



# ANNALES ISLAMOLOGIQUES

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AnIsl 20 (1984), p. 61-84

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Timurid Stucco Decoration [avec 10 planches].

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# TIMURID STUCCO DECORATION

Bernard O'KANE

Mention of Timurid decoration inevitably conjures up visions of the tile revetments of the major monuments of Samarqand and Herat, where the art of coloured tile revetment arguably reached its peak, finding a precarious balance between structural enhancement and obfuscation. However, while the achievements of Timurid architecture in that field are well-known, its decorative use of stucco, both innovatory and archaic, have remained almost entirely unnoted.

One of the reasons for this may be the paucity of studies on pre-Timurid stucco. This is all the more surprising when one considers that its greatest power of expression is found in examples dating from the twelfth to the fourteenth centuries, yet monographs remain to be written on the decoration of such key monuments as the Friday Mosques of Zavāra and Ardistān, the Gunbad-i 'Alaviyyān or the Shrine at Pīr-i Bakrān, and even the supreme example of stucco, the *mihrāb* of Ūlġāytū in the Iṣfahān Ğāmi', has not had the detailed decorative analysis it deserves<sup>(1)</sup>. No survey has emerged to parallel those for tilework in the same period<sup>(2)</sup>.

The difficulty of classification is greatly increased by the sheer variety of Salġuq and, especially, Mongol stucco, ranging from ubiquitous brick-plugs to isolated panels of

<sup>(1)</sup> As Schroeder pointed out in «Scientific Description of Art» (review of D. Wilber, *The Architecture of Islamic Iran: the Il-Khānid Period*), *JNES* XV (1956), pp. 97-9. For an account of the stucco decoration of the Salġuq monuments of Qum, see: J. Bergeret and L. Kalus, «Analyse de décors épigraphiques et floraux à Qazvin au début du XI<sup>e</sup>/XII<sup>e</sup> siècle», *Revue des Etudes Islamiques* XLV (1977), pp. 89-130. An abbreviated form of the present article was read at the *VIIth Annual Symposium on Archaeological Research in Iran*, Tehran 1977.

<sup>(2)</sup> For tilework see D. Wilber, «The Development of Mosaic Faience in Islamic Architecture in Iran», *Ars Islamica* VI (1939), pp. 16-47; R. Hillenbrand, «The Use of Glazed Tilework in Iranian Islamic Architecture», *Akten des VII. Internationalen Kongresses für Iranische Kunst und Archäologie, München 7.-10. September 1976* (Berlin 1979), pp. 545-54. A preliminary study of Mongol plasterwork is contained in D. Wilber, *The Architecture of Islamic Iran: the Il-Khānid Period* (Princeton 1955) [hereafter cited as Wilber, *AII*], pp. 80-3.

such startling individuality, e.g. the flowering roses of the Varāmīn Ġāmi' (Pl. II a), that they were never to be repeated. Even with the relatively fewer types of stucco decoration employed in the Timurid era, it is difficult to reduce the number of types to a manageably useful number. Five main types can be posited, with various sub-divisions, although it will be seen that there are certain cases which could come under more than one heading. The five types are :

- 1) Medium and low relief stucco. Where only two planes are involved, the foreground and background are usually each on a uniform plane;
- 2) Simulated vaulting;
- 3) Stucco applied flat, or partially cut away to reveal an undercoat;
- 4) Low-relief moulded stucco;
- 5) Grilled windows.

While types 2, 3 and 5 survived into the Safavid period, types 1 and 4 virtually died out in Iranian architecture by the middle of the fifteenth century. The present article will concentrate on the examples of types 1 and 4 which have survived, since they are both relatively few in number and less well-known than the others.

#### Type 1) MEDIUM AND LOW-RELIEF STUCCO.

Among the examples of this type two main groups emerge, one of which has stucco based on a style which had evolved in Qum in the fourteenth century. The other consists of provincial monuments in Ḥurāsān.

The first group includes five monuments in Qum, two in Varāmīn and one each in Mašhad and Herat. They will be considered in chronological order.

- a) *Tomb of Ḥvāḡa 'Alī Ṣafī* and others, Qum. 792/1389-90 <sup>(1)</sup>.

The inclusion of this well-known monument under the heading Timurid may be open to question, since it was erected under the reign of Šāh Maṣṣūr, the last Muḡaffarid ruler, who was left as governor of 'Irāq-i 'Aḡam after Timūr's first conquest of the province

<sup>(1)</sup> Wilber, *AII*, p. 188; R. Hillenbrand, *The Tomb Towers of Iran to 1550*, unpublished D. Phil. thesis (Oxford 1974), pp. 285-7; Mudarrisi Ṭabāṭabā'i, «Ḥānadān-i 'Alī Ṣafī, Šahryārānī-yi

kamnām II », *Barrasīhā-yi Tārīḡi* VIII/4, pp. 55-9; idem, *Turbat-i Pākān* II (Qum 2535), pp. 56-8; A.U. Pope, *Persian Architecture* (London 1965), Figs. 253-5.

in the three year campaign of 1385-8 A.D. Timūr finally subjugated the province in 1393. However, the decoration of the tomb well illustrates the trends of interior stucco decoration in the fifteenth century : extensive use of incised plaster to simulate brick bonding and the reduction of certain elements to two or three shallow planes which formerly would have been carved in greater depth.

For example, some of the soffits of the eight lower niches are decorated with a two-plane lattice design of palmettes and arabesques <sup>(1)</sup>, but whereas previously the intersection of the lattices would clearly show one stem alternately crossing under and over another <sup>(2)</sup>, they are here rendered perfectly flat so that the eye is left unaided to resolve the intricacies of the composition. The « dry quality of the ornament in the background of the inscription bands » has been noted by Wilber <sup>(3)</sup>. This is especially true of the *nashī* which circumscribes these niches, but even the more profuse punched leaves and blossoms on the *nashī* inscription immediately below the zone of transition are undifferentiated in depth from the letters which they surround.

The same tendency towards extensive use of relatively flat inscriptions and extensive use of simulated brick bonding is apparent much earlier in the century, however, appearing in the tomb of ʿAlī b. Ğaʿfar in Qum and in its finest form in the Mausoleum of Ūġāytū. Their appearance on the latter should warn us not to assume from the foregoing that the decoration of the tomb of Ḥvāġa ʿAlī Ṣafī is inferior. The coarsening of the plaster work is compensated for by a number of features, including the preservation of the painting scheme in several delicate pastel shades of red, blue, green and buff. Coupled with a judicious balance between the relatively plain areas of simulated brick bonding and the busier inscription and spandrel designs, one might well agree that the interior is a « masterpiece (which) consummates the long tradition of polychrome stucco in Iran » <sup>(4)</sup>.

b) *Šāhzāda Ibrāhīm*, Qum. Šawwāl 805 / April-May 1403.

The acceptance of the date 721/1321 which appears on underglaze-painted tiles in the entrance portal by several scholars <sup>(5)</sup> amply bears out Wilber's comment on the previous monument to the effect that it could be dated around 1335 on stylistic grounds, and

<sup>(1)</sup> Pope, *op. cit.*, Fig. 253.

<sup>(2)</sup> E.g. the side panels of the *mihrāb* of Pīr Ḥamza Sabz Pūš, Abarqūh, *Survey* Pl. 391.

<sup>(3)</sup> *AII*, p. 188.

<sup>(4)</sup> Hillenbrand, *Tomb Towers* II, p. 316.

<sup>(5)</sup> Y. Godard, « Pièces datées de céramique de Kāshān », *Āthār-é Irān* II (1937), p. 310; Wilber, *AII*, p. 157; Hillenbrand, *Tomb Towers* II, p. 287.

emphasizes that we are dealing with an essentially archaic tradition. As Ṭabāṭabā'ī mentions, however, the date beginning of Զu'l-Ḥiğğā 127(0) / September 1853 appears elsewhere on these tiles <sup>(1)</sup>, so the digits must have been reversed simply as a conundrum. Their style, in any case, is Qağar and not Mongol, and in fact the signature of the tile worker « 'amal-i Ṭāhir » <sup>(2)</sup> must be that of « Ustād Muḥammad Ṭāhir Qumī » who was responsible for similar tilework dated 1268/1851-2 on the portal of the nearby tomb of 'Alī b. Ğa'far <sup>(3)</sup>.

The original historical inscription goes round the walls on eight panels just below the sixteen-sided zone of transition; it records that the building was erected by one Zaydat <sup>(4)</sup> for a descendant of the seventh *imām* in Šawwāl 805; the inscription is signed (*namaqahu*) by « al-'abd 'Alī b. Ḥasan al-Ṭūsī » <sup>(5)</sup>. The use of *namaqahu* rather than *katabahu* is unusual, but even with the added connotation of embellishment it most probably refers to the calligrapher rather than the plasterer. The original stucco decoration is confined to this inscription and its borders, and to the continuous frieze of the sixteen-sided zone. The acanthus-like scrolls of the spandrels and intermediate arches, and the stalactite filling of the latter <sup>(6)</sup> are more in keeping with the date on the outside portal, 1270/1853. Stylistically, the original *nashī* inscription is similar to that in the tomb of 'Alī Ṣafī, with a rather confused foliate scroll intermingling with the letters on the same plane. Colour may have been used to distinguish the letters of the inscription from the flowering scroll and the background, but any such distinctions have unfortunately been obliterated by the addition of a recent coat of whitewash.

c) *Madrasa al-Ghiyāṭiyya*, Qum. 830/1426-7.

Only the double minaret portal of this building remains. Prior to the reading of the date on the inscription of one of the minarets <sup>(7)</sup> a fourteenth century date had plausibly been attributed to the structure on the grounds of its sparse tile decoration <sup>(8)</sup>: small light-blue squares set into the body of the minaret and rectangular glazed tiles with white letters raised above a blue ground for the inscription. The fragments of stucco

<sup>(1)</sup> *Turbat-i Pākān* II, p. 75.

<sup>(2)</sup> *Ibid.*, p. 74.

<sup>(3)</sup> *Ibid.*, p. 51.

<sup>(4)</sup> From her *laqabs* Ṭabāṭabā'ī infers that she was a member of the family of 'Alī Ṣafī who built

the first monument on our list : «Ḥānadān», p. 62.

<sup>(5)</sup> Ṭabāṭabā'ī, *Turbat-i Pākān* II, p. 74.

<sup>(6)</sup> *Ibid.*, Pl. 121.

<sup>(7)</sup> *Ibid.*, p. 129.

<sup>(8)</sup> Wilber, *AII*, p. 167.

decoration that remain are similarly archaic. On the soffit of the portal arch is a band of square Kufic containing the names *Muḥammad* and *‘Alī* (Pl. III *a*). Square Kufic was also used for one of the niches on the portal screen, and inside the niche on the opposite side are the remains of an incised imitation brick pattern with four-petalled rosettes and lightly incised lines further dividing the field into squares (Pl. I *b*). This distinctive pattern is one we will meet with in other members of this group. Further down the portal screen, now partly concealed by a telegraph pole, the rectangular frame of the niche displays the remains of a *nashī* inscription framed by a frieze of large leaves.

d) *Imāmzāda Ḥusayn Riḍā*, Varāmīn. 841/437<sup>(1)</sup>.

The stucco decoration is confined here to the *tuluṭ* inscription, where the complete absence of vegetal background reflects the increasing poverty of execution, and to the very simple framing bands of the squinches and intermediate arches. Both in terms of structure and decoration, the building is derived from prototypes in Qum, and given the already archaic character of the buildings it was imitating one should perhaps not be surprised at the decline in quality manifest here.

e) *Madrasa Du Dar*, Mašhad. 843/1439-40.

This structure merits a full publication<sup>(2)</sup>, but for the purposes of this article only its main features, apart from the stucco decoration, need be succinctly described. It is situated near the Shrine of Imām Riḍā, to the west side of the main bazar route which until recently lead from the *ṣaḥn-i ‘atiq* towards the Masḡid-i Šāh. Although it is marked on several plans of the Shrine complex<sup>(3)</sup>, its plan is quite different from those published. It is a four *ayvān* courtyard structure, with living chambers in two storeys between the *ayvāns*. In three of the four corners of the building are dome chambers, in the fourth a vaulted hall. Two *ayvāns* originally opened into the *madrasa* from the middle of the NE and SE sides (hence its popular name of « two doors »). That on the SE, leading from

<sup>(1)</sup> B. O’Kane, « The Imāmzāda Ḥusayn Riḍā at Varāmīn », *Iran* XVI (1978), pp. 175-7.

