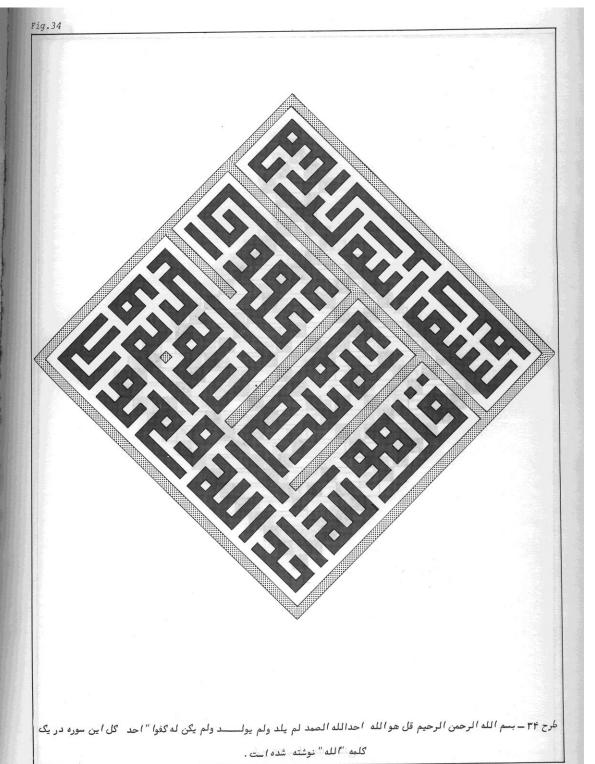
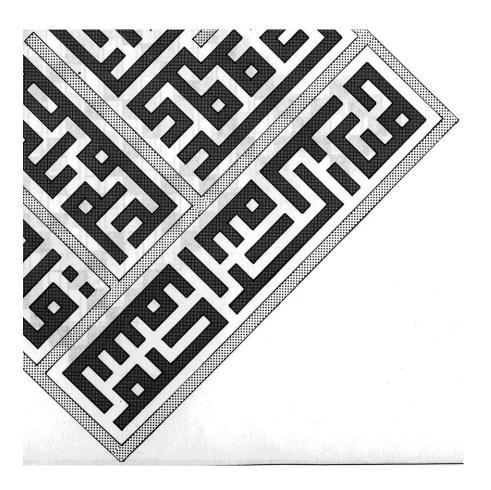
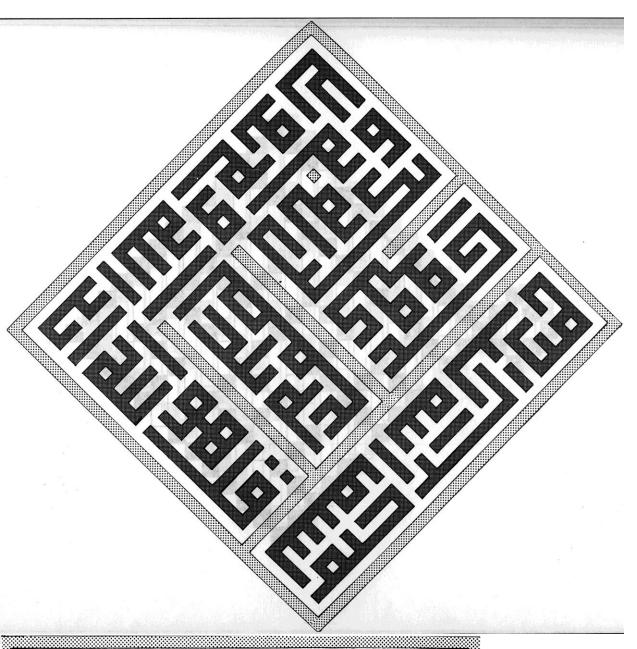


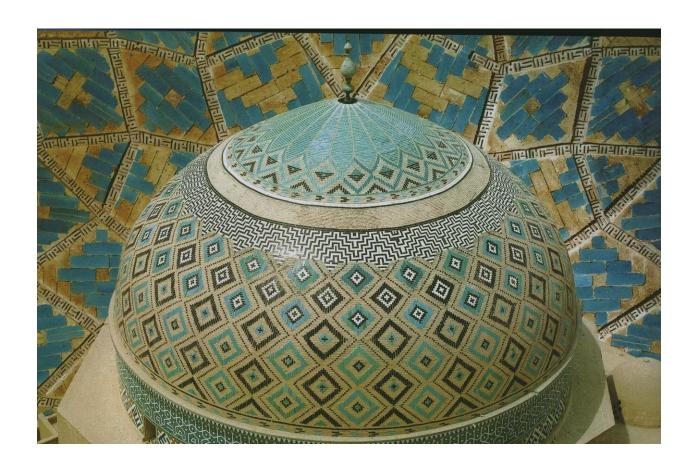
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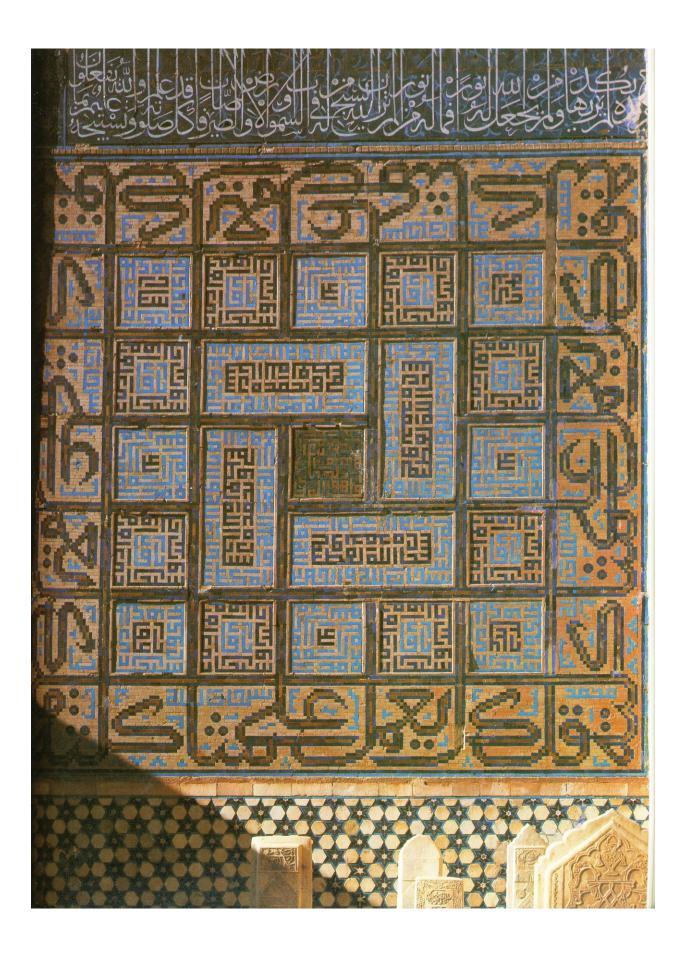


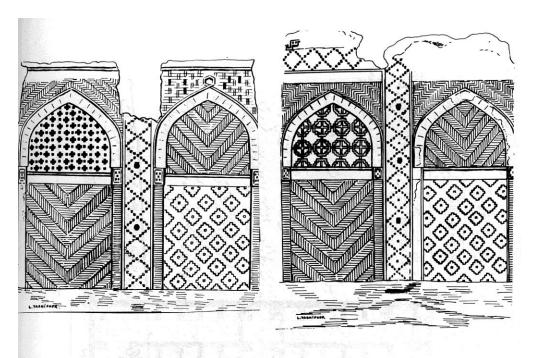


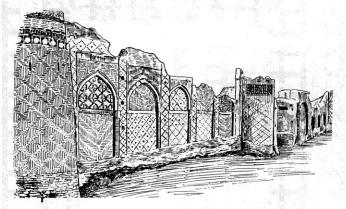


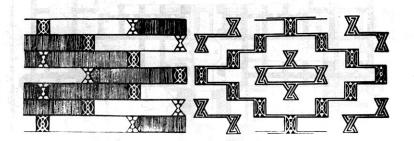
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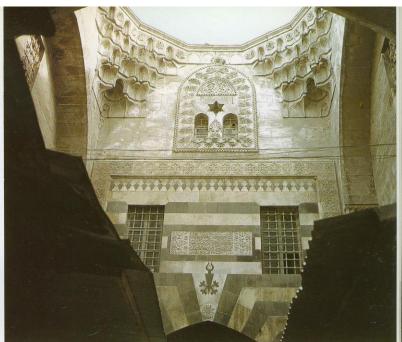
تصویر ۶. طرح آجرکاری در رباط سپنج دوره ایلخانی

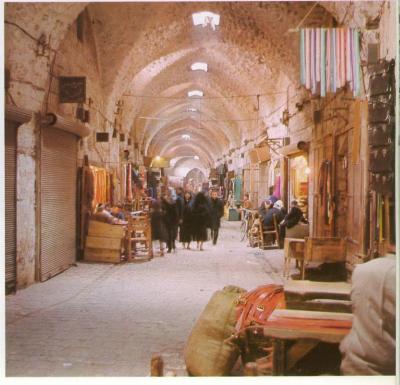
The bazaar is one of the classic defining features of an Islamic town, the commercial 'spine' of the urban fabric linking mosques, hammāms, khāns and schools — a city in miniature, consisting of dozens of streets, sometimes intersecting at right angles. Shops selling the same goods are always grouped together, so that there will be a spice bazaar, a leather bazaar, a metalwork bazaar. The plan of Aleppo market is reproduced and explained on p. 108. Where the main streets cross, the large spaces are either domed or open to the sky. One such crossing in Aleppo (right) is given elaborate muqarnas decoration. (31)

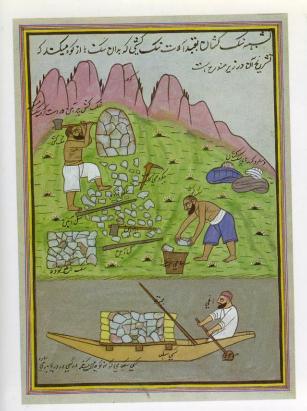


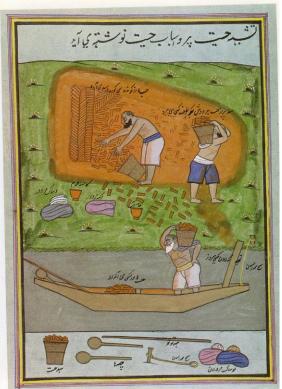
Each shop occupies one compartment in the  $s\bar{u}q$ . This part of the carpet section is in the bazaar at Tripoli, Libya. Every available wall surface is used for displaying goods. (30)

The vaulted streets are lit by apertures in the centre of each bay, creating a cool and well ventilated space that is ideal for hot climates. Essentially the same architectural form prevails over the whole Islamic world; a typical interior, such as that of the Aleppo bazaar (right), is roofed in a procession of domes. (32)





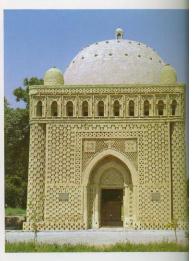




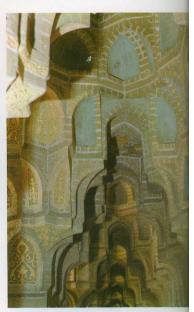




## Decorative brickwork and tiles



The apogee of this technique is reached in the tomb of the Sāmānids at Bukhara (above), where both exterior and interior surfaces are covered in fine brick patterns. In the 'Abbāsid 'palace' at Baghdad (below: one of the aisles in the audience court), exposed baked bricks form muqarnas vaults. (17,18)

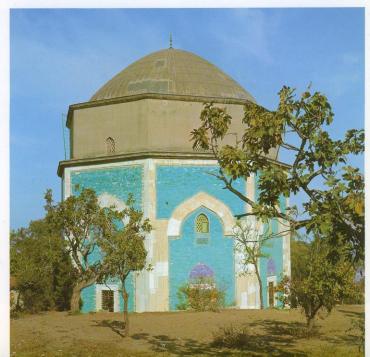


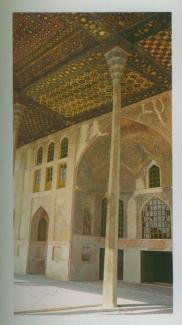
Bricks had been used decoratively from early Islamic times, laid in different planes to create dramatic effects of light and shade on the façades of buildings. An 11th-century Seljuq tomb at Qarraqan in Iran (above)

shows a variety of patterns, including a band of calligraphy near the top made with specially shaped bricks. At the bottom, part of the decorative veneer has fallen away, revealing the structural brick core. (16)



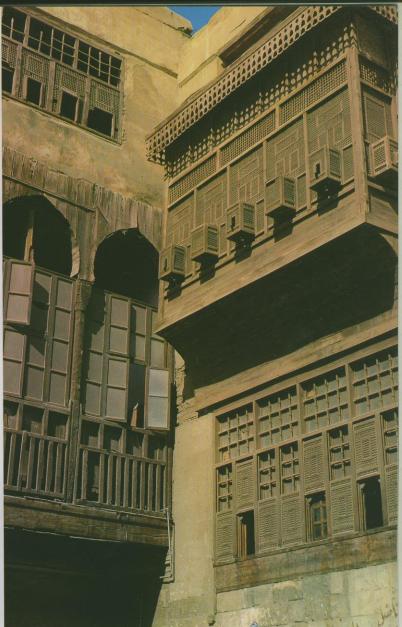
Glazed tiles, used as veneer over a brick core, were common from 'Abbāsid times onwards, and came to full flower in Iran and Turkey during the 16th and 17th centuries. These two examples display their rich colour and sophisticated finish. *Right*: the 15th-century Yeşil Türbe at Bursa. Here, the tiles are relatively plain and the effect is one of restraint. *Above*: the dome of the Madrasa-i Shāh at Isfahan – Safavid tilework at its most brilliant. On parts of the dome, and especially on the minarets, the tiles are curved to fit the forms of the architecture. (19,20)





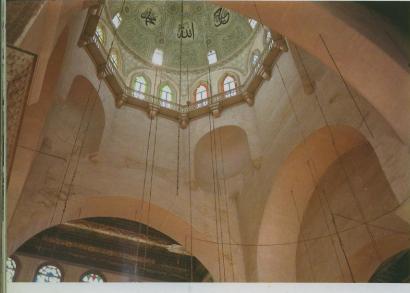
Wood was an integral part of buildings, even when the structure was of other materials. In relief carving, in marquetry and in lattices made of intricately jointed turned wood, Islamic craftsmen produced work that has few parallels in the West. In the porch of the 'Alī Qapu palace (above), timber columns support a patterned ceiling executed in precious woods of several colours inlaid with mirrors. (29)





The transparent screens so characteristic of Islamic houses are due partly to the need to create through-draughts and partly to the practice of segregating the women's quarters. These views (above and left) show the interior and exterior of similar Mamlūk windows in Cairo. The screens, which display a

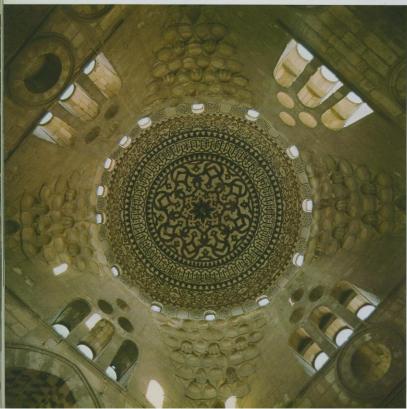
wide variety of ingenious patterns, consist of small pieces of turned wood socketed together. Projecting boxes in the upper storeys allow the women to look out and down without being seen, and also serve to hold cooling earthenware vessels of water or aromatic plants. (30, 31)



