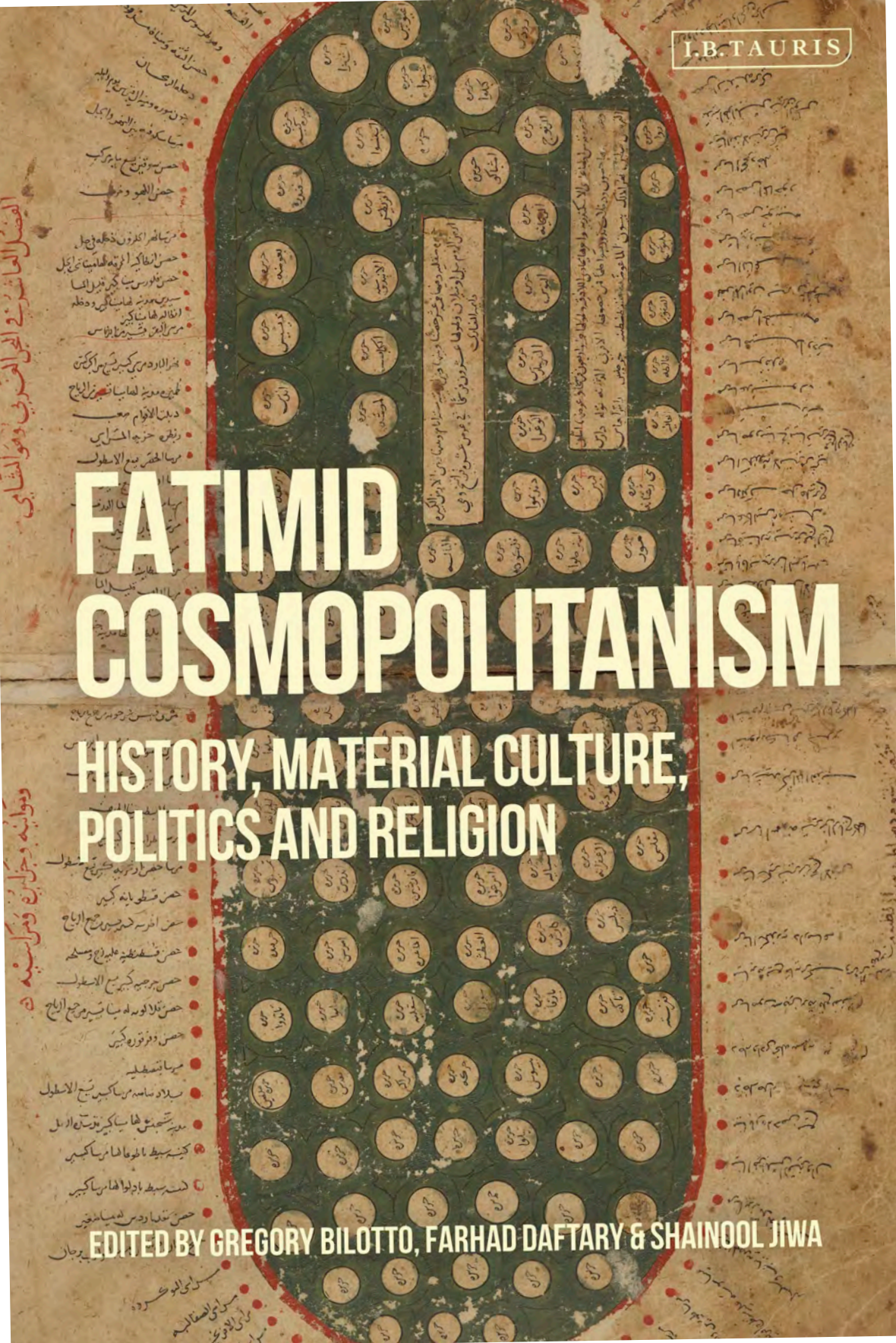

I.B. TAURIS

FATIMID COSMOPOLITANISM

HISTORY, MATERIAL CULTURE, POLITICS AND RELIGION

EDITED BY GREGORY BILOTTO, FARHAD DAFTARY & SHAINOOL JIWA

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I.B.TAURIS
LONDON • NEW YORK • OXFORD • NEW DELHI • SYDNEY
in association with
THE INSTITUTE OF ISMAILI STUDIES
LONDON, 2025

I.B. TAURIS
Bloomsbury Publishing Plc
50 Bedford Square, London, WC1B 3DP, UK
1359 Broadway, 12th Floor, New York, NY 10018, USA
29 Earlsfort Terrace, Dublin 2, Ireland

In association with
The Institute of Ismaili Studies
Aga Khan Centre, 10 Handyside Street, London N1C 4DN
www.iis.ac.uk

First published in Great Britain 2025

Cover design: Paul Smith
Cover image © Courtesy of the Bodleian Libraries, University of Oxford, MS. Arab. c. 90, fols. 30b–31a.

A catalogue record for this book is available from the British Library.

A catalog record for this book is available from the Library of Congress.

ISBN: HB: 978-0-7556-5779-7
PB: 978-0-7556-5778-0
ePDF: 978-0-7556-5781-0
eBook: 978-0-7556-5780-3

Typeset by RefineCatch Limited, Bungay, Suffolk

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List of Contributors

Ali Asgar Hussamuddin Alibhai University of Texas at Dallas
Khalil Andani Augustana College, USA
Dina Ishak Bakhoum Independent Scholar
Daniel Beben Nazarbayev University, Kazakstan
Doris Behrens-Abouseif SOAS, University of London
Gregory Bilotto Metropolitan Museum of Art, New York
Anna Contadini SOAS, University of London
Delia Cortese Middlesex University, London
Farhad Daftary The Institute of Ismaili Studies, London
Juan de Lara University of Oxford
Valérie Gonzalez SOAS, University of London
Shainool Jiwa The Institute of Ismaili Studies, London
Hasan al-Khoee The Institute of Ismaili Studies, London
Ayala Lester Independent Scholar
Bernard O'Kane American University in Cairo
Marcus Pilz Vesta Coburg Art Collections
Stéphane Pradines Aga Khan University-ISMC
Jennifer A. Pruitt University of Wisconsin-Madison
Yossef Rapoport Queen Mary University London
Paula Sanders Rice University, Houston, Texas
Avinoam Shalem Columbia University, New York
Yasser Tabbaa Independent Scholar
Jamel A. Velji Claremont McKenna College, USA
Paul E. Walker University of Chicago

Abbreviations

AI	*Annales Islamologiques*
BSOAS	*Bulletin of the School of Oriental and African Studies*
EIr	*Encyclopaedia Iranica*, ed. E. Yarshater et al.
EIs	*Encyclopaedia Islamica*, ed. F. Daftary, the late Wilferd Madelung
EI2	*The Encyclopaedia of Islam*, ed. H.A.R. Gibb et al. New edition.
JRAS	*Journal of the Royal Asiatic Society*

2

‘The Work is Blessed, Unique’: The Fatimid Silver Casket of Sadaqa b. Yusuf

Anna Contadini

The silver casket of Sadaqa b. Yusuf (figure IV.2.1) has received some scholarly attention, but it merits more focused study.[1] The research presented in this chapter attempts to shed light on it within the theory of objecthood,[2] considering both the historical and cultural valence of such objects; to analyse the visual imagery of the casket, conveyed by its extraordinary inscriptions and decorative motifs, which inspire wonder; and to explore the different ways in which it engages the viewer, visual, semantic and emotional.

Figure IV.2.1 Casket of Sadaqa b. Yusuf. Fatimid Egypt, dated between 436–439/1044–1047. Silver, gilt, niello, 7.5 x 12.4 x 7.9 cm. Real Colegiata de San Isidoro, Leon.

The casket, now in the treasury of San Isidoro, in León (Spain),[3] is datable to 436–439/1044–1047, as discussed below. It is rectangular, fairly small, measuring w. 12.4 x h. 7.9 x d. 7.5/7.9 cm, and has a slightly convex lid fastened by three hinges attached with metal pins.

It is made of silver, gold-washed (a type of gilding), and its body, lid and hinges are decorated with niello. On the body and the lid, apart from the border, the niello helps to define a pattern of fine, tight spirals, each measuring ca. 6 mm in diameter and joined one to the other by small, stylised leaves. Around the border of the lid runs an inscription set against a background of small round leaves, disposed in spirals, and foliage against a nielloed background. A smaller inscription, surrounded by a vegetal ornament against a nielloed surrounding, is found on the body of the casket beneath the lock (figures IV.2.2 and 3).

Although we have a number of caskets in various media, the Sadaqa casket is different in shape and style and does not seem to belong to any specific group, which makes it a 'unique' object – as, indeed, it is described by one of its inscriptions (see below). Both Fatimid and Spanish provenances have been proposed,[4] although the evidence surveyed here tends to confirm the view that it is to be attributed to a Fatimid environment. The casket makes, accordingly, a significant addition to the repertoire of Fatimid art, and Fatimid silver in particular.

Figure IV.2.2 Front view of the Sadaqa casket with the beginning of the inscription and showing the underside of the lock.

Figure IV.2.3 Detail of inscription on the body of the casket, beneath the lock.

This is a body of material that has not been sufficiently studied, and the following discussion therefore calls upon historical and archaeological evidence in combination with art-historical investigation.

We have information from the 5th/11th-century *Book of Gifts and Rarities (Kitab al-Hadaya wa'l-tuhaf)* attributed to Qadi al-Rashid b. Zubayr, who lived in Cairo under the Fatimids; from documents of the 5th to 6th/11th to 12th century recovered from the Cairo Geniza; and from the Mamluk historian al-Maqrizi, who reports an eye-witness account of the looting of the Fatimid treasury sometime around 462/1069. It mentions complex artifacts such as a ship in silver, others in gold, such as a palm tree, and countless items (bowls, dishes, etc) in silver or gold, enamelled, encrusted with precious stones, or inlaid with niello.[5]

Extant silver objects include a mirror in the Benaki Museum, a lid on the Fatimid rock crystal bottle in Capua, and archaeological finds of silver objects include Caesarea, Tiberias, Ramla and Fustat, comprising coins, jewellery, amulets and amulet cases,[6] artifacts that are also extremely important for the wider study of objects in precious metal, for understanding the chronology and distribution of such material, the techniques of production and decoration, and for their circulation around the Mediterranean. The style of script they exhibit is typologically close to that around the lid of the Sadaqa casket. In the case of the inscriptions on some of the Tiberias material, the script is not only related but also

contains a simplified example of the 'Undulating Stem-and-Leaf Motif' found within the inscription on the casket (see below and figure IV.2.15).