<sup>(2)</sup> More detailed consideration is given in B. O’Kane, *Timurid Architecture in Khurasan*, (forthcoming).

<sup>(3)</sup> C.E. Yate, *Khurasan and Sistan* (London 1900), p. 332; *Survey*, Fig. 424, both based on that published in Ṣanī’ al-Dawla (I’timād al-Sultāna), *Maḡla’ al-Šams* (Tehran 1302/1884), vol. II.

the bazar to a flat-domed vestibule, was the principle entrance. A shallow *ayvān* further to the south also led from the bazar directly to the domed tomb chamber of the founder, Ghiyāṭ al-Dīn Yūsuf Ḥvāḡa, whose name is mentioned both on the gravestone within the tomb chamber and on the mosaic-faience foundation inscription of the exterior SE *ayvān* <sup>(1)</sup>.

The extensive stucco decoration covers the four courtyard *ayvāns* and the facades of the cells in between, the vestibule leading to the SE exterior *ayvān* and the rear of the other two exterior *ayvāns*. At first sight the archaic character of the stucco might give grounds for wondering whether the foundation inscription was added to a fourteenth century building, but its date, 843, is repeated in stucco in one of the series of fine *tuluṭ* inscriptions which are found in three of the *ayvāns* (Pl. III c). As with contemporary mosaic-faience inscriptions, the upper third of the field is taken up with *al-mulḡ lillāh* in Kufic.

The most frequently used pattern type is one of imitation brickwork with brick plugs, arranged in a variety of ways. One of these patterns, found on all the living cells <sup>(2)</sup> and on the side walls of the vestibule, corresponds exactly to one found on the Madrasa al-Ghiyāṭiyya in Qum (Pl. I a). While the combination of imitation brickwork and *tuluṭ* inscriptions found in the *ayvāns* is attractive, the flat-domed vestibule, while suspect on purely structural terms, provides the most original decoration of the monument with an arrangement of facets and tiers for the display of a varied range of patterns, culminating in an octagonal panel of moulded stucco (Pl. I a).

One most interesting feature is the preservation on one of the upper-storey courtyard facades of the setting-out of a pattern in stucco, in two squares side by side (Pl. III d). In one the main lines of the pattern are traced out, forming a star pattern, and in the other the field on both sides of these lines is expanded to make the pattern one of interlacing strapwork. The resulting octagonal star pattern was used at the back of the courtyard *ayvān* leading to the principal entrance.

One other distinctive pattern should be mentioned, since it occurs in two other monuments in this group, the Madrasa al-Ghiyāṭiyya and the Šāhzāda Zayd in Qum. The soffits of the courtyard *ayvāns* have bands with a repeated pattern of square Kufic, ending on both sides with a star pattern set within a square frame. The positioning of these bands on the edge of the *ayvāns* enables the slanting sunlight to block out the square Kufic in dynamic contrasts of light and shade (Pl. II b) — an effect reminiscent of Salḡuq brickwork, but one which was lost with the emerging popularity of tilework.

<sup>(1)</sup> Šani' al-Dawla, *op. cit.*, pp. 255-7.

<sup>(2)</sup> Traces of red paint were found on these

when later plaster was removed in the course of restoration.

f) *Masğid-i Ğāmi'*, Varāmīn. 845/1441-2 <sup>(1)</sup>.

Two rectangular stucco panels on the back of the sanctuary *ayvān* record the completion (*qad tamma*) of the *Masğid-i Ğāmi'* in the reign of Šāh Ruḥ by the vizir Yūsuf Ḥvāğa <sup>(2)</sup>. The last line of the second panel reads « in the month of Muḥarram year 845 (in figures) ». Other readings have been proposed, but a comparison with the figure four in the contemporary inscription at Turbat-i Ğām <sup>(3)</sup> shows that Herzfeld's reading <sup>(4)</sup> is undoubtedly correct. The inscriptions of both panels are set amidst a very loosely spiralling foliated scroll, with a framing band composed essentially of triangles.

What other work in the mosque, if any, should be ascribed to the same period? The most obvious candidate is the shallow blind niche to the right of the panel with Šāh Ruḥ's name, where beneath the simulated brick bonding with plaster brick plugs in the form of *Allāh*, 'Alī and four-petalled rosettes (Pl. I c), a pattern of interlacing terracotta strap-work can be discerned, one which is identical to the panel symmetrically opposite where no attempt was made to hide the original design. It may be noted that the simulated brick bonding corresponds exactly to those found on the Madrasa al-Ghiyāṭiyya and the Madrasa Du Dar (Pls. I b-c). The spandrels of these panels (Pl. I c), with a design of parallelograms and six-petalled rosettes, and the border surrounding the whole panel, are also probably Yūsuf Ḥvāğa's work, and again correspond with patterns found in the Madrasa Du Dar <sup>(5)</sup>. These panels probably constituted the sum total of Timurid work in the mosque. Despite Kratchkovskaya's earlier analysis, however, later studies have suggested that since the main *mihṛāb* covers elaborate brickwork, it might also be Timurid <sup>(6)</sup>. Nevertheless, no parallels in fifteenth century stucco are to be found for the deep undercutting, the use of five or more planes of decoration and the large protruding vegetal forms of the tympanum and cavetto moulding. The analogues are all with earlier stucco,

<sup>(1)</sup> Wilber, *AII*, pp. 158-9.

<sup>(2)</sup> V.A. Kratchkovskaya, « Notices sur les Inscriptions de la Mosquée Djoūma'a à Véramine », *Revue des Etudes Islamiques* V (1931), pp. 50-1, fig. 17. The words after the name of Yūsuf Ḥvāğa which Kratchkovskaya failed to read are *muta'ammir 'ammat mu'adalatuhu* « ... the powerful, may his justice be widespread ».

<sup>(3)</sup> B. O'Kane, « Tāybād, Turbat-i Jām and Timurid Vaulting », *Iran* XVII (1979), Pl. VIII a.

<sup>(4)</sup> E. Herzfeld, « Damascus, Studies in Archi-

itecture IV », *Ars Islamica* XIII-XIV (1948), p. 137.

<sup>(5)</sup> Although the pattern of parallelograms and six-petalled rosettes was very much part of the standard repertory of Salğūq and Mongol stucco borders. Examples are found in the Ḥaydāriyya, Qazvin (*Survey*, Fig. 47 c), a panel in the Boston Museum of Fine Arts (*ibid.* Pl. 474 e), in Baṣṭām (*ibid.* Pl. 474 d) and in the Imāmzāda Yaḥyā in Varāmīn (*ibid.*, Pl. 532 b).

<sup>(6)</sup> Pope, *Persian Architecture*, p. 156; Wilber, *AII*, p. 159.

e.g. at Pīr-i Bakrān, the Gunbad-i 'Alaviyyān or the Ḥaydariyya at Qazvīn. The latter monument shows evidence of changes of plan in the course of decoration, and this, rather than a Timurid reworking, is a more plausible explanation<sup>(1)</sup> for the concealment of elaborate brick bond by the Varāmīn *mihrāb*.

g) *Šāhzāda Zayd*, Qum. 847/1443-4 (Fig. 1)<sup>(2)</sup>.

This, and the tomb of Mūsā-i Mubārqa' (h in the present series), stand on opposite sides of a large square in the SE of Qum, a few hundred metres to the east of the double minaret portal of the Madrasa al-Ghiyāṭiyya. A third mausoleum, known as the Čihil Aḥtarān, also faces on to the square, which was created around 65 years ago by enlarging two smaller courtyards in the area<sup>(3)</sup>.

Only the tympanum and soffit of the main entrance portal of the Šāhzāda Zayd display Timurid work. The mausoleum was repaired in 979/1571-2 and again at a later unspecified date, but the interior is now in a bad state of disrepair as the roof collapsed in 1352/1973-4<sup>(4)</sup>. Despite the vicissitudes of the mausoleum itself the stucco of the portal has been preserved in the vivid crispness with which it was executed<sup>(5)</sup>. The foundation inscription in the tympanum is in five lines of *tuluṭ* on a leafy scrolling background, although both letters and scroll are on the same level, raised only 12 mm. above the background plane (Pl. III b). After a *ḥadiṭ* on the merits of pilgrimage to descendents of the prophet, the inscription states that the building (*binā'*), which is the grave (*maḍḡa'*) of Zayd b. 'Alī, a great grandson of 'Alī the first *imām*, was erected by the great judge Ḥvāḡa Bahā al-Dīn Hibbatallāh al-Qumī in 847. The soffit of the arch has repeated patterns of *Muḥammad* and 'Alī in square Kufic, slightly deeper cut (20 mm.) than the foundation inscription. This ends on each side in a square panel with six large blossoms in a dodecafoil (Pls. II c-d). The differences between these two panels, with one showing a slightly more extended version of the same pattern, suggests that the design may have been copied freehand, rather than being traced from a pattern book. The close resemblance of the soffit decoration here to those of the Madrasa Du Dar (Pl. III c) and the Madrasa al-Ghiyāṭiyya (Pl. III a) may again be pointed out.

<sup>(1)</sup> I would like to thank Robert Hillenbrand for suggesting this to me.

<sup>(2)</sup> Mudarrisi Ṭabāṭabā'i, *Qum dar Qarn-i Nuhum Ḥiḡri* (Qum 1350/1971), pp. 279-80; idem, *Turbat-i Pākān II*, pp. 76-8.

<sup>(3)</sup> *Idem*, *Turbat-i Pākān II*, p. 76.

<sup>(4)</sup> *Ibid.*, pp. 77-8.

<sup>(5)</sup> Part of the stucco has recently been repainted in red and orange.

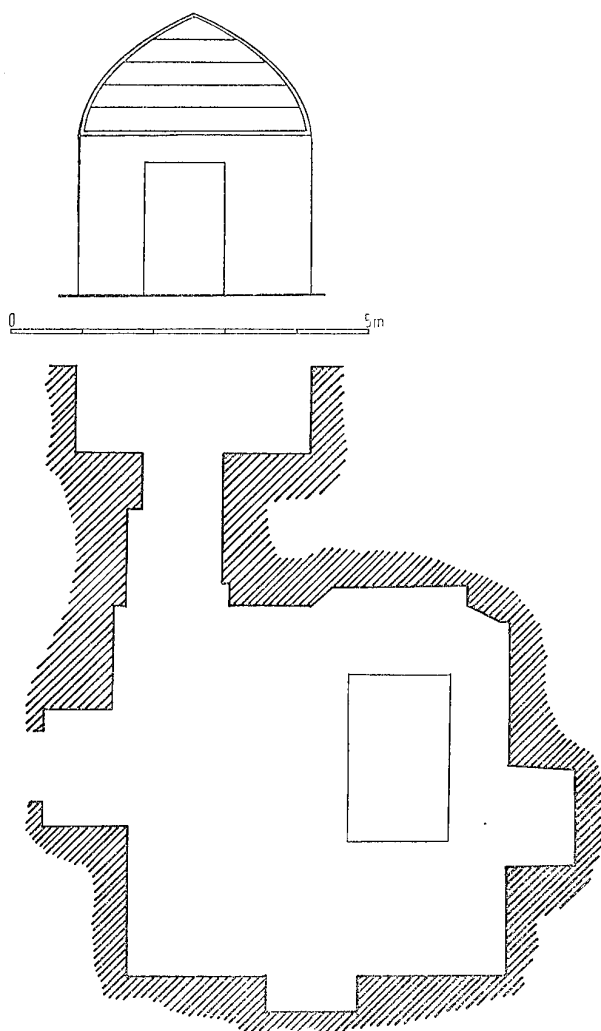


Fig. 1. — Qum, Šāhzāda Zayd, ground plan and elevation of portal.

h) *Mūsā-i Mubārqa'*, Qum. 851/1437-8 (Fig. 2)<sup>(1)</sup>.

