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### The Work of aI-Hasan b. Muhammad, Die Engraver at Isbahan and al-Muhammadiyya

Carol Bier, The Textile Museum



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Guide for Contributors and List of Abbreviations

CAROL MANSON BIER. The Work of al-Hasan b. Muhammad, Die

# THE WORK OF AL-ḤASAN B. MUḤAMMAD, DIE ENGRAVER AT IṢBAHĀN AND AL-MUHAMMADIYYA

(PLATES 48-49)

CAROL MANSON BIER

Four Būyid coins in the collection of the American Numismatic Society, struck between 358–68 H./A.D. 968–79 at two mints in Jibāl province, illustrate a phenomenon unique in the history of Islamic coinage.¹ They concern the status of a die engraver named al-Ḥasan b. Muḥammad. A silver dirham bearing his signature was first noted by George C. Miles and published in 1938.² It was at that time the only Islamic coin known to bear the signature of a die engraver. More recently, four additional coins have been located which shed more light upon the career of this artisan. His signature occurs on two of these coins, one like that described by Miles struck in Iṣbahān in 358, the other struck in al-Muḥammadiyya in 362. The later issue, however, shows an erasure of his name, leading to the speculation that he fell out of favor and his name was obliterated, or that he was forced to remove his signature from the die.

The sequence begins with the dirham published by Miles, which was issued by the Būyid Mu'ayyad al-Dawla governing Isbahān.

<sup>&</sup>lt;sup>1</sup> The findings presented here were noted during the course of my research on the coinage of Jibāl province, Iran, 364–89 H./974–98 A.D., carried out at the 1977 ANS Graduate Seminar under the guidance of Michael L. Bates, Curator of Islamic Coins. I wish to acknowledge my gratitude to the ANS for providing me with a grantin-aid to attend the seminar, and for the encouragement and advice offered by the curators and staff.

<sup>&</sup>lt;sup>2</sup> G. C. Miles, "Note on a Die Engraver of Işfahān," Ars Islamica 5 (1938) 100-3. The coin is now in the collection of the ANS. It is listed in L. A. Mayer, Islamic Metalworkers and Their Works (Geneva, 1959), p. 44.

358 H. Işbahān

Mu'ayyad al-Dawla/'Adud al-Dawla/Rukn al-Dawla/al-Muțī' lillāh

Obv.:<sup>3</sup> Central Area

> لا الله الا الله وحده لا شريك له المطيع لله ركن الدولة ابو على بويه

Rev.:

Central Area

لله محمد رسول الله عضد الدولة ابو شجاع مو ئد الدولة ابو منصور بهيه

Inner margin

بسم الله ضرب هذا الدرهم باصهان سنة ثمان وخمسين وثلثمائة Linear circle

Outer margin (Qur'ān XXX, 3-4) Margin (Qur'ān IX, 33)

لله الامر من قعمل الحسن بن محمد بل ومن بعد ويومئذ يفرح المومنون بنصر الله

Linear circle

Four annulets 0 0 0 0

Double linear circle
Four annulets 0000

Crackled surface.

A \ 4.95 g; 31 mm Plate 48, 1 (detail, Plate 49,1)

ANS 70.74 G. C. Miles Gift (Acquired in Isfahān 1935).

G. C. Miles, "Note on a Die Engraver of Işfahān," Ars Islamica 5 (1938), 100-3.

L. A. Mayer, Islamic Metalworkers and Their Works (Geneva, 1959), p. 44.

<sup>&</sup>lt;sup>3</sup> The obverse is here designated as that face with the *kalima* (lā ilah illā allāh), which in the coins discussed below also bears the mint-date formula.

The coin is unusual because it bears on the obverse, in addition to the standard legends in the central area and two circular margins, a tiny inscription within the outer margin: 'amal al-Ḥasan b. Muḥammad ("the work of Ḥasan, son of Muḥammad"). This form of signature is encountered frequently in signed monuments and works of art. On the coin it appears in low relief, measuring 5 mm in length by 1.5 mm in height. It was engraved in the die above the ligature between the  $q\bar{a}f$  and  $b\bar{a}$ ' of the word qabl in the outer marginal legend (Qur'ān XXX, 3–4; see detail Plate 49, 1).<sup>4</sup> The horizontal ligature between the two letters is elongated to accommodate the miniature inscription, indicating that the inclusion of the name was anticipated by the engraver before he began work on the die.