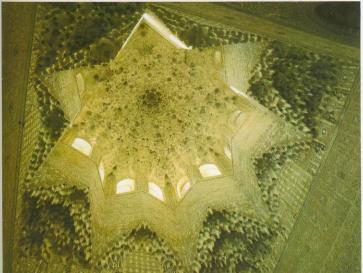
The dome Domes became increasingly characteristic features of Islamic architecture after Seljuq times. More or less structurally stable themselves, they are difficult to place over the square base resulting from rectilinear planning. A safe structural transition has to be made between the square and the circle, and Islamic architects evolved a number of ingenious and beautiful solutions. The simplest was to use corner squinches, creating an octagon which could merge easily into the circle. In a dome of the Great Mosque at Damascus (left), built in the 8th century, reconstructed in the 19th, the surface within the squinch is shaped into a small semi-dome, and is load-bearing. Above, an octagonal drum supports the dome. By the 10th century, Islamic architects had developed a technique for bridging the corners by using tiers of superimposed arches. Eventually these arches were organized according to a complex interlocking geometry to produce a stalactite, or muqarnas, vault. Below left: the khānaqāh and mosque of Sultan Barquq in Cairo. (37, 38)



An alternative to the squinch was the pendentive, a triangle of masonry filling the same space. This became the commonest solution in Ottoman mosques, which adapted the standard Byzantine curved pendentive. The Seljuq Büyük Karatay Madrasa at Konya (above) employs a variant faceted form consisting of a simple radiating fan of plain surfaces. (39)

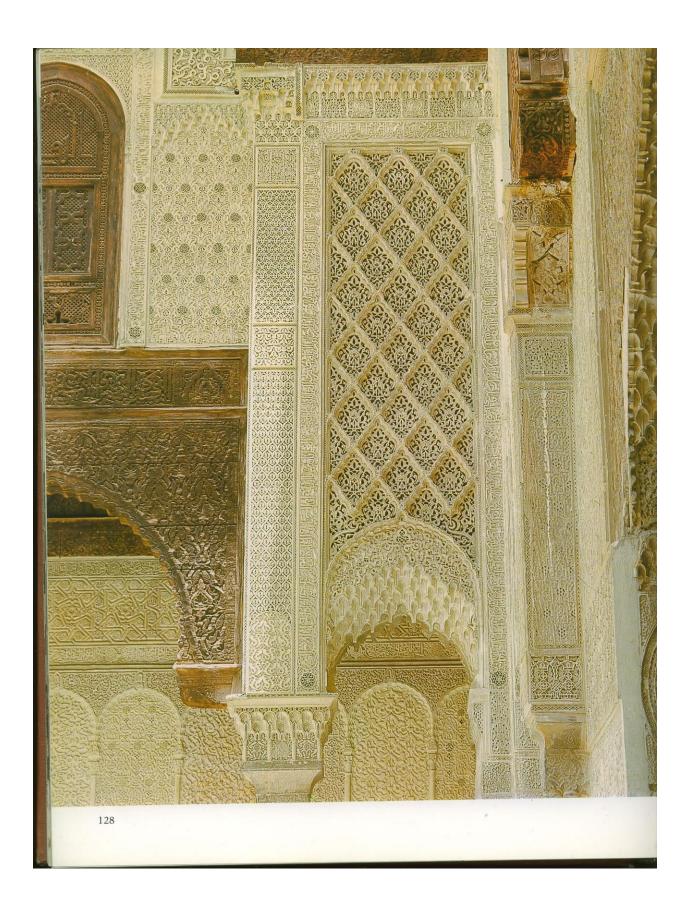


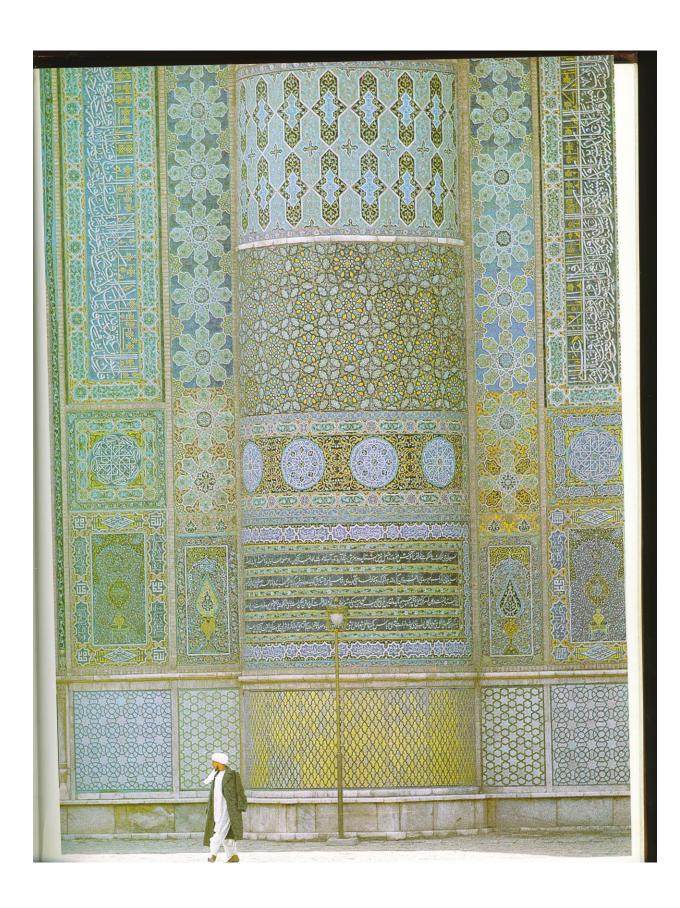




The ribbed dome over the bay in front of the *mihrāb* in the 10th-century mosque of Cordoba (*above*) is one of many brilliant technical improvisations created by the Muslim builders in Spain. The lobed arches bridging the corners alternate with identical arches containing clerestory windows. The lines of the colonnettes framing these arches are continued upwards to form slender semicircular ribs linking each arch to its neighbours on either side, and combining to form an octagon supporting the dome. (40)

In the Alhambra (*left*), the last great work of Muslim Spain, the octagon is transformed into a sixteen-pointed star containing windows, above which the *muqarnas* vault resolves the star into a hemisphere. Dazzling as the display is, ornament has here become largely divorced from structure. (41)

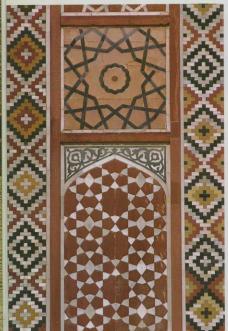




## Geometry

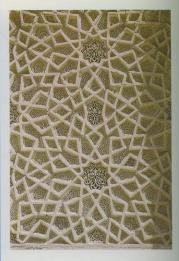
Islam transformed geometry into a major art form, using the circle as the basis for the generation of patterns and applying the principles of repetition, symmetry and change of scale to create a bewildering variety of effects. *Below*: detail from the tomb of I'timād ad-Dawla, Agra. (6)



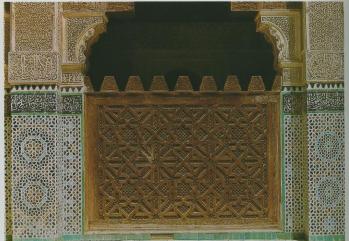








Surfaces, curved or flat, in brick or stucco, are covered by designs that are infinitely expandable. Patterns are rendered visible from a distance by contrasts of plane which permit the play of light and shade. *Left*: the curved outline of the minaret of the Great Mosque at Damghan, Iran. Above: part of a stucco panel from the madrasa of al-Mustansir, Baghdad. (7,8)

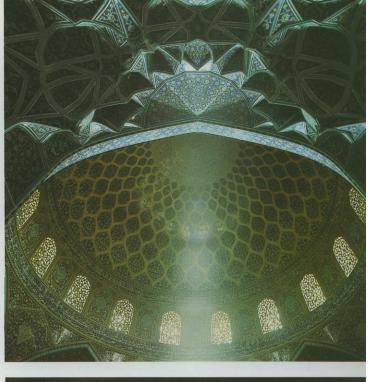


by the geometric principles that govern their design. At the Bū-Tnāniyya Madrasa, Fez, stucco, ceramic mosaic and the wood of beam and screen share a common decorative conception. (10)

# Play of light

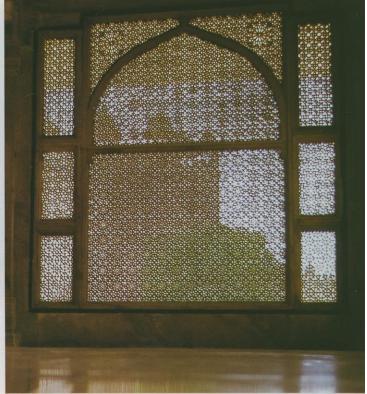


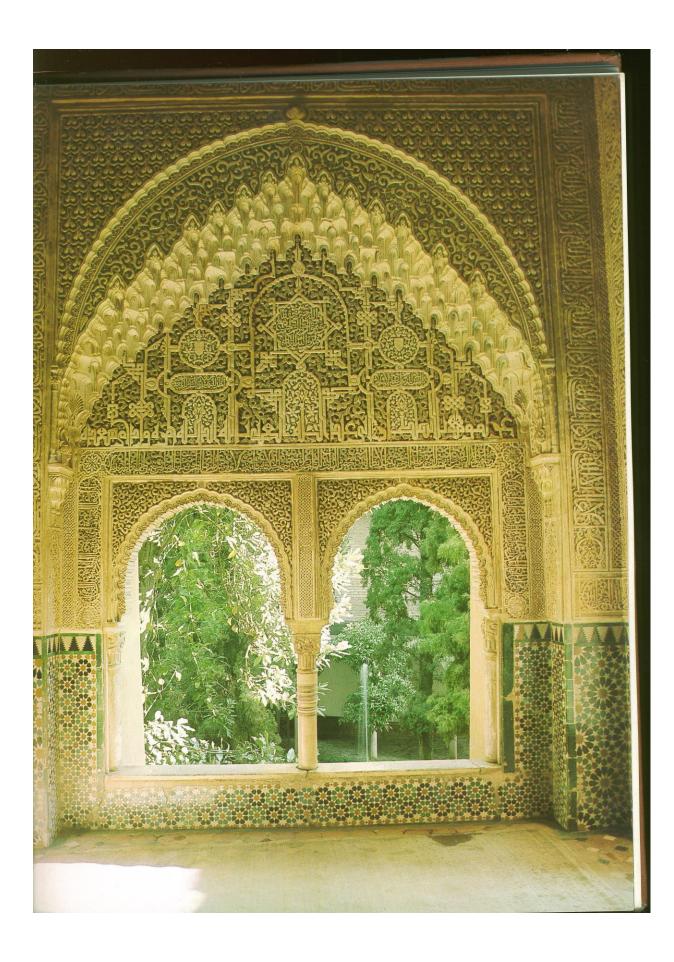
Reflected light: the development and multiplication of *muqarnas* cells beneath the domes can be understood by their function in reflecting and refracting light. To accentuate their play of light, shining ceramic tiles and even mirrors are utilized, as in the Shāh-Hamza 'Alī mausoleum at Shiraz. *Right*: a similar effect achieved in the Shaykh Lutfallāh Mosque in Isfahan. *Opposite*: sunlight reflects upwards from a window of the Alhambra, Granada, to be diffused in the *muqarnas* vault. (20,21,24)





Light penetrating through glass or transparent screens projects patterns onto the already patterned interior surfaces and dissolves the boundaries between solid and void. Above: a window in the Süleymaniye Mosque, in Istanbul. Right: a screen at Fatehpur Sikri, India. (22,23)





### **Foliation**

The Classical vine and scroll motifs provided Islam with a starting point for a whole repertoire of lithe, living forms, ranging from almost scientific naturalism to the completely abstract art of the arabesque.



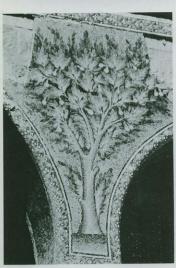


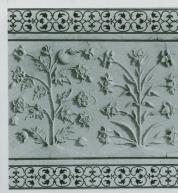
Contrasts in early Islam: the Umayyad wooden panel  $(far \, left)$  is clearly based on the Classical vine emerging from a vase. Wholly stylized forms (left) appear on a stucco dado from Samarra, of the 'Abbāsid period. (25,26)



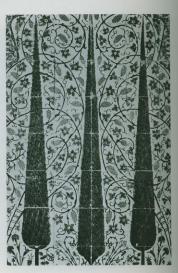


The endless line of arabesque takes the curvilinear shapes of the vine and scroll and imposes symmetry upon it. *Left*: from the mosque of as-Sālih Talā'i', Cairo. *Above*: carved tombstone in the courtyard of the mausoleum of Timūr at Samarqand. (27,28)





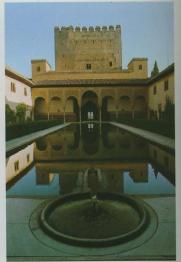
Phases of naturalism: (from left to right) spandrel in the Great Mosque at Damascus, dado from the Tāj Mahal, Agra, and Iznik tiles from the harem of the Topkapi palace, Istanbul. (29,30,31)



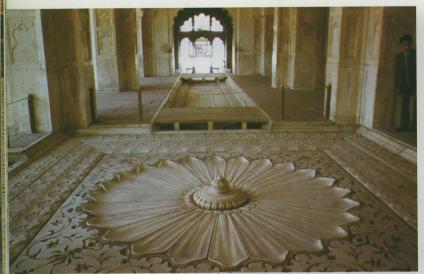
# Wealth, fertility and coolness are all associated with water, which is an essential part of Islamic architecture. Channels and pools are the most important elements of Islamic gardens. Originally necessary for

irrigation, they were developed for their visual beauty and incorporated into elaborate architectural schemes. Above: a private garden near Mahan, Iran. The trees produce a sense of enclosure from the landscape. (35)

## Water

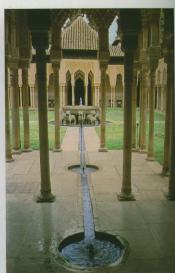


Pools gave a sense of repose and openness to the enclosed courtyard. In the Court of the Myrtles, in the Alhambra at Granada, water becomes part of a formal, rectilinear composition. (36)

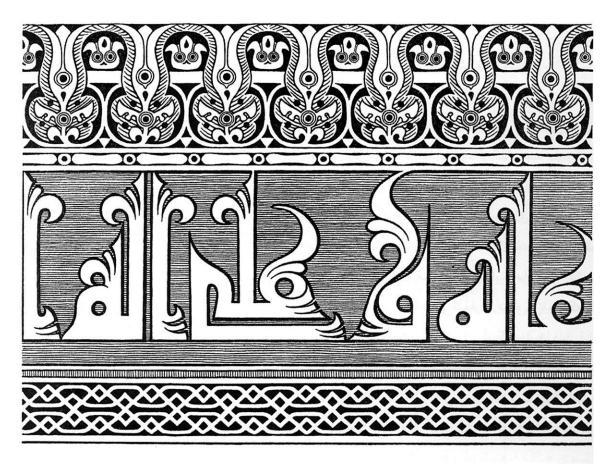


Water enters buildings. In some of the most opulent Islamic palaces, water flows through marble channels from room to room, here and there expanding to fill basins and descending in cascades from one level to

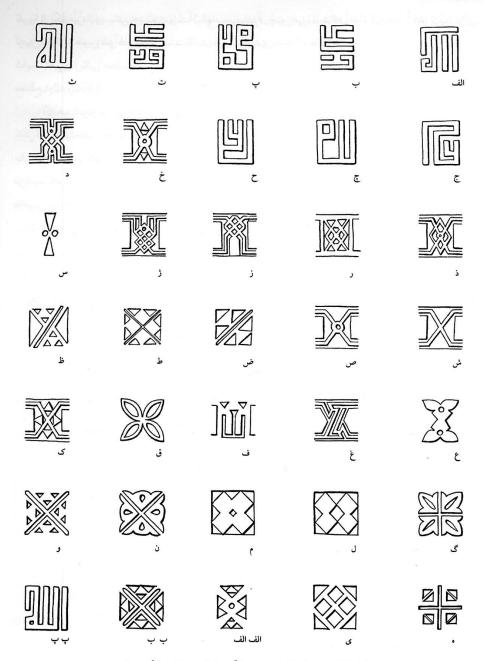
another. In the Red Fort at Delhi, water originally covered this inlaid and carved marble lotus, creating soothing sounds and continuously shifting patterns through its transparent motion. (37)



In the Alhambra, too, water emphasized the axes of the buildings, linking the various spaces in a directional sequence. Here we look through a series of arcades into the Court of the Lions. (38)



شکل ۴۵۸. نایین، مسجد جامع، افریز خوشنویسی، گچبری برجسته.