Only the entrance corridor to this tomb has remains of stucco decoration. This consists of three niches with a *ḥadiṭ* in *nashī* running above them (Pl. IV a). Their decoration was apparently similar to that of another nearby niche and inscription dated 851, but the

<sup>(1)</sup> Ṭabāṭabā'i, *Turbat-i Pākān* II, pp. 78-81.

latter were destroyed in the course of restoration in 1335/1916-7<sup>(1)</sup>. What remains has unfortunately been overlaid with whitewash and unpleasant green and orange paint, but the patterns can still be clearly discerned. The spandrels and borders of each of the three

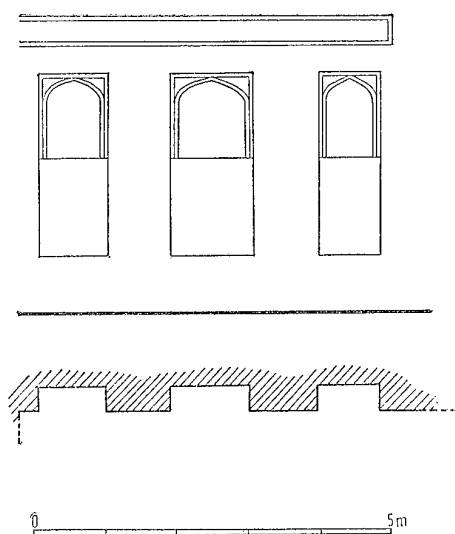


Fig. 2. — Qum, Mūsā-i Mubārqa', plan and elevation of side wall of entrance corridor.

niches are filled with simple patterns in two planes (Pl. V c), but those of the tympana are more elaborate, consisting of vertical climbing arabesques in as many as four planes. This complexity is echoed in the inscription above, where the script is raised on a back-ground of large fantastic leaves and blossoms on a spiral stem, the whole likewise consisting of up to four planes. This complexity obviously sets the stucco of Mūsā-i Mubārqa' apart from our earlier Timurid examples, it being closer to fourteenth century examples such as that from the Mosque of Turbat-i Ğām. However, it would be dangerous to insist therefore that the date of 851 in the now vanished inscription merely referred to a repair of Mongol work. The very shallow separation of the different

planes, the overcrowding of the tympana with very large blossoms, and in particular the perfectly flat profile of the leaves and palmettes produce an impression of enfeeblement, despite the business of the design, which would accord well with a fifteenth century reworking of more vigorous prototypes.

i) *Masġid-i Ğāmi'*, Herat. 903-5/1497-9.

The restoration of this building by Mīr 'Alī Šīr was mainly concerned with the addition of mosaic-faience revetments to the courtyard and to some of the entrances. The three walls of the south *ayvān*, however, still bear extensive remains of a Qur'ānic stucco inscription band<sup>(2)</sup>. The main script in *ṭuluṭ* is set against a floriated stem background, with

(1) Ṭabāṭabā'i, *Turbat-i Pākān* II, p. 80.

(2) Illustrated in O. Niedermayer, *Afghanistan* (Leipzig 1924), Pl. 151. The inscription and its

contents are also discussed in T. Allen, *A Catalogue of the Toponyms and Monuments of Timurid Herat* (Cambridge, 1981), pp. 108-9.

the top third of the panel occupied by *al-mulk lillāh* repeated in Kufic. The layout is thus very similar to those of the Madrasa Du Dar. Like that building, the Herat Masġid-i Ğāmi' may also have had stucco inscriptions in each of its *ayvāns* around the courtyard.

Before leaving this group one might like to consider its uneven geographical distribution, with five monuments in Qum, two in Varāmīn and one in Mašhad and Herat. It may be remembered that in two of the monuments, the Varāmīn Ğāmi' and the Madrasa Du Dar, the same person, Ghiyāṭ al-Dīn Yūsuf Ḥvāġa, was responsible for the stucco decoration. When the historical information about him is collated, however, a great deal of it goes to show that he and his family had longstanding connections with the other main town where stucco in this group is found, that of Qum.

One of the earliest references to him is in 811 H., when he was active at the head of an army unit in the siege of Faraḥ<sup>(1)</sup>. Then in 817 H. he was made commander of the fortress of Qum<sup>(2)</sup>. Next year his brother Ilyās Ḥvāġa was made governor of the central provinces of Rayy, Sulṭāniyya, Kāšān and Qum (roughly corresponding to 'Irāq'ī 'Aġam), a position which he retained at least until 832 H.<sup>(3)</sup>, and probably until his death in 838 H.<sup>(4)</sup>. Qum was clearly the seat of his residence at this time, as his house *ḥāna-yi Ilyās Ḥvāġa* was used later in the century to accommodate Uzūn Ḥasan when he passed through Qum<sup>(5)</sup>. After Ilyās Ḥvāġa's death Yūsuf Ḥvāġa was appointed governor in his place<sup>(6)</sup> and apparently kept the position until his death in 846 H., since it is only then that we read of another appointment to this position<sup>(7)</sup>. That Yūsuf Ḥvāġa resided at Qum is made all the more likely by a later reference to his son Darviš 'Alī Mīrak, who commanded no sympathy with the inhabitants of Qum, even though he was born and raised there<sup>(8)</sup>. Further

(1) 'Abd al-Razzāq Samarqandī, *Maṭla'-i Sa'dayn* ed. M. Šafi' (Lahore 1383/1963), p. 73. One should not confuse Yūsuf Ḥvāġa with Ḥvāġa Yūsuf, one of Timūr's amirs. The latter was put to death by Sulṭān Ḥusayn Mīrzā in 808 H. : *ibid.*, p. 31.

(2) *Ibid.* (Lahore 1368/1949), p. 267. The name is given as Amīr Yūsuf Ḥāġġi, evidently a *lapsus calami*.

(3) Zāhīr al-Dīn Mar'aši, *Tārīḥ-i Gilān va Daylamistān*, ed. Manūčihr Sutūda (Tehran 1348/1969), pp. 148-9.

(4) Ṭabāṭabā'i, *Qum dar Qarn-i Nuhum Ḥiġri*, p. 154.

(5) *Ibid.*, pp. 43-4, Abū Bakr Ṭirhānī, *Kitābi-Diyārbakriyya*, ed. N. Lugal and F. Sümer (Tehran 1356/1977), p. 529.

(6) Samarqandī, *Maṭla'-i Sa'dayn* (1368/1949), p. 601.

(7) That of Sulṭān Muḥammad Bahādur, grandson of Šāh Ruḥ. Aḥmad b. Ḥusain b. 'Alī Kātib, *Tārīḥ-i Ğadīd-i Yazd*, ed. Īraġ Afšār (Tehran 1345/1966), pp. 229-30.

(8) *Bā ānki mawlid va našā'-i ū bād*, Samarqandī, *Maṭla'-i Sa'dayn* (1368/1949), p. 1038; Ṭabāṭabā'i, *Qum dar Qarn-i Nuhum Ḥiġri*, p. 232. I would like to thank Ḥusayn Mudarrisī Ṭabāṭabā'i for

evidence of Yūsuf Ḥvāḡa's interest in the city is provided by a *waqf* now in the library of the Shrine at Qum which bequeaths part of a Qur'ān in a hexagonal box to the old Friday Mosque of Qum <sup>(1)</sup>.

Given the very strong stylistic similarities of the stucco work of the Timurid monuments of Qum and that of the Madrasa Du Dar and Varāmīn Ğāmi', for which Yūsuf Ḥvāḡa was responsible, it is reasonable to assume that he used workmen from Qum for each of these projects. The tradition of stucco of this type was clearly one which had survived intact in Qum into the fifteenth century, many more examples being found there than in any other centre. As governor of Qum Yūsuf Ḥvāḡa would clearly have had the resources to transport artisans to Mašhad for his *madrassa* or to Varāmīn.

At this stage it may be asked why was it especially in Qum that this style of stucco survived? An answer may lie in Qum's isolation from the ruling dynasties of the fourteenth and fifteenth centuries. Geographically it was in an area which was almost equally remote from the capitals of the Muẓaffarids, the Ğālāyirids, the Timurids and Qara Qoyunlu. One can also detect a political isolation. Most of the many mausoleums with fine stucco decoration in Qum dating from the fourteenth century were erected by members of a local patrician family, that of 'Alī Ṣafī <sup>(2)</sup>. None of the inscriptions on those buildings, like those in the present group, acknowledge the sovereignty of the reigning *sulṭān*. Perhaps this isolationism is reflected in a greater dependence on local traditions of decoration, such as stucco.

The decoration of the second group of monuments with type one stucco is less homogeneous than the first. They are examples of a provincial style in which several buildings can be paired together.

j) and k) *Ziyārat-i Timūr Lang; Buq'a of Ulyā Šādmīn*.

Both are situated in NE Ḥurāsān, the former 6 km. NW of Šīrvān, the latter about 3 km. from Nawkhandān in the Darragaz valley. Both buildings very likely date from the

bringing many of the above notices of Yūsuf Ḥvāḡa's relationship with Qum to my attention in a letter dated 15/2/1976.

<sup>(1)</sup> Ṭabāṭabā'i, *Turbat-i Pākān* II, pp. 118-9.

<sup>(2)</sup> On the family and the six mausoleums in and around Qum which they erected see Mudarrisi

Ṭabāṭabā'i, «Ḥānadān-i 'Alī Ṣafī, šahyārānī-yi kamnām» *Barrasihā-yi Tāriḡi* VIII/1, pp. 15-39, VIII/4, pp. 27-68; idem, «'Āšnā'i bā ustādi-yi buzurġ dar gač-buri-yi Īrān : 'Alī b. Muḡammad b. Abū Šujā' bannā», *Hunar va Mardum* no. 132 (1352/1973), pp. 36-47.

second quarter of the fifteenth century A.D. <sup>(1)</sup>. In the former monument stucco decoration is confined to the zone of transition, with an octagonal inscription band and a narrower leaf and floral frieze below (Pl. V a). The inscription is in low relief with flat-surfaced letters and does not have any background. It is frequently divided into two tiers by the turning back of the tail of a final letter, and one particular feature, a knotted interlace of the tail of a *yā'*, is repeated identically in the Ulyā Šādmīn inscription (Pl. IV c). The latter does have a floriated spiral background, but the shapes and disposition of the letters, as well as the knotted interlace, make it clear that it is the work of the same craftsman. However, the overall rigidity of the inscriptions in both buildings, especially in comparison with contemporary examples in mosaic-faïence, is again an indication of the lack of vigour produced by work in a medium which had largely gone out of fashion by this time.

l) and m) *Friday Mosques of Rušhvār and Ḥvāf.*

Each of these mosques contains a dome chamber, the design and decoration of which was again almost certainly due to one craftsman or team of craftsmen. That of Rušhvār is dated 849/1454-5 (Pl. V b), while that of Ḥvāf may be slightly later (Pl. IV d) <sup>(2)</sup>. The dated inscription at Rušhvār is in stucco and goes round the dome chamber just below the zone of transition. This feature is not present at Ḥvāf. The inscription is in *nashī*, with a smaller Kufic above it. Like that of Ziyārat-i Timūr Lang, the background is undecorated, although there is an attempt at some variety by raising a few letters above the base line. Other decoration of type one is confined to the zone of transition, where in both dome chambers the soffits and spandrels of the arches have identical motifs of small squares arranged in a lozenge pattern.

n) *Mazār-i Sipahsālār, Jūhvāh* <sup>(3)</sup>.

This dome chamber, which has much in common with the previous pair, can be tentatively assigned to the second half of the fifteenth century. The stucco decoration here is very sparse, with a squinch-net of type two and examples of type one in a star pattern on the soffits of the zone of transition arches.

<sup>(1)</sup> The dating is discussed more fully in O'Kane, *Timurid Architecture in Khurasan*. A conflicting interpretation is given in Wilber, *III*, p. 131.

<sup>(2)</sup> See n. 1. Rušhvār is illustrated in E. Diez, *Churasanische Baudenkmäler* (Berlin 1918), Pl. 22/3.