Although it is almost invisible without magnification, the signature is finely and artistically executed. Its epigraphic style is distinctive, differing from that of the central area and marginal legends not only in scale and proportion but also in the form of the letters. In the miniature inscription the vertical shafts of the letters are tall and narrow and carefully spaced. The upper tips of the letters  $l\bar{a}m$ , alif,  $b\bar{a}$ ,  $n\bar{u}n$ ,  $b\bar{a}$  and  $d\bar{a}l$  have oblique terminals with a concave face, as if they were drawn with a nibbed pen. The tips are provided with serifs which extend slightly beyond the normal width of the vertical shafts, lending the inscription an elegant appearance.

In contrast the regular legends of the obverse are executed in an unadorned linear Kūfic script. The tips of the vertical letters are left unfinished, retaining in their uniform thickness and rounded profiles the shape of the engraving burin. The only embellishment may be seen in the rising tails of the  $r\bar{a}$  and  $y\bar{a}$  of the name Rukn al-Dawla with his kunya abu 'Alī. The letters are stubby and squat and their arrangement is generally crowded. As usual, there is little if any distinction between letters of similar form. The horizontal ligatures of the obverse legends are very short and sometimes omitted entirely. Two exceptions are notable, where the ligature is extended between the 'ain and  $l\bar{a}m$  of 'Alī in the central area, and between the  $q\bar{a}f$  and  $b\bar{a}$ '

<sup>&</sup>lt;sup>4</sup> Note that the word order of the outer margin is transcribed incorrectly in Miles, "Engraver" (above, n. 2), p. 100.

in the outer margin. Neither of these elongations is unusual on coins issued from mints in northern and central Iran during this decade.<sup>5</sup> But the extent of elongation between the  $q\bar{a}f$  and  $b\bar{a}$ , and the fact that it serves to support an additional legend is exceptional.

The reverse legends of this coin appear to be less crowded than those on the obverse since there is only one marginal inscription. Four annulets project beyond the double linear circle which surrounds the margin. The inner circle of the pair is thinner and appears in lower relief. The style of the epigraphy is similar to that on the obverse.

A second example struck from the same die with the signature of al-Ḥasan b. Muḥammad has recently been located.<sup>6</sup> All other known coins of Iṣbahān 358 were also issued by Mu' ayyad al-Dawla and carry the names of 'Aḍud al-Dawla, Rukn al-Dawla and al-Muṭī' lillāh, but the disposition of these names on obverse and reverse varies, and none of the coins bears an additional miniature inscription.<sup>7</sup>

A silver dirham struck in Işbahān in 360 shares many of the same stylistic and epigraphic characteristics of the signed coins of 358.

- <sup>5</sup> But compare Būyid coins struck at mints in Fārs and 'Umān during this and succeeding decades where Qur'ān XXX, 3-4, is omitted and there is usually only one obverse margin.
- 6 It is currently in the collection of S. Album (Santa Rosa, California) to whom I am indebted for providing me with a description and a photograph. He acquired the coin in 1973. Its longest dimension is 29 mm. Both obv. and rev. are struck from the same dies as the ANS coin.
- 7 I know of only four coins of Işbahān 358. These include the two with die engraver's signature discussed here, another specimen in the ANS (unpublished) with similar legend content in a different arrangement and without a die engraver's signature, and one listed by Markov (Inventory, p. 321, no. 78). I acknowledge with thanks I. Dobrovolsky, Curator of Early Islamic Coins at the Hermitage, who checked the coin of Işbahān 358 listed in Markov and informed me that it does not bear a signature. Miles had referred to this coin without having had the opportunity to view it. His suspicion that it is identical to the ANS signed specimen must thus be revised. I wish also to thank N. Lowick, Curator of Islamic Coins, Department of Coins and Medals in the British Museum, who kindly confirmed that there are no inscriptions additional to the standard legends on any of the coins in his department issued from Işbahān or al-Muḥammadiyya between 358 and 368. Dobrovolsky confirmed the same information for the collection in Leningrad.

