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Noteworthy Signatures on Medieval Iranian Metalwork

Reflections on Artisans and the Organisation of the Art

Abstract Artefacts produced in the Islamicate world during the Umayyad and Abbasid caliphates (ca. mid-7th – mid-13th century) includes a relatively small number of signatures, which increases significantly from the 10th–11th centuries onward. Inscribed signatures tend to be concise and standardised across places, times and media, and generally convey little information about the craftsman and the context of production. Nevertheless, devoting equal attention to the textual content and visual effect of the signature, and considering these integrally with the object and its technological features may inform artisanal skills and the role of the signer in the production process.

The present paper focuses on case studies selected from the repertoire of 10th to 13th-century metalwork produced in the Iranian region and fosters some reflections on the artisan agent and the mark of his work. The pieces are chosen for the presence of signatures that diverge from the standard in terms of technical, visual or textual features. They span from utilitarian copper cauldrons produced in series and bearing the marks of their fabricator to some fine pieces of metalwork inlaid with silver, allegedly signed by their decorator or by the individuals involved in the commissioning, conception and sale. This re-examination of a small *corpus* of objects challenges some conflicting conclusions reached in previous studies and offers multi-faceted perspectives on epigraphic signatures in Arabic and Persian, their semiotic and decorative functions.

Keywords Artisans' Signatures; Medieval Craftsmanship; Islamic Epigraphy; Iranian Metalwork

In the Islamicate world during the times of the Umayyad and Abbasid Caliphates (mid-7th to mid-13th century), it was rare for artisans to sign their manufactures. Yet signatures can occasionally be found on coins, manuscripts and monuments, as well as objects of different kinds: pottery, textiles, and pieces in metalwork. The practice of signing these works, although still rare, increased significantly from the 10th–11th centuries onward.

A handful of studies have addressed the general phenomenon of signatures in Islamic art;[1] more frequently, scholars have studied the signatures on specific *corpora*, defined in terms of material[2] or context of production,[3] or resulting from specific artists or artisans.[4] This literature has shown that the manner of expressing

1 Meinecke 1982; Blair/Bloom 1999; Blair 2015.

2 Leo A. Mayer published six volumes comprising compilations of signatures on glass, architecture, astrolabes, woodwork, metalwork, armours (1954–1962).

3 For instance Rice 1953 and Raby 2012 on metalwork attributed to Mosul (Iraq); and Blair 2005, 83–86 on ivories from Islamic Spain.

4 See Blair 2008 on the potter Abū Zayd from Kashan (Iran), late 12th-early 13th century; Auld 2004 on the 15th-century Veneto-Saracenic metalworker Maḥmūd al-Kurdī; Balafrej 2019 on the Iranian painter Kamāl al-Dīn Bihzād (d. 1535). In some earlier

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signatures was largely standardised across media, places and eras. In the great majority of cases, the Arabic word *ʿamal* "work of" (alternatively read *ʿumila* "made by") precedes the name of the craftsman, regardless of the artisanal activity.[5] The name may include one or more patronymics (sing. *nasab*) and a *nisba,* referring to the place of origin or residence, or to the profession. However concision often prevails, and so the signatures per se usually inform us little on the artisan, or for that matter on the artefact. The difficulties in extracting information are exacerbated by further factors: the repetitiveness of Arabic proper names; the mobility of craftsmen, casting doubts on the linkages between geographic *nisba* and true provenance of objects; the scarcity of complementary sources on artisans and workshops in the relative medieval societies.

Rather than in textual content, it is in fact in the forms of the signatures that we see much greater variety: these are executed in a great array of layouts and writing styles, resulting in overall variations in visibility and refinement. Signatures may be inserted into a text, such as at the end of a dedicatory inscription mentioning the patron and/or the recipient; they could also stand alone; in either case possibly completed by the date.[6] Through positioning and size, the artisan may render the signature easily legible, or reduce it to scarcely visible; the inscription may or may not be framed in an epigraphic cartouche; the script and ornamentation may be varied or the same with respect to other inscriptions on the object, more or less plain or ornate. These features could provide precious hints about the functions of the signatures and status of the artisans, yet their systematic description and examination have been rare.

Through an approach of cross-checking data on the content and format of signatures with technical analyses of the signed artefacts, the current paper explores the ways that the inscribed signatures may recognise artisanal skill, and in particular the role of the signatories in the relative production processes. These reflections are developed based on case studies selected from the repertoire of 10th to 13th century metalwork produced in the Iranian region (encompassing modern Iran, Afghanistan, and the Central Asian republics): a relatively large and well-studied *corpus,*[7] although suffering from significant doubts on chronology and provenance due to the decontextualisation of the majority of objects. Among basic references, we have the compilation of signatures on metalwork produced across the Islamicate

ceramic production, the recurrence of a single name on large quantities of objects has led to the inferred indication of an entire workshop, Blair/Bloom 1999, 50–51, 54.

5 Another generic formula is *ṣanaʿa,* "craftsmanship of". The rare cases of more specific terms deserve deeper but cautious probing for potential interpretation; see section 2.

6 Blair 2015, 230–231 distinguishes between 'formal' signatures, included in a foundation/fabrication inscription and integrated in the original design, and 'informal' signatures, added after completion and more often inconspicuously positioned.