<sup>(3)</sup> The monument is located c. 40 km. NW of Ṭabas, on the main road to Yazd. See R. Hillenbrand, «Islamic Monuments in Northern Iran», *Iran VIII* (1970), p. 205, Pl. V.

o) *Masğid-i Ma'sūma*, Kūhpāya. Ša'bān 841 / January-February 1438.

This monument, while its stucco is of type one, cannot be associated with any of the others. It is located not far from the Friday Mosque of Kūhpāya, a town situated roughly halfway between Işfahān and Nā'in.

This small neighbourhood mosque consists basically of a large domed room with a mosaic-faience *mihrāb* in the centre of the *qibla* wall, and a niche with stucco decoration to its left <sup>(1)</sup>. Two lines of *nashī* at the rear of the niche give Qur'ān CXII/1-4, followed by a line which is partially damaged but in which the month Ša'bān and the year 841 (in letters) can be made out. The background of the first line is plain, but punched and striated leaves are found within a rectangular frame enclosing the last two lines (Pl. IV *b*). Part of an arabesque interlace can be seen below this; unfortunately the lower section of the niche was obscured by old Qur'ān leaves at the time of my visit. At the side are two arabesque panels, symmetrical vertically and probably also horizontally (Pl. V *d*). Only two planes are used on these, but there is an attempt to compensate for this by punching part of the ground and the flowers with spoked hexagons. Despite the simplicity of technique the graceful composition is most attractive, with a large lotus blossom at the top echoing those in the four central medallions.

p) *Buq'a-yi Pīr-i Ğārsūz*, Bardsīr.

Preliminary accounts of this monument assign it a fourteenth century date <sup>(2)</sup>. Its zone of transition, however, with four stalactite squinches and a squinch-net above (Pls. VII *d*, IX *b*), is similar to fifteenth century examples such as the *Ziyārat-i Timūr Lang* mentioned above or the *Masğid-i Šāh* at Mašhad. Admittedly, acceptance of a fifteenth century date involves interpreting the polylobed arches on the lower panels as archaic (Pl. VII *d*), but this may be preferable to advancing the date of the vaults.

The panels with polylobed arches have large arabesques topped by a trefoil, and more type one stucco is to be found on the soffit of one of the four main lower arches, where the arabesques are interlaced to form a series of octofoils (Pl. X *a*).

<sup>(1)</sup> Indicated in the plan published by M. Siroux, « Kouh-Payeh : la mosquée djum'a et quelques monuments du bourg et de ses environs », *Annales Islamologiques* VI (1966), Pl. XV.

<sup>(2)</sup> *Survey*, p. 1254; Nuşratallāh Mişkūti, *Fihrist-i Bināhā-yi Tāriḫi va Amākin-i Bāstāni-yi Irān* (Tehran 1349/1970), pp. 152-3, assigns it a thirteenth century date.

Another of these soffits has quite a different pattern : raised hexagons with octagonal stars formed on the background (Pl. VII *d*). This type of design, where broad areas of stucco are recessed to form a radiating star pattern, occurs on a number of contemporary monuments in Khurasan. Although in each case this pattern is found in vaulted areas, it is preferable to view them as a sub-group of type one rather than type two (simulated vaulting), since there is not even a pretence that the pattern performs any structural role.

q) *Madrassa of Tūmān Āghā*, Kūhsān. 844/1440-1 <sup>(1)</sup>.

At the summit of the four axial niches of the main dome chamber is an octagonal panel with sunken hexagons leading to eight-sided stars.

r) *Madrassa al-Ghiyāṭiyya*, Khargird. 844-6/1440-3.

A more complicated pattern with a dominant twelve-sided star is used in eight panels from the zone of transition of the lecture-hall <sup>(2)</sup>.

s) *Masḡid-i Hauḍ-i Karbās*, Ġalvār. 845/1441-2 <sup>(3)</sup>.

Only a small portion now remains on the soffit of a transverse arch of this small winter mosque of a pattern of pentagons and five- and ten-pointed stars (Pl. VII *b*). The effect is slightly different from the two previous examples, since the raised areas merely consist not of geometric figures themselves but of angular interlacing bands which delineate the pattern. It does show clearly that the derivation of this group is from inset-technique where tiles or mosaic-faïence are surrounded by raised strips or plaques of brick or other materials. More surprising is the sudden emergence of this technique and its almost equally sudden disappearance <sup>(4)</sup>.

<sup>(1)</sup> See G.A. Pugachenkova, « Les monuments peu connus de l'architecture médiévale de l'Afghanistan », *Afghanistan* XX/1 (1968), pp. 27-41.

<sup>(2)</sup> Illustrated in S. and H. Seherr-Thoss, *Design and Color in Islamic Architecture* (Washington 1968), Pl. 73; B. O'Kane, « The Madrasa al-Ghiyāṭiyya at Khargird », *Iran* XIV (1976), Pls. III a, IV a.

<sup>(3)</sup> See G.A. Pugachenkova, « A l'étude des

monuments timourides d'Afghanistan », *Afghanistan* XXIII/3 (1970), pp. 28-31.

<sup>(4)</sup> According to Pugachenkova the technique also occurs in the mosque at Anau, and in two sixteenth century Transoxianian monuments : the Ḥānqāh of Fā'iddābād in Bukhara and the mausoleum of Langar-ata at Langar. Pugachenkova, « A l'étude ... », p. 30.

The zig-zag moulding of prismatic triangles which occurs in the context of vaulting may also be mentioned here, although it would be pointless to enumerate its frequent use <sup>(1)</sup>. The angled facets of its surface make it prominent in any lighting conditions, and thus a perfect way of visually outlining a structural or decorative highlight without the need to have recourse to painting.

#### Type 2) SIMULATED VAULTING.

The use of plaster stalactite shells in zones of transition was well established in the Mongol period, the most striking example being perhaps the tomb of 'Abd al-Šamad at Naṭanz <sup>(2)</sup>. The gradual transition of stalactite systems from corbelled to suspended has been outlined by Wilber <sup>(3)</sup>, and while early examples of the suspended type are mostly of brick, by the beginning of the Timurid period these were largely replaced by plaster. Early examples are found, to name just a few, in the tomb of Šīrīn Bika Aqā in the Šāh-i Zinda, the Shrine of Ḥvāḡa Aḥmad Yassavī, the tomb of Ğihāngīr at Šahr-i Sabz and the mausoleum of Bībī Ḥānum in Samarquand. They occur so frequently from the fifteenth century onwards that it would be pointless to extend the list any further, but we can consider some forms which these shells assumed and the ways in which they were arranged differently from examples in the preceding century.

Noticeable in all the examples referred to above is the great reduction in size of the stalactite cells. This led to a problem which arguably remained unsolved in some cases : how to prevent the ensuing array of innumerable small units from merging into a visually incoherent amorphous mass.

A number of solutions were adopted. The most common was to arrange the cells in a series of vertical furrows. The idea had been carried out in brick and tile earlier in Iran <sup>(4)</sup> and the stone portals of thirteenth and fourteenth century Anatolia provide close parallels <sup>(5)</sup>. An early version in stucco can be seen in the dome of the mausoleum in the Shrine of

<sup>(1)</sup> See O'Kane, « Täybād », Fig. 9.

<sup>(2)</sup> For other examples see the Rukniyya in Yazd, Wilber, *AII*, Pl. 142 and the Masġid-i Kirmānī at Turbat-i Ğām, A. Godard, « Les Berceaux », *Athār-é Irān* IV (1949), Fig. 291.

<sup>(3)</sup> *AII*, pp. 73-4.

<sup>(4)</sup> In the madrasa attached to the Işfahān Ğāmi' : see L. Golombek, *The Timurid Shrine at*

*Gazur Gah* (Toronto 1969), Fig. 145.

<sup>(5)</sup> D. Hill and O. Grabar, *Islamic Architecture and its Decoration* (London 1967), Fig. 487 (Karataş Han); A. Ödekan, *Osmanlı Öncesi Anadolu Türk Mimarisinde Mukarnaslı Portal Örtüleri* (Istanbul 1977), p. 263 (Ḥātūniyya Madrasa, Karaman).

Šaikh Aḥmad Yassavī<sup>(1)</sup>, and more extreme examples, where the furrows stretch almost the whole height of the numerous tiers, are found at Gāzur Gāh<sup>(2)</sup>, Ḥargird<sup>(3)</sup>, and in a particularly striking example in the Gunbad-i Ḥišṭī in Mašhad<sup>(4)</sup> (Pl. VI *b*).

An alternative method was to break up the zone of transition by means of ribs<sup>(5)</sup> or by a squinch-net<sup>(6)</sup>, so that stalactite compositions at different levels could occupy the resulting compartments.

With the bravura composition of the Gunbad-i Ḥišṭī, one might have expected further development in the second half of the fifteenth century to approach the seemingly effortless dissolution of weight achieved in the stalactite domes of the Alhambra. However, the expression of this idea in the late Timurid and Safavid era was more often an increasingly elaborate squinch-net rather than a stalactite dome, the mausoleum at Turbat-i Ḥaydariyya providing a superb example (Pl. VI *a*). Perhaps after such supernal achievements as the stalactite domes of Ḥargird the architects realised that, as with the domes of the Alhambra, they had come to « the end of a historical development » and reached « despite all its perfection, a formal dead end »<sup>(7)</sup>.

The preference for squinch-nets, however, also gave the plasterer an opportunity to display his skill, for in the second half of the fifteenth century these were composed not of brick as was the case previously, but by covering a simple corbelled vault with *kāhgil* (mud-straw mixture) moulded into the rhomboidal faceting of the squinch-net, plus a final layer of white plaster<sup>(8)</sup> (Pl. VI *c*). In cases where the outer layer of plaster is still intact, however, one should be aware that it can be very difficult to tell whether it is supported by a brick or plaster substructure. For instance, only from an old photograph of the New Mosque at Turbat-i Ğām<sup>(9)</sup> can one realise that beneath the newly painted plaster the brickwork accurately reflects the faceting above.

### Type 3) FLAT STUCCO.

The gradual decline in decorative brickwork from the fourteenth century onwards is a corollary of the increasing interest and expertise in tilework<sup>(10)</sup>. As tilework was

(1) G. Pugachenkova, *Zodchestvo Tsentral'noi Azii. XV vek* (Tashkent 1976), p. 23.

(2) Golombek, *Gazur Gah*, Figs. 17-24.

(3) O'Kane, « Madrasa al-Ghiyāšiyā », Pl. VII *a*.

(4) See n. 1, p. 73.

(5) E.g. the Mausoleum of Gawhar Šād, Herat and the Ḥargird *madrasa*.

(6) E.g. the Madrasa of Tūmān Āghā, Kūhsān

and the Mušallā-yi 'Atiq, Yazd.

(7) O. Grabar, *The Alhambra* (London 1978), p. 182.

(8) Examples are discussed in Golombek, *Gazur Gah*, pp. 63-4.

(9) O'Kane, « Tāybād », Pl. VI *a*.

(10) See Hillenbrand, « Use of Glazed Tilework », *passim*.

usually reserved for exterior revetment, however, it was plaster which was employed to conceal the deficiencies of interior brick walls. A *kāhgil* undercoat up to 2 cm. thick was usually applied first, then one or more layers of thinner plaster, often painted white.

Two monuments show a novel use of this double coating : an outer layer of red plaster is scraped away to reveal a white undercoat, giving an effect of white paint against a red background. It is used in the Masġid-i Ğāmi' of Rušhvār for the *mihrābs* of the central *ayvān* and dome chamber. A wide variety of effects could be obtained, from the swirling arabesques of the *ayvān mihrāb* (Pl. VII c) to the more delicate ones on the dome chamber *mihrāb*, from the rigid star pattern of the *mihrāb* hood <sup>(1)</sup> to the eccentric *nashī* of the craftsmen's signatures above. In the Ĥānqāh of Mullā Kalān at Ziyāratgāh <sup>(2)</sup> the use is more restrained, being confined to geometric patterns at the back of one of the niches of the central dome chamber (Pl. IX c).