360 H. Iṣbahān Mu'ayyad al-Dawla/ʿAḍud al-Dawla/Rukn al-Dawla/al-Muṭīʿ lillāh

Obv.: Rev .: Central Area Central Area محمد رسول الله Y llb IV llb وحده لاشريك له عضد الدولة المطيع له [sic] ابو شجاع مو ئد لدولة ركن الدولة ابو على ا بو منصور بويه نو يه Inner margin Linear circle بسم الله ضرب هذا الدرهم باصبهان سنة ستمن وثلثائة Outer margin Margin (Qur'an IX, 33) (Qur'on XXX, 3-4) ومن بعد ويومئذ يفرح المومنون بنصر الله Linear circle Linear circle (worn) Crackled surface; double struck. AR ↑ 5.61 g; 31 mm Plate 48, 2 (detail, Plate 49, 2) ANS 71.316 E. P. Newman Gift (ex R. W. Morris)

It preserves in its obverse layout an extremely elongated ligature between the  $q\bar{a}f$  and  $b\bar{a}$ ' in the outer margin, but there is no additional inscription in this space. The content and disposition of names in the obverse and reverse legends are identical to the signed coins of 358. The letters  $r\bar{a}$ ' and  $y\bar{a}$ ' are again written with rising tails; the tail of the  $y\bar{a}$ ' is bifurcate. The  $b\bar{a}$ ' of duriba in the inner margin has been

Previously inedited.

lengthened to allow for the shorter date and the  $h\bar{a}$ ' of  $h\bar{a}dh\bar{a}$  has a more pronounced point than the coin of 358. A  $l\bar{a}m$  is lacking in the name of the caliph, presumably an inadvertent omission by the die engraver. Although there are no annulets, the central area and flan diameters, the layout and arrangement of the legends, and the epigraphy all suggest that the die for the obverse of this coin was engraved by al-Ḥasan b. Muḥammad.

The unique significance of the signed issue of 358 is further emphasized by an examination of coins struck during the following years at nearby mints. Two coins in particular exhibit stylistic and epigraphic characteristics which relate them to the signed coins.

One is a dirham struck in al-Muḥammadiyya in  $362^8$  with an additional miniature inscription that was erased.

362H. al-Muḥammadiyya Rukn al-Dawla/al-Muṭīʿ lillāh

Ohn .

Obl	D.:	Rev.:
	Central Area fleuron	Central Area
	لا اله الا	لله محد
	الله وحده	رسول الله
	لا شريك له	ركن الدولة
	امطيع لله	آبو على بويه
1	Linear circle	Double linear circle
1	Inner margin	Margin
مُ بالحّمدية	بسم الله ضرب هذا الدره	(Qur'ān IX, 33)
	بسم الله ضرب هذا الدره سنة اثذتين وستين وثلثهائة	

<sup>&</sup>lt;sup>8</sup> The reading of the first digit is not entirely clear. The upper tips of five strokes are distinct. Yet the date 362 is certain because the coin was issued directly under the authority of Rukn al-Dawla in al-Muḥammadiyya. No other Būyid amīr is named in the legends. Rukn al-Dawla's death in 366 precludes either of the other two possibilities, 367 or 369.

Outer margin (Qur'ān XXX, 3-4) Double linear circle

Double linear circle; double struck.

At 1 3.55 g; 29 mm Plate 48, 3 (detail, Plate 49, 3)

Previously inedited.

In the same position as the signature on the two coins of Iṣbahān 358 (Plate 48, 1), there is a single raised line of uneven thickness, evidence that the die was altered before this coin was struck. Beyond the upper edge of the raised line can be seen traces of several finely executed serifs on thin vertical shafts permitting a reconstruction of the signature of al-Hasan b. Muḥammad (see detail, Plate 49, 3). The inscription beneath the erasure is 5 mm long by 1.5 mm high, dimensions identical to those of the signature on the coins of 358. According to this reading we may extend the work of this die engraver to a second mint, one that was directly under the authority of Rukn al-Dawla.

The traces of the signature are still clearly visible although the marginal legends on the coin are very worn. The erasure was cut to the same depth as the regular legends exposing the tips of the miniature inscription in lower relief to less wear.

The letters in the central-area legend were more carefully engraved than on the earlier Işbahān issues. The vertical tips of the letters are cut obliquely and the shafts have a very slight taper. The final  $h\bar{a}$ ' has a raised stroke which is inclined and ends obliquely. And the 'ain of al-Muṭī' is provided with a trilobate flourish. The marginal legends are executed in linear Kūfic without adornment, but a refinement may be noted in the double linear circle which surrounds the outer marginal legend. The inner circle of this pair is thinner and carved in lower relief; it is interrupted by the vertical letters, giving a visually more pleasing effect.