شکل ۴۶۷. طرحهای گلمیخهای میانآجری، گچ، و گل سفالگری پخته.

الف ـ ت، ذ، ص. قزوين، مسجد جامع. الف \_ ب، د، ص. فروین، مسجد ج. ث، ج، خ، د. یزد، مسجد جامع. چ، ح، ک، ج ج. آرامگاه پیر بکران. ذ، ش، ص. اصفهان، مسجد جامع. ذ، ر، ژ. قزوین، مسجد حیدریه.

ز. قزوین، آرامگاه حمدالله مستوفی. س، ص. گلپایگان، مسجد جامع. س، حرم، بسطام. ص، ظ، ع. ورامين، مسجد جامع. ض، ط. اردستان، مسجد جامع.

ض، ق. نايين، مسجد جامع. غ. مراغه، برج گرد. ف. همدان، گنبد علویان. چ چ \_خ خ. اشترجان، مسجد جامع.

## The Islamic house: the public face



Niger: where vegetation permits, nomadic shelters may be built of plant materials. In this Tuareg encampment, grasses are woven into a framework of bent branches; the compound is protected by a wattle fence. (14)



Yugoslavia: in colder and rainier areas like the Balkans, activities that in the central areas of Islam would take place out of doors have to be under cover. Hence the survival of closed structures with high pitched roofs, as in these village shops and houses in Herzegovina, Yugoslavia. The half-timbered construction, with mud-brick and wattleand-daub infill, is plastered over and whitewashed. (15)



Saudi Arabia: in Abha, houses have successive mud courses separated by bands of downward projecting stones, to prevent the frequent rains from eroding the walls. (16)

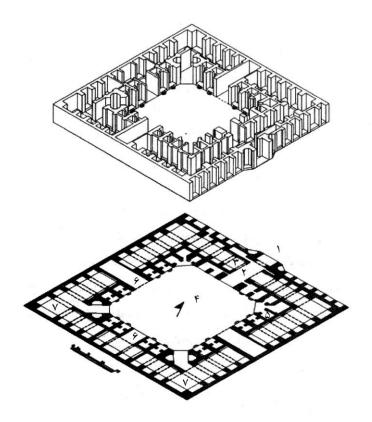


Nigeria: the old city of Kano demonstrates the decorative expressiveness of much sub-Saharan architecture. Corner pinnacles on the houses have an apotropaic function, and the principal chambers are given prominence by elaborate external reliefs, characteristic of the Hausa culture. The main building material is cob (puddled mud). (17)

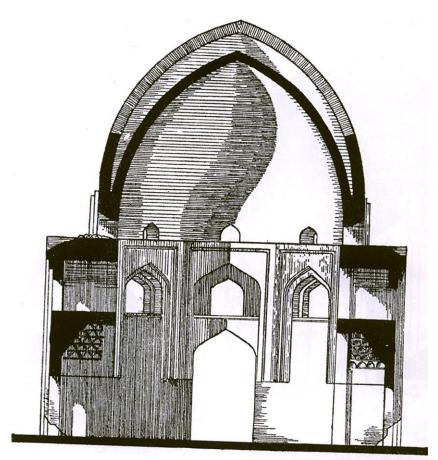


Egypt and Iran: folk-painting illustrating local life and customs in the Nile Delta (above), and (right) thatch-roofed farmsteads of the rice-growing region of Ghilan. (18, 19)



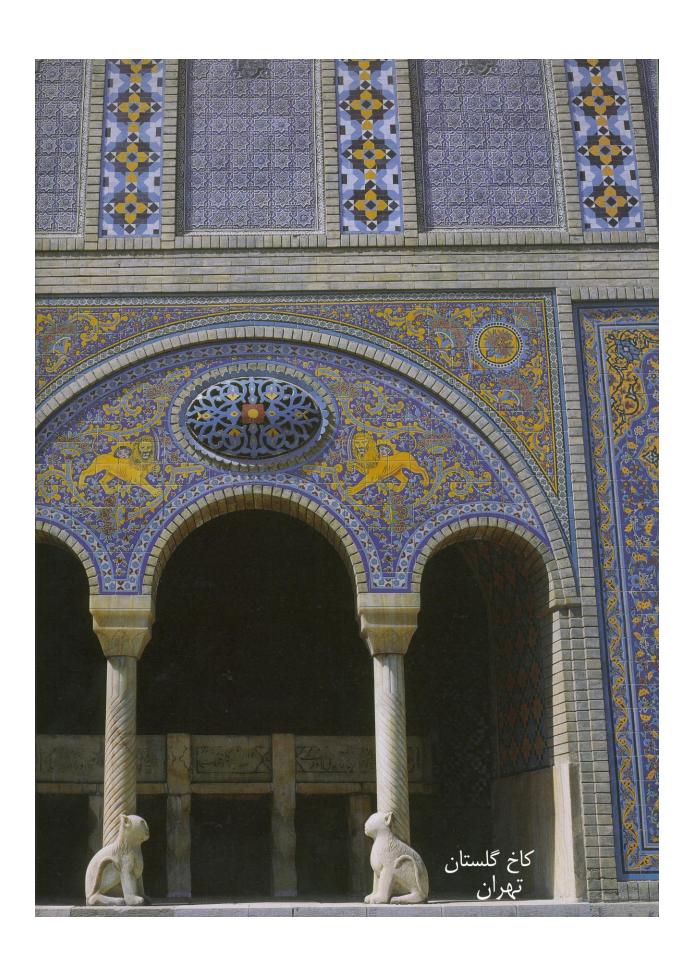


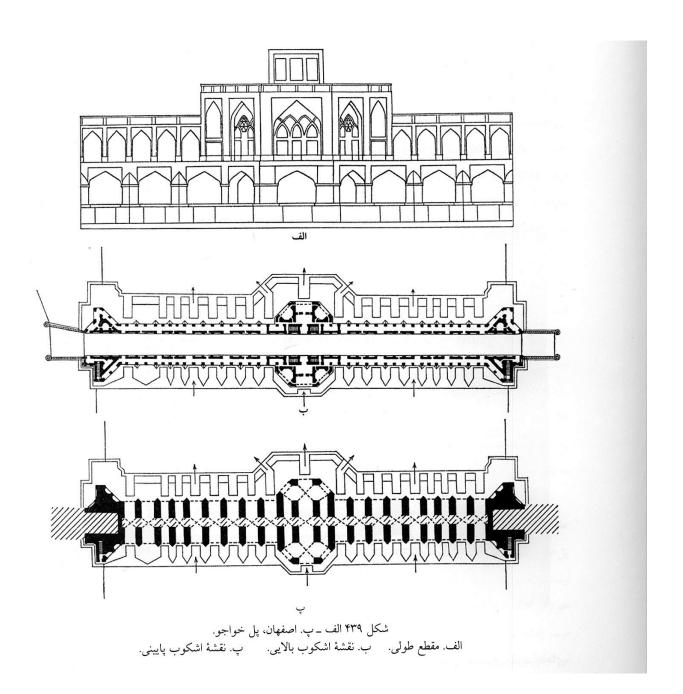
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شكل ٣٨۴. توس، آرامگاه: مقطع.







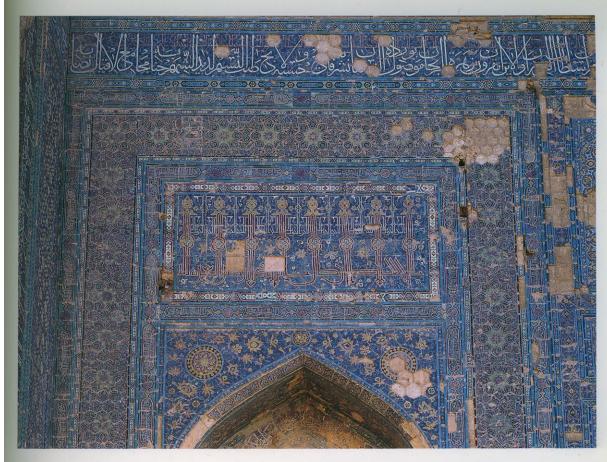


fig. 12 Entrance portal of the Aq Saray (detail) Shahr-i Sabz, c. 1379–96

portal that remains (fig. 11) is more than 70 feet wide and originally rose more than 160 feet. According to Clavijo, the palace had an inner courtyard three hundred paces wide, and in the spandrels of the entranceway's arches were images of a lion and the sun.<sup>57</sup> While much of the facade's decoration is now destroyed, the remaining glazed tile panels and inscriptions (fig. 12) give a sense of how richly adorned this building must have been. Dazzling combinations of geometric and vegetal designs and massive inscriptions cover the structure's walls and make it impossible to perceive the facade as a single entity.

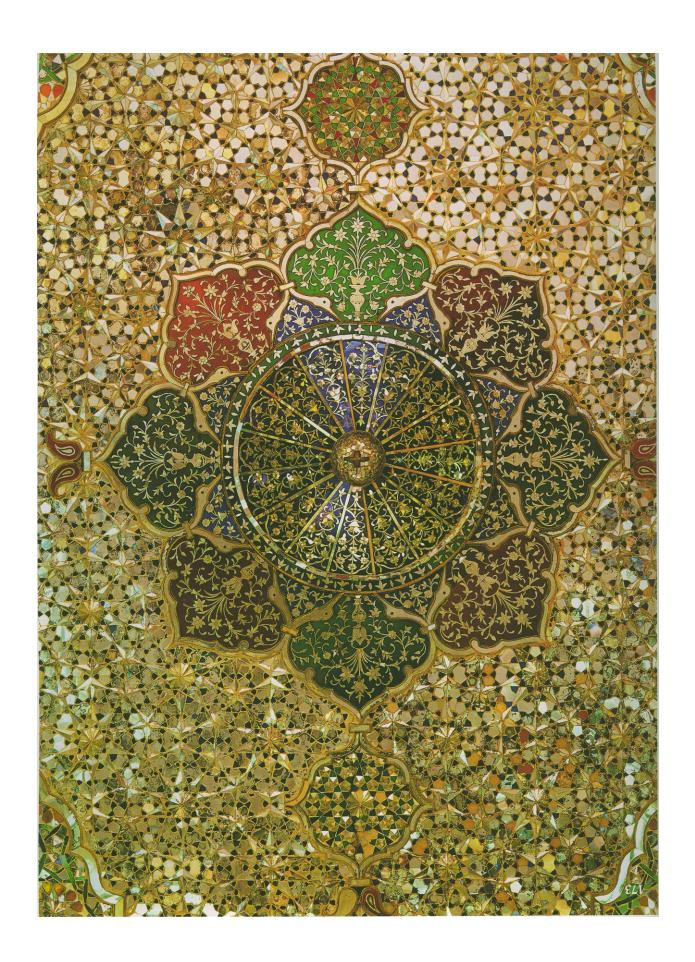
The Shrine of Ahmad Yasavi, built by Timur in 1397, creates a similar effect. A large rectangle—220 by 156 feet—covered with turquoise-, blue-, and black-glazed bricks, the building stands alone, visible in all directions for miles (figs. 13–14).58 Timur personally determined the exact size of the tomb's towering central dome, which rises 126 feet. Through the use of an innovative

system of transverse arches, combined with more traditional Central Asian vaults, the builders were able to span large spaces in a new and dramatic manner.

Through their scale and dominant position within the landscape, these monuments acted as unforgettable symbols of Timur's presence. Their massive forms and opulent decoration signaled the ruler's power and ambitions, compelling viewers to readjust their perceptions of the dynasty. The crucial role played by architecture was noted by the great Timurid poet and patron Mir Ali-Sher Nawa'i at the end of the fifteenth century: "Whoever builds a structure that is destined [to remain], when [his] name is inscribed therein, / For as long as the structure lasts, that name will be on the lips of people." This notion of projecting a ruler's permanent presence through enduring monuments was central to Timur's architectural motivations.

Through the creation of a variety of objects—books, decorative works, metalware, woodwork—Timur's image was further developed and amplified. The mechanism that gave this process both its potency and durability was the incorporation of the literary and visual traditions of countries that Timur conquered into the dynasty's aesthetic vocabulary.