The style and phrasing of the inscriptions on the metalwork recovered in Denia (Spain) helps to confirm, according to Virgilio Martínez Enamorado, the identification of them as Fatimid. His study shows that many of the formulas they employ echo phraseology found on other Fatimid material rather than on metalwork produced in al-Andalus.[7] There are, inevitably, elements common to both Fatimid and Spanish material, but we would need a study of a large sample of objects to determine the degree of lexical overlap as compared with difference.

Objects in silver and other materials such as rock crystal and ivory could have been containers for spices, jewels, make-up (such as *kohl*) and perfume, as the Geniza documents testify,[8] and it is likely that the Sadaqa casket, too, was used for one of these purposes.

Reference may also usefully be made to Spanish silver from the Caliphal to the Taifa period, for instance, perfume bottles from 4th/10th-century Cordoba, various containers, and various rings found in diverse contexts and from different periods.[9] Particularly relevant are the silver objects with nielloed inscriptions and decoration that were produced around the time of our Sadaqa casket, during the first half of the 5th/11th century. Among three items for which Rafael Azuar has argued for a workshop in the Taifa kingdom of Toledo, and possibly in León,[10] is a perfume bottle in the Museo de Teruel, with an inscription that tells us that it was made for Zahr, who has been identified as the wife of Muʾayyid al-Dawla ʿAbd al-Malik b. Khalaf, who was to become the Taifa king of Albarracín in 437/1045.[11] This points to it being a contemporary or near contemporary piece to the Sadaqa casket, yet the Kufic inscription around the neck is of a different type and its decorative repertoire and general design, despite containing spirals, are quite distinct from those of the Sadaqa casket. Similarly distinct are the decorative features and calligraphic style of other Spanish silver objects such as the 11th-century casket of Santa Eulalia, studied in detail by Maria Antonia Martínez Núñez, to whom I am grateful for having discussed its epigraphy with me, and the differences between Spanish and Fatimid epigraphy in general.[12]

The visual effect of the Sadaqa casket is dominated by its mesmerising spiral motifs, which are only interrupted by the inscription. On metal objects of the medieval period, spiral motifs – not to be confused with concentric circles, a different, although common motif on objects in various media found all around the Mediterranean[13] – are ubiquitous,

occurring in diverse cultural spheres, Southern Italian, Byzantine, European and Islamic. To take just one example, a probable Southern Italian object of the 11th to 12th century AD, that has both niello and spiral ornamentation is the Imola paten.[14] Nielloed spirals form the background of the pseudo-kufic inscription around its central motif.[15]

Likewise, on other objects spirals serve as a filler or as background to a more prominent type of decoration, whereas on the Sadaqa casket they form the main decorative element, a design feature characteristic of Fatimid material. Indeed, Fatimid art is full of spiral decorative motifs, and the concept of a compact, round decoration that fills up spaces and is applied to the greater part of the surface appears in various media. For metalwork one may cite, for example, the bronze hare in Harvard (figure IV.2.4), with spirals terminating in trefoils.[16] Spiral decoration is common on lustre-painted pottery, especially in depictions of clothing: for instance the fragment of a bowl in the Brooklyn Museum has spiral decorations some of which also terminate in trefoils, for example on the clothing of the elephant-keeper (figure IV.2.5).[17] We may also add the famous 5th/11th-century bowl in the Victoria and Albert Museum (V&A) which features a figure wearing a dress with closely packed spiral decoration.[18] Spirals are also found amidst letter shapes, as in a fragment of the base of a bowl or dish in the V&A (figure IV.2.6).[19] For lustre-painted glass featuring spiral

Figure IV.2.4 Hare. Fatimid Egypt, 5th/11th century. Bronze, 7.6 cm. Private collection deposited at Harvard University Art Museum, Cambridge, MA.

Figure IV.2.5 Fragment of bowl. Egypt, 6th/12th century. Fritware, with overglaze lustre decoration, 13.3 x 7.6 x 9.3 cm. Brooklyn Museum, New York.

Figure IV.2.6 Fragment of base of bowl or dish. Egypt, 5th/11th century. Fritware, with overglaze lustre decoration, 15 x 6 x 1.3 cm. Victoria and Albert Museum, London.

decoration one may mention a bowl in the V&A (figure IV.2.7),[20] while a further example on glass occurs in the compact, extraordinary semi-spiral decoration on the body of an ewer cut in relief, found at Fustat, possibly of the 4th/10th century (figure IV.2.8).[21] Woodwork carved in relief, too, is often decorated with spirals of different dimensions, as in the famous wooden plaque with horse heads in the Metropolitan Museum of Art (figure IV.2.9),[22] and we may also find spiral motifs on bookbindings, such as the Qayrawan moulded bookbinding designs dated to the 4th/10th and 5th/11th centuries, with spirals compactly arranged in rows (figure IV.2.10).[23]

Figure IV.2.7 Glass bowl. Egypt, 5th/11th century. Transparent glass, with lustre-painted decoration, 7.7 x 12.9 cm. Victoria and Albert Museum, London.

Figure IV.2.8 Glass ewer cut in relief found in Fustat, 4th/10th century. Museum of Islamic Art, Cairo.

Figure IV.2.9 Wooden panel showing the bodies of horses dissolving into decorative motifs and spiral decoration. Fatimid Egypt, 5th/11th century. Metropolitan Museum of Art, New York.

Figure IV.2.10 Bookbinding, from the Great Mosque of Qayrawan, 5th/11th century.

Priscilla Soucek suggested that the foliage decoration on the Sadaqa casket, especially the trilobed motif found on top of the inscription beneath the lock, recalls stylised vegetal motifs in Byzantine art, such as the niello ornament on a fragmentary processional cross in Cleveland datable to ca. 1050 AD; the decoration on the marble relief carving from Komotini datable to the second half of the 11th century; and the robe worn by Nikephoros III Botaneiates (r. 1078–1081) in a painting in a manuscript in Paris. According to Soucek, these similarities raise the possibility that the ornament on the Sadaqa casket might have been modelled on one of the Byzantine objects sent to the Fatimid Imam-caliph al-Mustansir.[24]

The Casket

The small size of the casket is of note because one would expect to encounter such a complex decoration of spirals and tendrils, together with inscriptions, on a larger object. This adds to its preciousness: it was

obviously intended to be held up and admired at close range, as an intimate and uniquely decorated and inscribed little object.

The hinges fit perfectly within the spaces left within the inscription, pointing to them having been integral to the original conceptualisation of the casket. Also, the decorative motifs beneath the lock echo those on the outer side of the lock and on the hinges, making an aesthetic connection between the ornamentation on the body of the casket and on the hinges, which are also nielloed, and again pointing to them being original to the casket. Further, they accord with the aesthetics of other Fatimid hinges, as found in the Tiberias excavations (figure IV.2.11).[25]

Figure IV.2.11 Hinge of wooden casket from Tiberias.

Translocation and Transculturation

Once translocated to a Christian cultural environment, such as a church treasury, objects such as the casket could change their function dramatically. Some, having been transculturated, became reliquaries. This happened to other caskets in the Treasury of San Isidoro,[26] and likewise to containers in other media such as Fatimid rock crystals (for instance the Reliquary of the Nails of Saint Clare in Assisi)[27] and Southern Italian ivories (for instance the St Petroc casket now in Bodmin, Cornwall).[28] Whether the Sadaqa casket was ever used as a container for relics cannot be known, as we lack relevant documentation. It was translocated to the Treasury of San Isidoro, transculturated, in effect, to a museum-like context. It is now exhibited together with other objects originating outside Spain, including a small Scandinavian ivory container, in a group for which the curatorial interpretation seeks to highlight the international connections of al-Andalus.[29] Its presence in Spain has been generally attributed to the looting and dispersal of the Cairo Fatimid treasury in around 462/1069. It has also been suggested that it could have arrived there earlier, being one of the objects that were moved together with the relics of San Isidoro from Seville to León in 1063.[30] However, an object made for a Fatimid vizier and kept in a Fatimid treasury is more likely to have come to Spain as part of the mass dispersal of Fatimid objects in 462/1069, ending up in León via one of the main cities of al-Andalus.

As I have discussed elsewhere, for example in relation to Middle Eastern objects found in Italy, war and looting were by no means the only reasons for objects to travel.[31] They could be translocated via diplomacy, trade, or for religious reasons (they may have become containers of relics), but also, and importantly, they could have been acquired because of the preciousness of their materials, the symbolism associated with them, or their aesthetic qualities – all of which actively contribute to the performative role they would assume in the new cultural context.

The Inscriptions

The larger inscription runs around the border of the lid, while a second, much smaller inscription is situated on the body of the casket, positioned exactly beneath the lock and so being revealed only when one opens it.

Inscription 1

The inscription around the rim (figure IV.2.12) is important both as part of the visuality of the object and for its documentary value: it is because of it that we know that the casket was made for Sadaqa b. Yusuf. It has been read by various scholars, if without complete unanimity.[32]

My reading is as follows:

استعمال لخزانة صدقة بن يوسف
سعد كامل واقبال شامل
وعز دائم وامر عالي
ودرجة رفيعة لصاحبه

istiʿmal li-khizanat Sadaqa b. Yusuf (front of the casket)
saʿd kamil wa iqbal shamil (left side)
wa ʿizz daʾim wa amr ʿali (back)
wa daraja rafiʿa li-sahibihi (right side)

Translation:

Commissioned for the treasury of Sadaqa b. Yusuf/
Perfect happiness and complete prosperity/
and lasting glory and high position/
and exalted status to its owner

Figure IV.2.12 Inscriptions on the four sides of the lid of the Sadaqa casket. From top: Front, left, back, and right sides. Real Colegiata de San Isidoro, Spain.

Sadaqa b. Yusuf

For Abu Mansur Sadaqa b. Yusuf al-Falahi (figure IV.2.13) we are lucky to have documentary evidence from al-Maqrizi, who tells us that he was a vizier of the Fatimid Imam-caliph al-Mustansir (r. 428–487/1036–1094),[33] when the latter was only fifteen years old. Sadaqa's father, Abu'l-Fadl Yusuf b. ʿAli, was one of the skilled scribes and chancery officials, and was in charge of the Damascus *diwan*. When the long-serving vizier al-Jarjara'i fell ill, he wanted Sadaqa to be his successor, but with a supervisor, the older vizier Abu Saʿid Sahl b. Harun al-Tustari, who was the favourite of al-Mustansir's mother. His appointment together with Sadaqa may reflect a power struggle, but could also point to different duties being covered, and may also be interpreted as indicating that Sadaqa was rather young and insufficiently experienced. Sadaqa was invested on Wednesday 11 Ramadan 436/1044.