Similar calligraphic considerations are evident in the central-area legend of the reverse. The slanted tips of the vertical letters have been elongated to fill the entire line. The  $n\bar{u}n$  and  $y\bar{a}$  of Rukn al-Dawla's

name with his kunya have rising tails, and the upper stroke of the  $d\bar{a}l$  also rises. The marginal inscription, however, is executed with considerably less care. As on the obverse, the inner linear circle is thinner, and interrupted by the taller letters.

The last coin to be considered in this discussion was struck in the year 368, also in al-Muḥammadiyya.

368 H. al-Muḥammadiyya Mu'ayyad al-Dawla/'Adud al-Dawla/al-Ṭā'i' lillāh

Obv.:

Central Area fleuron

> لااله الا الله وحده لا شريك له مؤيد الدولة ابو منصور

Inner Margin

Linear circle

بسم الله ضرب هذا الدرهم بالحمدية سنة ثمان وستين وثلثائة

> Outer margin (Qur'ān XXX, 3–4)

لله الامر من ق<u>محمد و على بل ومن</u> بعد ويومئذ يفرح المومنون بنصر الله

Double struck;

double struck.

AR / 3.89 g; 26 mm Plate 48, 4 (detail, Plate 49, 4) ANS 65.243H Purchase, 1965.

Previously inedited.

Rev.:

Central Area

لله الله الله الطائع لله الطائع لله املك السيد عضد الدولة و تاج املة

Double linear circle (worn)

Margin

(Qur'ān IX, 33)

Its relationship to the earlier coins is more problematic and ultimately rests on conjecture alone. The obverse in this case bears a tiny inscription (6 mm long by 1 mm high) within the margin in the same location as the signatures on the earlier issues (see detail, Plate 49, 4). But the content of the inscription is distinctly different, reading simply Muḥammad wa 'Alī ("Muḥammad and 'Alī"). Although these are common Muslim names, it is conceivable here that they refer specifically to the Prophet and the fourth orthodox caliph, whom the heterodox Būyids held to be Muḥammad's rightful successor.

Epigraphic details distinguish this coin to some extent from the earlier issues discussed so far. The shafts of the  $l\bar{a}m$ -alif ligature are diagonal rather than vertical. The  $r\bar{a}$ ' of Manṣūr has a rising tail. In the additional miniature inscription the  $\hbar\bar{a}$ ' and  $d\bar{a}l$  of Muḥammad have embellished tips and the  $y\bar{a}$ ' of 'Alī reverses itself and serves to underline the two names. On the reverse a rising  $w\bar{a}w$  precedes the laqab of 'Adud al-Dawla. The fleuron which is located above the elongation between the  $l\bar{a}m$  and  $h\bar{a}$ ' of Allāh differs from that on the coin of 362. The fleurons of these two coins are both symmetrical and composite but the later form has a trilobate central element rather than a circular one.

The marginal legends on the obverse of the 368 coin are very worn. The letters are fat and squeezed together. Their surfaces are indistinct but enough of their upper tips is preserved to confirm the expected contents of the legends and to permit a clear reading of the date.

The existence of these five unusual coins struck at two mints in Jibāl between 358 and 368 suggests a development which may be summarized as follows. An artisan named al-Ḥasan b. Muḥammad was employed to engrave dies for the Būyid mint in Iṣbahān. On one of the dies for coins of 358 he engraved his own name, which appears on some but not all of the coins issued that year in Iṣbahān under the authority of Mu'ayyad al-Dawla. In the coin of 360 struck in Iṣbahān, we may recognize his hand even though his name is not present. It appears that he left a space for his signature in the same location on the die, but he did not actually sign it (see detail, Plate 49, 2). In 362 he was employed in the production of coins for Rukn al-Dawla issued from al-Muḥammadiyya. Again he engraved his name in the die, but it was erased. Perhaps official permission to include his name was withdrawn;

possibly it had never been authorized. In coins issued from al-Muḥam-madiyya in 368, a new legend naming the Prophet and his son-in-law occupies the space where the signature of al-Ḥasan b. Muḥammad appears on three earlier coins. The replacement may be seen as a pious invocation appropriate to the Būyid partisans of 'Alī.