7 See esp. Allan 1976; Melikian-Chirvani 1982.

lands from the medieval to the modern by Leo A. Mayer,[8] recently updated by Valentina Laviola for pre-Mongol Iranian signed works, with greater attention to epigraphic and palaeographic aspects.[9] The present study also benefits from more recent publications on specific collections, offering fresh data on the objects and their inscriptions,[10] and from the author's internship in the Islamic Art Department of the Louvre Museum, which has allowed first-hand study of some specimens of inscribed Iranian metalwork.[11] Most of the objects discussed below are relatively well-known to Islamic art historians, having attracted attention for their unique technical features, visual qualities, and character of inscriptions. Those chosen for case study, in particular, present minor to significant deviations from the 'standard formulae' of inscriptions, thus nourishing observations on the artisan agent and the possible interpretations of his signature.

In the Beginning Was the Signature: Some Iranian Hemispherical Cauldrons

As a general rule, signatures are found infrequently on everyday objects produced in series, and more often on pieces of fine and expensive metalwork. A relatively large share of signed items appears, however, among a particular class of objects: namely hemispherical cauldrons (Ø 35 to 55 cm), likely destined for the cooking fire.[12] Umberto Scerrato compiled a list of 33 such cauldrons, including 10 with signatures, while Anatolii A. Ivanov more recently reported a total of 130, of which 65 are signed.[13] Previous studies have debated the provenance of the cauldrons, variously attributed to historical Khurasan, Transoxiana, or Dagestan in the Caucasus.[14] Rather than further census, or pursuit of the provenance of these cauldrons, the current aim is to observe the technique and style of some of the signatures. The focus is on the most widespread type of medieval Iranian cauldrons, characterised by three conical feet, a hemispherical body with flat everted rim, in turn bearing four protruding flanges. What can be considered the front flange is shaped for pouring; the lateral flanges often bear handles; the upper face of the back flange is

8 Mayer 1959.

9 Laviola 2017.

10 Collinet 2021 contains valuable technical and archaeometric analyses; Laviola 2020 and Di Flumeri Vatielli/Giunta 2022 devote special attention to epigraphy.

11 The internship took place in 2016, in the framework of the project *Objets inscrits*, directed by Dr. Carine Juvin.

12 Smaller specimens (Ø 13–18 cm) of uncertain function are also known, for instance Staatliche Museen zu Berlin, Museum für Islamische Kunst, Inv. No. I. 6760, https://id.smb.museum/object/1530698 (accessed 16/09/2022).

13 Scerrato 1964, 689–692; Ivanov 2003, 481.

14 Scerrato 1964, 687–696; Scerrato 1965, 233–236; Allan 1976, 191–196.

sometimes decorated with an epigraphic cartouche, containing a signature or standard benedictory formulae.[15]

The first case for examination is a cauldron held by the Louvre Museum (Inv. No. MAO 362, Ø max 53.4, h. max 28.3 cm, Fig. 1),[16] made by lost-wax casting in high-lead copper alloy.[17] The rim is decorated with alternating bands of plaited motifs and vegetal scrolls; the pouring and lateral flanges display differently shaped medallions with vegetal or geometric patterns, while the back fledge bears an inscribed signature (Figs. 2a–b). The epigraphic cartouche is framed on both sides by foliate stems, although some letters overlap or exceed them. The text reads *ʿamal bū bakr bin maḥmūd ṣaffār*, "work of Bū Bakr b. Maḥmūd the coppersmith".[18] Although the inscription follows the standard Arabic formulary, the lack of the article before the word *ṣaffār*, "coppersmith", hints at a text composed in a Persian-speaking context. The text is distributed on two superimposed lines and presents a hybrid writing style: the lower line (*ʿamal bū bakr*) is traced in Kufic letters with some foliate endings, while in the upper line (*b. maḥmūd ṣaffār*), the sinuous ductus resembles curvilinear script (*naskh*).[19] This stylistic difference is apparent when comparing the diamond-shaped *mīm* of *ʿamal* (unusually written above the baseline) with the rounded letters of *maḥmūd*, as well as the various shapes of the final *rāʾ*, featuring a small stroke laid on the baseline in *bakr*, and a rounded descender in *ṣaffār*. Finally, the epigraphic field includes three 'points': the two inserted below the *bāʾ* of *bū* and *bakr* can be interpreted as diacritics (although diacritical marks are usually omitted in Kufic script), while the third point, located between the last two letters of *maḥmūd*, has no orthographic role and seems to be purely ornamental. The inaccuracies in the shape of letters, together with the mixture of Kufic and curvilinear script,[20] suggest that the inscription was not designed by an experienced

15 Note, however, that undecorated specimens are not uncommon, and that inscriptions and ornaments can be variously distributed on the flanges.

16 Collinet 2021, 290, No. 83.

17 Analyses on objects from different collections have revealed a similar composition, see Allan 1976, 191; Di Flumeri Vatielli/Giunta 2022, 60.

18 The inscription was first read by David-Weill 1964, 30. Bū Bakr is a common abbreviation for Abū Bakr. The word *bin*, "son of" (hereafter abbreviated as b.) is squeezed between *ʿamal* and *maḥmūd*, and can be confused with a vegetal ornament due to the unusual curl of the initial letter.