According to al-Maqrizi he was a converted Jew, described as being outstanding in the various chancery skills. He began by taking over the administration of Sham (Syria), but only stayed there for a very short time, soon moving to Cairo, where he became a vizier, deeply involved in Cairo politics and governmental affairs, and endowed with a large treasury of seven hundred thousand dinars.[34] But, according to al-Maqrizi, al-Mustansir's mother hated him, as he was thought to have incited the military against Abu Saʿid Sahl b. Harun al-Tustari, her favourite, until they killed him. She persevered in her intrigues against Sadaqa until she managed to have him deposed from the vizierate and imprisoned in the *Khizanat al-Bunud*, where he was killed in 439/1047.[35]

Sadaqa is also mentioned in the 5th/11th-century *Book of Gifts and Rarities* (see note 5), in relation to a generous gift from the Byzantine

Figure IV.2.13 Detail of the name Sadaqa b. Yusuf on the casket.

emperor Constantine IX Monomachus (r. 1042–1055) to al-Mustansir, with which Sadaqa and the older vizier al-Tustari were involved:

> In the year 427 (*sic*, read 437) [1045–1046], Constantine, the Byzantine emperor (*malik*), sent a gift to al-Mustansir bi-Allah, as he corresponded with him regarding the renewal of the ten-year armistice, which would end in the year 447 [1055–1056]. At that time the vizier [of al-Mustansir bi-lah] was Abu Nasr Sadaqah b. Yusuf al-Falahi, and the administrator of the state was Abu Sa'd Ibrahim b. Sahl al-Tustari the Jew. No former Byzantine emperor had ever offered a similar gift to any of the previous caliphs of Islam.[36]
>
> It consisted of a great quantity of gold vessels, some inlaid with enamel, gold coins, Byzantine girdles bordered with gold, she-mules and horses each of them covered with a brocaded saddle cloth, and many Muslim captive prisoners of war who were carrying boxes of fabrics embroidered with gold.

The inscription around the lid of the casket mentions that it was made for the treasury of Sadaqa, which places it precisely in the period when he was vizier, under the Imam-caliph al-Mustansir, and also allows us to date it precisely to between 436/1044 and 439/1047 (it is not often that we can date a medieval object to a span of only three years!). The smaller inscription combines benediction and its uniqueness, and I would suggest that the casket may have been made in 436/1044, on the occasion of the ceremony of Sadaqa's investiture.[37]

Inscription 2

The second inscription (figure IV.2.3) is on the part of the body covered by the hinge, and reading it was a surprise.

العمل مبارك فريد

al-ʿamal mubarak farid
The work is blessed, unique

What a wonderful line! Although *farid* is commonly used in relation to pearls,[38] its use in relation to a work of art such as the casket is unusual.

The inscription had been interpreted as mentioning the name of the craftsman, ʿUthman, in the reading ''*amal ʿUthman naqqash* (?)' which has been translated as ''Uthman engraved'.[39] However, this reading does not take into account either the definite article before *ʿamal* or the two final letters (*ya* and *dal*). The reading proposed here takes the complete

Figure IV.2.14 Casket of Hisham II and detail of inscription on the underside of the lock, with a very different content and style of script, 363 or 366/974 or 976. Silver, wood, gilt, niello, 27 x 38.5 x 23.5 cm. Tesoro de la Catedral de Gerona, Spain.

inscription into account, and the fact that it occupies fully the space between the decorative motifs that frame it.

It is possible that the previous reading, with the name ʿUthman, was prompted by expectations of what an inscription in such a position should be. Indeed, it may remind us of one on another silver casket, that ordered by the Umayyad caliph of al-Andalus al-Hakam II for his son Hisham II (figure IV.2.14).[40] In this case, the inscription, which is not on the body of the casket but on the back of the hinge itself, does mention names: it states that the work was done (or supervised) by Badr and Tarif – or, rather, Zarif, according to the recent reading of Ana Labarta: *ʿamal Badr wa Zarif ʿabdih*.[41] Although its position is similar, but not identical, to that on the casket of Hisham II, the content and style of the inscription on the Sadaqa casket are quite different.[42]

Like the main inscription around the lid in the Sadaqa casket, this second inscription too is extraordinary, giving the object the agency of being blessed and unique. I would argue that it is symbolically appropriate for the appointment of a new, younger vizier.

Both inscriptions are also of crucial importance for their aesthetic relationship with the ornamentation of the casket, as discussed below.

Fatimid Epigraphy and the 'Undulating Stem-and-Leaf Motif' on the Sadaqa Casket

Whether with regard to script or to ornamental motifs, the stylistic affiliations of the Sadaqa casket are rather with 5th/11th-century Fatimid

art. Gómez-Moreno had already noted a century ago that the epigraphical style and the ornamentation of the Sadaqa casket were to be related to what he called 'oriental writing', and to the Egyptian decorative style of the 5th/11th century.[43] Indeed, the epigraphical style can be securely related to that of Fatimid inscriptions, which are often characterised by being placed among decorative stems and leaves, or have projections and tendrils that come out from the upper parts of the letters, a type of floriated Kufic that may antedate the Fatimids but certainly developed and flourished under them.[44]

But although there is a stylistic distinction between Fatimid and Spanish scripts and ornaments, it does not exclude commonalities, and on the Spanish material we find certain details of the vegetal decoration, as on the perfume bottle in Teruel, that are comparable to 5th/11th-century Fatimid art, for example in woodwork (figure IV.2.15).[45] They point to the pan-Mediterranean circulation of a vocabulary of ornament, and to the importance of trading and diplomatic links between Spain and Egypt during the period in question.[46]

Figure IV.2.15 a) Inscription on the Sadaqa casket; b) Wooden panel from al-ʿAmri mosque. Qus, Egypt, 5th/11th century.

The Undulating Stem-and-Leaf Motif

In the main inscription of the Sadaqa casket the whole composition of letters and decorative motifs is highly complex and is worth unpacking, especially as it does not fit neatly into the standard categorisations of foliated and floriated Kufic (figure IV.2.16). Extending across the background is the prominent motif of a floriation that starts from the bottom of the initial *alif* of the first word of the inscription (*isti'mal*) and gives the impression of passing behind the letter *sin* to come out from the middle of the top of its second tooth, continuing in an upward curve, with little leaves, over the *'ayn* and *mim* and another just before the second *alif*, splitting into three branches, one a short curl; a third branch passes behind the *alif* and *lam* to then end in a double leaf motif; while the one between them continues on a downward path under the *alif* and *lam* and into the space before the second phrase, *li-khizana*. There it goes up again, passing behind the *zay*, and splits into two branches at its second apex: one branch curves back and ends in a double leaf, while the other continues upwards, passes behind the *alif*, and over the *nun* and *ta' marbuta*, and then descends again. This pattern is repeated throughout the four sides of the inscription, producing a continuous, undulating motif with stems that 'pass under' the letters, in what I call the 'undulating stem-and-leaf motif'.

This complex motif offers yet another example of the inventiveness of Fatimid artists and underscores the uniqueness of this object in visual terms. The letters and the decorative motifs around the lid are both in reserve, their contours defined by a niello-filled surround. Gómez Moreno draws a parallel between the vegetal scrolls within the inscription ('that fill all the space') and Egyptian arabesque ornamentation of the 5th/11th century.[47] The combination of the letters and decorative motifs results in a striking form of ornamentation that gives the visual impression of the letters resting upon a background that

Figure IV.2.16 The 'Undulating Stem-and-Leaf Motif' on the Sadaqa casket.

consists of little curly, spiral-like motifs (similar to the curls that end the spirals on the rest of the body of the casket).

Together with the effect of the letters resting upon a background of curls and leaves, the impression of 'passing under' is also found in the carving of some Fatimid rock crystal objects – in particular the ewer in the V&A,[48] which Ralph Pinder-Wilson thought was the earliest instance of such an optical illusion in a Fatimid object.[49] He also thought that it was an indication of a greater sophistication and, consequently, an indication that the V&A ewer was later in the series, possibly the last of the Fatimid ewers, placing it in the mid-5th/11th century. The more recently known Edmund De Unger rock crystal ewer, now in the Dallas Museum of Art collection, also presents instances of the 'passing under' visual effect, and therefore, following Pinder-Wilson's reasoning, it too may be attributed to the mid-5th/11th century.[50]

The 'passing under', however, is not found only in Fatimid art. We have examples in illumination, one of the earliest appearing in the Ibn al-Bawwab Qur'an made in Baghdad and dated 391/1000–1001 (figure IV.2.17).[51]

Complementary to, but separate from, the 'Undulating Stem-and-Leaf Motif' is what may be categorised as elements of floriated Kufic. According to Grohmann,[52] floriated Kufic is to be distinguished from foliated Kufic, which is characterised by half-palmette and two- or three-lobed leaf decoration of the bifurcating apices of the letters, by adding to these floral motifs, tendrils and scrolls growing from the final forms or even from the medial forms of the letters. This stylistic development reached its apogee in Egypt, with early examples in the Mosques of al-Azhar and al-Hakim, and in discussing the decoration of the bands of writing on the north minaret of the Mosque of al-Hakim (393/1003) Flury has pointed to motifs of Coptic origin, raising the possibility that Coptic art may have served as a transitional stage between late Hellenistic art and floriated Kufic.[53]

This style then spread both east and west. For instance, evidence for the Palestinian area, according to Ayala Lester, to whom I am grateful for having discussed this with me, is found in Fatimid inscriptions on architecture, including one on the Haram al-Sharif wall in Jerusalem, dated to 301–304/913–917, two at al-Aqsa mosque, and a further two at the Hebron mosque.[54]

This style also affected the portable arts, as part of Fatimid cosmopolitanism. As examples, we have Fatimid metalwork, such as the Benaki silver mirror mentioned above (see note 6) (figure IV.2.18), and artifacts from archaeological material, such as the metal objects found in

Figure IV.2.17 The 'passing under' in the Ibn al-Bawwab Qur'an, 391/1000–1001. Ink and gold on paper, 18.3 x 14.5 x 5.8 cm. Chester Beatty Library, Dublin.