#### Type 4) LOW-RELIEF MOULDED STUCCO.

Although some of the stucco in the previous categories was also moulded, such as the brick plugs and border decoration of the group of monuments in Qum, three characteristics distinguish the stucco of this group :

- 1) it is raised above the ground rather than being incised into it;
- 2) it is in low relief;
- 3) there is a smooth gradual transition from the ground to the raised decoration;
- 4) use of self-contained patterns which could be easily repeated, enabling moulds to be used for most of the surface.

The technique appears fully developed in the Šamsiyya complex in Yazd, where it is used extensively on the sides of the *ayvān* leading to the tomb chamber <sup>(3)</sup>. A similar effect was obtained in painted tear-drop medallions at the base of the dome at Sulṭāniyya (Pl. VII a) by using a combination of various materials as a base for the painted decoration <sup>(4)</sup>, and the raised medallions and arabesques of the interior of the Gūr-i Mir may also be seen as a possible source for the examples described below.

<sup>(1)</sup> Diez, *op. cit.*, Pl. 22/3.

<sup>(2)</sup> On this monument see Pugachenkova, « Les monuments peu connus », pp. 51-2.

<sup>(3)</sup> *Survey*, Pl. 536 c.

<sup>(4)</sup> It has been suggested by J.M. Rogers that the materials are the same as those used for the

interior decoration of the Gūr-i Mir layers of tough silk paper, glue, ochre and gypsum serving as a base for the painting. Review of B. Brentjes, with K. Rührdanz, *Mittelasiens. Kunst des Islam* (Leipzig 1979), *Bibliotheca Orientalis* XXXVII/3-4 (1980), p. 246.

Four examples of this type survive from the fifteenth century although, as will be seen, even within the examples of this group there is diversity both in their style and in the way in which they were employed.

a) *Hānqāh of Šayḥ ʿAlī Binyamān*, Bidāḥavid.

The inscriptions and history of the shrine have been studied in detail by Irağ Afšār, from which it can be deduced that there were three major building campaigns in the fifteenth century : in 1423, 1445 and 1487-8 <sup>(1)</sup>. Before discussing a possible date for the stucco it is necessary to describe it.

To the SE of the mausoleum in the complex is a small rectangular room which is completely covered with stucco above dado level. To either side of the doorway are shelves and small niches with polylobed arches, and filling the tympanum above this was an openwork stucco grille with a star pattern (Pl. VIII c). The arched panels on the two narrower walls also have a star pattern, with eight and twelve-pointed figures predominating (Pl. VIII d). A *nashī* inscription outlines each panel. The room is vaulted by an intricate squinch-net leading to an unusual polygonal dome divided into fourteen dazzling spiralling segments (Pl. VIII a).

Each of the fields described above is decorated with type 4 stucco : the segments of the dome with stems from which rosettes and other more stylized blossoms spring; the rhomboids of the squinch-net with an outer ring of thistle-like blossoms and leaves and

<sup>(1)</sup> a) Rağab 826 / June-July 1423, construction of a *hānqāh* by Amīr Tirmiš, the governor of Yazd, recorded on a wooden foundation inscription (Irağ Afšār, *Yādgārhā-yi Yazd* I (Tehran 1348/1969), pp. 269-70). In Kātīb, *Tārīḥ-i Ğadīd-i Yazd*, p. 167, it is recorded that Amīr Tirmiš built a complex comprising a fine building (*imārat*) above the grave of the šayḥ including a dome chamber, a *ṭanabī*, a mosque and a residence for the poor (sc. Sufis). The meaning of *ṭanabī* is not clear; it occurs several times in Ğaʿfar b. Muḥammad b. Ḥasan Ğaʿfarī, *Tārīḥ-i Yazd*, ed. Irağ Afšār (Tehran 1343/1964) in descriptions of buildings within gardens; in one place the *ṭanabī* is described as being on top of a tall gateway (p. 170). Some

kind of open decorated room is evidently indicated, although in the context of Bidāḥavid it could arguably refer to the small annexe to the domed burial chamber which contains the Type 4 stucco decoration described below.

b) 849/1445-6, the *ḥādīm* of the shrine made various additions including a tall portal, dome chambers, cells and wooden lattice work (*Tārīḥ-i Yazd*, p. 168; *Yādgārhā-yi Yazd*, p. 262).

c) 893/1487-8, a foundation inscription in the mosque adjoining the mausoleum attributes the construction to Zayn al-Dīn Pir ʿAlī on behalf of Sulṭān Yaʿqūb (*Yādgārhā-yi Yazd*, p. 264).

an inner lotus blossom; the polygons of the side walls with confronted arabesques, and the niches and grille around the entrance with different combinations of these elements.

To which date does this stucco belong? Immediate parallels for the style of blossoms are difficult to find, but the polylobed niches call to mind not only those of Safavid Işfahān but also the examples in the *ṭabhane* rooms beside the sanctuary of the Yeşil Cami in Bursa (1419-24 A.D.)<sup>(1)</sup>. This would support a date as early as the first building campaign, and indeed it might be possible that the small room is the *ṭanabī* referred to in the *Tārīkh-i Ğadīd-i Yazd*<sup>(2)</sup>. Until the necessary work is done for a structural history of the shrine one should not exclude the possibility of the two later dates in the fifteenth century when major works were carried out, but certainly a date in the fifteenth century is more than likely.

b) *Buq'a-yi Pīr-i Ğārsūz*, Bardsīr.

The building was mentioned above under type 1.<sup>(3)</sup> Type 4 decoration is confined to a border at the top of the zone of transition and to the series of polygons at the base of the dome. The border has thistlelike blossoms similar to those at Bīdāḡavīd, while the polygons have loosely meandering arabesques on a thin stem (Pl. IX *b*).

c) *Madrasa Du Dar*, Mašhad. 843/1439-40<sup>(4)</sup>.

Type 4 stucco is found only on the stalactite semi-domes of the NW and *qibla ayyāns*, with just the latter being in a fair state of preservation (Pl. VIII *b*). The stalactites are separated into two parts, a vertical square or rectangular unit, and a triangular piece jutting out above. Successive coats of paint have somewhat blurred the outline of the designs stamped on these units, but those in the vertical units resemble a vertically-climbing arabesque with lotus leaves, while a simpler lobed leaf alternating with dots is used for the triangular units. Other triangular fillers in the stalactite composition have a different kind of decoration : a series of incised lines following the outline of the triangle.

<sup>(1)</sup> A. Gabriel, *Une Capitale Turque, Brousse (Bursa)* (Paris 1958), II, Pl. XXIX/1.

<sup>(2)</sup> See n. 1, p. 79.

<sup>(3)</sup> See p. 74 above.

<sup>(4)</sup> See p. 65 above.

d) *garden pavilion*, Afūšta <sup>(1)</sup>.

This captivating little building is known locally as the Ḥānqāh of Sayyid Vāqif, after the figure of that name whose mausoleum, erected in 820/1417-8, dominates a hill overlooking the village. The plan of the structure, however, with four axial *ayvāns* opening into a central dome chamber and small octagonal rooms in the corners, repeated on an upper storey, and the presence of a pool and canal outside one of the *ayvāns*, make a secular function such as a garden kiosk more appropriate. The traces of mosaic-faience and painted decoration which remain are consistent with a date in the second quarter of the fifteenth century, when other building activity was also taking place in Afūšta <sup>(2)</sup>.

The central dome chamber above the mosaic-faience dado is completely decorated in stucco, most of it type 4. It begins with a series of rectangular panels decorated with arabesque medallions in the centre and four similar quarter medallions at the top and bottom in a manner identical to contemporary book-binding <sup>(3)</sup> (Fig. 3). These panels are made in such a way that the design can be repeated *ad infinitum* by the addition of extra units. The panels were obviously cast in a mould with this feature in mind, one similar to that of modern wallpapers, and having the same advantages of reduction of cost and labour. At the base of the squinches are small niches with polylobed arches <sup>(4)</sup>

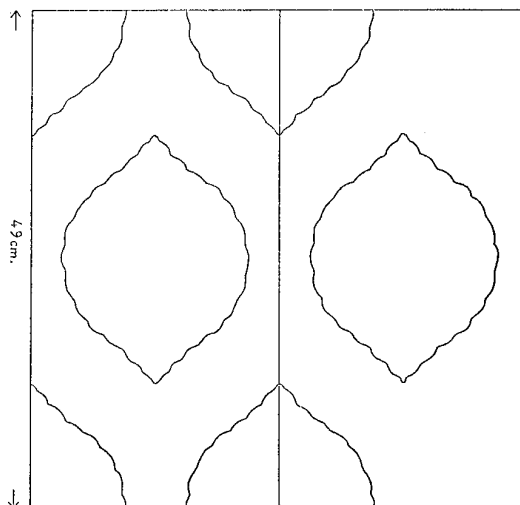


Fig. 3. — Afūšta, pavilion, schema of plaster panels in central dome chamber.

<sup>(1)</sup> M. Ferrante and E. Galdiere, « Architettura persiana poco nota : alcuni monumenti timuridi ad Afushtë, presso Natanz », *Palladio* XXIII (1972), pp. 164-6, Figs. 7-16.

<sup>(2)</sup> The nearby Dār al-Siyāda was finished in Muḥarram 849 / April-May 1445, Ḥasan Narāqi, *Āṭār-i Tāriḫi-yi Šahristānhā-yi Kāšān va Naṭanz*

(Tehran 1348/1969), p. 409.

<sup>(3)</sup> For a similar early fifteenth century book binding, see B. Gray (ed.), *The Arts of the Book in Central Asia* (Paris and London 1979), Fig. 32-3. A sketch of the central medallion is given in Ferrante and Galdiere, *op. cit.*, Fig. 16.

<sup>(4)</sup> Ferrante and Galdiere, *op. cit.*, Fig. 12.

resembling those of Bidāḥavid. Above, a complicated squinch-net leads to a flat twelve-sided dome (Pl. X *b*), and the same technique of prefabricated panels seems to have been used for the units of the squinch-net and the twelve segments of the dome. This enabled the decoration on each segment to be perfectly coordinated : reciprocal trefoils on the inner dome, a geometric interlace further outside consisting of large stars with an interlacing arabesque very like the design on the *ayvān* tiles from Ḥargird <sup>(1)</sup>, and an overall arabesque on the rhomboids of the squinch-net. The structural hazards of using this method are also visible, however : one of the segments of the ceiling had become loose and was hanging precariously below the level of the others <sup>(2)</sup>, and elsewhere deterioration has shown itself first in the joints between the moulded panels <sup>(3)</sup>.

The domes of the small octagonal corner rooms were also constructed with moulded panels, and here again there is the division between geometric interlace on the outer section and an inner arabesque (Pl. IX *a*).

#### Type 5) GRILLED WINDOWS.

In the description of a garden in the *Tārīḥ-i Yazd* <sup>(4)</sup> the author mentions how above a kiosk two interconnected painted belvederes were erected, each belvedere with fine windows of coloured glass <sup>(5)</sup>. Such coloured windows are familiar from Ayyubid buildings in Cairo and Damascus <sup>(6)</sup>, where they are held in place by a stucco lattice forming geometric or arabesque patterns.

Unfortunately no Timurid examples of these have survived intact, but representations in miniatures can at least give us some idea of what they may have looked like. It has been pointed out that the tarnished silver which appears on roundels in interiors was probably intended to simulate glass <sup>(7)</sup>. Windows with a double row of roundels can be

<sup>(1)</sup> Cf. Diez, *op. cit.*, Pl. 34.

<sup>(2)</sup> This has now been restored to its original position under the supervision of the Işfahān office of the Sāzmān-i Milli-yi Ḥifāzat-i Ātār-i Bāstāni-yi Īrān.

<sup>(3)</sup> At the same it must be admitted that the vault is still mostly intact, while other parts of the structure have collapsed. It could also be argued that the flexibility of the separately moulded panels adds resilience to the vault.

<sup>(4)</sup> P. 170 : *dar miyān-i bāḡ şuffa va pişgāh va*

*mawḍa'i-yi vasi' va bar bālā-yi ān du ṭanabī muttaşil yikdigar munaqqash va ḡāmhā-yi laṭif nihāda.*

<sup>(5)</sup> K.A.C. Creswell, *The Muslim Architecture of Egypt II* (Oxford 1959), p. 91.

