 1994, p. 393 lists Hatra, Shīz (Takht-e Suleiman), Darabgird and Ardashīr Khurrah as earlier examples. Only the latter two qualify, because Hatra and Takht-e Suleiman appear “rounded”, but do not follow a geometrical, circular form. Takht-e Suleiman further disqualifies because its design is largely determined by landscape, not by strict geometry. Its plan therefore follows a completely different idea of town planning.

⁸² Ṭabarī I, 820: Ardashīr founded eight cities: Ardashīr Khurrah (arab.: Jūr or Gōr), Rām Ardashīr and Rīw Ardashīr in Fārs; Hurmuz Ardashīr (arab. Sūq al Ahwaz) in al-Ahwaz; Fasā(?) Ardashīr (al-Khaṭṭ) in al-Baḥrayn; Būdh Ardashīr (Ḥazzah) in the region of Mawṣil; and in the Sawād Astābādh Ardashīr (Karkh Maysān) in the Characene and Vēh Ardashīr “that is the western side of al-Madā’in”.

⁸³ Huff 1999, pp. 634-635.

⁸⁴ Huff 2004, pp. 417-20; Huff 1969/70, pp. 319-338.

⁸⁵ Ṭabarī I 815-816. The city remained important throughout the Sasanian period as governmental seat with mint. Nevertheless, the geographer Ḥamza al-Isfahanī, writing in c. 961 ascribed the circular walls to an 8th-century governor of Fars, cf. Huff 1996, pp. 5-7.

comparable dimensions.⁸⁶ But the most important facet of both foundations is their particular approach to space. The planning and execution of a circular city means the subordination of landscape to a strict geometrical design. It displays superior architectural planning and engineering skills, but also signifies the power of its patron who dominates nature.

The Abbāsīd ruler, Calif al-Manṣūr, will have been drawn to this symbolism and he might have been aware of Ardashīr Khurrah.⁸⁷ It is much more likely that he derived his model for Baghdad from the immediate neighbourhood, i.e. al-Madā'in. The circular city there was not only very close to Baghdad, but al-Manṣūr certainly saw the walls of Vēh Ardashīr and visited the city when he stayed at ar-Rūmiyya, just over three kilometres (two miles) south of Asbanabr, in 136-138/754-755. Like later historians, his court will have been aware that Vēh Ardashīr was once founded as a new administrative centre for the province Asorestan and housed the most important fire temple in the western part of the Sasanian Empire. Even if part of its walls might have been already destroyed by the Tigris—which seems rather unlikely—the surviving walls of aṣ-Ṣur must have been a spectacular sight. With walls of nearly 9 km in length and an area of more than 6 square kilometers, Vēh Ardashīr greatly surpassed Darabgird and Ardashīr Khurrah in scale.⁸⁸ In fact its diameter of circa 2,860 m even excels al-Manṣūr's Baghdad.

⁸⁶ Huff prepared his map for Ardashīr Khurrah based on measurements in the inner city, the published aerial photographs of Erich Schmitt (1934) and a map 1:50,000, Huff 1969/70, p. 320 n. 8. But: "Das genaue Maß der Einheiten [die durch Ringkreise und Radiale im Stadtgebiet gebildet wurden, S.R.H.], läßt sich wegen der nur überschläglichen ermittelten Abmessungen des Stadtplanes nicht bestimmen", Huff 1969/70, p. 323 n. 18. The diameter of the outer wall he drew as 2,050 to 2,070 m, which is supported by modern satellite images available at earth.google.com. The latter also agree in the innermost circle of 450 m in diameter. They nevertheless suggest a diameter for the very wide main wall of less than 1,900 m on the outside. The outside of the main wall at Darabgird has a diameter of approximately 1,800 m, the one of the outer wall ca. 2,000 m, according to the satellite image which fits well with Stein's slightly schematic map.

⁸⁷ The site is sometimes mentioned as model for Baghdad, e.g. Hillenbrand 1994, p. 393.

⁸⁸ Darabgird and Ardashīr Khurrah have approximately two-thirds of the diameter of the supposed circle described by the round city at al-Madā'in. Unfortunately, neither the available satellite images of the extant walls, nor Bachmann's drawing, which is too small in scale, allow for a precise measurement. On a size of 2,860 m even a deviation of 1% means a possible variation of 57 m. Discussions of standard measurements will not provide any reliable answers.

Already in the Sasanian period the circular city was considered as a twin to Ctesiphon, where the White Palace of the Sasanian Kings of Kings and later also the Īwān-i Kisrā, the monuments to the greatness of their empire and the marvels of Sasanian architecture, still stood at al-Manṣūr's time. When he finally built Baghdad as his capital in 145/762 al-Manṣūr not only removed the decoration from the White Palace at al-'Atīqa. But most probably he also copied the circular layout of Vēh Ardashīr. The united insignia of the ensemble of the two Sasanian royal cities of al-Madā'in served to express the new order in Iraq and the Islamic world.