Tiberias. Of these, several could be cited, but sufficient here as representative is a deep bowl, the benedictory, augural inscription of which has epigraphical characteristics that are very close to those of the Sadaqa casket (figure IV.2.19).[55] Although less complex, the Tiberias bowl, too, has vegetal motifs and tendrils that emerge from the bifurcating apices of the letters or, in the case of a *waw* or a *ra'* or a final *mim*, from their particularly prolonged curly ends.

One characteristic of the Sadaqa casket that strikes me especially is that the ends of the letters, especially those that curl, are often transformed into the same decorative elements that surround them. This conceptualisation of an epigraphic element dissolving into a decorative one, is typical, I would argue, of Fatimid art. Precedents are found in Egyptian, Tulunid art of the late 3rd–early 4th/9th–10th century, as in the stylised bird carved in wood now in the Louvre, where the body dissolves into a floral motif.[56] In the aforementioned later, Fatimid wooden plaque carved in relief datable to the 5th/11th century, now in the Metropolitan

Figure IV.2.18 Mirror with inscription showing similarities with the Sadaqa casket, 5th–6th/11th–12th century. Silver, Diameter 18 cm. Benaki Museum, Athens.

Museum of Art (see note 22), we see that the head and neck of the horses are quite naturalistically rendered with their trappings, while the body dissolves into vegetal elements (figure IV.2.9). Also indicative is that the treatment of the spiral ornamentation at the top and the little curly vegetal elements at the bottom echoes that on the Sadaqa casket. Decorative and epigraphical elements are linked with the vegetal decoration, with one generating the other.

The second, minute inscription on the Sadaqa casket is also in reserve, surrounded by the black niello that defines the letter shape. Vegetal elements float above and below it, but do not engage with it in the way they do with the main inscription. The whole is inserted within a space that mirrors the shape of the hinge and contains motifs found on the body of the casket and around the main inscription, highlighting again the conceptual link between the ornamentation on various parts of the casket.

Figure IV.2.19 Bowl from the Tiberias hoard with benedictory inscription, showing similarities with the Sadaqa casket. Fatimid period, 5th/11th century. Copper alloy, 11.8 x 26 cm. Reg. no. A2-525-4/2.

Material and Techniques on the Sadaqa Casket

Silver (fidda)

We have numerous textual references to silver and silver-gilt. Persian sources mention the use of gold and silver vessels in royal feasts (*bazm*) in Iran,[57] and Arabic sources confirm the high status of silver objects, which were not only used as vessels and ornaments, but also in religious contexts, being found in the Dome of the Rock and the Kaʿba. For instance, ʿAli b. Abi Bakr al-Harawi (d. 611/1215), who visited Jerusalem in 569/1173, mentions a silver-gilt inscription (*al-kitaba bi'l-fadd al-mudhahhab*) of the Throne Verse (Q. 2:255) in the Dome of the Rock,[58] while the Andalusian traveller Ibn Jubayr (d. 614/1217) reports that 'The door of the venerable House [the Kaʿba] . . . is eleven and a half spans [about six feet] from the ground. It is of gilded silver, perfect in its art and magnificent in its form.'[59] Similarly, the 5th/11th-century Persian poet and traveller Nasir-i Khusraw (d. after 462/1070) mentions silver lamps in the Dome of the Rock, and that inside the Kaʿba were silver doors, *mihrab*s and plaques.[60]

However, given the poor survival rate, it has been assumed that the production of silver objects decreased during the 5th/11th and 6th/12th centuries because of a 'silver famine' in the Islamic world, for which variations in the fineness of the *dirham* have usually been adduced as evidence.[61] Whether there really was a shortage of silver at the time is a matter of some dispute (see note 61), and in any case new discoveries of both coins, with their implications for monetary trends, and silver objects of the period from archaeological contexts have changed the picture. In an Iranian context, for example, the Nishapur excavation has brought to light a number of silver objects of the period, also with gilding and niello: an amulet case datable to between 339/950 and 442/1050 was found in the Tepe Madrasa, with some traces of gilding and a relief decoration. It is incised and partially nielloed and has a nielloed Qurʾanic inscription in angular script.[62] In Fatimid regions, we have the silver objects found in Caesarea, Tiberias, Ramla and Fustat mentioned earlier, and there are Fatimid objects now in museum and church collections, such as the rock crystal bottle in Capua (see note 6). Datable to the late 4th/10th century, the lid of the bottle, part of its mount, is original, and is in silver gilt decorated with niello (figure IV.2.20). It adds to the evidence from the archaeological finds and written sources and confirms that silver objects decorated with niello were produced in the Fatimid empire at least from the 4th/10th century.

Figure IV.2.20 Rock crystal ewer with original silver lid decorated with niello, Fatimid, 4th–5th/10th–11th century. Museo Diocesano, Capua.

As silver was often melted down, circulated according to market demand, and re-used, it is impossible to know where the silver for the Sadaqa casket was sourced. Further, no firm conclusion can be drawn from the choice of silver over, say, gold or ivory: sources such as the Geniza documents and the *Book of Gifts and Rarities* mention the three frequently as prestige materials for expensive artifacts.

Gilding (tadhhib)

The Sadaqa silver casket was gold-washed,[63] producing a greater colour contrast with the niello and an extraordinary visual impact. As one holds such an object and moves it around, the colour shade changes as the light hits it at different points and angles, reflecting to a greater or lesser extent the gilding or the silver.

The technique used was the ancient one of mercury gilding: an amalgam of gold and mercury is applied as a paste over the silver surface and then heated, causing the mercury gradually to evaporate and eventually leave on the surface a thin layer of gold that needs to be burnished. Differences in the time and temperature of the heating will affect the shade of the gilding,[64] which does not hide the silver and the niello decoration underneath, but covers it as a lightly coloured, transparent mantle.

Niello (in the sources normally silver with niello, fidda mukhraqa bi'l-sawad *or* mujra bi-sawad*)*

The casket has also a niello decoration, which, combined with the silver and the gold-wash, produces a wonderful overall aesthetic effect. The ancient technique of inlaying with niello consists of cutting grooves in the silver that are then filled with a black substance. Early examples appear in various cultural contexts. In Europe, niello appears on silver, for example, in the 9th-century Trewhiddle hoard discovered in Cornwall,[65] and it has also been found, unusually, on gold, as in a ring (possibly Carolingian) found within the Tesoretto del Reno near Bologna, dateable to the first half of the 9th century AD.[66]

In an Islamic context we have a recipe for it as early as the 4th/10th century, in the treatise on metals by the Yemeni author al-Hamdani (died in San'a in 334/945).[67] He tells us that niello is a compound of silver and sulphur, and does not mention copper or lead, which may not be present in ancient niello:

> Silver is burnt with sulphur until it becomes the colour of Indian iron. This is done by stirring the silver in the crucible, and the silver consumes the sulphur bit by bit. It is then cast in a mould and beaten out hot. If it has started to cool it flies about like glass. If they want to inlay(?) silver with this (compound), they pound it up with borax (*tinkar*) and water, and fill the place dug out of the silver with this pulverised material. It is allowed to flow like solder in the oven, and it does so. Files and rasps are then used on it.[68]

Later, however, in 701/1301, the Persian author Abu'l-Qasim al-Kashani, in his *'Arayis al-jawahir wa nafayis al-atayib*, specifies that niello is a compound of silver, copper, and lead:

> They take one *dirham* of pure silver, one *dirham* of pure copper, and half a *daniq* of pure lead; they melt the copper and silver together

> and throw onto it, in two stages, half a *dirham* of yellow sulphur until it all becomes one. The colour . . . becomes very shiny black. If they melt it a further time its colour improves and it gradually becomes more solid.[69]

The presence of lead alongside silver and copper could be relevant as an indicator of dating. Analyses done by Susan La Niece at the British Museum indicate its presence in the niello of Byzantine material of the 11th to 12th century,[70] while recent studies on Andalusian silver hinges of ivory objects in the V&A have revealed traces of lead in niello already in the Caliphal period.[71]

The composition of the niello on the Sadaqa casket has not been investigated, but what is certain is that the technique of niello on silver is well attested in various parts of the Mediterranean during the medieval period, including in the Fatimid empire, and silver objects are frequently mentioned in Fatimid sources, some with the specification of being decorated with niello. They are recorded in the *Book of Gifts and Rarities*, in the 5th/11th century and the Geniza documents talk of silver cups, beakers, incense burners, boxes, and of silver bracelets decorated with niello, which in the 6th/12th-century documents studied by Goitein are referred to as silver *siwar mujrah bi-sawad* (literally, 'bracelets treated with blackness').[72] According to these sources, they were more prestigious than those decorated with filigree.

We also have a reference to silver objects with niello coming out of the Fatimid treasury in around 462/1069. In a passage that seems to have been overlooked, al-Maqrizi, writing about the looting mentions large and small silver objects grooved with black (*fidda mukhraqa bi'l-sawad*) and he even adds an aesthetic comment, saying that they were made with the greatest artistry.

Textual sources are matched by the archaeological finds. We do not have a comparable example to the Sadaqa casket, which seems to be a unique piece, as the inscription indeed says. But we do have other types of Fatimid silver objects, including, of course, coins, which have also been found in great quantity in al-Andalus, again demonstrating the connections between Egypt and Spain during this period.[73]

Fatimid hoards such as the one from Caesarea have also yielded silver objects decorated with niello. They include an amulet,[74] a cylindrical amulet case, and a pair of crescent-shaped earrings (figure IV.2.21).[75] The earrings are very beautiful, with niello decoration of the motifs that frame the benedictory inscriptions, which are themselves highlighted in niello

Figure IV.2.21 Silver cylindrical amulet case and earring from the Caesarea hoard, both decorated with niello. Fatimid, 5th/11th century.

(*baraka kamila* on one side and *wa niʿma shamila* on the other), and are in a script related to that on the Sadaqa casket. The niello of these items too has not been tested, so we do not know its exact composition.

Affect and Wonder

The above is a discussion of the material components of the casket together with the sources related to it, and of its calligraphic style, with new readings of the inscriptions. It sets the casket within a historical and art-historical context, and includes interpretations of its visual impact and the implications of its design vocabulary for its affiliations with other artifacts. For an object that had not been hitherto studied in detail, investigation of such aspects was a requirement.