<sup>(6)</sup> 'A. N. Abbū, *The Ayyubid Domed Buildings of Syria*, unpublished Ph.D. thesis (University of Edinburgh 1974), p. 136.

<sup>(7)</sup> A. Serajuddin, *Architectural Representations in Persian Miniature Painting during the Timurid and Safavid Periods*, unpublished Ph.D. thesis (University of London 1968), p. 81.

seen in several miniatures from the first half of the fifteenth century<sup>(1)</sup>. The roundels could also be used to frame a separate composition of arabesques<sup>(2)</sup>, and the vertical climbing arabesque, so beloved of designers of contemporary mosaic-faience panels, also appears on lattice windows in late fourteenth century miniatures<sup>(3)</sup>. One can assume that numerous variations on these themes were woven into windows throughout the fifteenth century.

CONCLUSIONS. Before moving on to some general considerations it may be as well to point out a potentially deceptive aspect of this article : the relatively short account given of type 3, flat stucco. It should be remembered, however, that this was by far the commonest application of stucco, appearing in interiors of the great majority of all Timurid buildings.

One of the factors noted above was the difficulty of classification of stucco which had characteristics of more than one group. This emphasises one point which can be drawn from this material : that it was in a state of flux, a time of experimentation when profound changes were taking place in the nature of interior decoration.

One of the principal causes of these changes was the new popularity of mosaic-faience. How should the plasterer react to it? Beat it at its own game by making the interior as colourful as possible (type 1/a)? Or by entirely giving up the struggle to compete in colour and substituting a delicacy of which mosaic-faience was rarely capable (type 4/a)? Or again, imitate the new medium by adopting a pre-fabricated modular construction (type 4/e)? The variety of responses underlines that this was a time of trial when new ideas were tried out and almost as quickly dropped. This lack of direction may be compared with the steady progression of tilework throughout the fifteenth century.

It was the use of mosaic faience in *mihrābs* which above all spelled the decline of the old type of high relief stucco. Previously the *mihrāb* was the place where the art of stucco was displayed in its greatest originality and maturity, as the examples in the Ardistān, Varāmin and Iṣfahān Friday Mosques show. Lustre-faience *mihrābs* were never a real threat to the supremacy of stucco because of their expense, but by the 1340's several

<sup>(1)</sup> E.g. D.T. Rice, *Islamic Painting* (Edinburgh 1971), Pl. 41; B. Robinson, *Persian Paintings* (London 1965), Pl. 3; M.M. Ashrafi, *Persian-Tajik Poetry in XIV-XVII Centuries Miniatures* (Dushambe 1974), Pl. 102.

<sup>(2)</sup> Rice, *op. cit.*, Pl. 41; Gray, *Arts of the Book*, Pl. LXVII.

<sup>(3)</sup> B. Gray, *Persian Painting* (Geneva 1961), pp. 38-9.

mosaic-faience *mihrābs* had appeared <sup>(1)</sup> and the ability of the new medium to compete successfully in the place of honour with stucco was firmly established. Two buildings mentioned above, the Pir-i Ğārsūz and the Masġid-i Ma'şūma demonstrate the later importance attached to mosaic-faience, for the only place in which it is used in each building is indeed the *mihrāb* <sup>(2)</sup>.

Most of the experimentation with different kinds of stucco which we have detailed was in central and northeast Iran, with Transoxiana forming a notable exception. It may be remembered that Transoxiana was in the forefront of the development of tilework, and under Ūlūgh Beg it remained the decorative medium which consumed most of the energies of those responsible for decoration. However, the formative role of Transoxiana in the development of type 2, simulated vaulting, should also be remembered.

New approaches to vaulting were another major factor in the change of character of interior decoration <sup>(3)</sup>. With plaster vaults, in contrast to the other types, one can see more signs of a definite progression, for of course it was this type which survived the fifteenth century to become one of the staples of Safavid and Qajar architecture.

We may finish by looking at a last ambitious attempt to carry on the traditions of our types 1 and 4 stucco : the *mihrāb* of the Sāva Masġid-i Ğāmi<sup>c</sup> (922/1516-7) <sup>(4)</sup>. But it is a revealing example : for all its grand scale and virtuosity it cannot avoid a cluttered appearance. The shallowness of relief precludes clarity through the use of different planes as in Mongol stucco, or that which could be obtained by the different, intense colours of mosaic-faience. Only in Qajar architecture, under new cultural influences, did carved stucco undergo a resurgence.

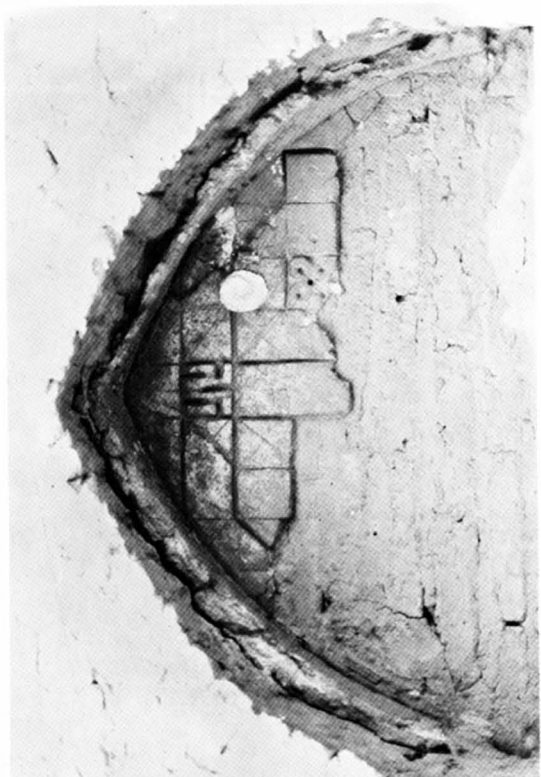
<sup>(1)</sup> E.g. in the Madrasa Imāmi and Imānzāda Bābā Qāsim in Işfahān.

<sup>(2)</sup> Excluding the dado border in the Pir-i Ğārsūz.

<sup>(3)</sup> O'Kane, « Tāybād », pp. 101-3.

<sup>(4)</sup> *Survey*, Pl. 460. The date is taken from the stucco inscription which goes round the dome chamber just below the zone of transition. The

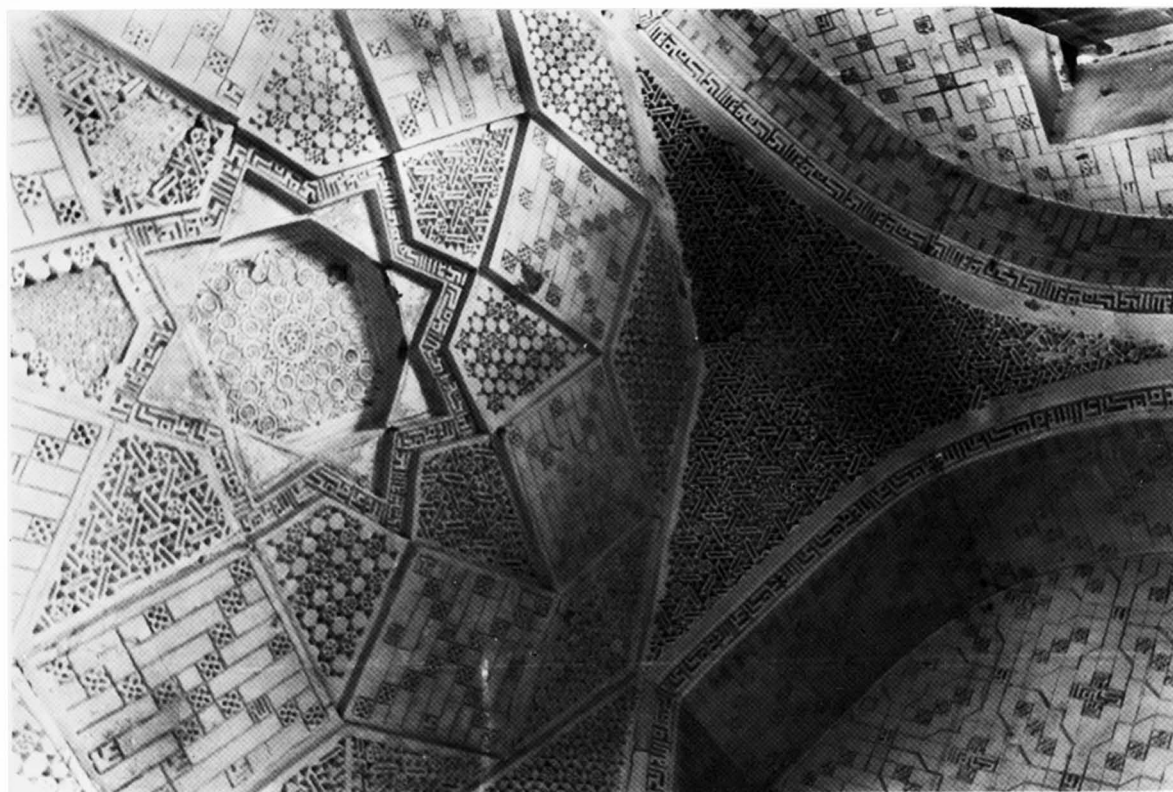
dome contains the signature of the same craftsman, Sa'd b. Muḥammad Kadūk al-bannā' Yazdī, whose name appears on the dome of the Yazd Masġid-i Ğāmi<sup>c</sup> (*Survey*, p. 1168). One should infer from this however, not that the Yazd Masġid-i Ğāmi<sup>c</sup> was repaired in the Safavid period (*Survey*, p. 1092), but that the Sāva dome chamber was originally erected in the Muẓaffarid era.



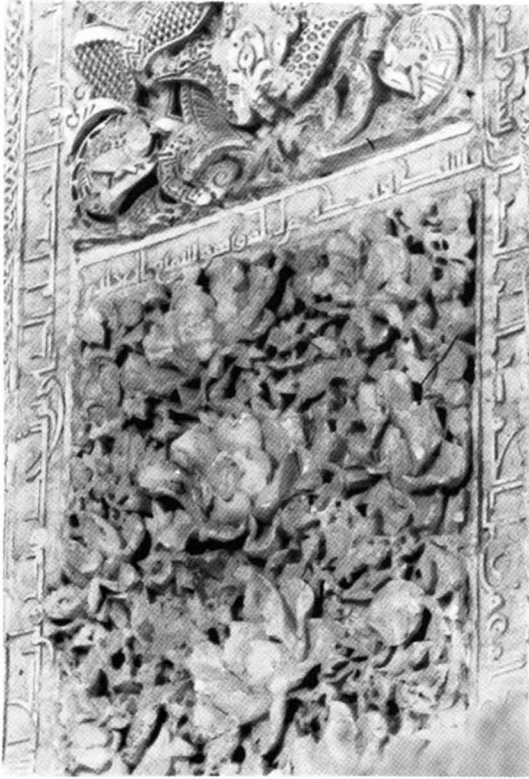
b — Qum, Madrasa al-Ghiyāṭiyya, niche on portal screen.



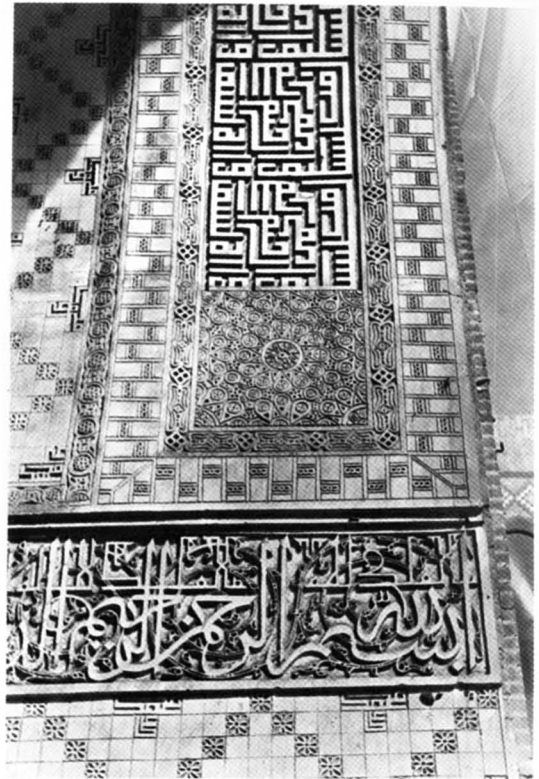
c — Varāmīn, Masġid-i Ğāmi', niche at rear of sanctuary *ayvān*.