19 David-Weill 1964, 30 qualifies the script as *coufique tardif* ("late Kufic") and describes some oddities of the inscription. Scerrato 1965, 230, referring to an identical inscription on the cauldron of the Musée des Antiquités of Alger (below), notes the mixture of Kufic and *naskh* and provides a more detailed palaeographic analysis.

20 Inscriptions in Kufic and curvilinear script are often both found on single pieces of metalwork dating from the 11th century onwards, however without mixing of styles in the individual epigraphic cartouches. A hybrid style does occur in the signature on a cauldron from the Hermitage collection (Inv. No. TP-162), Scerrato 1965, 230; Loukonine/Ivanov 1996, 138, No. 118, and in two inscriptions on an inlaid pen-box held by the same museum (Inv. No. SA-12688); Giuzalian 1968, 98, 113, figs. 2, 10.

Fig. 1: Hemispherical cauldron, Iran, 12th–13th century, Paris, Louvre Museum, Inv. No. MAO 362.

Fig. 2a: Signature on the back fledge of the cauldron at the Louvre Museum, Inv. No. MAO 362.

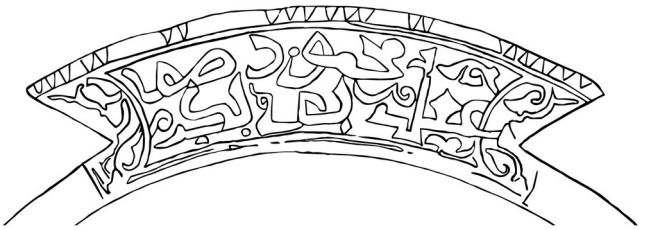

Fig. 2b: Drawing by Viola Allegranzi, 2022.

calligrapher. However, the overall visual effect of the epigraphic cartouche is rather harmonious, since letters and foliate ornaments are evenly distributed to cover the entire surface of the flange.

The signature on the Louvre cauldron provides several noteworthy features. First, as is the rest of the decoration, the inscription is cast in relief, which implies that it must have been traced on the wax model, before it was transferred to the object itself. The exact manufacturing process of the cauldron cannot be established with certainty; however, technical analysis suggests that the wax was first shaped using a model made of refractory material (plaster or clay), then lathe-turned for smoothing the hemispherical surface. In addition, close-up observations hint at the possibility that the flanges were forged in the earliest stages and integrated into

the mould that subsequently serve to cast the body of the object.[21] We can assume that the epigraphic cartouche as well as the decorative devices on the rim and the flanges of this particular object were obtained through a reusable model or stamp, since several cauldrons with matching dimensions and ornaments, and displaying an identical inscribed signature have come down to us. In fact, at least two analogous specimens are held at the State Hermitage Museum,[22] while one has been recorded at the Museum of the Academy of Sciences in Kiev,[23] and another at the Musée des Antiquités of Alger.[24] It seems that the purpose of the inscription on the Louvre cauldron and homologous items, then, was as a workshop mark to be borne on the object series. The signature would likely refer to the master coppersmith of the manufacturing foundry or one of his most qualified workers.[25]

The name Bū Bakr also occurs on a cauldron held by the Victoria and Albert Museum.[26] The epigraphic cartouche is again located on the back flange, but the inscription is engraved in bold Kufic letters with foliate endings, which suggests an attribution to the 10th–11th centuries, compared to the probably later Louvre cauldron, whose inscription seems influenced by the diffusion of curvilinear script around the late 11th–12th centuries. Annabelle Collinet has attempted to retrace families of Iranian coppersmiths on the basis of the names and patronyms recorded in signatures,[27] and indeed, it is plausible that both workshop direction and the related artisanal skills were transmitted within families.[28] Nevertheless, although similar names do occur on several objects, this evidence alone is too weak to support the identification of familiar lineages: careful consideration should also be given to the technical and stylistic features.

21 Collinet 2021, 75–76, 286.

22 Inv. Nos. TP-202; TP-207, *Beyond the Palace Walls* 2006, 73, No. 61; *Art of Islam* 1999, 165, No. 120, fig. 120; in both cases, the signature is read "Bū Bakr Maḥmūd", with omission of *bin*. Also: *Katalog pamiatnikov iranskogo iskusstva* 1935, 428–429, Nos. LXV, LXVII (where the name is erroneously read "Maḥmūd b. Abū Bakr"). Mayer 1959, 55 mentions three cauldrons at the Hermitage; David-Weill 1964, 30 specifies that two of them are "identical" to the Louvre specimen and the third is smaller (Ø max 45.5 cm); Ivanov (in *Beyond the Palace Walls* 2006, 73) notes eight cauldrons signed by this same coppersmith.

23 Krachkovskaia 1927, 2; Mayer 1959, 55. No illustration of this object has been found, nor more recent information.

24 Scerrato 1965, pl. I–II, figs. 1–4. More recent information on this object has been unavailable.

25 Mayer 1959, 11 notes this interesting problem: does a signature on a mould refer to the mould-maker, or rather to a "metalworker" who ordered the mould? In the case under study the epithet "coppersmith" advocates in favour of the second option.

26 Inv. No. M37–159 (Ø max 45.8, h. 17.5–19–5 cm), Melikian-Chirvani 1982, 48–49, No. 10. Differently from the Louvre specimen, this cauldron is composed of two shells cast separately and soldered.

27 Collinet 2021, 287.

28 Blair 2008, 5–6 on families of potters in late-medieval Kashan; Aube 2021 on families of woodcarvers in 15th-century Mazandaran, Iran.