However, in addition to studying objects such as the Sadaqa casket in an essentialist framework, we need to take account of their position within the discourse of affect and wonder. Exploring the capacity to provoke emotional reactions is a much-needed element in the study of objects and material culture, in order to subvert what James Elkins poignantly defined as the 'ivory tower of tearlessness',[76] the exclusion of emotional involvement from much of academic art-historical discourse, where it is regarded as a non-rational approach to be suppressed or disregarded in academic writings. As Keith Moxey puts it: 'The aesthetic power of works of art, . . . and their capacity to shape our response in the present, argues against treating them as if they were simply documents of particular historical horizons.'[77]

The emotional aspect of the interaction with a work of art has recently been addressed by cognitive neuroscientists in what has been called

'neuroesthetics',[78] which explores how empathic processes are essential to aesthetic experiences of visual art, stressing the empathetic feelings aroused in the viewer of the work of art, both non-figurative and figurative, and how they form a substantial part of the art experience. Scientists are also exploring ways of integrating what have been called bottom-up effects – the impact of the work of art on the viewer – with top-down mechanisms – what individuals contribute in terms of emotional, physiological and cultural factors.[79] They also explore how emotions are intertwined with aesthetic judgments. They have shown that the cognitive evaluation of a stimulus as art or non-art informs the emotions that are felt and reported in response to it: 'a link between an empathetic engagement and higher liking may relate to perceived artistry, which is an essential factor influencing aesthetic judgments'.[80] These studies are useful for highlighting the importance of the emotive experience in relation to art and have the potential to make a significant contribution to art-historical aesthetics.

Within the theory of affect, defined by O'Sullivan as art activating or being a stimulus for sensations,[81] we may wish, in considering the Sadaqa casket, to take account of reactions of wonder, often emphasised in Middle Eastern texts. For example, the Iranian physician ʿAli b. Rabban al-Tabari, active in Abbasid Baghdad in the 3rd/9th century, introduces in his medical encyclopedia *Firdaws al-hikma* the psychological element of astonishment by saying that a smile (*ibtisam*) happens when a human being sees or hears something that diverts him and thus startles and moves him.[82] Or by the later Syrian physician Ibn al-Matran (d. 587/1191), active in Ayyubid Damascus, who discusses in his *Bustan al-atibba'* both physiological and psychological aspects of the movement that provokes laughter as, according to him, an expression of astonishment of the soul, and he explains that it is one which may be produced by forms of expression other than speech, and therefore including, one may assume, the visual.[83]

The second inscription, beneath the hinge, tells us that this object is blessed and unique. Looking at it, one reaction could indeed be of wonder (*ʿajab*) at its splendid (*badiʿ*) decoration, its unexpectedness provoking a spontaneous smile. In the sources, objects are generally mentioned either as rarities (*tuhaf*), liable to occasion *ʿajab*, or as being beautiful or strange (*gharib*), and therefore wondrous.[84] These concepts come together in the contents and title of at least two works, one *Kitab al-Hadaya wa'l-tuhaf* (already mentioned above), the other by the 7th/13th-century scholar

Zakariya b. Muhammad al-Qazwini, the *ʿAjaʾib al-makhluqat wa gharaʾib al-mawjudat* (The Wonders of Creation and the Oddities of Existing Things).[85] It is interesting to note that such concepts are also found in literary works, for example historical writings, where one would not expect them. Such historical accounts are thus immensely valuable for what they tell us about the appreciation of the visual arts. For example, in al-Maqrizi's famous report on the competition between two painters at the Fatimid court,[86] which tells us that two painters, one Iraqi and one Egyptian, were summoned by a vizier of al-Mustansir to a competition. One chose to paint a dancer as if coming out of the wall, the other as if going into the wall. Al-Qasir (the Egyptian) painted a dancing girl in a white dress within a black-coloured niche, while Ibn al-ʿAziz (the Iraqi) painted a dancing girl in a red dress within a yellow niche. The vizier al-Yazuri was pleased with both and rewarded them generously. This narrative talks to us about optical illusion, a technique very well known in Roman painting[87] and elaborated by the Fatimid scientist Ibn al-Haytham,[88] pointing to a continuation of the technique into 5th/11th-century Arab artistic practice. Secondly, it points to artistic, in this case painterly, activities being practiced in the environment of the court and involving its members as judges of such paintings. And thirdly, it gives us a hint of the appreciation (and consequent patronage) of the Imam-caliph al-Mustansir and his courtiers, not only for the paintings mentioned in this account but also, by implication, for other art works such as the casket made for his vizier Sadaqa b. Yusuf.

That art objects were greatly esteemed in medieval Islamic cultures is also revealed by the *Kitab al-Hadaya wa'l-tuhaf*. The text describes objects in detail, giving as accurate a visual image of them as possible. It also describes all sorts of objects, from pre-Islamic ones up to Fatimid ones, commenting on the context of the gifting and, at times, giving insight as to how they were appreciated. Quite apart from being an invaluable source for the understanding of the role of gifts, whether at the social[89] or diplomatic level, it highlights the importance attached to objects, giving their biographies and pointing once more to the theme of *ʿajab*.

The viewer can experience a range of responses to the Sadaqa casket. I have already mentioned the wondrous effect of the gold-wash, and there is, further, the impact of the mesmerising, repeated spiral decoration, a visually active element, encouraging the eye to travel in different directions, and not allowing it to settle (figure IV.2.22).[90] A further response is provoked by the particular calligraphic style of the inscription

Figure IV.2.22 Detail of the side of the Sadaqa casket. Real Colegiata de San Isidoro, Spain.

around the lid and its ornamentation, and the way it contrasts with the series of spirals. I mentioned how its letters are integrated with vegetal elements, one dissolving into the other, a feature of Fatimid aesthetics: the inscription thus combines the semantic with the sensory. Further, both inscriptions define the object itself as blessed and express good wishes for its owner, conjoining various aspects that perhaps allow the viewer to access this aura of blessedness in addition to experiencing the aesthetic pleasure that the casket so richly provides.

NOTES

1 I should like to thank Gregory Bilotto and The Institute of Ismaili Studies for organising the conference and this publication, and the anonymous readers.. Thanks are also due to Beate Fricke, Ana Labarta, Ayala Lester, Maria Antonia Martínez Núñez and Peter Northover who generously offered their knowledge in response to my queries. Raquel Gómez Jaen of the Real Colegiata de San Isidoro, Mina Moraitou of the Benaki Museum in Athens, Stephan Weber of the Islamic Art Museum in Berlin, and the Israel Antiquities Authorities have kindly assisted with photographic material. It has been 24 years since the major Fatimid conference, publication and exhibition in Paris, Institut du Monde Arabe, which then travelled to Vienna, and this volume is a welcome addition and update

on the groundbreaking academic work published then: Marianne Barrucand, ed., *L'Egypte Fatimide: Son art et son histoire* (Paris, 1999). The catalogues that accompanied the exhibitions are: Marianna Barrucand, ed., *Trésors Fatimides du Caire* (Paris, 1998); and Wilfried Seipel, ed., *Schätze der Kalifen: Islamische Kunst zur Fatimidenzeit* (Wien, 1998). All translations from Arabic are mine unless otherwise indicated.

2 On objecthood see, among others, Alison Green and Joanne Morra, 'Introduction: 50 Years of "Art and Objecthood": Traces, Impact, Critique', *Journal of Visual Culture*, 16 (2017), pp. 3–11.

3 León, Real Colegiata de San Isidoro, inv. no. IIC-3-089-002-0014. Works that mention and illustrate the casket include: Manuel Gómez Moreno, *Catálogo monumental de España: Provincial de León* (Madrid, 1925–1926), vol. 1, pp. 163–164 and figures 123–124; Julio Pérez Llamazares, *El tesoro de la Real Colegiata de San Isidoro de León. Reliquias, relicarios y joyas artísticas* (León, 1925), p. 145; Stefano Carboni, 'Casket', in Charles Little, ed., *The Art of Medieval Spain A.D. 500–1200* (New York, 1993), no. 47, pp. 99–100; Priscilla Soucek, 'Byzantium and the Islamic East', in Helen C. Evans and William D. Wixom, ed., *The Glory of Byzantium: Art and Culture of the Middle Byzantine Era, A.D. 843–1261* (New York, 1997), pp. 403–411; Anna Contadini, *Fatimid Art at the Victoria and Albert Museum* (London, 1998), p. 114, figure 39; Barrucand, ed., *Trésors Fatimides*, p. 125, no. 54; Susana Calvo Capilla, 'Arqueta', in Isidro Bango Torviso, ed., *Maravillas de la España Medieval. Tesoro sagrado y Monarquía* (León, 2000–2001), vol. 1, no. 23, p. 114; Jonathan Bloom, *Arts of the City Victorious: Islamic Art and Architecture in Fatimid North Africa and Egypt* (New Haven and London, 2007), p. 97, figure 66; Mariam Rosser-Owen, 'Islamic Objects in Christian Contexts: Relic Translations and Modes of Transfer in Medieval Iberia', *Art in Translation*, 7 (2015), pp. 39–64, figure 3; Assadullah Souren Melikian-Chirvani, ed., *The World of the Fatimids* (Toronto, London & Munich, 2018), p. 125; Rafael Azuar, 'Relaciones de al-Andalus con el Oriente islámico: las artes del metal', in Sergio Vidal Álvarez, ed., *Las artes del metal en al-Andalus* (Madrid, 2019), pp. 84–89, figure 2; Therese Martin, 'Caskets of Silver and Ivory from Diverse Parts of the World: Strategic Collecting for an Iberian Treasury', *Medieval Encounters,* 25 (2019), pp. 1–38, figure 2; Avinoam Shalem, '*Fidda* (Silver): On the Active Life of Matter', in Helen Hills, ed., *Silver: Transformational Matter*, Proceedings of the British Academy, vol. 259 (Oxford, 2023), pp. 175–192; Finbarr Barry Flood and Beate Fricke, *Tales Things Tell: Material Histories of Early Globalisms* (Princeton, 2024), chapter 2.