#### COMMENTARY

Given the official sanction required for the minting of coins and the determination of their legends, the inclusion of the die engraver's name is most unusual and may be seen as an act of self-recognition. The subsequent omission of the signature in 360 and its obliteration in 362 lend support to this interpretation, but a definitive explanation for this exceptional sequence of coins will have to await the study of additional specimens, both edited and inedited, issued from mints in northern and central Iran between 358 and 368. The pertinent information derives from the miniature legends which are almost invisible to the naked eye and may require a magnifying glass even for identification. Placement in the outer margin has also perhaps hindered earlier notice. The outer marginal legends had by the middle of the fourth century become fairly standardized and historically insignificant, rarely attracting the attention of numismatists.

The content of the inscriptions in question is extraneous to the primary function of the coins as a means of exchange and to the authorization of their validity. But the microscopic scale and the obscure placement of the signatures are features which assume a new importance when viewed in the context of inscribed monuments and signed works of art.

The status of the artisan in Islamic society is a subject about which relatively little is yet known, particularly for this period. The several attempts to compile references to craftsmen in textual sources have met with a lack of explicit information regarding the arts and artisans, and it has been suggested that this omission reflects the low status of the artisan in contrast to others patronized by the court, such as poets, chroniclers and philosophers. The crafts in general are among the less

<sup>&</sup>lt;sup>9</sup> See for example D. N. Wilber, "Builders and Craftsmen of Islamic Iran: The Earlier Periods," Art and Archaeology Research Papers 10 (December 1976), p. 31.

prestigeous professions, and the Islamic craftsman more often than not remains anonymous. Early sources emphasize, however, that the inclusion of one's name in an inscription was an honor granted by the sovereign or his representative. Aside from such occasional textual references, what is known for the most part about the status of the artisan has been derived from inscriptions on signed works of art. Scholarly attention has thus been directed primarily to the compilation of craftsmen's signatures on architectural monuments, and on objects in various media. Additional discussion is sometimes contained in more general studies and in monographs. But the infrequent occurrence of such signatures in Islamic art renders them exceptional by their very presence.

The signature on the two coins of Işbahān 358 and as reconstructed from traces remaining beneath the erasure on the coin from al-Muḥammadiyya 362 is related to signed works of art by its form and content as well as by its placement and scale. The noun 'amal is followed by the name of the artisan in construct (iḍāfa), with the signature consisting of the ism and a nasab and lacking an appellative or nisba. The occurrence of the noun 'amal is not uncommon on objects bearing signatures, but its use seems to imply a distinction in the status of the artisan named. It appears, for example, that the noun ṣan'at (or the verb with object ṣan'ahu) occurs on objects of higher quality. Individuals named in architectural inscriptions after the noun 'amal are less likely to be known in historical sources than those whose names

Earlier studies are summarized in L. A. Mayer, Islamic Architects and Their Works (Geneva, 1956), pp. 15-16.

<sup>&</sup>lt;sup>10</sup> Balādhurī, Muqaddasī and Ibn Bībī are cited by L. A. Mayer (above, n. 9), p. 21, n. 3.

<sup>11</sup> L. A. Mayer, "Islamic Glassmakers and Their Works," The Israel Exploration Journal 4 (1954), pp. 262-65; D. S. Rice, "Early Signed Islamic Glass," JRAS (April 1958), pp. 8-16; Mayer (above, n. 9); L. A. Mayer, Islamic Astrolabists and Their Works (Geneva, 1956); L. A. Mayer, Islamic Woodcarvers and Their Works (Geneva, 1958); Mayer, Metalworkers (above, n. 2); Wilber (above, n. 9), pp. 31-39.