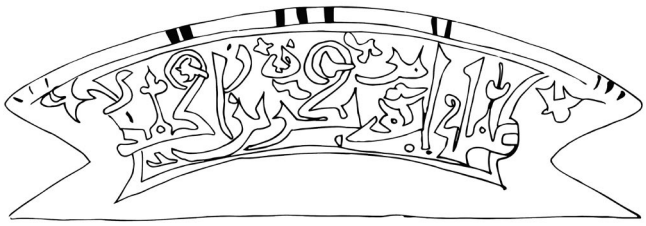

Fig. 3: Signature on the back fledge of the cauldron in the former Stuart C. Welsh Collection, drawing by Valentina Laviola, 2017.

Another artisan whose name occurs on several cauldrons is Abū Bakr b. Aḥmad al-Marwazī:[29] his signature is once again cast inside a trapezoidal cartouche with lateral foliate stems (Fig. 3). In this series, the text is traced in floriated Kufic script with abusive points and runs on one line, with the exception of the last word (the *nisba* "al-Marwazī"), recorded above the name.[30] In spite of the divergent distribution of the text and writing style, the format of the signature reveals close technological and visual connections with the signature on the Louvre cauldron. These analogies are reinforced by the similar dimensions[31] and the identical ornamental bands and medallions cast on the other flanges and the rim. Jean David-Weill and Ivanov have already advanced the hypothesis that the two series originated in the same centre of production,[32] and this is more than plausible, since the two coppersmiths seem to follow the same fabrication procedure and use almost identical models. Given that the *nisba* of the second artisan claims connections with the city of Merv (in modern Turkmenistan), the location of the workshop in this major city of medieval Khurasan is very likely, but cannot be taken for granted.[33]

Also notable is that, replacing the *nisba* on the first group of cauldrons, we find the epithet *ṣaffār*. Two notable comparisons are a second cauldron at the Louvre Museum, signed by Ibrahīm[sic] b. Aḥmad *ṣaffār*;[34] and a specimen in the Herat

29 Two objects were recorded in the former Stuart C. Welsh Collection (Cambridge, Mass.) and in the Moser Collection at the Bernisches Historisches Musem (Inv. No. 91/14), see Mayer 1959, 24, pl. II (who mentions a third object known from a manuscript note by Max van Berchem); Scerrato 1964, 689, figs. 56–57; one is kept at the Art Museum of Georgia in Tbilisi (Inv. No. 1/3), Loukonine/Ivanov 1996, 139, No. 119. Ivanov 1983 mentions three more specimens discovered in various collections in the former Soviet Union.

30 Laviola 2017, 83–84, pls. I.2–I.3 carefully describes the almost identical inscriptions on two cauldrons.

31 Dimensions are recorded only for the cauldron held in Tbilisi: Ø 53.5–52.4, h. 20 cm.

32 David-Weill 1964, 30–31; *Beyond the Palace Walls* 2006, 73.

33 The *nisba* could also be an indicator of the artisan's foreign origins or a name inherited from his father. Other *nisba*s recorded on cauldrons relate to various Iranian cities: al-Hamadānī, al-Isfāhānī, al-Qazwīnī, al-Ṭūsī, Ivanov 2003, 479–480.

34 Inv. No. MAO 366. David-Weill 1964, 30; Collinet 2021, 288, No. 82; https://collections.louvre.fr/ark:/53355/cl010320052 (accessed 16/09/2022). The signature is cast in curvilinear script against a background of scrolls.

National Museum, naming al-Ḥusayn b. al-Ḥasan *ṣaffār*.[35] The literature does not report any examples of inclusion of the professional epithet *ṣaffār* on other forms of signed copper-alloy objects, instead being noted solely on cauldrons.[36] Such vessels certainly were long-lasting, destined to accompany the generations of family as they continued to manage the household. Thus, their manufacture demanded skill and guaranteed durability, which suggests that the signature may have played the role of a 'quality certificate' in the sale process. Moreover, the position of the inscription ensures its visibility over time, as it can be assumed that the user was carefully handling the back flange while pouring liquids from the cauldron. However, it is doubtful that this simple everyday gesture, probably performed by an illiterate person, was sufficient to activate the reading process and we can argue that the signature was perceived as part of the decoration of the object. Hence, the exact reasons for such recognition of artisanal activity, inserted in the very first steps of fabrication and in prominent position on cauldrons, and not in the qualified production of other kinds of objects, remain open to hypothesis.

Which Hands Did What? Retracing the Chaîne Opératoire

Little is known of the steps in medieval Iranian metalwork production, or of the relative organisation of workshops. By cross-checking data on the composition, manufacturing and decorative techniques of the surviving specimens, we could hope to arrive at some useful conclusions. Thus far, in support, we have only a few systematic technical and archaeometallurgical analyses.[37]

Scholars agree that, from the 12th century onwards, the production of refined metalwork ornamented and inscribed in inlayed silver or copper demanded the work of several individuals. The object maker (wax modeller, founder or metal beater) and then the designer or designers (engraver, chiseller-inlayer) must have worked on the object in stages, possibly even in different workshops.[38] In this regard, it is notable that with introduction of the inlay technique there also came an

35 Inv. No. HNM 03.10.86b. Melikian-Chirvani 1982, 180; Müller-Wiener 2016, 97–98, Cat. No. 31, fig. 20. The signature is chiselled in curvilinear script against a plain background with scattered vegetal ornaments.