4 The latter in Flood and Fricke, *Tales Things Tell*, Chapter 2.

5 The *Book of Gifts and Rarities* is known through a 9th/15th-century manuscript, published by Muhammad Hamidullah in 1959 which has been translated from the Arabic by Ghada al-Hijjawi al-Qaddumi, tr. *Book of Gifts and Rarities (Kitab al-Hadaya wa'l-tuhaf)* (Cambridge, MA, 1996), pp. 11–13 where Qaddumi discusses the authorial attribution to Qadi al-Rashid b. Zubayr as likely but not certain. For the Geniza documents see Shlomo Goitein, *A Mediterranean Society: The Jewish Communities of the Arab World as Portrayed in the Documents of the Cairo Geniz*a (Berkeley, 1967–1993), especially vol. 4: Daily Life (Berkeley, 1983, rpr. 1999). For Maqrizi's account see Taqi al-Din Ahmad b. ʿAli al-Maqrizi, *Kitab al-Mawaʿiz wa'l-iʿtibar bi-dhikr al-khitat wa'l-athar* (Bulaq [Cairo], 1270/1853), vol. 1, pp. 414–416.

6 Select references for Fatimid silver objects:
Mirror: Athens, Benaki Museum, inv. no. 13770; see Seipel, *Schätze der Kalifen*, p. 116, no. 72; Anna Ballian, ed., *Benaki Museum: A Guide to the Museum of Islamic Art* (Athens, 2006), p. 71, figure 60; Bloom, *Arts of the City Victorious*, p. 98, figure 67. The Benaki Museum also houses a silver fragmentary bottle inlaid with niello that was thought to be Fatimid (Seipel, *Schätze der Kalifen*, cat. no. 194, p. 205) but it is probably to be attributed to Iran. Also, James W. Allan, '"My Father is a Sun, and I am the Star":

Fatimid Symbols in Ayyubid and Mamluk Metalwork', *Journal of the David Collection*, 1 (2003), pp. 25–47.

Lid of rock crystal bottle in Capua: Francesco Gabrieli and Umberto Scerrato, *Gli Arabi in Italia: Cultura, contatti, e tradizioni* (Milan, 1979), pp. 502–503. **Archaeological finds of Caesarea**: Miriam Rosen-Ayalon, 'A Silver Ring from Medieval Islamic Times', in Myriam Rosen-Ayalon, ed., *Studies in Memory of Gaston Wiet* (Jerusalem, 1977), pp. 200–201, pl. 14, no. 3; Ayala Lester and Na'ama Brosh, 'Selections from the Jewelry Hoard from Caesarea', in Barbara Drake Boehm and Melanie Holcomb, ed., *Jerusalem. 1000–1400: Every People Under Heaven* (New York, 2016), cat. 5, p. 31. **Tiberias**: Na'ama Brosh, 'Two Jewelry Hoards from Tiberias', *'Atiqot*, 36 (1998), pp. 1–9; Elias Khamis, *The Fatimid Metalwork Hoard from Tiberias. Tiberias: Excavations in the House of the Bronzes. Final Report, Volume II*. Qedem 55 (Jerusalem, 2013); David J. Wasserstein, 'The Silver Coins in the Mixed Hoard from Tiberias', *'Atiqot*, 36 (1998), pp. 15–22. **Ramla**: Ayala Lester, 'Fatimid Period Jewelry Hoard from the Excavations at Mazliah', *Qadmoniot,* 135 (2008), pp. 35–39. **Fustat**: see, for example, the silver pendant in George T. Scanlon, 'Fustat Expedition: Preliminary Report, 1972 Part I', *Journal of the American Research Center in Egypt*, 18 (1981), pp. 57–84: pp. 73, 75 and figure 6.

7 Virgilio Martínez Enamorado, 'La Epigrafía de los Bronces de Denia', in Rafael Azuar Ruíz, ed., *Los bronces islámicos de Denia (s. V HG / XI d. C.)*, Serie Mayor 10 (Alicante, 2012), pp. 159–167.

8 Goitein, *A Mediterranean Society*, vol. 4, pp. 223–224.

9 Antonio Vallejo Triano, 'Piezas metálicas suntuarias del periodo califal de al-Andalus', in Anna Contadini, ed., *The Pisa Griffin and the Mari-Cha Lion: Metalwork, Art, and Technology in the Medieval Islamicate Mediterranean* (Pisa, 2018), pp. 281– 292; and Ana Labarta, *Anillos de la Península Ibérica, 711–1611*(Valencia, 2017).

10 Rafael Azuar, 'Arqueología de la metalistería islámica de al-Andalus durante los reinos de Taifa (Siglo V HG/XI DC)', in Contadini, ed., *Pisa Griffin*, pp. 281–292.

11 Museo de Teruel, inv. no. 629, for which see also Martin Almagro, 'Una joya singular en el reino moro de Albarracin', *Teruel*, 37–38 (1967), pp. 8 and 11; Cynthia Robinson, 'Perfume Bottle', in Jerrilynn D. Dodds, ed., *Al-Andalus: The Art of Islamic Spain* (New York and Madrid, 1992), no. 16, p. 219; Maria Antonia Martínez Núñez, 'La epigrafía de las taifas andalusíes', in Bilal Sarr, ed., *Tawa'if: Historia y Arqueología de los reinos taifas* (Granada, 2018), pp. 85–118: p. 107; and Maria Antonia Martínez Núñez, 'Mujeres y élites sociales en al-Andalus a través de la documentación epigráfica', Maria Isabel Calero Secall, ed., *Mujeres y sociedad islámica: una visión plural* (Málaga, 2006), pp. 287–328: pp. 310–311; no. 4, pp. 319–320; Álvarez, ed., *Las artes del metal en al-Andalus*, no. 169. The other two pieces are: an oval box with an augural and benedictory inscription once part of the Treasury of San Isidoro, and now in the Museo Arqueológico Nacional (MAN) in Madrid (inv. no. 50889); see also María Ángela Franco Mata, 'El tesoro de San Isidoro y la monarquía leonesa', *Boletín del Museo Arqueológico Nacional*, 11 (1991), pp. 35–68: pp. 52–53, 68; Cynthia Robinson, 'Box', in Dodds, ed., *Al-Andalus: The Art of Islamic Spain*, no. 13, p. 214; and a casket with a pyramidal lid, and a benedictory inscription, likewise once in the Treasury of San Isidoro and now in the MAN (inv. no. 50867); see also Franco Mata, 'El tesoro de San Isidoro', pp. 52–53, 65; Stefano Carboni, 'Casket', in Charles Little, ed., *The Art of Medieval Spain A.D. 500–1200*, no. 45, p. 98.

12 Maria Antonia Martínez Núñez, 'Inscripciones árabes en la Catedral de Oviedo: El Arca Santa, la Arqueta del Obispo Arias y la Arqueta de Santa Eulalia', *Territorio, Sociedad y Poder*, 11 (2016), pp. 23–62. The other two pieces that Rafael Azuar attributes to Toledo referred to in the previous note also exhibit such differences.

13 Such as on the Pisa Griffin and 13th-century Spanish textiles like the tunic of Don Rodrigo Ximénez de Rada, Spain, ca. 1247, Monasterio de Santa María, Santa María la

Real de Huerta, Soria; see Contadini, 'The Pisa Griffin', figure 21; also on textiles and metalwork attributed to the Eastern Mediterranean and Anatolia, see Evans and Wixom, *The Glory of Byzantium*, cats. 271 and 281.

14 Simone Assemani, *Illustrazione della patena mistica creduta di S. Pier Grisologo la quale si conserva nella chiesa cattedrale d'Imola* (Padua, 1804); Michelangelo Lanci, *Trattato delle simboliche rappresentanze arabiche e della varia generazione de' musulmani caratteri sopra differenti materie operati* (Paris, 1845–1846), vol. 3, tav. XXIII.

15 The typology of its letters is found in other Italian art, from wall paintings of churches to paintings of the early Italian masters. See Maria Vittoria Fontana, 'Byzantine Mediation of Epigraphic Characters of Islamic Derivation in the Wall Paintings of Some Churches in Southern Italy', in Charles Burnett and Anna Contadini, ed., *Islam and the Italian Renaissance* (London, 1999), pp. 61–75. For the style of script see Ennio G. Napolitano, 'The Transfer of Arabic Inscriptions in Italian Gothic and Renaissance Painting: A New Approach. The Words *al-Mulk*, *Baraka* and *al-Yumn* in the 14th and 15th Century Italian Paintings', in Antonino Pellitteri et al., ed., *Re-defining a Space of Encounter. Islam and Mediterranean: Identity, Alterity and Interactions* (Leuven, 2019), pp. 315–334.

16 Harvard University Art Museum, Cambridge (MA.), inv. no. 326.1983; see Barrucand, *Trésors fatimides*, no. 51.

17 New York, Brooklyn Museum, inv. 69.122.1.

18 London, V&A, inv. no. C.49-1952; see Contadini, *Fatimid Art*, pls. 34a and 34b.

19 London, V&A, inv. no. C.1614-1921; see Contadini, *Fatimid Art*, pl. 37.

20 London, V&A, inv. no. C.23-1932; see Contadini, *Fatimid Art*, pl. 44.

21 Cairo, Museum of Islamic Art, inv. no. 71.6.34; see Ralph H. Pinder-Wilson and George T. Scanlon, 'Glass Finds from Fustat: 1964–71', *Journal of Glass Studies*, 15 (1973), pp. 12–30: p. 25, figures 30–32; Contadini, *Fatimid Art*, pp. 23–24 and figure 21.

22 New York, Metropolitan Museum of Art, inv. no. 11.205.2; see Barrucand, *Trésors fatimides*, no. 14, p. 95; Seipel, *Schätze der Kalifen*, no. 15, p. 83; Ellen Kenney, 'Panel', in Maryam D. Ekhtiar, et al., ed., *Masterpieces from the Department of Islamic Art in The Metropolitan Museum of Art* (New York, 2011), no. 112, p. 163.

23 Georges Marçais and Louis Poinssot, *Objets kairouanais: IX*^{e} *au XIII*^{e} *siècle: Reliures, verreries, cuivres et bronzes, bijoux* (Tunis, 1948), pl. XLI.

24 Soucek, 'Byzantium and the Islamic East', p. 408, and in the same publication cat. 24 for the Cleveland cross; cat. 5 for the marble carving from Komotini; and cat. 143 for the painted portrait of Nikephoros III Botaneiates.

25 See, for example, reg. no. A2-575-110/2 in Khamis, *Fatimid Metalwork Hoard*, no. 533, pp. 201, 394.

26 For an overview of the Treasury of San Isidoro see Therese Martin, ed., *The Medieval Iberian Treasury in the Context of Cultural Interchange (Expanded Edition)* (Leiden, 2020).