<sup>&</sup>lt;sup>12</sup> Such as M. Aga-Oglu, "Remarks on the Character of Islamic Art, "Art Bulletin 36 (1954), pp. 175-202; R. Ettinghausen, "The Bobrinski 'Kettle', Patron and Style of an Islamic Bronze," Gazette des Beaux-Arts 24 (1943), pp. 193-208; M. Jenkins, "Muslim: An Early Fatimid Ceramist," Bulletin of the Metropolitan Museum of Art, N. S. 26 (1968), pp. 359-69.

are introduced otherwise which has led Mayer to suggest that the name following 'amal revers to the stonecutter and not the architect.\(^{13}\) In building inscriptions a further distinction may be implied by the term 'alā yaday, which according to van Bercham and Wiet designates the supervisor rather than the architect.\(^{14}\) 'Amila in either a nominal or verbal form appears to refer to the maker of an object, rather than an official responsible for its production. Miles's assumption that the signature on the coin of Iṣbahān 358 is that of the die engraver is thus justified.

The placement and scale of the inscription bearing the signature on signed monuments is often seen to express the humility of the craftsman. In architectural monuments, for example, the name of an artisan is less frequently encountered than that of the patron. When a signature does occur, it is usually placed inconspicuously in a corner, after the date or at the very end of the inscription. The patron's name with his titles is normally given a more prominent position.<sup>15</sup> Humility is also expressed by the use of self-deprecatory formulae which may accompany the artisan's name. In contrast expressions of pride are considerably fewer. More often associated with the respected professions such as astrolabist or calligrapher, they may imply knowledge as well as skill.16 On rare occasions a craftsman employed at the court received praise and is mentioned in historical sources. Such is the case of a die engraver at the Mughal mint who is cited by name in the A'in-i Akbari: "He engraves the dies of the coins on steel, and such like metals. Coins are then stamped with these dies. At this day, Mawlā-nā [sic] 'Alī Ahmad of Delhi, who has not his equal in any country, cuts different kinds of letters in steel, in such a manner as to equal the copyslips of the most skilful caligraphers."17

<sup>&</sup>lt;sup>13</sup> Mayer (above, n. 9), p. 24-25.

<sup>&</sup>lt;sup>14</sup> M. van Berchem, Matériaux pour un Corpus Inscriptionum Arabicarum, Egypt 1 (Cairo, 1927), p. 84, and G. Wiet, Materiaux pour un Corpus Inscriptionum Arabicarum, Egypt 2 (Cairo, 1929), p. 46n., both in Memoires publiés par les membres de l'Institut Français d'Archéologie Orientale du Caire; Mayer (above, n. 9), pp. 23–24.

<sup>&</sup>lt;sup>15</sup> Mayer (above, n. 9), p. 21.

<sup>16</sup> Mayer, Astrolabists (above, n. 11), pp. 14-15.

<sup>&</sup>lt;sup>17</sup> Abū'l-Fazl 'Allāmī, Ā'īn-i Akbarī, trans. H. Blochmann (New Delhi, 1965), sec. 7, p. 22. I am indebted to Michael Bates for this reference.

The linear Kūfic script of the regular legends on the coins signed by al-Ḥasan b. Muḥammad is not particularly noteworthy, but the flourishes and embellishments added sometimes to certain letters  $(r\bar{a}', y\bar{a}', 'ain, n\bar{u}n, d\bar{a}l, h\bar{a}', w\bar{a}w$ , final  $h\bar{a}$ ) relate them to inscribed monuments in Iran of Būyid date. The style of the die engraver's signature parallels that of contemporary inscriptions even more closely. The style is angular, not rounded; it is characterized by the obliquely cut vertical strokes of letters and the terminal serifs. These two features distinguish calligraphy in ink resulting from the use of a nibbed reed pen (qalam) and suggest that the monumental epigraphy of the period relies upon a written style. The occurrence of these two stylistic features on inscribed or carved monuments in stone, metal, wood and ceramics suggests that they are calligraphic mannerisms applied to other materials.  $^{20}$ 

The work of al-Ḥasan b. Muḥammad is so far confined to the production of dies for two mints in the province of Jibāl, Iran. It is conceivable