36 A parallel can be drawn with the epithet *al-ḥaddād* "the smith", found in the signatures on the metal plaques and knockers of two 11th-century Iranian gates, Blair/Bloom 1999, 52.

37 Allan 1976 was the first to take interest in this approach. Analyses have since been completed on selected collections of the Freer Gallery (Atil/Chase/Jett 1985), British Museum (La Niece et al. 2012) and Louvre Museum (Collinet 2021).

38 See discussion in Collinet 2021, 92–102. The author proposes that the *chaîne opératoire* could vary according to the centre of production, arguing that, in the cases of objects attributed to Herat and Ghazna, this would be demonstrated by the different techniques for the inlay stage of the work.

increase in the occurrence of signed pieces. Moreover, in a few instances there are signatures of more than one person, supporting the conception of planned division of labour.

The identification of the roles of the named individuals, however, has been subject to different interpretations, and remains difficult. Two well-known objects with fabrication texts composed in mixtures of Arabic and Persian, also differing from the norm in length, offer interesting examples. Given that previous studies have dealt extensively with the overall object designs and palaeographic features of the inscriptions, the current considerations will only focus on the signatures and their possible interpretations.

The first object, held by the Hermitage Museum, is a bucket of globular shape (h. 18, Ø 22 cm) cast in copper alloy and inlaid with copper and silver, produced in Herat in 559 AH/1163 CE.[39] Similar buckets were probably used in bathhouses, but the exceptional decoration and the good state of preservation make it questionable whether this specimen has ever been used. On the body, epigraphic bands spell out Arabic benedictory formulae in highly elaborated styles (including animated scripts), alternating with figurative scenes inspired by the courtly motif of 'feast and fight' (bazm u razm). A dedicatory text on the upper side of the rim, inscribed in curvilinear letters originally inlaid with silver,[40] reads:

> *farmūdan-i īn khidmat rā ʿabd al-raḥman b. ʿabd allāh al-rashīdī ḍarb-i* (?) *muḥammad b. ʿabd al-wāhid ʿamal-i ḥājib masʿūd b. aḥmad al-naqqāsh-i harāt li-ṣāḥibihi khwāja ajall rukn al-dīn fakhr al-najjār amīn al-muslimīn zayn al-ḥajj wa'l-ḥaramayn rashīd al-dīn ʿazīzī b. abū'l-ḥusayn al-zanjānī dāma ʿizzuhu`

> ʿAbd al-Raḥman b. ʿAbd Allāh al-Rashīdī ordered this work, formed [i. e. designed?] by Muḥammad b. ʿAbd al-Wāhid, made [i. e. inlaid?] by the *ḥājib* Masʿūd b. Aḥmad the decorator from Herat for its owner, the exalted *khwāja* Rukn al-Dīn, the glory of merchants, the muslims' trusted man, an ornament to the pilgrimage and both holy places [i. e. Mecca and Medina], Rashīd al-Dīn ʿAzīzī b. Abū'l-Ḥusayn al-Zanjānī, may his fame endure.[41]

The text presents several unusual features and interpretative issues: to begin with, it opens with a Persian sentence associating the patron not with the object itself, but with his order of the *khidmat* ("service, task" or "gift"), probably to be understood

39 Inv. No. IR-2268, Veselovskii 1910; Ettinghausen 1943; Kana'an 2009; on the signature, Mayer 1959, 61; Laviola 2017, 22–23. See photos at https://www.kornbluthphoto.com/BobrinskyBucket.html (accessed 16/09/1022).

40 Illustrated in Ettinghausen 1943, 198, fig. 3.

41 Transliterated after TEI, No. 7979, translated by the author. Slightly different versions are given in Ettinghausen 1943, 196; Giuzalian 1968, 105; Melikian-Chirvani 1982, 83, note 61; *Art of Islam* 1999, 159, No. 114.

as the work being done by the craftsman.[42] ʿAbd al-Raḥman, thus, could either have played the role of a financing patron or a *concepteur* who planned and coordinated the artists' work. The *ḍarb* following this is a verbal noun derived from the Arabic root *ḍaraba* ("to beat, to strike") and is typically used in mint formulae: a usage that would seem inappropriate in the fabrication of this cast object, as already noted in Leon T. Giuzalian's translation: "cast (beaten?) by […]". Mayer and Assadullah Souren Melikian-Chirvani have instead proposed the term as referring to the task of inlaying, i. e. "beating in" the metal inlays.[43] Ruba Kana'an, however, based on the use of *ḍarb* in the works of some medieval jurists and lexicographers, interprets the word as "the creation of the overall form and decorative details of an object"[44], which would then stress the role of Muḥammad b. ʿAbd al-Wāhid in the design of the decorative programme, possibly conceived separately after completion of the casting process. The second artisan mentioned, Masʿūd b. Aḥmad, is certainly the one who achieved the decoration, probably applying the inlays, since the professional epithet *al-naqqāsh* (lit. "painter, designer") emphasises a hands-on role in the ornamentation procedure.