27 Anna Contadini, 'Translocation and Transformation: Some Middle Eastern Objects in Europe', in Lieselotte E. Saurma-Jeltsch and Anja Eisenbeiß, ed., *The Power of Things and the Flow of Cultural Transformations: Art and Culture between Europe and Asia*, (Berlin & Munich, 2010), pp. 42–64: pp. 43–47, pl. 1.1.

28 Antony Eastmond, 'The St Petroc Casket, a Certain Mutilated Man, and the Trade in Ivories', in David Knipp, ed., *Siculo-Arabic Ivories and Islamic Painting 1100–1300* (Munich, 2011), pp. 83–97.

29 See Martin, *Medieval Iberian Treasury*, which discusses the current display and the other 'foreign' objects; for the Scandinavian container see Nancy L. Wicker, 'The Scandinavian Container at San Isidoro, León, in the Context of Viking Art and Society', in Martin, *Medieval Iberian Treasury*, pp. 223–248.

30 Rosser-Owen, 'Islamic Objects in Christian Contexts', p. 48; and Martin, *Medieval Iberian Treasury*.

31 Contadini, 'Translocation and Transformation'; and against the 'trophy' theory, especially in relation to the Pisa Griffin and the Andalusian capital, see also Anna Contadini, 'The Pisa Griffin and the Mari-Cha Lion: History, Art and Technology', in Anna Contadini, ed., *The Pisa Griffin and the Mari-Cha Lion. Metalwork, Art, and Technology in the Medieval Islamicate Mediterranean* (Pisa, 2018), pp. 238–243. And for a critique of the *traslatio imperii* theory, especially in relation to Abbasid or Fatimid rock crystal objects and stone chess pieces on the ambo of Henry II at Aachen, see Anna Contadini, 'Sharing a Taste? Material Culture and Intellectual Curiosity around the Mediterranean, from the Eleventh to the Sixteenth Century', in Anna Contadini and Claire Norton, ed., *The Renaissance and the Ottoman World* (Farnham, 2013), pp. 28–30.

32 Gómez-Moreno, *Catalogo monumental de España*, vol. 1, p. 164; Carboni, 'Casket'; Calvo Capilla 'Arqueta'.

33 Taqi al-Din Ahmad al-Maqrizi, *Itti'az al-hunafa' bi-akbar al-a'imma al-fatimiyyin al-khulafa'*, ed. Jamal al-Din al-Shayyal (Cairo, 1387/1967), vol. 2, pp. 191–197. See also Leila S. Imad, *The Fatimid Vizierate, 969–1172* (Berlin, 1990), pp. 165 and 180–181.

34 Al-Maqrizi, *Itti'az al-hunafa'*, p. 196.

35 Al-Maqrizi, *Itti'az al-hunafa'*, vol. 2, pp. 195–196. The *Khizanat al-Bunud* was a storage place for banners.

36 al-Qaddumi, *Book of Gifts*, no. 82, pp. 108–109.

37 See description in al-Maqrizi, *Itti'az al-hunafa'*, vol. 2, p. 191.

38 For example, see Avinoam Shalem, 'On Original and "Originals": The "Copy" of the Tashkent Qur'an Codex in the Rare Collection Books at the Butler Library', in *Philological Encounters*, 5 (2020), pp. 282–307: pp. 286–287, in relation to the use of *farid* by al-Biruni to describe unique pearls: Muhammad b. Ahmad al-Biruni, *The Book Most Comprehensive in Knowledge on Precious Stones*, tr. Hakim Mohammad Said (Islamabad, 1989), p. 131.

39 Carboni, 'Casket', p. 99; also Bloom, *Arts of the City Victorious*, p. 97; Calvo Capilla, 'Arqueta'.

40 Tesoro de la Catedral de Gerona, inv. no. 64; see Manuel Casamar, 'Casket of Hisham II,' in Jerrilynn D. Dodds, ed., *Al-Andalus: The Art of Islamic Spain* (New York & Madrid, 1992), cat. 9, pp. 208–209; Susana Calvo Capilla,'Arqueta de Hixam II', in Marc Sureda i Jubany, ed., *Oliba Episcopus: Millenari d'Oliba, bisbe de Vic* (Barcelona, 2018), no. 8, pp. 110–112.

41 Ana Labarta, 'The Casket of Hisham and its Epigraphy', *Summa*, 6 (Autumn 2015), pp. 104–128, for its inscriptions and their interpretation; and Ana Labarta, 'La Arqueta de Hišam Vista de Cerca', *Summa*, 10 (2017), pp. 15–42, for a close study of its materiality and decoration.

42 Although the ivory Bayeux casket also has an inscription on its body beneath the lock, it is of a completely different typology and script. For an art-historical study see Avinoam Shalem, 'Two Ivory Caskets in the Treasuries of the Cathedrals of Chur and Bayeux', *Arte Medievale*, 15 (2000), pp. 15–25; and at last the correct reading of the inscription (*bismillah al-rahman al-rahim baraka kamila wa ni'ma shamila*) has now been given in the interesting historiographical study by M. Pierre Ageron, 'Le coffret musulman de la cathédrale de Bayeux: la réception savante d'un objet incongru', *Bulletin de la Société des antiquaires de Normandie*, 78 (2021), pp. 31–69.

43 Gómez-Moreno, *Catalogo monumental de Espana*, vol. 1, pp. 163–164. His attribution of the Sadaqa casket to Fatimid Egypt, based primarily on the epigraphic elements, is shared by Martínez Núñez, 'Inscripciones árabes', esp. p. 56.

44 Samuel Flury, 'Le décor épigraphique des monuments fatimides du Caire', *Syria*, 17 (1936), pp. 365–376, who based his examples on Max van Berchem's *Matériaux pour un Corpus Inscriptionum Arabicarum. Première partie: Égypte* (Paris, 1894–1903) and gives useful drawings; Adolf Grohmann, 'The Origin and Early Development of Floriated

Kufic', *Bulletin de l'institut d'Egypte*, 37 (1954–55), pp. 273–304, where he establishes a chronological development from foliated to the more complex floriated Kufic used during the Fatimid period; Sheila S. Blair, 'Floriated Kufic and the Fatimids', in Barrucand, ed., *L'Égypte Fatimide*, pp. 107–116. For monumental examples of floriated Kufic see Bernard O'Kane, 'Monumental Calligraphy in Fatimid Egypt: Epigraphy in Stone, Stucco, and Wood', in Melikian-Chirvani, ed., *World of the Fatimids*, pp. 142–159; also O'Kane's article in this volume. For a study of Andalusian Kufic see also M. Ocaña Jimenez, M. *El cúfico hispano y su evolución* (Madrid, 1970).

45 For instance, in a wooden panel said to be from al-'Amri Mosque, Qus, Egypt, ca. 550/1155–1156, now in Berlin, Museum für Islamische Kunst, inv. no. I. 612; see Barrucand, ed., *Trésors fatimides*, no. 94.

46 For a discussion of the interchanges between al-Andalus and Egypt from the Taifa period see Susana Calvo Capilla, 'Las artes en al-Andalus y Egipto. Una red de intercambios permanente', in Susana Calvo Capilla, ed., *Las artes en al-Andalus y Egipto: contextos e intercambios* (Madrid, 2017), pp. 9–22.

47 Gómez Moreno, *Catalogo monumental de Espana*, vol. 1, pp. 163–164, where for the hinges he also offers a comparison with those of the casket in Bayeux Cathedral (inv. no. Palissy PM14000050), although they are quite different both in shape and thickness and in the decorative reliefs. On the Bayeux casket and its inscription beneath the lock, see the recent study by M. Pierre Ageron, 'Le coffret musulman', referred to in note 42.

48 London, V&A, inv. no. 7904-1862; see Contadini, *Fatimid Art*, pp. 37–38, pl. 7.

49 Ralph Pinder-Wilson, 'Rock Crystals', in Basil W. Robinson, ed., *Islamic Art in the Keir Collection* (London, 1988), pp. 287–309.

50 The Keir Collection of Islamic Art on loan to the Dallas Museum of Art, inv. no. K.1.2014.1.A-B; see Anna Contadini, 'Facets of Light: The Case of Rock Crystals', in Jonathan Bloom and Sheila Blair, ed., *God is the Light of the Heavens and the Earth: Light in Islamic Art and Culture* (New Haven, CT, 2015), pp. 121–155.

51 Dublin, Chester Beatty Library, inv. no. Is 1431; see D. S. Rice, *The Unique Ibn al-Bawwab Manuscript in the Chester Beatty Library* (Dublin, 1955), p. 35.

52 Grohmann, 'The Origin', p. 275.

53 Samuel Flury, *Die Ornamente der Hakim- und Ashar-Moschee* (Heidelberg, 1912), p. 46.

54 For floriated script in the Haram al-Sharif, see Grohmann, 'The Origin', p. 289, figure 18; see also Max van Berchem, *Matériaux pour un Corpus Inscriptionum Arabicarum. Deuxième partie: Syrie du Sud. Jérusalem «Haram»* (Cairo, 1925), p. 7, figure 2.

55 Reg. no. A2-525-4/2; see Khamis, *Fatimid Metalwork Hoard from Tiberias*, no. 260, pp. 167, 314–316.

56 See Oleg Grabar, 'When is a Bird a Bird?', *Proceedings of the American Philosophical Society*, 153 (2009), pp. 247–253; also Sophie Makariou, 'Panel with a flower-bird', in Sophie Makariou, ed., *Islamic Art at the Musée du Louvre* (Paris, 2012), pp. 102–104.

57 Assadullah Souren Melikian-Chirvani, 'Essais sur la Sociologie de l'Art Islamique I, Argenterie et Féodalité dans l'Iran Médiéval', in Chahryar Adle, ed., *Art et Société dans le Monde Iranien* (Paris, 1982), pp. 143–175; Assadullah Souren Melikian-Chirvani, 'Silver in Islamic Iran: The Evidence from Literature and Epigraphy', in Michael Vickers, ed., *Pots and Pans* (Oxford, 1986), pp. 89–106.

58 Gülru Necipoğlu, 'The Dome of the Rock as Palimpsest: ʿAbd al-Malik's Grand Narrative and Sultan Suleyman's Glosses', *Muqarnas*, 25 (2008), pp. 17–105.