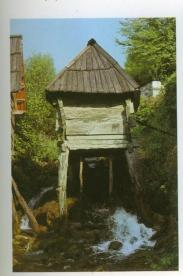


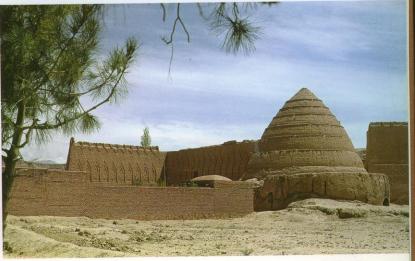


Water-mill (below) at Jajce, Bosnia. The water is channelled to gush against a horizontal paddle, which turns the mill-stone, here mounted in the wooden super-structure. (39)

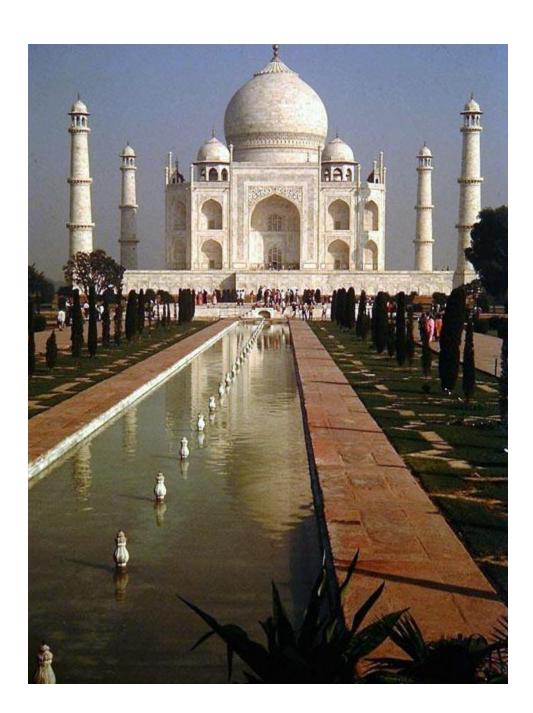
Wind-towers (above), used in Iran to ventilate houses, are also constructed to cool underground cisterns, as in this example in Yazd, its dome of patterned brick projecting above ground level. (38)

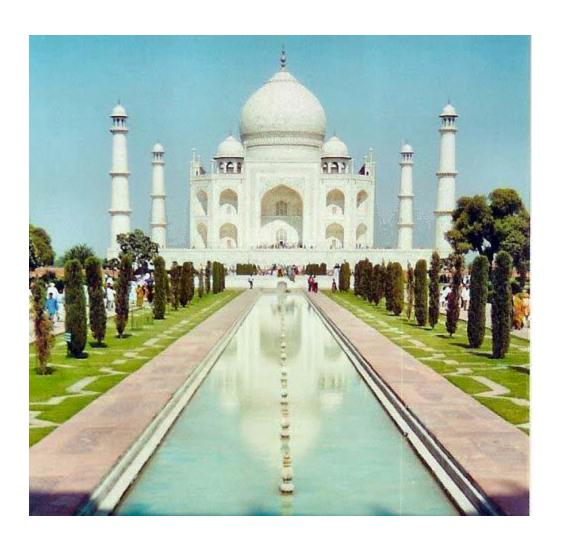
Ice-house (below) at Kerman, Iran. Ice, formed during frosty winter nights in shallow channels protected from the sun's rays by the high wall, is packed between layers of straw in the mud-brick dome. (40)



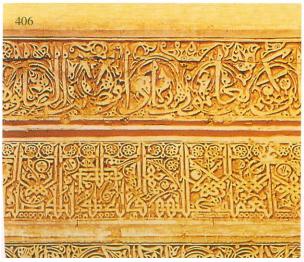






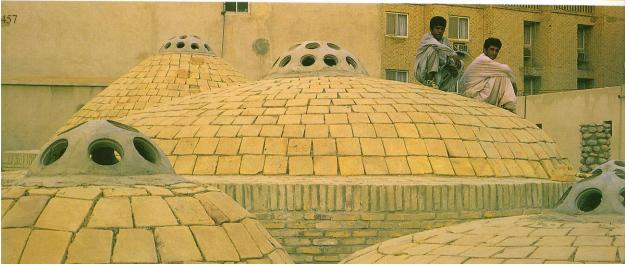


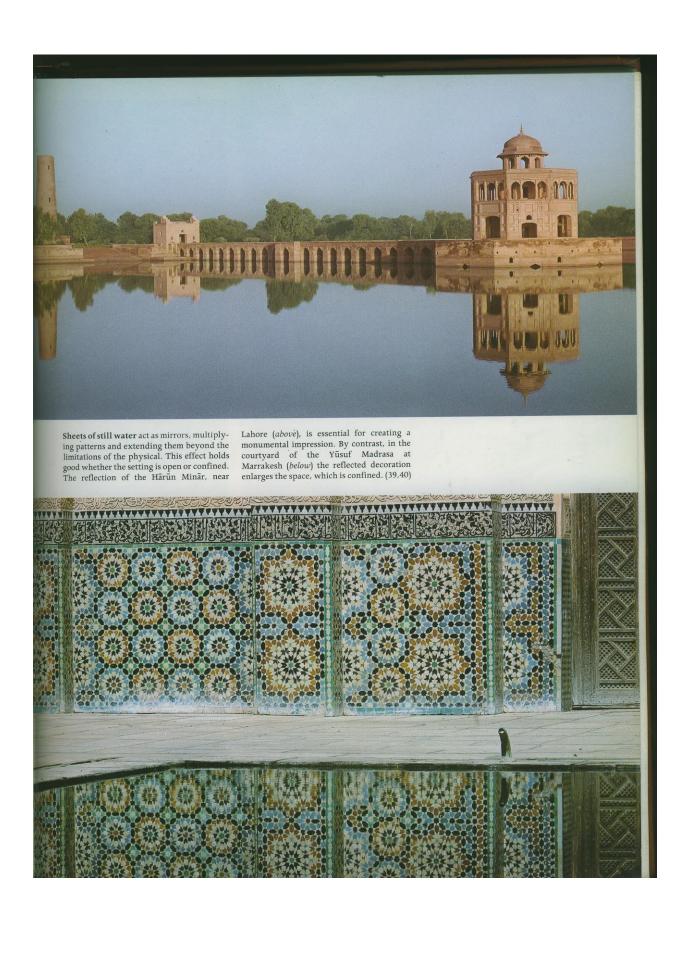


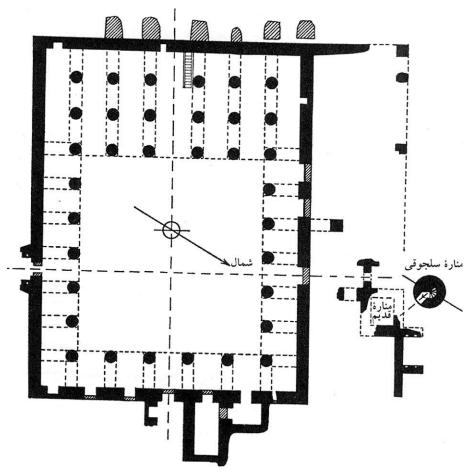




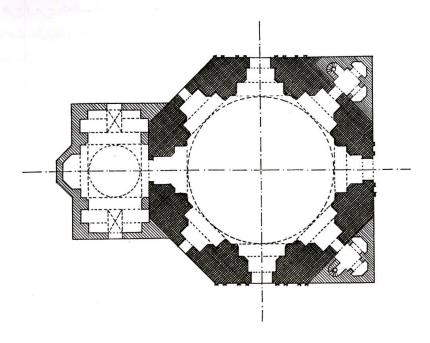


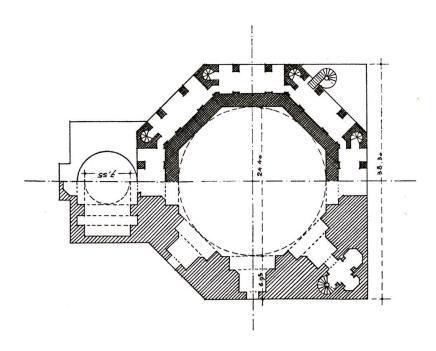




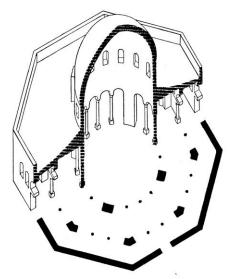


شكل ٣١۴. دامغان، تاريخانه: نقشهٔ كف.

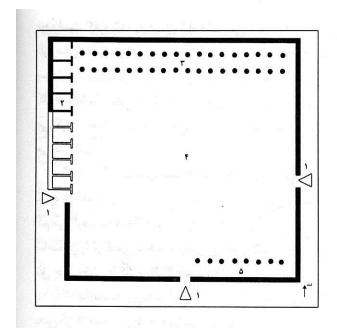




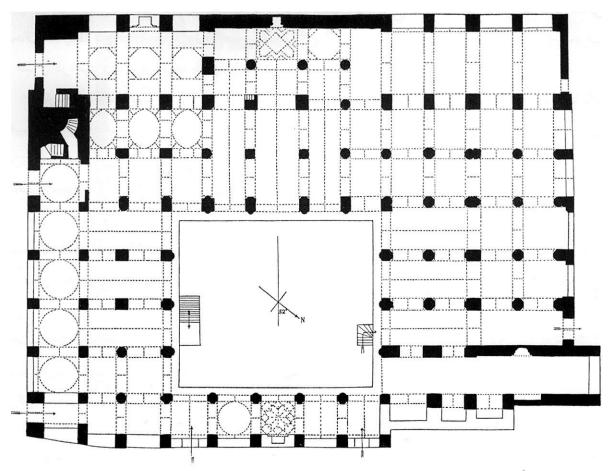
شكل ٣٩٧ الف، ب. سلطانيه، أرامگاه سلطاناًلجايتو: نقشههاي كف.



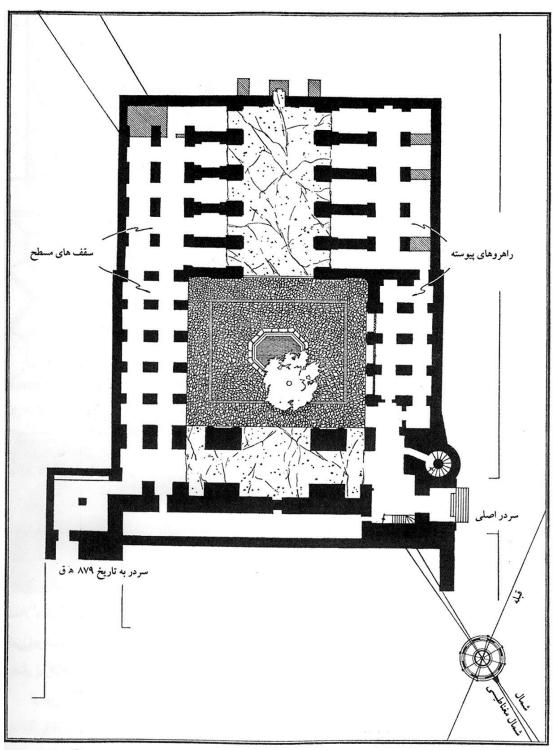
The Dome of the Rock in Jerusalem is Islam's first major monument, but not a typical example of Islamic architecture. Its model is a Christian martyrium and its function was primarily that of a symbol, a visual proclamation of the new Faith. (5)



نگاره ۲-۴:
خانه حضرت رسول (ص) و
مسجد مدینه، تاریخ ساخت
۲۲ میلادی
۲- ورودی ها
۲- اتاق های بخش
مسکونی
۳- فضای سرپوشیده رو
به قبله
۶- حیاط یا میلسرا
یاران و مستمنان



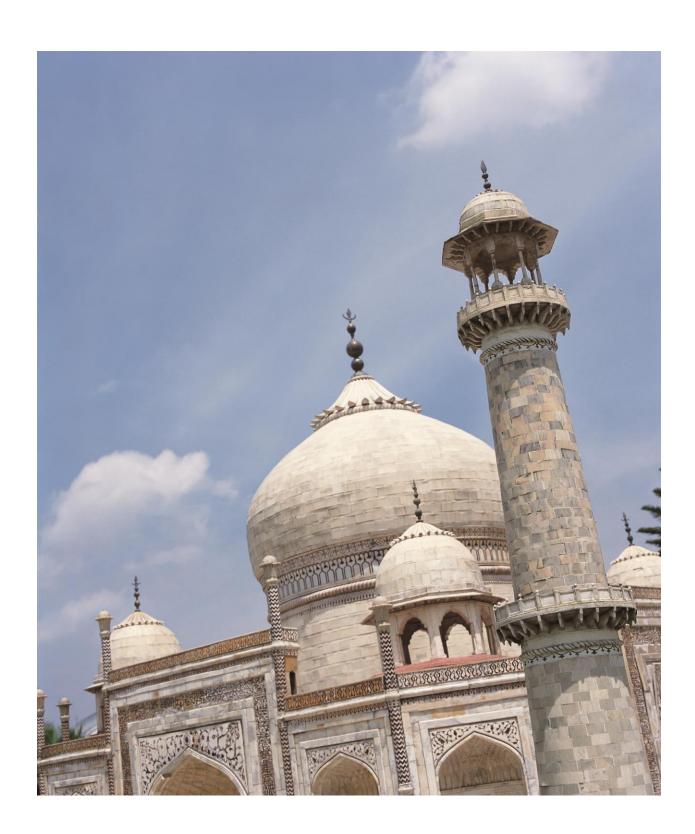
شكل ٣١٥. نايين، مسجد جامع: طرح كلى نقشة كف.



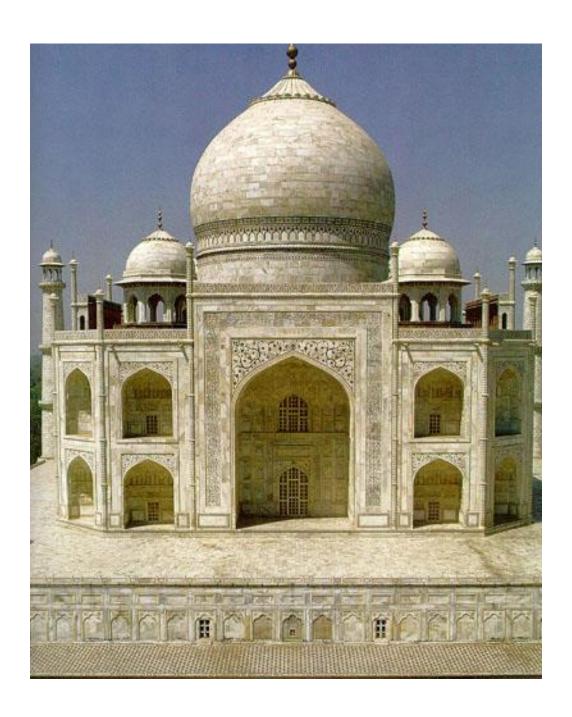
شكل ٣١٩. نيريز، مسجد جامع: نقشهٔ كف.

قبلاً فرض بر این بود که ایوان قبله کار عمرو باشد، ۱۳۷ ولی بررسی دقیقتر همهٔ موضوع را در هالهای ا ابهام فرو برد. از محراب شروع میکنیم (لوح ۲۵۹ ب) که در آن خوشبختانه قطعهٔ تزیینی گچبری ارزندهای حفف

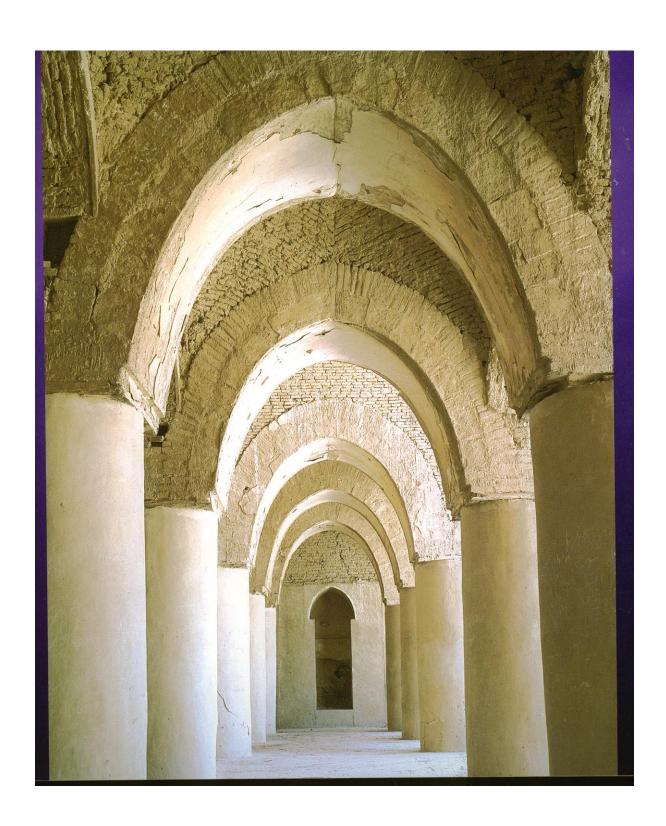


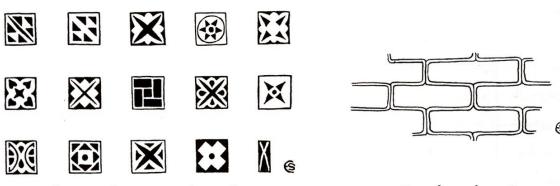








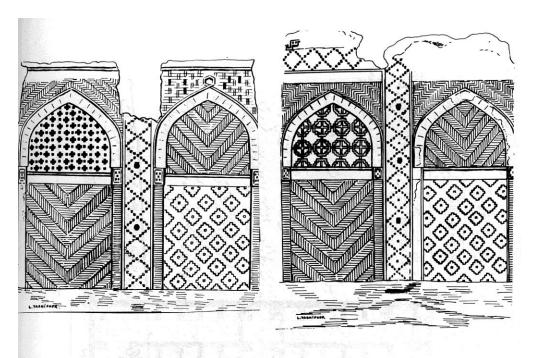


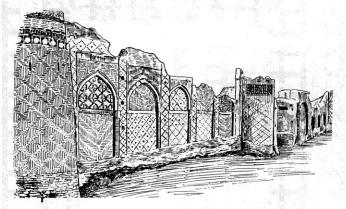


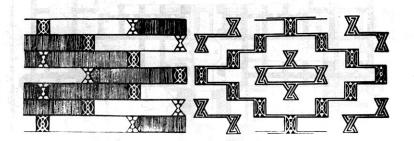
ب. زیرگنبد کوچک: سرپوشهای گچی انتهای آجر.