A last consideration concerns the presence of titles suitable to civil or religious officials, attached to both the names of the decorator, designated *ḥājib* (lit. "chamberlain") and the recipient, called *fakhr al-najjār* ("the glory of merchants"), who then clearly belonged to the merchant class. The object, with these inscriptions, has accordingly been read as indicative of the increasing status of traders in medieval Islamic society.[45] A further reading, put forth by Kana'an, suggests that the bucket could have functioned as a 'show-piece', with the inscription on the rim serving as the calling card of the members of the Herat workshop: the patron or *concepteur* ʿAbd al-Raḥman, as workshop manager, then fictively offering the object to Rashīd al-Dīn, the workshop owner and dealer, and the abundant decoration giving samples of the refined designs available from the workshop's renowned artists.[46] This idea of an 'advertising' inscription, although conjectural, is fascinating and offers deeper consideration of the different persons and their relative relationships within the chain of production. Moreover, it brings into play the middlemen, the sellers and workshop managers, already known to sometimes engage in satisfying specific customer requests, with entitlement to sign artefacts alongside the craftsmen. This is confirmed by the dedicatory inscription on an inlaid pen-box dated 542 AH/1148 CE, including the signature of ʿUmar b. al-Faḍl b. Yūsuf *al-bayyāʿ*: "the seller".[47]

42 Kana'an 2009, 200.
43 Mayer 1959, 12; Melikian-Chirvani 1982, 83.
44 Kana'an 2009, 190, 199, note 43.
45 Ettinghausen 1943, 197–198; Giuzalian 1968, 95–96.
46 Kana'an 2009, 200.
47 Hermitage Museum, Inv. No. SA-12688; Giuzalian 1968, 98–102; Kana'an 2009, 197–198.

The second object, also at the Hermitage, is a brass aquamanile in the form of a zebu suckling her calf, with a lion handle (h. max. 35 cm), dated 603 AH/1206 CE.[48] The bell on the zebu's collar, its harness and tail (now lost) moved in connection with an internal mechanism, making this a rare example of medieval automaton. A fabrication text in curvilinear letters, originally silver inlayed, runs down the animal's neck. This is composed in Persian (with some Arabic expressions) and names the owner and two makers:

> *īn gāv va gūsāla va shīr har si yak bāra rīkhta shud-ast bi-tawfiq-i yāzdān-i dādgar parvardgār bi-ʿamal-i rūzba b. afrīdūn [b.] barzīn baraka li-ṣāḥibihi shāh barzīn b. afrīdūn b. [bar]zīn ʿamal ʿalī b. muḥammad b. albū[sic] al-qāʾim al-naqqāsh*
>
> This cow, calf and lion were all cast at the same time with the help of God, the all-just judge and the nourisher, by the labour of Rūzba b. Afrīdūn [b.] Barzīn. Blessings to its owner Shāh Barzīn b. Afrīdūn b. [Bar]zīn. Work of ʿAlī b. Muḥammad b. Abū'l-Qāʾim the decorator.[49]

Here we have an exceptional inscription describing the artefact and its manufacturing procedure: a composite, zoomorphic vessel cast in a unique piece, hence, a product of particular artistic and technical challenge. Rūzba has been identified by some authors as the founder, by others as the patron.[50] The latter hypothesis is justified by the positioning of this name, prior to that of the recipient, and by the familial relationship between the two individuals. Indeed, Rūzba and Shāh Barzīn were doubtless brothers, since the names of their father and grandfather are identical; moreover, all of these personages bear Persian names, suggesting appurtenance to the Iranian nobility.[51] The use of the language and the recurrence of Persian names in the first part of the inscription does contrast with the last sentence, which matches more closely with the conventional Arabic formulary and conveys the signature of the decorator (*alnaqqāsh*), who bears a purely Arabic name. It should be noted that the indications of the supposed patron and decorator are both introduced by *ʿamal*, however the application of the term is clearly nonspecific, not necessarily referring to direct involvement in the artisanal activity.

48 Inv. No. AZ-225. D'Iakonov 1939; Mayer 1959, 36; Giuzalian 1968, 103–109; Loukonine/Ivanov 1996, 144, No. 127; *Art of Islam* 1999, 164–165, No. 119; Ettinghausen 2007; Allan/Kana'an 2017, 462–466, illustrated in Allegranzi 2024, 364, fig. 3.

49 Transliterated after TEI, No. 2890, translated by the author. I accept the reading of the second *nasab* of the decorator as Abū'l-Qāʾim (instead of Abū'l-Qāsim), as proposed on palaeographic grounds by Laviola 2017, 99.

50 The first option is supported by Giuzalian 1968, 104–109; Allan/Kana'an 2017, 464; the second by D'Iakonov 1939; Loukonine/Ivanov 1996, 144; Laviola 2017, 99.

51 Ettinghausen 2007 proposes that the object and its iconographic cycle were inspired by the story of the Persian epic hero and king Farīdūn/Afrīdūn, homonymous with the father of these two brothers.