59 Francis E. Peters, *Mecca: A Literary History of the Muslim Holy Land* (Princeton, 1994), p. 141.

60 Nasir-i Khusraw, *Naser-e Khosraw's Book of Travels (*Safarnama*)*, tr. W. M. Thackston, Jr. (New York, 1986), pp. 32, 77; see also Melikian-Chirvani, 'Silver in Islamic Iran', pp. 90, 92–93.

61 The view that there was a shortage of silver was first put forward by Robert P. Blake, 'The Circulation of Silver in the Moslem East down to the Mongol Epoch', *Harvard Journal of Asiatic Studies*, 2 (1937), pp. 291–328. See also Ian Blanchard, *Mining, Metallurgy and Minting in the Middle Ages (Vol. 1): Asiatic Supremacy, 425–1125* (Stuttgart, 2001), p. 183. A counter argument is found in D. M. Dunlop, 'Sources of Gold and Silver in Islam according to al-Hamdani (10th Century A.D.)', *Studia Islamica*, 8 (1957), pp. 28–49, who deals with the literary evidence for sources of gold and silver available in the Islamic world in this period, in order to counter the view that there was a shortage of silver; see also Melikian-Chirvani, 'Silver in Islamic Iran'. For coins see also A. E. Leiber, 'International Trade and Coinage in the Northern Lands during the Early Middle Ages: An Introduction', in *Viking-Age Coinage in the Northern Lands*, ed. M. A. S. Blackburn & D. M. Metcalf, BAR International Series, 122 (i) (Oxford, 1981), pp. 1–34.

62 James W. Allan, *Nishapur: Metalwork of the Early Islamic Period* (New York, 1982), pp. 27, 60, no. 1. See also the silver objects with niello in the Harari Hoard found in northern Iran, now in the Museum of Islamic Art in Jerusalem; see James W. Allan, 'The Survival of Precious and Base Metal Objects from the Medieval Islamic World', in *Pots and Pans*, ed. Michael Vickers (Oxford, 1986), pp. 57–70: figure 3; Flood and Fricke, *Tales Things Tell*, figure 57.

63 For gilding, the silver object was overlaid with gold, for which the term used is *mughraq*, or gilded silver, as in the dictionary by the 10th/16th-century Egyptian author Shihab al-Din al-Khafaji (d. 1069/1659), *Shifa' al-ghalil fima fi kalam al-'arab min al-dakhil*, ed. Muhammad 'Abd al-Mun'im al-Khafaji (Cairo, 1371/1952), p. 195.

64 Ana Labarta reports, for the Andalusian silver casket of Hisham II referred to above, that technical analyses of the gilding showed that it was formed by gold (90%), silver (8%) and copper (2%), an alloy that is known as yellow gold: Labarta, 'La Arqueta de Hišam' p. 24, citing Màrius Vendrell, Pilar Giráldez and Sarah Boularand, 'Arqueta d'Hisam II. Estudi dels materials constitutius', Barcelona, Patrimoni-UB. Estudis del patrimoni històric, Universitat de Barcelona, 2007 [Unpublished report], pp. 6–7.

65 David M. Wilson and C. E. Blunt, 'The Trewhiddle Hoard', *Archaeologia* 98 (1961), pp. 75–122.

66 Joan Pinar Gil, 'L'oro del Reno: La riscoperta di un eccezionale deposito della prima età carolingia,' *Archeologia Medievale*, 47 (2020), pp. 61–91, which also mentions the 8th-century 'Tassillon style', but does not specify whether these objects are nielloed.

67 Abu Muhammad al-Hasan b. Ahmad al-Hamdani, *Kitab al-Jawharatayn al-'atiqatayn al-ma'i'atayn min al-safra' wa-al-bayda' (al-dhahab wa al-fidda)*, ed. A. D. Ahmad Fu'ad Basha (Cairo, 1430/2009).

68 al-Hamdani, *Kitab al-Jawharatayn*, p. 174; English translation in James W. Allan, *Persian Metal Technology 700–1300 AD* (London, 1979), pp. 19–20.

69 Abu'l-Qasim al-Kashani, *'Arayis al-jawahir va nafayis al-atayib*, dated 700/1301; English translation by Allan, *Persian Metal Technology*, p. 20.

70 Susan La Niece, 'Niello: An Historical and Technical Survey', *The Antiquaries Journal*, 63 (1983), p. 287.

71 Mariam Rosser-Owen, 'The Metal Mounts on Andalusi Ivories: Initial Observations', in Venetia Porter and Mariam Rosser-Owen, ed., *Metalwork and Material Culture in the Islamic World* (London, 2012), pp. 309–310; see also the cautionary note in Catia Viegas Wesolowska, 'Metal Mounts on Ivories of Islamic Spain', in Beata Biedrońska-Słota, Magdalena Ginter-Frołow and Jerzy Malinowski, ed., *The Art of the Islamic World and the Artistic Relationships between Poland and Islamic Countries* (Krakow, 2011), pp. 189–198: pp. 194–195.

72 Goitein, *A Mediterranean Society*, vol. 4, p. 212.

73 Carolina Doménech-Belda, 'La moneda fatimí y su relación con al-Andalus', *Cuadernos de Madinat al-Zahra, 5* (2004), pp. 339–354.

74 Rosen-Ayalon, 'Silver Ring', pp. 200–201, pl. 14, no. 3.

75 I thank Ayala Lester for sharing these photos from the Caesarea hoard with me, and for confirming that the niello of these items has not been tested, so we do not know its exact composition.

76 James Elkins, *Pictures and Tears: A History of People Who Have Cried in Front of Paintings* (London, 2004), pp. 70–83.

77 Keith Moxey, *Visual Time: The Image in History* (Durham, NC, 2013), p. 139. Taken further by Matthew Rampley, 'Agency, Affect and Intention in Art History: Some Observations', *Journal of Art Historiography*, 24 (June 2021), p. 2.

78 David Freedberg and Vittorio Gallese, 'Motion, Emotion and Empathy in Esthetic Response', in *Trends in Cognitive Sciences*, 11 (2007), pp. 197–203.

79 Matthew Pelowski et al., 'Move Me, Astonish Me . . . Delight My Eyes and Brain: The Vienna Integrated Model of Top-down and Bottom-up processes in Art Perception (VIMAP) and Corresponding Affective, Evaluative, and Neurophysiological Correlates', *Physics of Life Reviews*, 21 (July 2017), pp. 80–125. I thank Claudia Contadini-Wright for pointing out this article to me.

80 Gerger Gernot, Matthew Pelowski and Helmut Leder, 'Empathy, Einfühlung, and Aesthetic Experience: The Effect of Emotion Contagion on Appreciation of Representational and Abstract Art using fEMG and SCR', *Cognitive Processing*, 19 (2018), pp. 147–165. Earlier works on empathetic responses to art include Abby Warburg's concept of the *Pathosformel* (for which see discussion in Kerstin Schankweiler and Philipp Wüschner, '*Pathosformel* (Pathos Formula)', in Jan Slaby and Christian von Scheve, ed., *Affective Societies: Key Concepts* (Abingdon, 2019), pp. 220–230), and Bernard Berenson on tactile values in his *Florentine Painters of the Renaissance* (New York, 1896).

81 Simon O'Sullivan, 'The Aesthetics of Affect: Thinking Art Beyond Representation', *Angelaki: Journal of the Theoretical Humanities,* 6 (December 2001), pp. 125–135.

82 ʿAli b. Rabban al-Tabari, *Firdaws al-hikma*, ed. M.Z. Siddiqi (Berlin, 1928).

83 For Ibn al-Matran see also Bedrettin Basuguy, 'Medical Developments During the Reign of Salah al-Dîn al-Ayyûbî and the Famous Physicians of the Period', *Journal of Research on History of Medicine*, 8 (2019), pp. 3–18; and for ʿAli b. Rabban al-Tabari see Max Meyerhof, ''Alî at-Tabarî's "Paradise of Wisdom", One of the Oldest Arabic Compendiums of Medicine', *Isis*, 16 (1931), pp. 16–46. Persian and Arab writers are here developing Greek philosophers' theory of disruption, laughter, and humour in its broad sense (Aristotle, *Rhetoric*, 3,2; English translation *Art of Rhetoric*, tr. J. H. Freese, rev. Gisela Striker (Cambridge, MA, 2020).

84 A discussion of the *'aja'ib* and *ghara'ib* is in Nasser Rabbat, ''*Ajib and Gharib*: Artistic Perception in Medieval Arabic Sources', *The Medieval History Journal*, 9 (2006), pp. 99–113. See also the account by Safi al-Din Urmawi in Ahmad ibn Yahya ibn Fadl Allah al-ʿUmari, *Masalik al-absar fi mamalik al-amsar*, Book 10, ed. F. Sezgin, A. Jokhosha and E. Neubauer (Frankfurt am Main, 1988), pp. 309–313, translated and discussed in Anna Contadini, 'Patronage and the Idea of an Urban Bourgeoisie', in Gülru Necipoğlu and Finbarr Barry Flood, ed., *A Companion to Islamic Art and Architecture, Vol. 1* (Oxford, 2017), p. 433.

85 Of which many copies with paintings exist, such as one dated 678/1280 and was therefore produced during Qazwini's lifetime: Munich, Bayerische Staatsbibliothek, Cod. arab. 464; see Persis Berlekamp, *Wonder, Image, and Cosmos in Medieval Islam* (New Haven, 2011).

86 A translation is in Thomas W. Arnold, *Painting in Islam: A Study of the Place of Pictorial Art in Muslim Culture* (Oxford, 1928), pp. 21–22.

87 Wall paintings of Pompeii of the 'Second Style', for example, employed trompe-l'œil to create three-dimensional perspectives.

88 Abu ʿAli al-Hasan ibn al-Haytham, *The Optics of Ibn al-Haytham: Books I-III: On Direct Vision*, tr. A. I. Sabra, 2 vols (London, 1989), where visual illusion is discussed in Book III: 'On Errors of Direct Vision and Their Causes'.

89 al-Qaddumi, *Book of Gifts*, p. 4 mentions traditions that report the Prophet Muhammad pointing to the importance of gifts for improving human relationships: 'a gift opens doors that are closed and gently removes rancour from the heart'.

90 For a discussion of hapticity and Islamic ornament see Simon O'Meara, 'Haptic Vision: Making Surface Sense of Islamic Material Culture', in Robin Skeates and Jo Day, ed., *The Routledge Handbook of Sensory Archaeology* (Abingdon, 2020), pp. 467–480.