الف. زیرگنبد بزرگ: بندکشی.

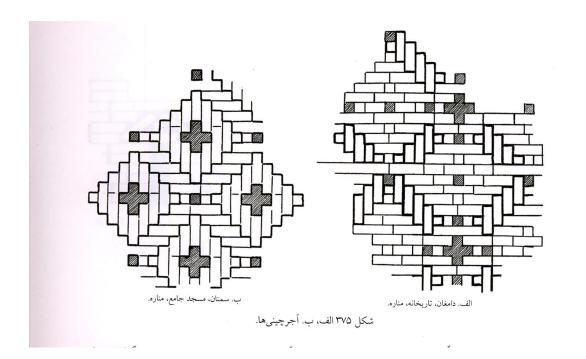
شكل ٣٧٤ الف، ب. اصفهان، مسجد جامع.



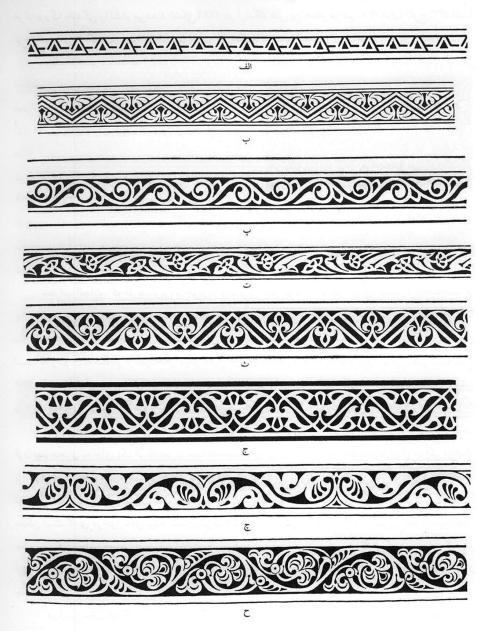




تصویر ۶. طرح آجرکاری در رباط سپنج دوره ایلخانی



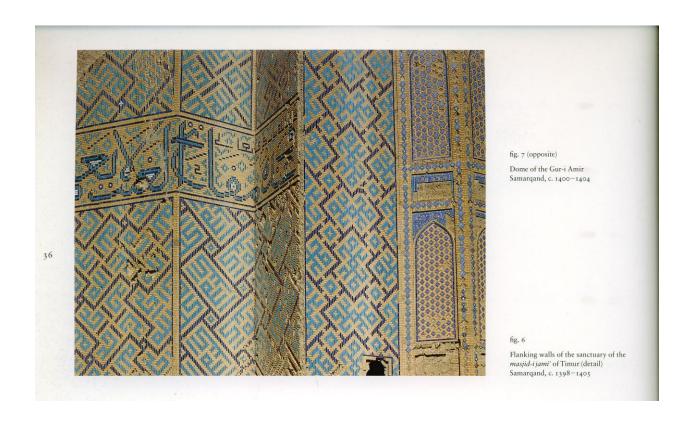


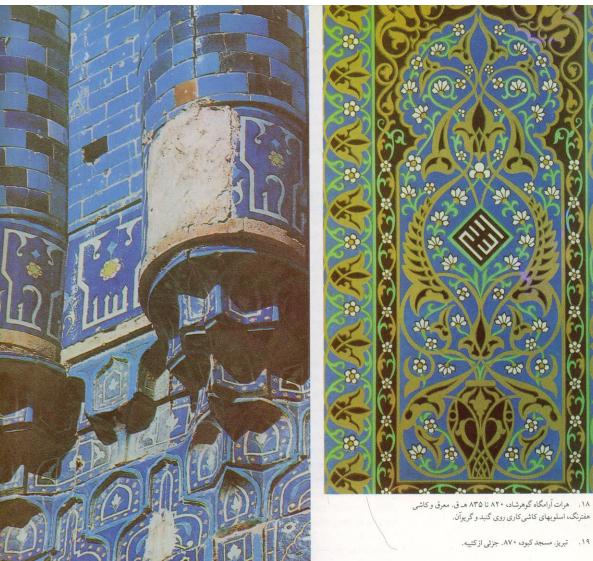


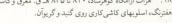
شکل ۴۸۳ الف \_ ح. حاشیههای فرعی آذینهای گچبری.

الف. قم، آرامگاه على بن ابى معالى. ب. اسپر مجموعهٔ استورا.

پ. ث، چ، ح. ورامين، مسجد جامع. ج. بسطام، خانقاه بايزيد.

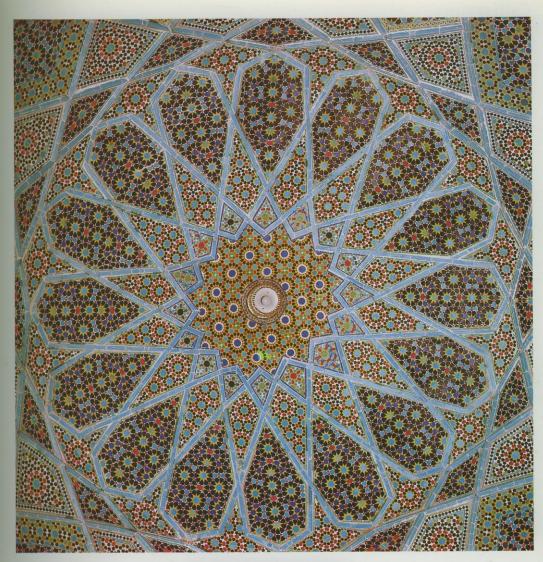






- ۲۰. تبریز. مسجد کبود، ۸۷۰. قاببند معرقکاری در داخل.





The star, six, eight, sixteen or more points, is one of the fundamental and ubiquitous shapes of Islamic geometrical design. It can be used equally in two dimensions or in three, to transform a dome into a complex net



of interlinked surfaces or to decorate timber and bronze fittings inside the buildings. *Above*: ceiling of the tomb of Hāfiz at Shiraz. *Left*: detail from a door in the *madrasa* of Sultan Hasan, Cairo. (11,12)

## Palaces: the Topkapi, Istanbul

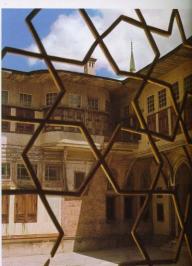


For the centre of the mighty Ottoman Empire, the Topkapi seems at first surprisingly unassertive. Indeed, it is not a palace at all in the European sense, but a series of small buildings arranged informally and furnished with the utmost luxury. Above: Selīm III gives audience at the Gate of Felicity. Right: a bird's-eye view from the west, with the main gate in the foreground, the Gate of Felicity facing it, and the harem on the left. (29, 30)

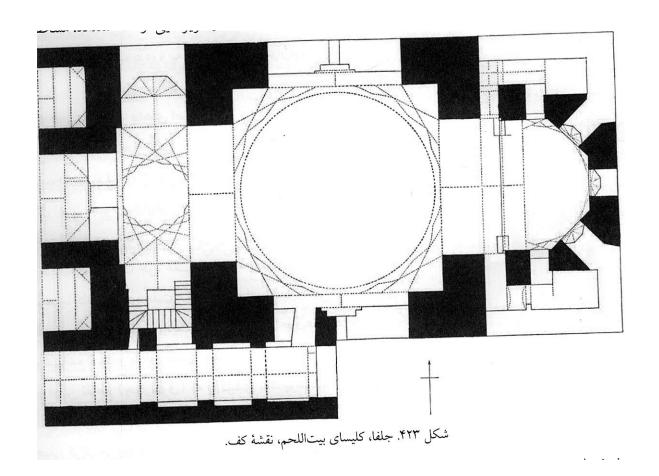


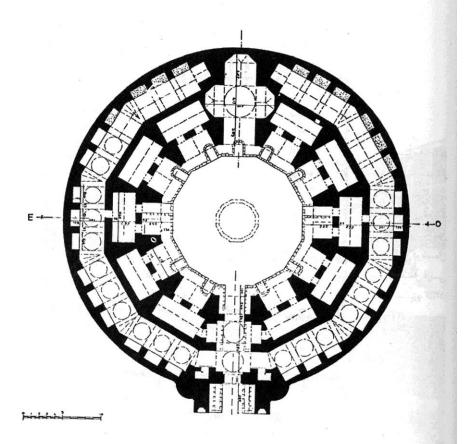


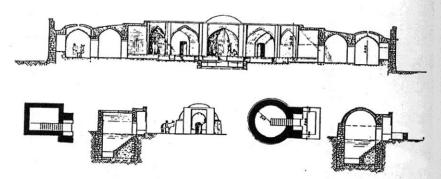
The harem, or women's quarters, consists of a warren of small rooms, halls and passages tightly segregated from the rest of the Topkapi – a palace within a palace. The range on the left housed the black eunuchs. The domes on the right belong to the Divan. (31)



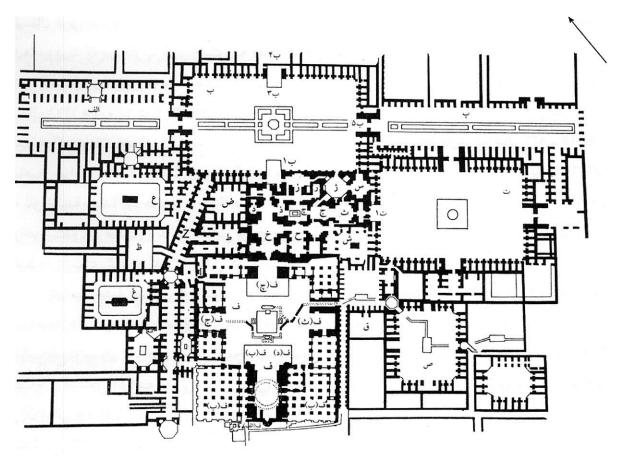
The younger brothers of a sultan, who were fortunate if they escaped execution, were immured in a separate building known as 'the Cage'. Here we are looking out into the Courtyard of the Cage: on the right is the 'Golden Road' between the men's quarters and the harem. (32)





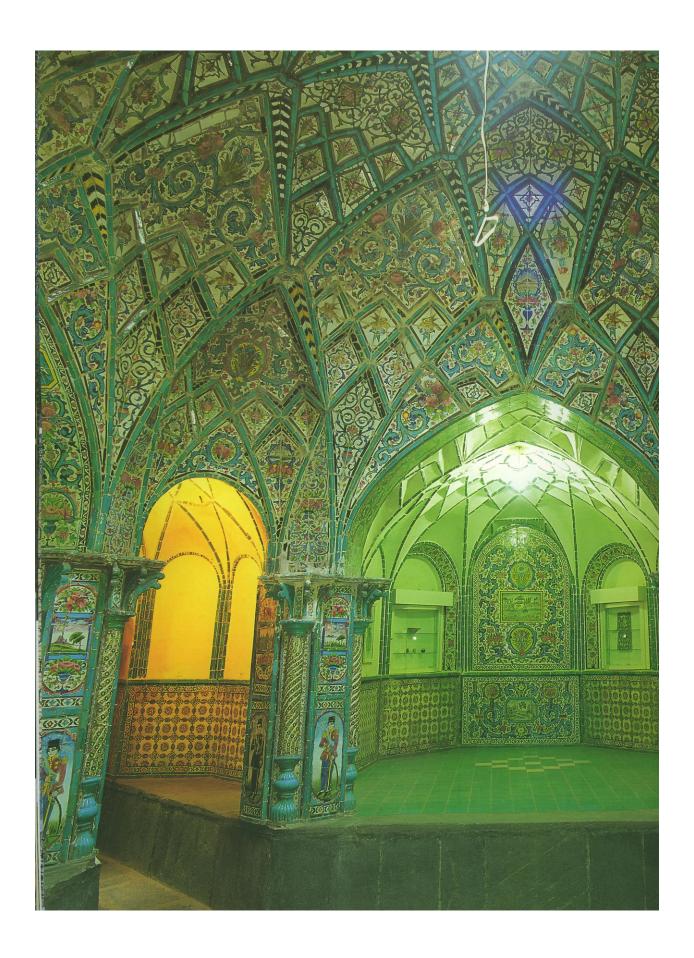


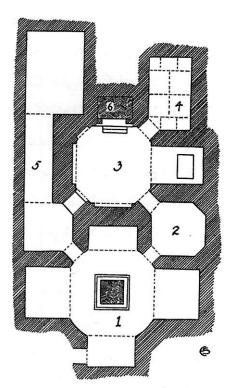
نگاره ۲۰-۲۱: کاروانسرای زیره در چهل کیلـومتری جـلاه قـدیم کاشـان بـه نطنـز، تـاریخ سـاخت۱۲۷۰ هجـری قمـرۍ طح آن از بیرون دایـره شـکل و از درون دوازده ضـلعی اسـت در مرکـز، حیـاط قـرار دارد و در لایـه اول، ایوانچـه، لایـه دوم حجرمها و در لایه سوم اصطبلها جای گرفتهاند (طرح از ماکسیم سیرو).



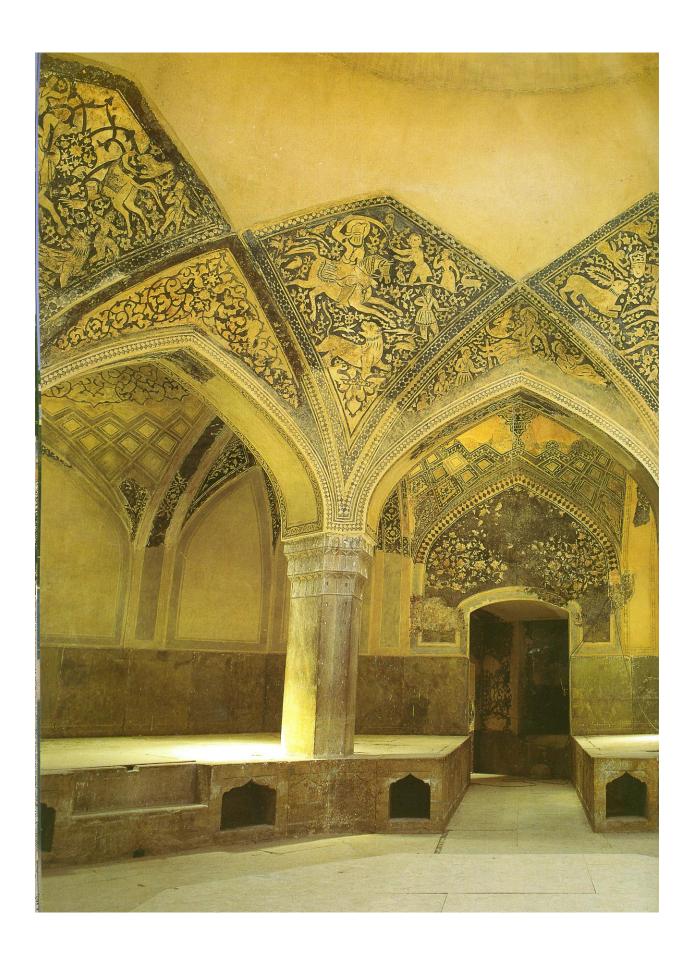
شكل ۴۲۴. مشهد، حرم امام رضا(ع)، و مسجد گوهرشاد: نقشهٔ كف.