Silver-Tongued Signatures: Recognising New Levels of Design and Beauty

The professional epithet *al-naqqāsh* ("the designer, the decorator") occurs more frequently than any other in signatures on medieval Iranian metalwork,[52] suggesting that the designer and/or executor of decoration held a respected role in the overall production context. Among the distinguished *naqqāsh* was Shādhī al-Harawī, whose signature appears on four inlaid objects:[53]

- a rectangular pen-box in brass (h. 5; l. 31.4; w. 6.4 cm), held by the Freer Gallery (Inv. No. 36.7);[54]
- a portable pen-box (l. max. 21.5 cm) in wedge shape, with integrated inkwell, documented in a private collection in Afghanistan;[55]
- a similarly shaped portable pen-box in brass (h. max 1.7; l. 21; w. max 3.8 cm), held by the Louvre Museum (Inv. No. MAO 2228, Fig. 4);[56]
- a bird-shaped toilet flask, documented in Afghanistan.[57]

These objects offer information on the artist, in complementary manner. On the rectangular pen-box, the signature *ʿamal shādhī al-naqqāsh* ("work of Shādhī the decorator") is accompanied by the date 607 AH [= 1210–11 CE]. Inscribed on the cover we also find the titulature of the vizier of the Khwarazmshah ʿAlāʾ al-Dīn Muḥammad (r. 596–617 AH/1200–1220 CE), Majd al-Mulk al-Muẓaffar, who founded a library in Merv and likely lived there until the Mongol conquest of the city in 1218.[58] Although the inscription lacks specification as to whether Majd al-Mulk was the patron of the pen-case or its recipient as gift,[59] the artist Shādhī must by this time have risen to esteem, to be commissioned for decoration of an object destined to such a high political personage.

On both portable pen-boxes, the signature reads *ʿamal shādhī naqqāsh* (Fig. 5): the lack of the Arabic article before *naqqāsh* reveals influence from Persian language. Microscopic examination of the Louvre object has shown that both the chiselled

52 The word is an agent noun derived from the Arabic root *n-q-sh* ("to paint, to depict"), and can designate artists specialised in manuscript painting or in various media of architectural decoration.

53 Melikian-Chirvani 1979; Laviola 2017, 91–94; the latter author records four more Iranian metalworkers known by more than one signature.

54 Herzfeld 1936; Atil/Chase/Jett 1985, 102–110, No. 14; Allan/Kana'an 2017, 466–468; https://asia.si.edu/object/F1936.7/ (accessed 16/09/2022); the object was purchased in Bukhara.

55 Melikian-Chirvani 1974, 32, figs. 9, 11; Melikian-Chirvani 1979, figs. 2–4, 8; Melikian-Chirvani 1982, 70–72, figs. 40–41. Retrieved in Badghis, northeast of Herat.

56 Collinet 2021, 112–115, No. 2.

57 Melikian-Chirvani 1979, fig. 5. Purchased in Kabul, allegedly coming from Herat.

58 Herzfeld 1936, 39–43.

59 Allan/Kana'an 2017, 467.

Fig. 4: Portable pen-box, Herat, Afghanistan, early 13th century, Louvre Museum, Inv. No. MAO 2228.

decoration and preparation of the inlaid surfaces were achieved using the same burin (providing very slender grooves, w. 0.25 mm),[60] demonstrating that Shādhī performed the tasks of both chiseller and inlayer.

Solely on the flask, the signature includes the artisan's *nisba: ʿamal shādhī al-naqqāsh al-harawī* ("work of Shādhī the decorator al-Harawī"). The inference of the location of the artisan in Herat is reinforced by the recorded provenance: for both of the objects recorded in Afghanistan, their recovery is alleged in the region of Herat. Considering the variety of the objects he signed, we can infer that Shādhī was not responsible for their initial fabrication, since two of these (rectangular pen-box, flask) were produced by casting, then decorated with similar designs,[61] while the other two

60 Collinet 2021, 101, 114.

61 Melikian-Chirvani 1979 suggests that the artist was trained in and inspired by manuscript painting, and attributes two more unsigned artefacts to him.

Fig. 5 Signature on the portable pen-box at Louvre Museum, Inv. No. MAO 2228.

(wedge pen-boxes) demanded the different technique of metal beating.[62] Although the four signatures share common features, it is notable that they are also different in design.[63] Among the commonalities: they are separated from other inscriptions and enclosed in rectangular cartouches, well integrated in the overall decoration, yet achieving prominence through their positioning and inlay of the letters.[64] All are executed in Kufic script, but with univocal features: variations in the thickness of the letters and their ornamental endings and, to fit the frames, different raising of the individual characters above the line. These creative solutions and inventions reveal that the artist was not strictly bound by a predefined model.

The final object considered in the current review is a ewer in hammered and inlaid brass, produced in Herat in 557 AH/1181–82 CE and held by the Simon Janashia Museum of Georgia in Tbilisi (Inv. No. MS 135).[65] The ewer has a ribbed body and, on the neck, a lion executed in repoussé. In this era, the production of objects of similar shape and quality is known for Khurasan, however this piece is exceptional for the presence of a Persian poetic inscription.[66] Of the 24 ribs, 11 contain elongated cartouches framing a single line of curvilinear script running from top to bottom. One line spells the signature *al-ʿamal al-naqsh maḥmūd b. muḥammad al-harawī* ("the work and design of Maḥmūd b. Muḥammad al-Harawī"), followed by the date. This section is composed in Arabic, yet the insertion of the Arabic article before *ʿamal* and the use of the substantive *al-naqsh* ("the design")—preceding the name and replacing the more common epithet *al-naqqāsh*—suggest that the scribe was unfamiliar with the standard Arabic formulary. The signature is placed at the end of a ten-line Persian poem, which in referring to the ewer (*āftāba*), praises its beauty and alludes to its significant function in pouring water for the cleansing of hands. After a passing reference to the anonymous recipient, evoked as an "honoured person" (*mihtarān,* sing. *mihtar*), the final part of the poem deals with the craftsman (lit. "constructor") and his deserved reward:

> […] This water vessel is made in Herat / Who else could produce anything like it (in the world)?
> Although the seven stars (the Pleiades) of the celestial sphere lift their heads high, /
> May they look favorably upon him who produces such a ewer.