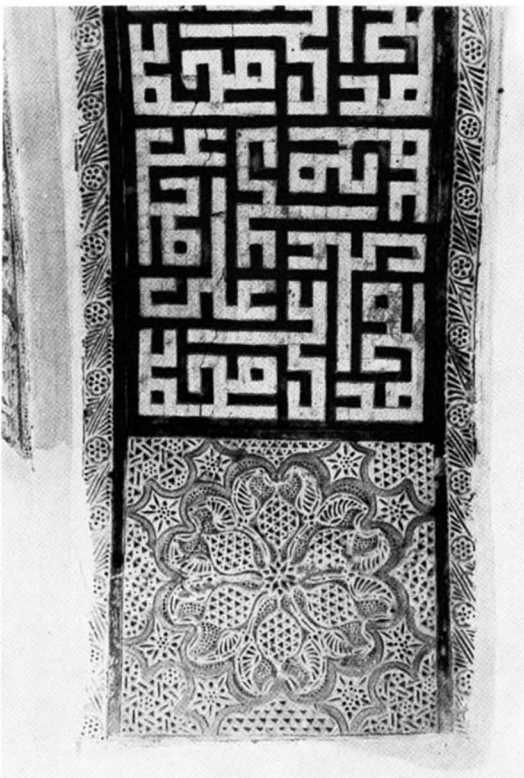
a — Mašhad, Madrasa Du Dar, vestibule.



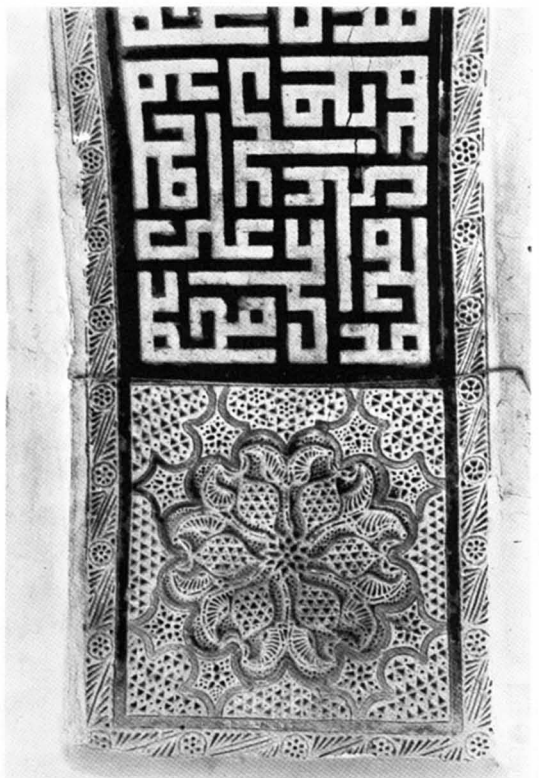
a — Varāmin, Masġid-i Ğāmiʿ, panel to left of *mihrāb*.



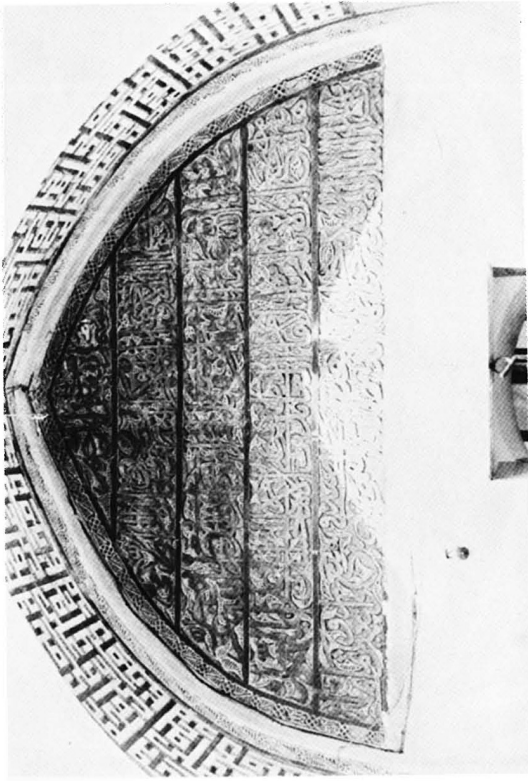
b — Mašhad, Madrasa Du Dar, side of courtyard *ayvān*.



c — Qum, Šāhzāda Zayd, soffit of entrance portal.



d — Qum, Šāhzāda Zayd, soffit of entrance portal.



b — Qum, Šāhzāda Zayd, tympanum of entrance portal.



d — Mašhad, Madrasa Du Dar, panel on courtyard façade of upper storey.



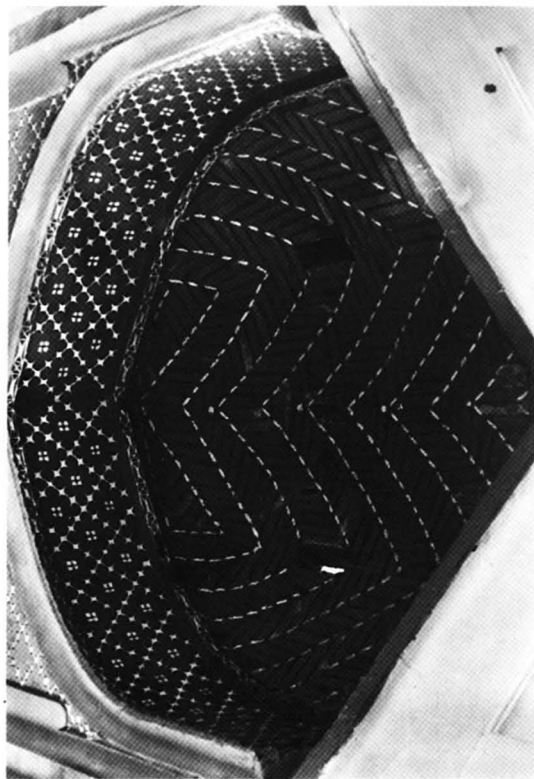
a — Qum, Madrasa al-Ghiyā'iyya, soffit of entrance portal.



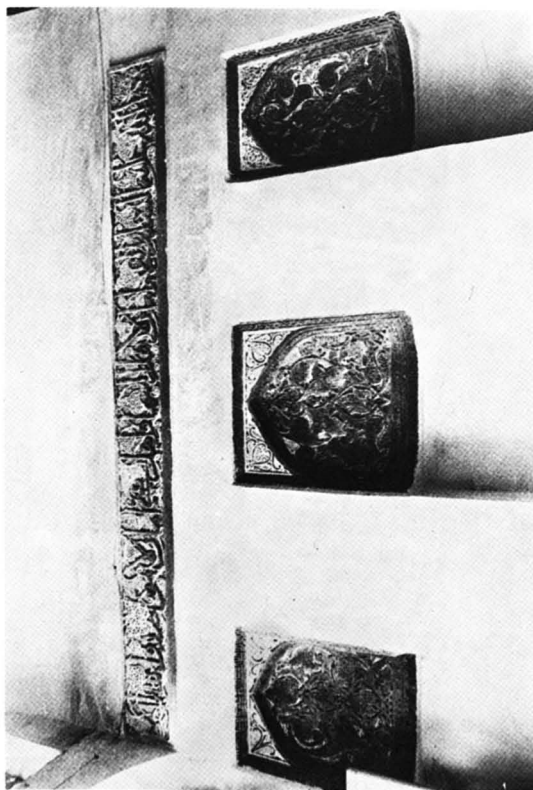
c — Mašhad, Madrasa Du Dar, inscription on courtyard *ayvān*.



b — Kūhpāya, Mašǧid-i Ma šūma, rear of niche to left of mihrāb.



d — Hwāf, Mašǧid-i Ğāmi', squinch.



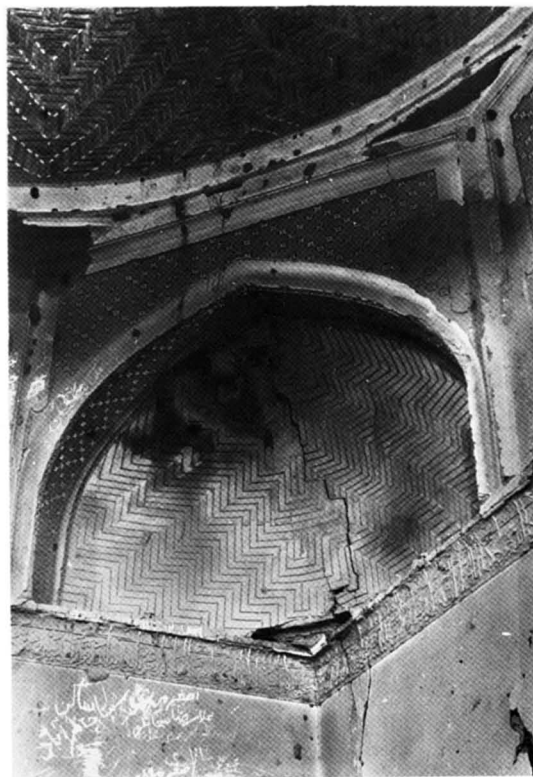
a — Qum, Mūsā-i Mubarqa', side wall of entrance corridor.



c — Nawḥandān, Buq'a of Ulyā Šādmīn, inscription in zone of transition.



*a* – Širvān, Ziyārat-i Timūr Lang, zone of transition.  
Phot. courtesy of the Asia Institute Archives, Širāz.



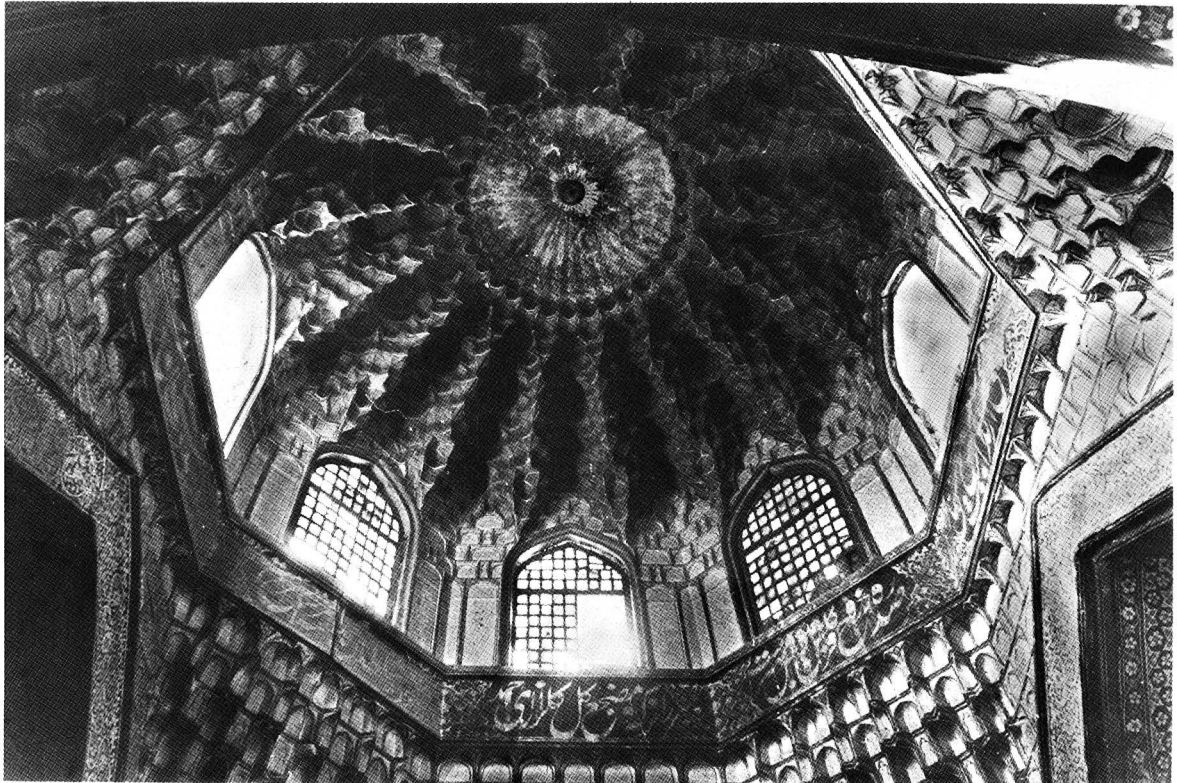
*b* – Rušhvār, Masġid-i Ğāmi', squinch.