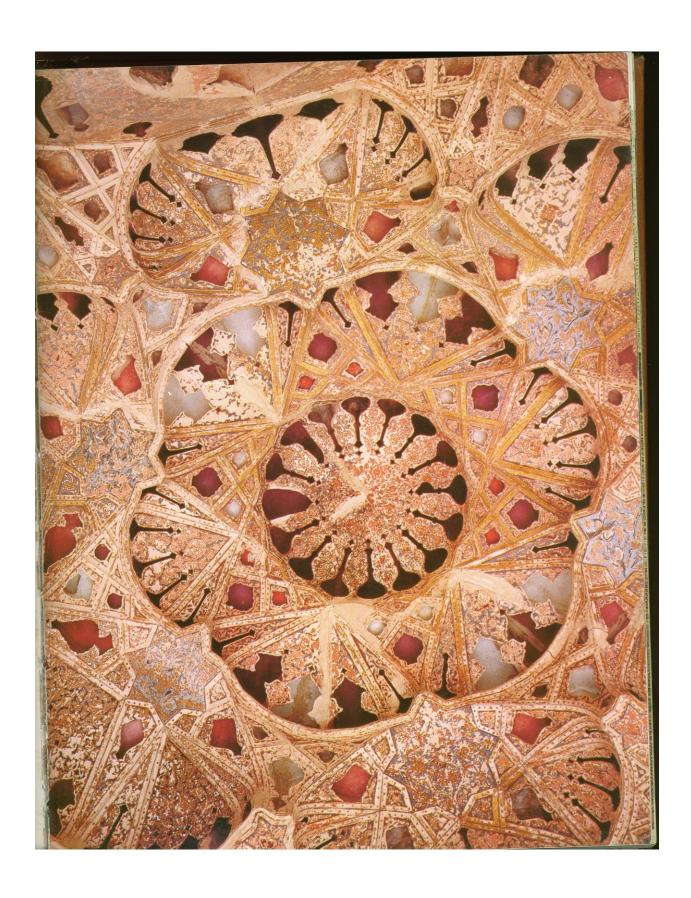
ظ. مدرسهٔ دودر.	چ. ضریح حضرت.	الف. بالا خيابان.
ع. كاروانسراي وزيرنظام.	ح. دارالحفاظ.	ب. صحن كهنه.
غ. كاروانسراي ناصري.	خ. دارالسّياده.	ب ۱. ایوان طلای علیشــیر نوایــی (اکنون به نام
ف. مسجد گوهرشاد.	د. بالاسر.	ايوان طلاي نادري).
ف (الف). محراب	ذ. بالاسر.	ب ۲. ورودی بالاخیابان شاهعباس.
ف (ب). ايوان مقصوره.	ر. مسجد نسوان.	ب ۳. ايوان شاهعباس دوم.
ف(پ). شبستان.	ز. توحیدخانه.	ب ٢. منارهٔ شاهطهماسب.
ف(ت). مناره.	ژ. گنبدخانهٔ اللهوردىخان.	ب ۵. ورودی پایین خیابان.
ف (ث). ايوان حاجيحسن.	س. دارالضّيافه.	پ. پایین خیابان.
ف (ج). ايوان آب.	ش. مدرسهٔ علی نقی میرزا.	ت. صحن نو.
ف(چ). ايوان السّياده.	ص. مدرسهٔ پایین پا.	ت ۱. ایوان طلای فتحعلیشاه.
C	اض. مدرسة بالاسر.	ث. درالسّعاده.
星	ط. مدرسهٔ پریزاد.	ج. گنبدخانهٔ حاتمخان.

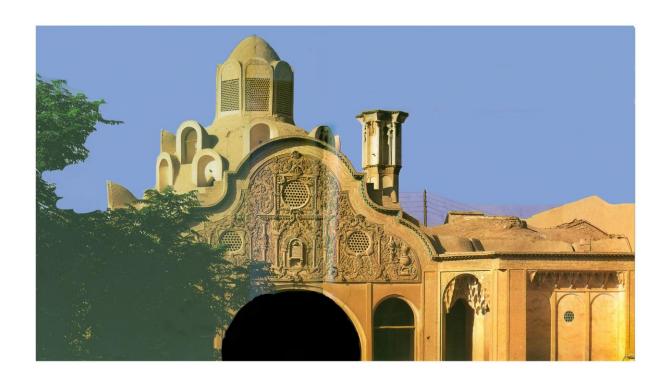


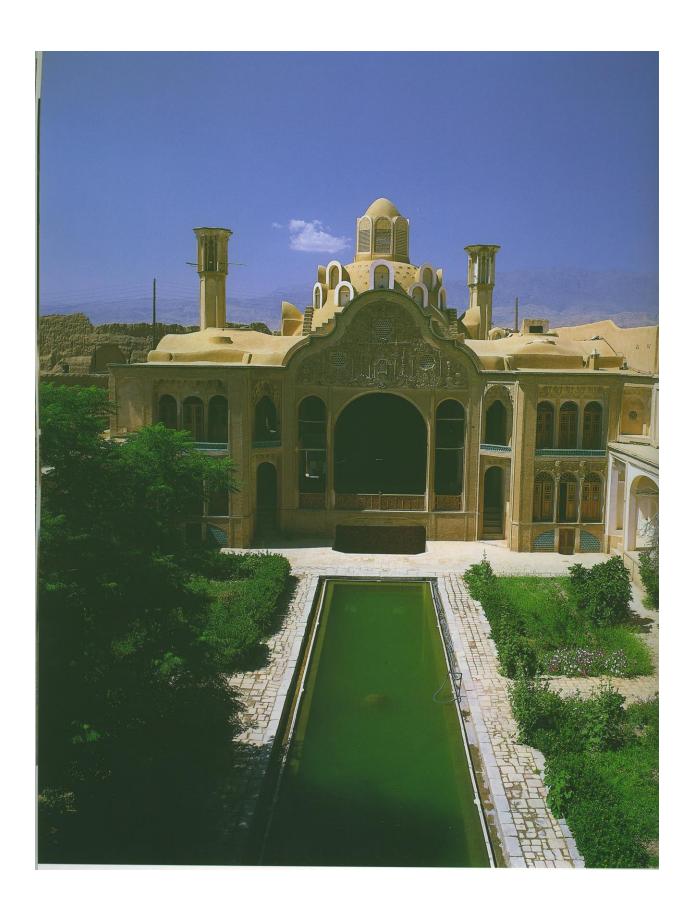


شکل ۳۴۲ نگار، حمام، سلجوقی، نقشهٔ کف. ۱. رختکن (سربینه). ۲. راهگذر ۳. گرمخانه. ۴. بخارخانه. ۵. انباری. ۶. خزینه.

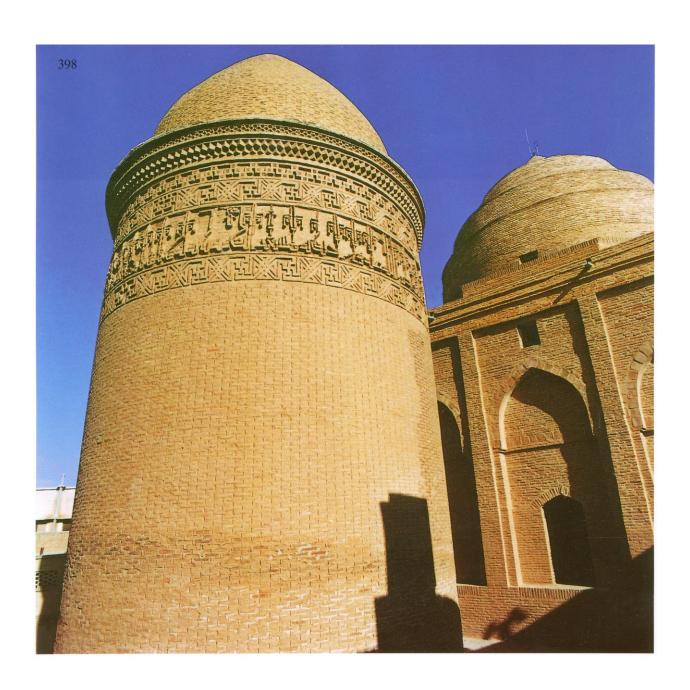


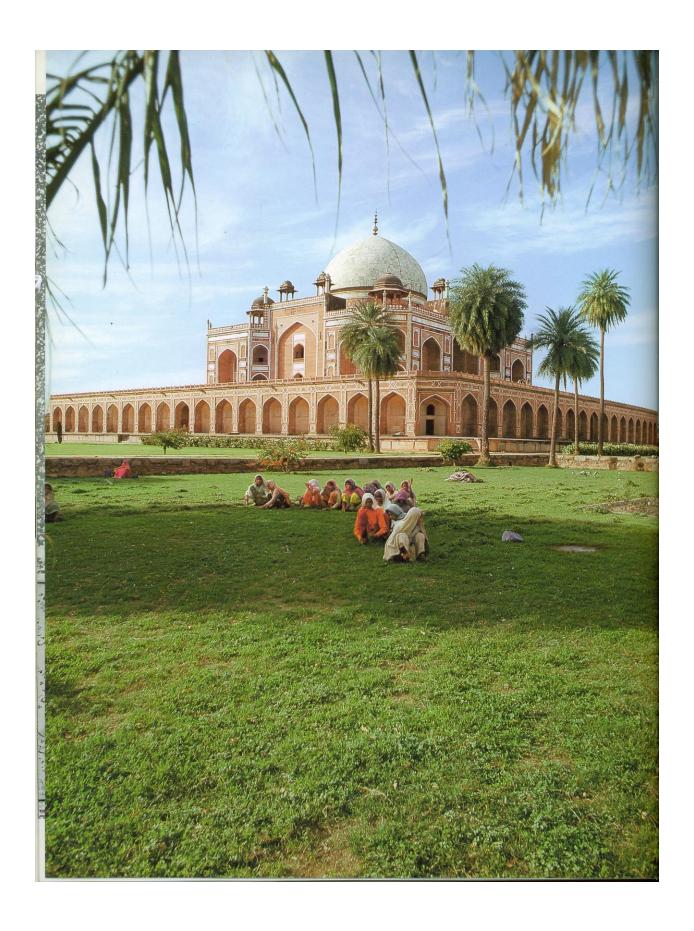






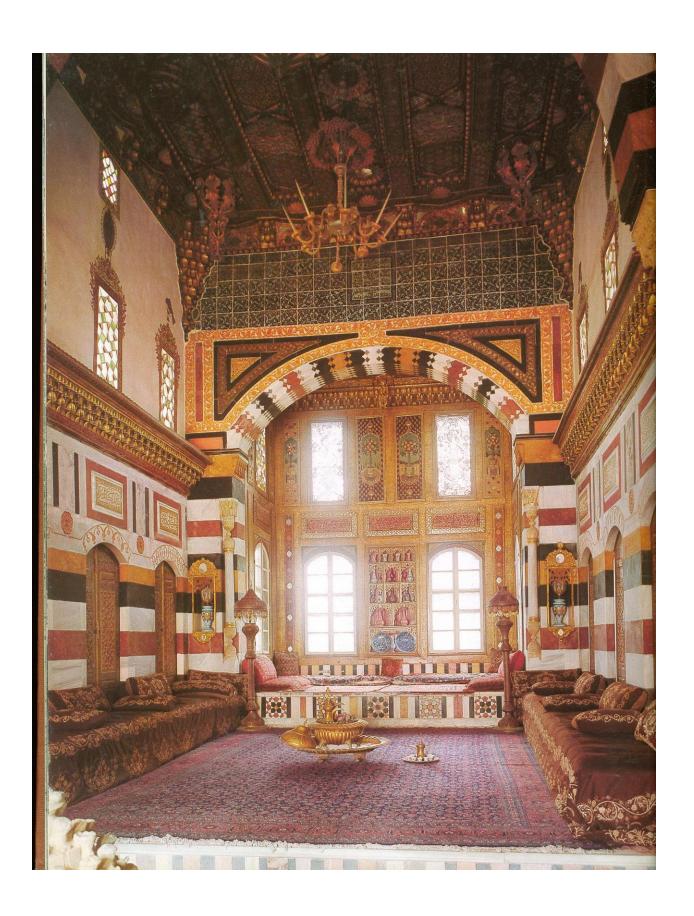


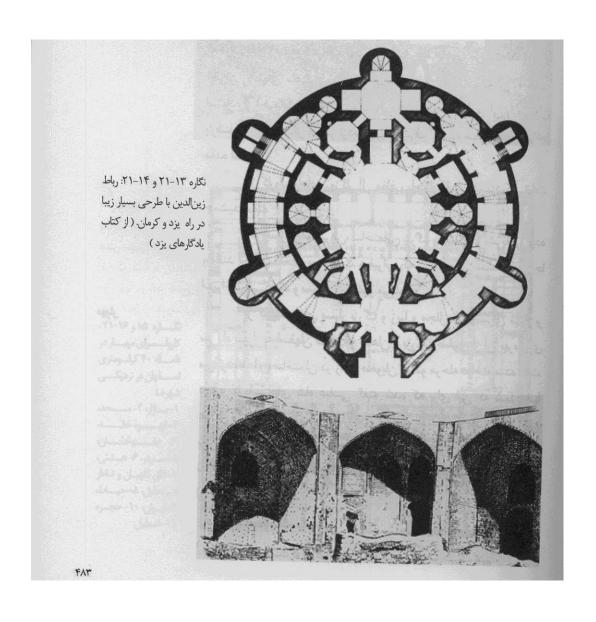


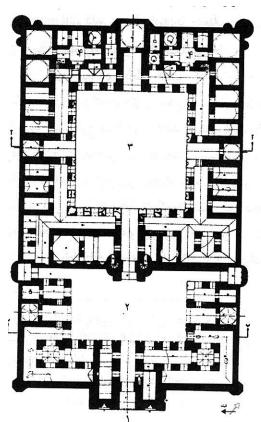












نگاره ۵-۲۱: رباط شرف: با دو میانسرا که احتمال م<sub>کر</sub>ود میانسرای کوچک بعد از میانسرای بزرگ آن ساخته شده باشد.