62 Collinet 2021, 115.

63 See description in Laviola 2017, 91–94, pls. III.3, III.4, IV.1.

64 The signature on the rectangular pen-box is placed on the rear of the cover: clearly visible to whoever handles the item, but hidden once it is opened.

65 Loukonine/Ivanov 1996, 136–137, No. 117; *Court and Cosmos* 2016, 155–156, No. 85.

66 Poetic inscriptions in Persian appeared on Iranian architecture during the 11th century, but became more common on objects dating from the 13th–14th century onwards. See, however, the Persian verses inscribed on the inlaid pen-box dated 542 AH/1148 CE; Giuzalian 1968, 114–116.

Mercy be on him who makes such a ewer / May he be given silver and gold
for making it
May good fortune come to him and caress him in friendship /
May affliction be removed and given to his enemies.[67]

Through the initial device of the poetic description of this object of unparalleled beauty, the inscription thus arrives at praise for both the recipient and the artisan. Two questions remain open: whether the author of the poem was also the signatory named in the next cartouche, i. e. the object "worker and designer"[68], whether the poem was added at the request of the patron or at the initiative of the artist or workshop.

In this example, as well as the oeuvres by Shādhī al-Harawī and several others, the *naqqāsh* is the only signer of the artefact, and one could further infer that even when not explicitly stated, many other signatures in fact refer to decorators. The exclusivity of citing the decorating artisan then omits identification of the other roles involved in the manufacturing process and the individuals holding the responsibilities, most obviously that of the object fabricator. However, this concentration on naming the decorating artisan is justified by his association with the use of precious materials, achieving ornament of high quality, through application of skill and artistic inventiveness, thereby increasing the value of the object.

Final Remarks

In considering the signatures on medieval artefacts, some of the obvious questions are: Why are some objects signed and others not? For the relatively few that are signed: who was entitled to do this, and what were the functions of the signatures? The answers to these questions, unfortunately, as well as others on connections with the economic and social contexts, will never be completely clear. Certainly, we must avoid the restricting perception of modern norms for signatures in the arts and related industries, and be open to the conception that the range of personages potentially entitled to append their name on an artefact in medieval societies was broad: from commissioning patron to fabricator, *concepteur* or final decorator, to merchant or dealer, all depending on the particular case. Then, even though the first perception may be of difficulties—due to the conventional, nonspecific brevity of the signatures—we may in fact find clues to the roles and functions of the relative personages by reference to the quite surprising variation in

67 Translation after *Court and Cosmos* 2016, 155.

68 This seems unlikely. Yet, in the inscriptions of some Iranian lustre-painted wares, the master potter Abū Zayd (late 12th–early 13th century) claims to have composed and transcribed the poetic excerpts, Blair 2008, 8.

forms and decorative detailing, and the stages of application in the manufacturing process.

The case studies selected for this paper permit reflection on the art of metalwork in medieval Iran, in particular on the roles of artisans and other figures and the organisation of their relative work. The pieces were chosen for the presence of signatures that diverge from the standard in terms of technical, visual or textual features, hopefully offering opportunity to penetrate the general ambiguity of signatures and associated dedicatory texts. A main objective was to identify the role of the signatory in the production process. The case of a number of utilitarian but carefully designed cauldrons, bearing the marks of several coppersmiths (sing. *ṣaffār*), represents the rare identification of the primary fabricators of the objects and provides clues to the manufacturing procedures applied in an apparently highly-productive workshop. In contrast, the unambiguous mention of a fabricator is rarely —if ever—encountered on refined metalwork, where the signature is more likely to credit the executor of the costly and eye-catching decoration. Alongside the "decorator" (*naqqāsh*), whose exact tasks in the step-by-step decorative process appear variable, there may be other signatures, largely identical to those of the artisan, but in fact identifying other agents acting in the artefact's commissioning, conception and sale.

The insights provided here result from the re-examination of objects previously studied, and the reconsideration of some conflicting conclusions. Although some research questions remain unanswered, what I hope is that we can see the potential of multi-faceted perspectives on epigraphic data, and some resulting methodological approaches. In particular, in some instances, the analysis of the technological features of the inscribed signature and their relations with the production process seems at least as informative as the inscription itself. By devoting equal attention to the textual content and visual effects of the signature, and considering these integrally with the object, we can uncover new strata of meaning and possible interpretations. The present essay examines only a very limited *corpus.* Among other directions open to further research, the deeper examination of the convergences and divergences between signatures recorded on different media could possibly permit us to retrace specific patterns of patronage and reception. The present volume, as a whole, marks a step forward in the conduct of comparative analyses at the intersection of cultural areas: intersections clearly deserving of further exploration. A first step in organising our future research would be to return to the questions we wish to pose on the arts and artisanal practices of the medieval societies, to compose these more clearly and penetratingly, and then again return to the study of the material at hand, applying new methodologies as seem appropriate.

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Sigla

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