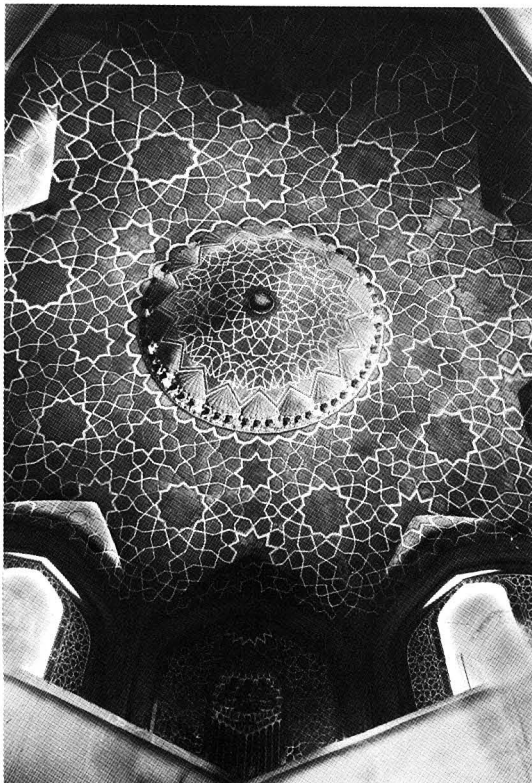
*c* – Qum, Musā-i Mubārqa', panel and inscription  
on side wall of entrance corridor.



*d* – Kūhpāya, Masġid-i Ma'sūma, side of niche  
to left of *mihrāb*.



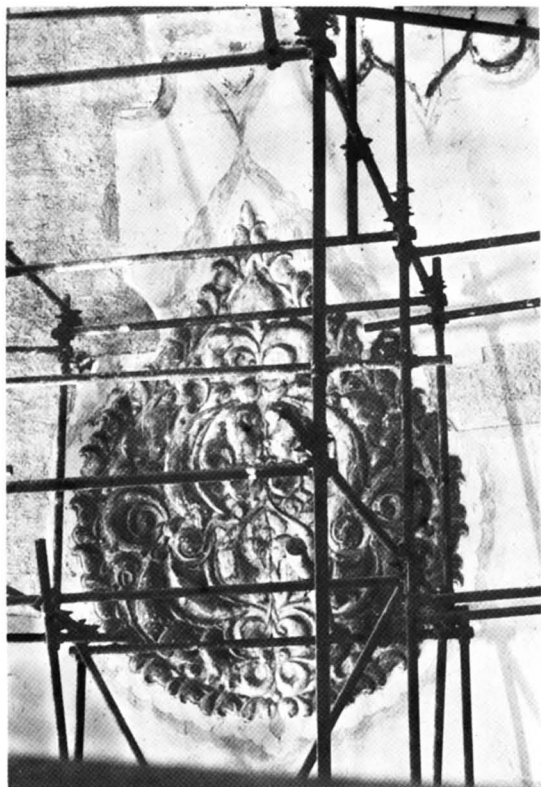
*a* — Turbat-i Ĥaydariyya, interior of mausoleum.



*b* — Mašhad, Gunbad-i Ĥišti, interior of dome.



*c* — Afūšta, Maqbara-yi Pisār-i Sayyid Vāqif.



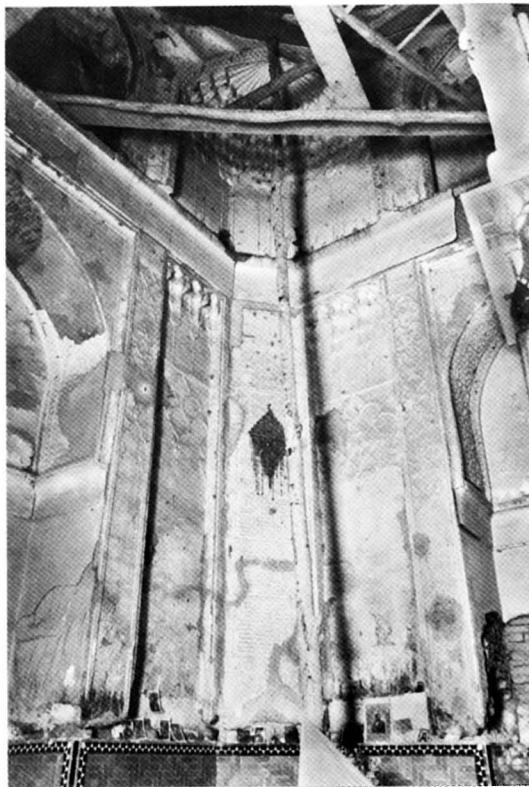
*a* — Sultāniyya, mausoleum of Ulġāytū, medallion in dome.



*b* — Ġalvār, Masġid-i Hauḍ-i Karbās, soffit of transverse arch.



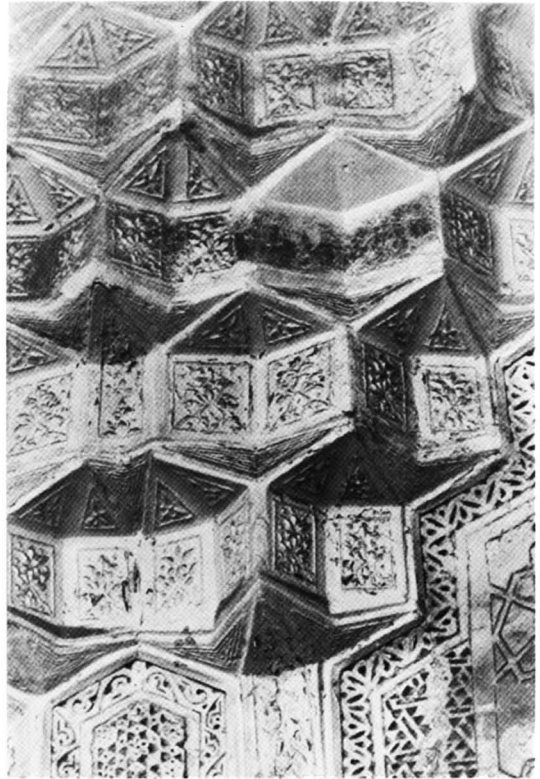
*c* — Rušhvār, Masġid-i Ġāmi', mihrāb of ayvān.



*d* — Bardsīr, Pīr-i Ġārsūz, interior.



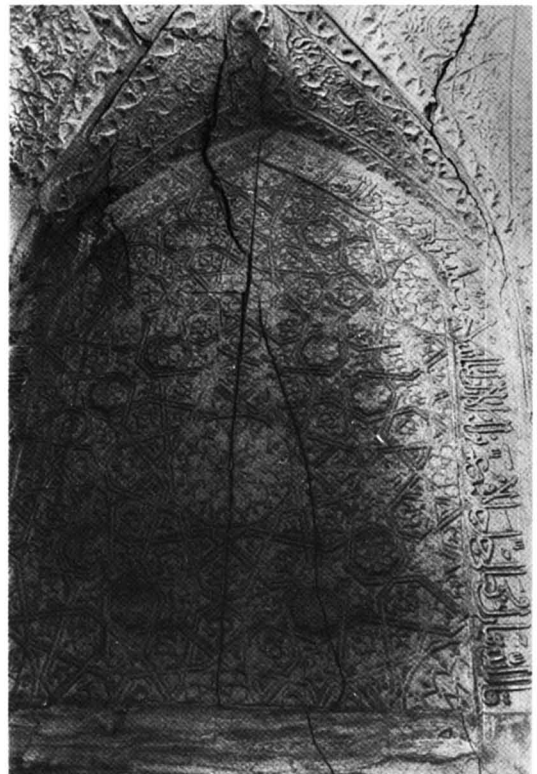
*a* — Bidāhavid, Ḥānqāh of Šayḥ ‘Alī Binyamān, dome of room adjoining mausoleum.



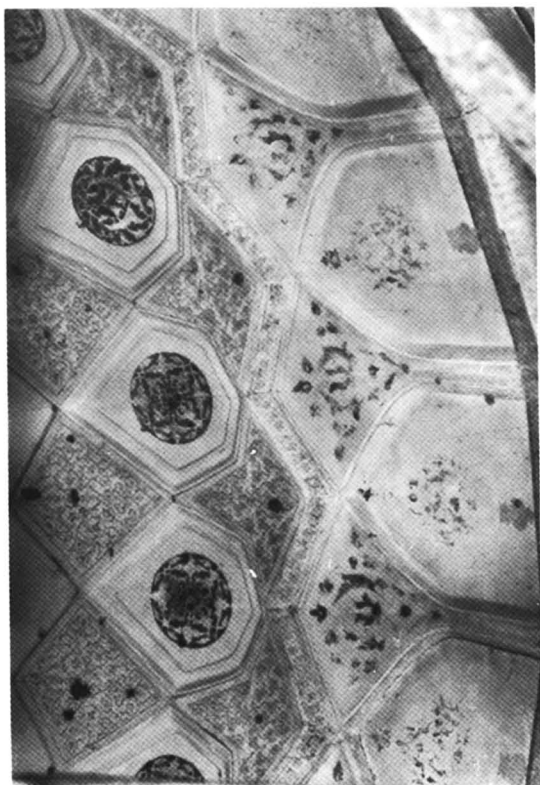
*b* — Mašhad, Madrasa Du Dar, rear of courtyard *ayvān*.



*c* — Bidāhavid, Ḥānqāh of Šayḥ ‘Alī Binyamān, niches in room adjoining mausoleum.



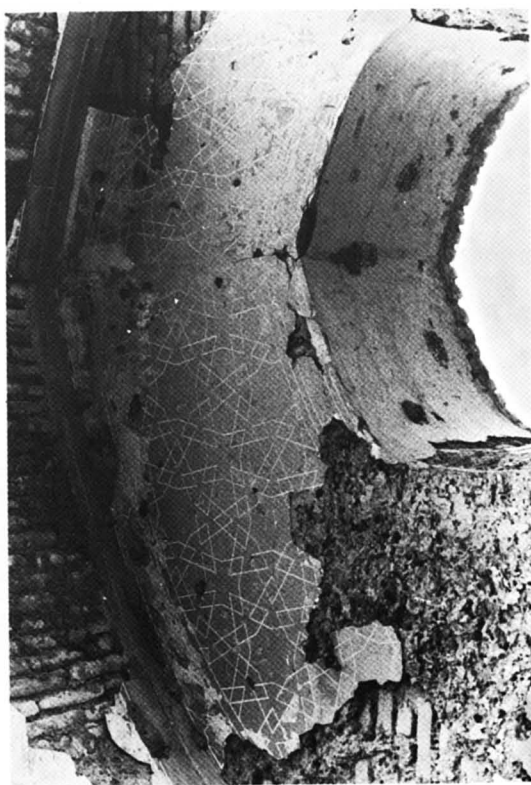
*d* — Bidāhavid, Ḥānqāh of Šayḥ ‘Alī Binyamān, side wall of room adjoining mausoleum.



*b* — Bardšir, Pir-i Ğarsüz, detail of dome decoration.



*a* — Afšta, pavilion, dome of octagonal corner room.



*c* — Ziyāratgāh, Hānqāh of Mullā Kalān, rear of recess in central dome chamber.



*b* — Afšār, pavilion, central dome chamber.



*a* — Bardisr, Pir-i Ārūs, soffit of recess in dome chamber.