۱- ورودی

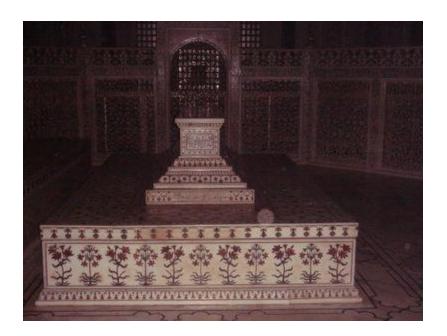
۲- میانسرای کوچک

۳- میانسرای بزرگ

۴- واحدهای پذیرایی

(از مجله اثر)





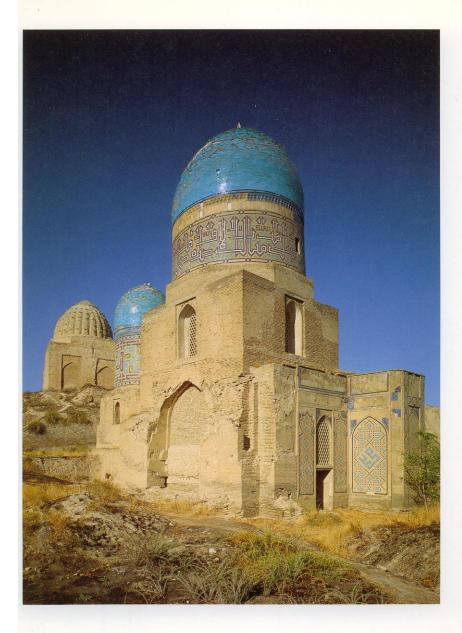


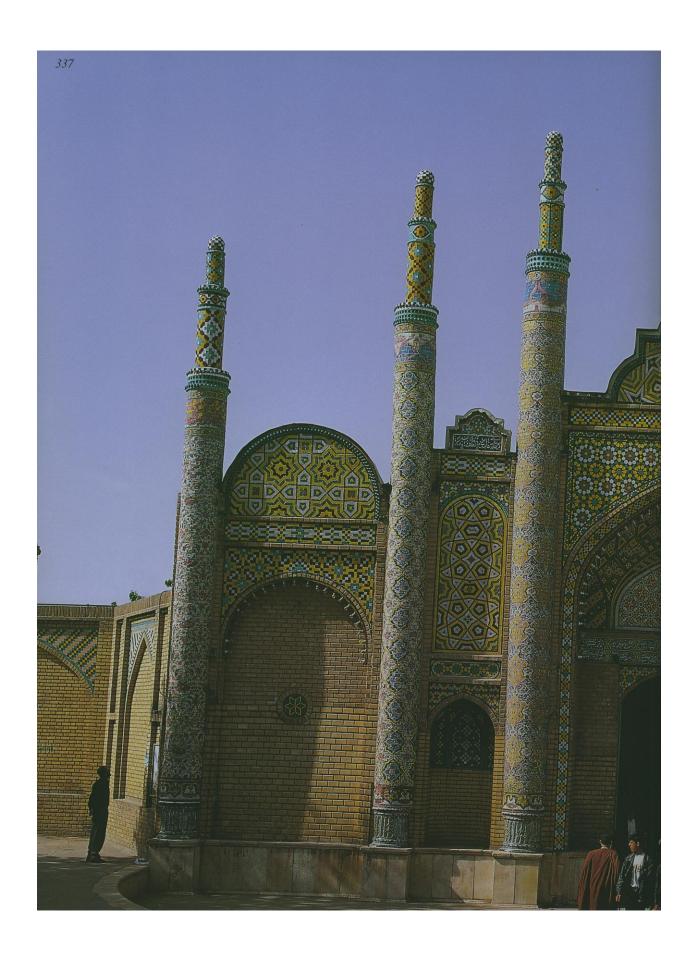
fig. 8

Shah-i Zinda funerary complex Samarqand, c. 1370–1425

cat. no. 7B

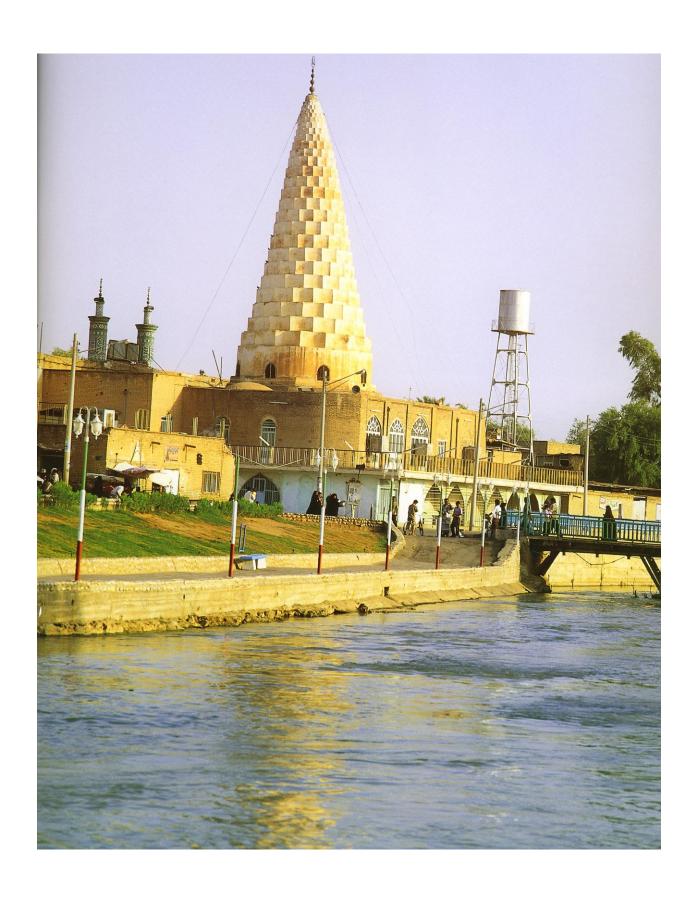
Frieze with a Koranic inscription from the tomb of Buyan Quli Khan Bukhara, c. 1358–59 Glazed ceramic

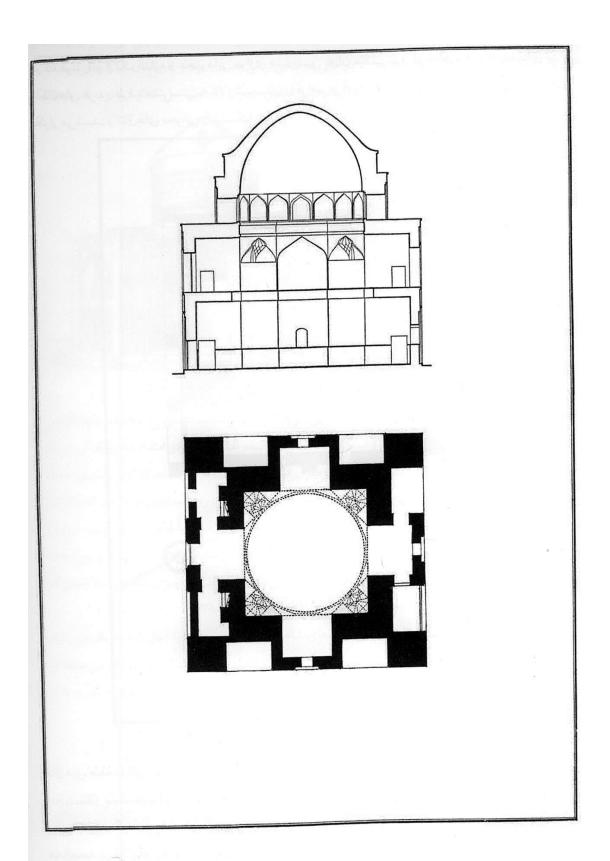




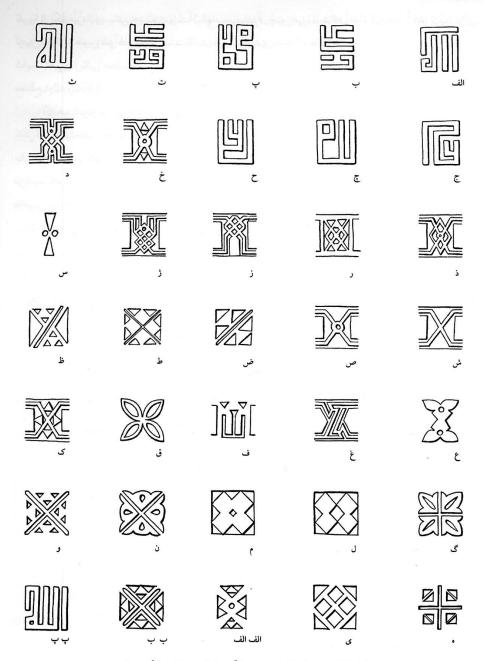








شکل ۴۱۸. شیراز، آرامگاه بیبیدختران: برش و نقشهٔ کف.

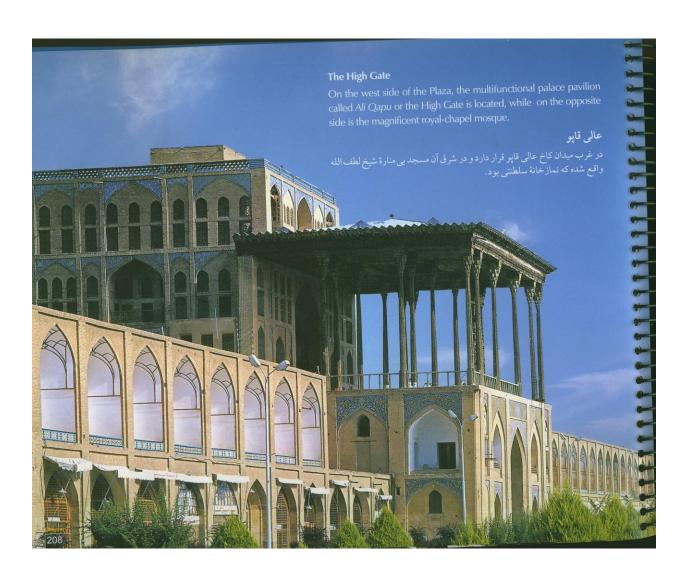


شکل ۴۶۷. طرحهای گلمیخهای میانآجری، گچ، و گل سفالگری پخته.

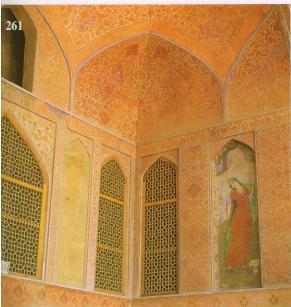
الف ـ ت، ذ، ص. قزوين، مسجد جامع. الف \_ ب، د، ص. فروین، مسجد ج. ث، ج، خ، د. یزد، مسجد جامع. چ، ح، ک، ج ج. آرامگاه پیر بکران. ذ، ش، ص. اصفهان، مسجد جامع. ذ، ر، ژ. قزوین، مسجد حیدریه.

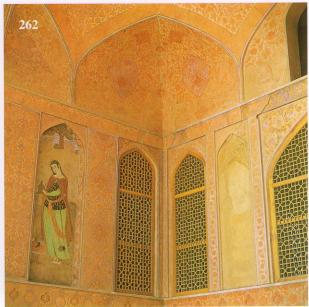
ز. قزوین، آرامگاه حمدالله مستوفی. س، ص. گلپایگان، مسجد جامع. س، حرم، بسطام. ص، ظ، ع. ورامین، مسجد جامع. ض، ط. اردستان، مسجد جامع.

ض، ق. نايين، مسجد جامع. غ. مراغه، برج گرد. ف. همدان، گنبد علویان. چ چ \_خ خ. اشترجان، مسجد جامع.

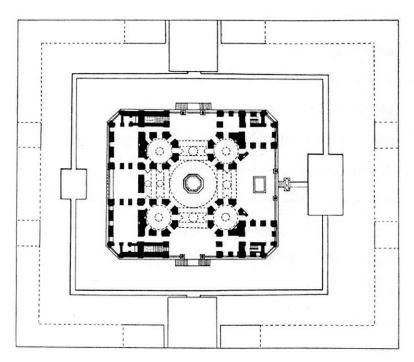




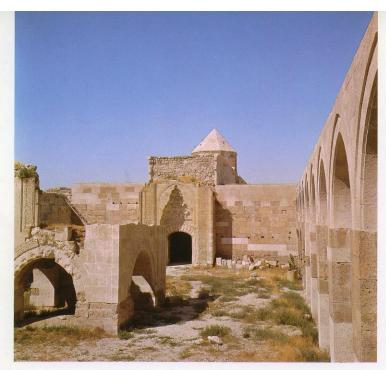








شكل ۴۲۱. اصفهان، كاخ هشت بهشت: نقشهٔ كف.

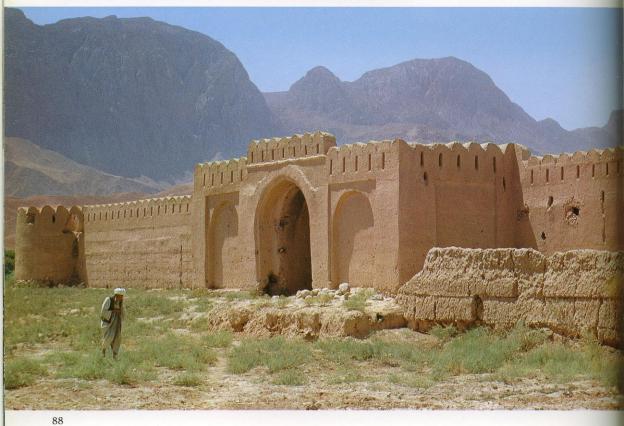


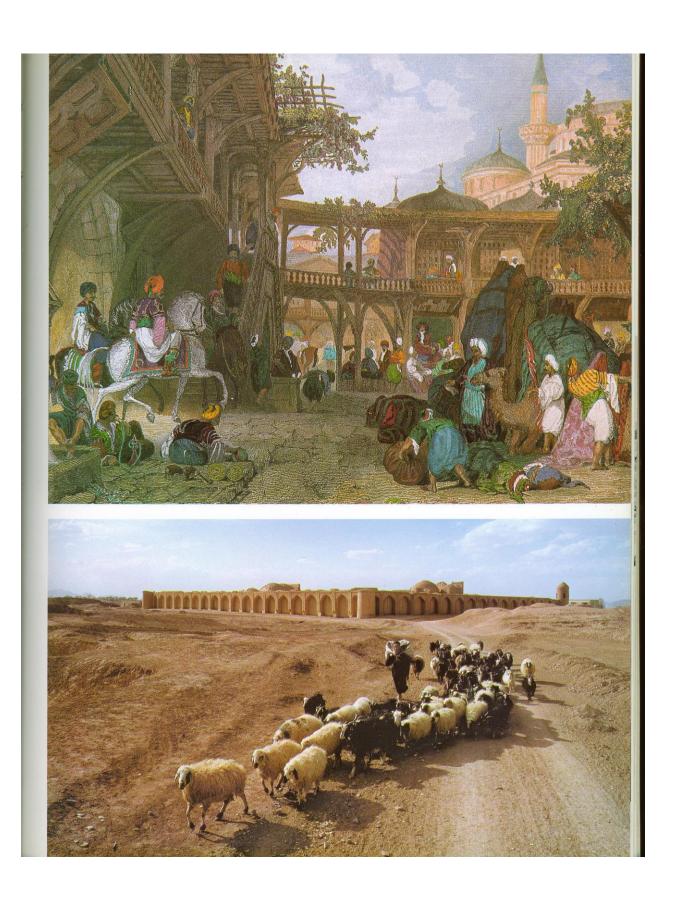
## Caravanserais

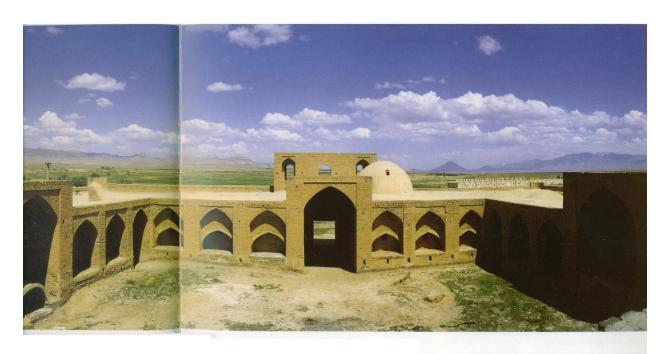
Between Kayseri and Sivas, in Anatolia, stands the second of 'Alā al-Dīn Kayqubād's two Royal Caravanserais, at Palas (left). Built between 1232 and 1236, it comprises a large open courtyard and a great covered hall opening from the side opposite the entrance. Here we are looking across the courtyard, with arcades on the right housing stables, towards the hall's splendidly decorated portal. Behind it rises the high central dome of the hall. The free-standing structure on the left was a mosque, raised on arches and reached by stairs. (19)