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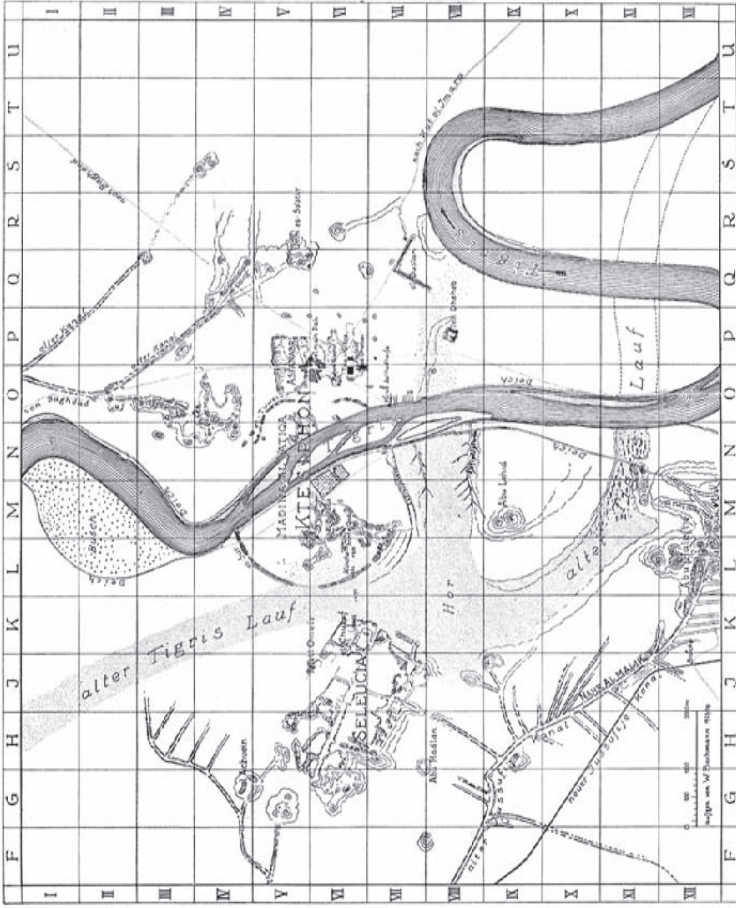


Fig. 1. Map of the area of al-Mada'in (after W. Bachmann, in: Reuther 1930, Abb. 1).

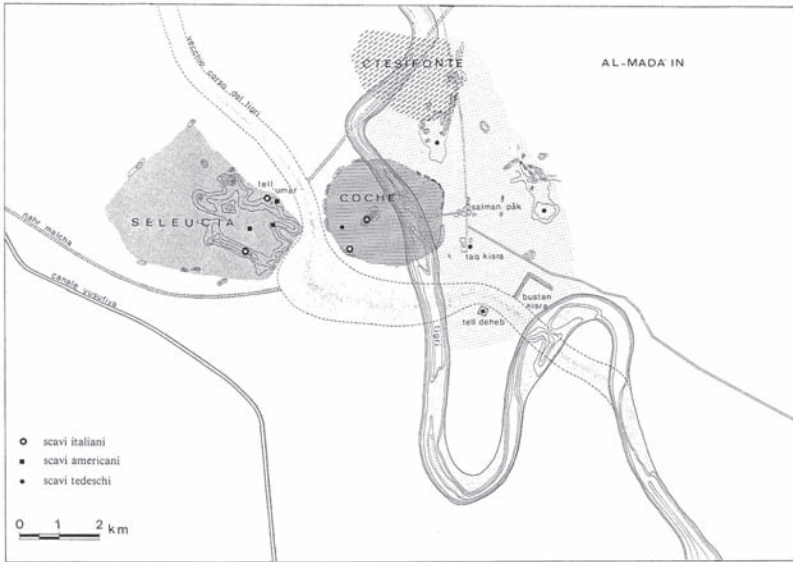


Fig. 2. Map of the area of al-Madā'in (after Giorgio Gullini: *La terra tra i due fiumi* 1975, p. 88).

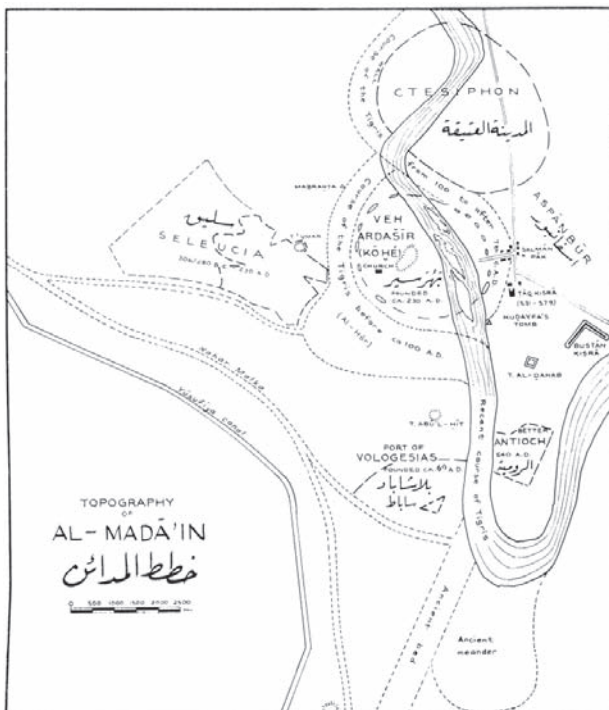


Fig. 3. Map of the area of al-Madā'in (after Fiey 1967, p. 37).



Fig. 4. al-Mada'in. Overlay of Bachmann's map (north corrected) on modern satellite images. Source: QuickBird satellite images by Digital Globe 2003-2006, provided by Google Earth.



Fig. 5. The reconstructed circular city of Vēh Ardashīr. Background satellite images by Digital Globe 2003-2006, provided by Google Earth.



Fig. 6. Reconstruction of settlement in the area of al-Madā'in in the later Sasanian period. Background satellite images by Digital Globe 2003-2006, provided by Google Earth.

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