<sup>18</sup> In particular certain epigraphic details of inscriptions on the Pul-i Kalhur, the Jurjir portal, and in the graffiti at Persepolis: E. Herzfeld, "Bericht über archäologische Beobachtungen in sudlichen Kurdistan und Luristan," Archäologische Mitteilungen aus Iran 1 (1929–30), p. 74; Survey of Persian Art, ed. A. U. Pope and P. Ackerman (London, 1939), pp. 1232, 1788, 1805; A. Godard, "The Jurjir Mosque in Isfahan," Survey of Persian Art, vol. 14, (London/Tokyo, 1967), pp. 3100–4; W. Kleiss, "Bericht über Erkundungsfahrten in Iran im Jahre 1971," AMI 5 (1972), pp. 208–9, fig. 85, pls. 59–60; E. Galdieri, Isfahan: Masğid-i ğum<sup>e</sup>a II. The Al-i Buyid Period (Rome, 1973); G. C. Miles, "A Portrait of the Buyid Prince Rukn al-Dawla," ANSMN 11 (1964), pl. 47, 4; E. Combe, J. Sauvaget, and G. Wiet, Réperfoire Chronologique d'Épigraphie Arabe, Publications de l'Institut Français d'Archéologique Orientale (Cairo, 1931–36), vol. 5, no. 1901 (Pul-i Kalhur); vol. 6, no. 1475–76; vol. 6, no. 2087 (Persepolis).

<sup>&</sup>lt;sup>19</sup> The influence of the *qalam* in Būyid epigraphy has been noted previously by L. A. Mayer, "A Note on Some Epigraphical Problems," in *Survey of Persian Art* (above, n. 18), vol. 2, pp. 1805–7, but he disregards the occurrence of these features in contemporary coinage.

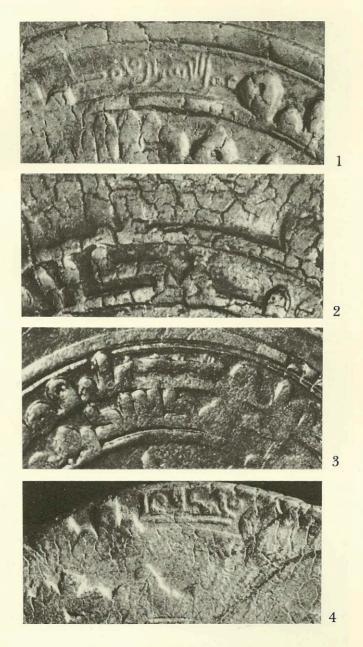
<sup>&</sup>lt;sup>20</sup> For a pair of wooden door panels, Survey of Persian Art (above, n. 18), vol. 6, pl. 1460, and G. Wiet, L'exposition persane de 1931 (Cairo, 1933), pp. 10-12, no. 6. For objects in other materials, see E. Kühnel, "Die Kunst Persiens unter den Buyiden," Zeitschrift der Deutschen morgenländischen Gesellschaft (1956), pp. 78-92, and O. Grabar, "The Visual Arts," in The Cambridge History of Iran, 4, ed. R. N. Frye (Cambridge, 1975), pp. 329-63.

that he was employed at other mints as well. The similarity in epigraphic details, the spacing of the letters (including an extended ligature between the  $q\bar{a}f$  and  $b\bar{a}$ ' in the outer obverse margin), and the arrangement of legends on several coins issued by the Bāwandids and the Ziyārids, for example, may imply a closer relationship to coins struck from dies engraved by al-Ḥasan b. Muḥammad than is suggested merely by the dates of their issue or their adherence to a contemporary epigraphic style. But in view of the absence of other signed specimens, the attribution of additional coins to this die engraver must await a closer identification of his hand, and the epigraphic characteristics peculiar to his work. Further examination of coins struck at mints in northern and central Iran in the second half of the fourth century eventually may permit an extension of the temporal and geographic limits of his employment as a die engraver.

<sup>&</sup>lt;sup>21</sup> G. C. Miles, "The Coinage of the Bāwandids of Tabaristān," in *Iran and Islam*, ed. C. E. Bosworth (Edinburgh, 1971), pp. 44–360, espec. pls. 1, 4 (7a) Firīm 363? and 1, 5 (10c) Firīm 367; G. C. Miles, "Coinage of the Ziyārid Dynasty of Tabaristān and Gurgān," *ANSMN* 18 (1972), pp. 119–37, espec. pls. 24, 5 Astarābād 361, 24, 6 Sāriyah 361, and 25, 8 Jurjān 362. S. M. Stern, "The Coins of Āmul," *NC* 1967, p. 249, speculates that Bīsutūn sought to increase his prestige by modeling his titulary on that of the Būyid, giving the name with *laqab*, *kunya* and eponym after he received his *laqab* Zahīr al-Dawla in 360.



al-Ḥasan b. Muḥammad



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