Within the city the caravanserai is known as a *khān*, and it required less fortification but more space for storage and commercial transactions. A 19th-century view of a *han* at ▷ Güzel Hisar, in Anatolia (*right*), shows that it was a social centre as well. [21]

The battered mud walls and cresting of the caravanserai near Tash Kurghan, in Afghanistan (below), contrast with the repeated niches on the exterior of that near Gaz, in Iran (below right), although their plans are essentially the same. (20, 22)



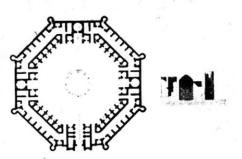




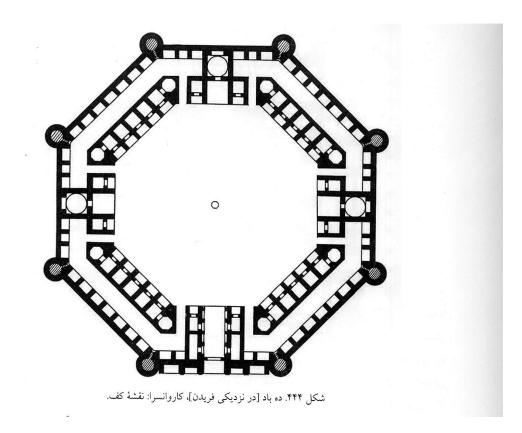
کاروانسرای صفوی دو دهک در راه قم به اصفهان

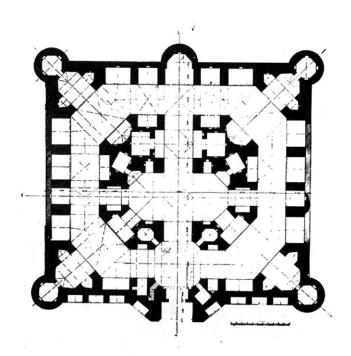




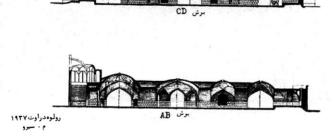


نگاره ۱۷ - ۲۱: کاروانسرای امین آبدد در راه اصفهان به شیراز، احتمالاً از دوره شاه عبلس صفوی طرح آن شبیه به ربدلط خان خوره می باشد (طرح از کست به نقل از ماکسیم سیرو).

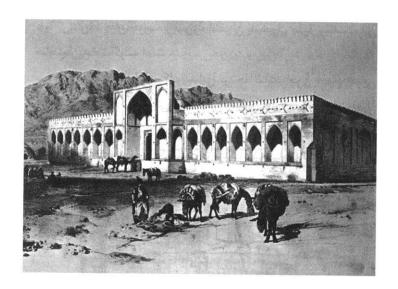


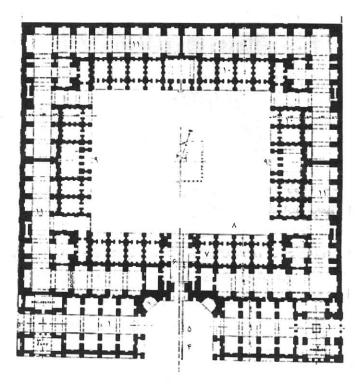


نگاره ۹ - ۲۱: کاروانسرای شبلی در کنار گردنه شبلی در راه تبریز. از دوران صفوی این کاروانسرا دارای میانسرا نیست و فضای مرکزی آن سرپوشیده است. (از ماکسیم سیرو)

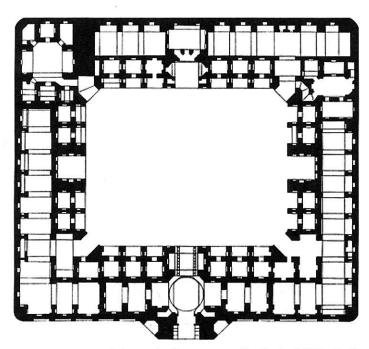


4

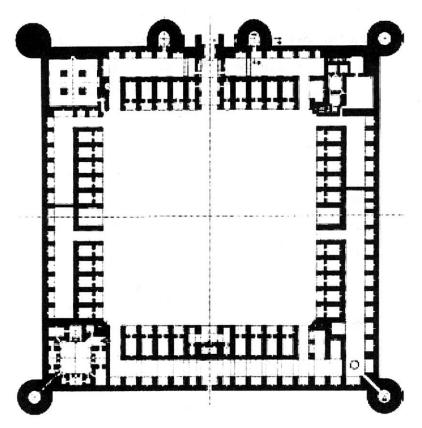




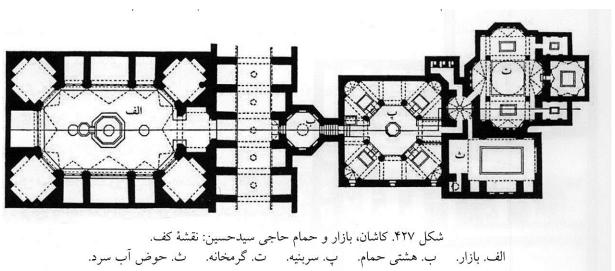
نگاره ۱۵ و ۱۲-۲۱: کاروانسرای مهیار در فاصله ۴۰ کیلومتری اصفهان در نزدیکی شهرضا. ۱-بازار، ۲-مسجد ۳-قهوه خانه ۴- جلوخان ۵-سردر، ۶-هشتی، ۷- اتلق نگهبان و ناظر اصطبل، ۸-حیاط، ۱-اصطبل، ۱-حجره

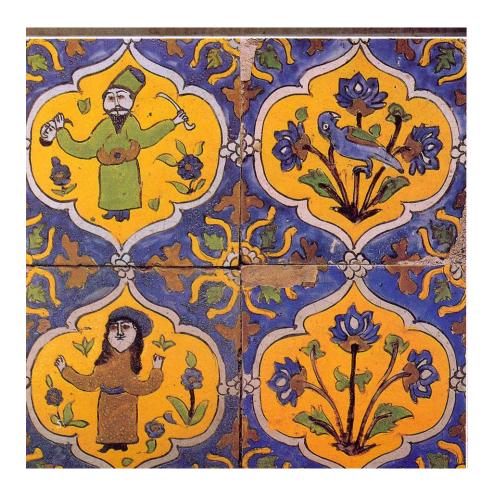


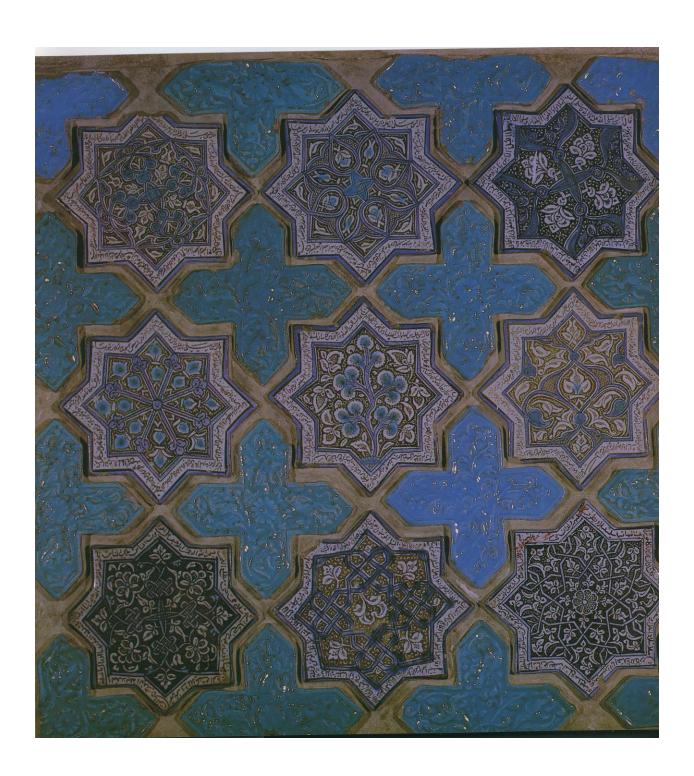
نگاره ۲-۲۱: کاروانسرای مادر شاه در مورچه خورت اصفهان (در ده کیلومتری مورچه خورت). محل حضور سفرای خارجی و همراهان آنها برای آمادگی ورود به دربار سلاطین صفوی.

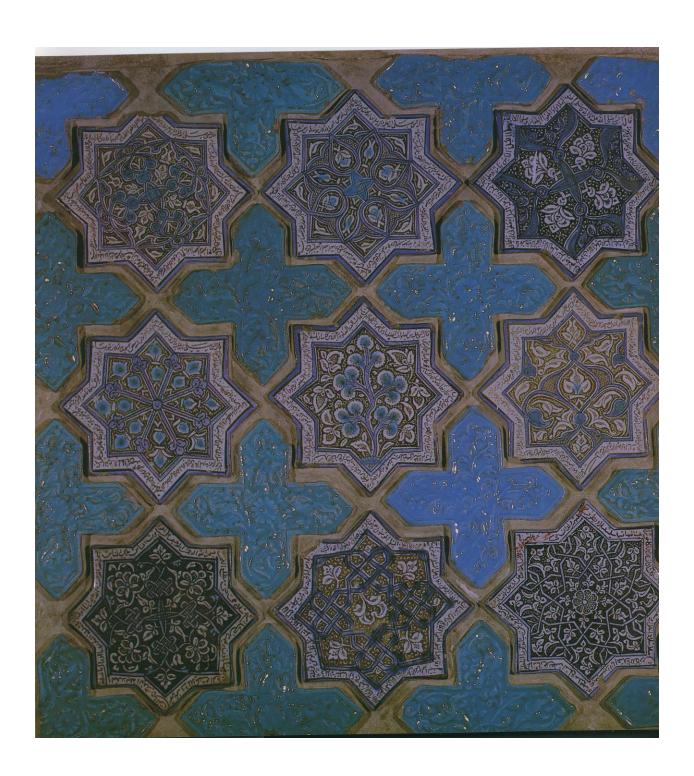


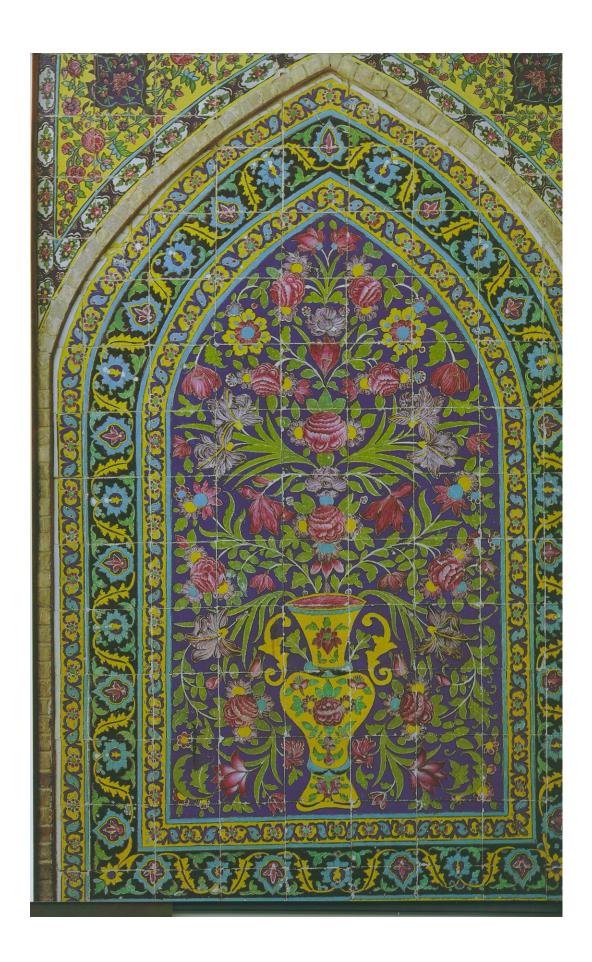
نگاره ۶-۲۱: کاروانسرای دیر گچین، جاده تهران-قم-ماخذ (بر اساس کیانی، ۱۳۷۲).





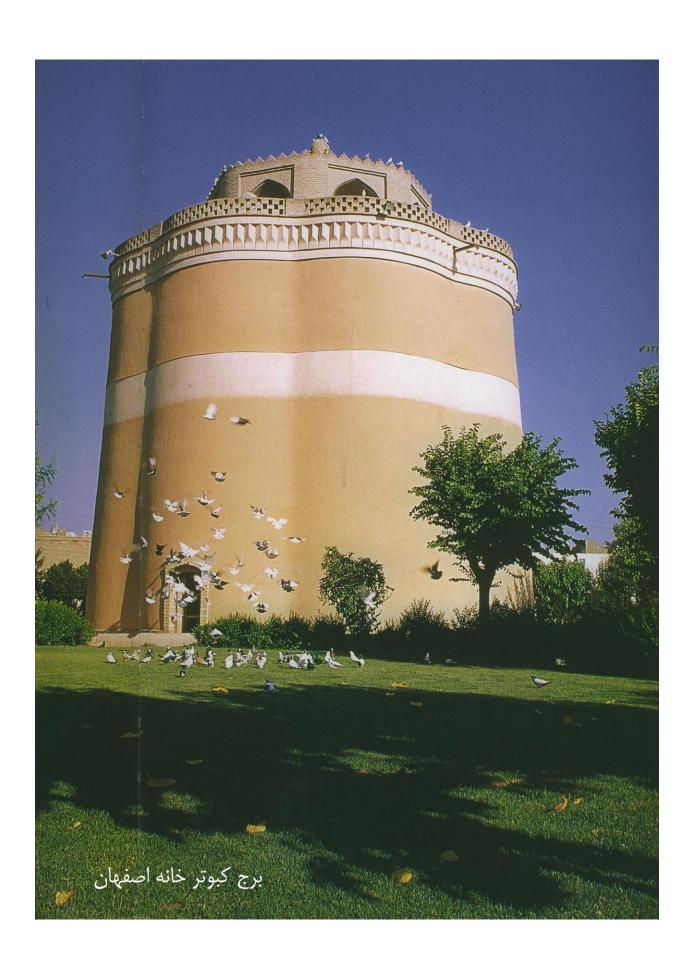












## Industrial vernacular

The versatility and the depth of knowledge of practical technology possessed by traditional Islamic craftsmen is best evidenced in utilitarian structures serving the highly specialized needs of environmental control, industry and agriculture. Although these buildings are realized within the formal limitations of local bulding traditions, their special requirements have sometimes led to spectacular architectural expression.



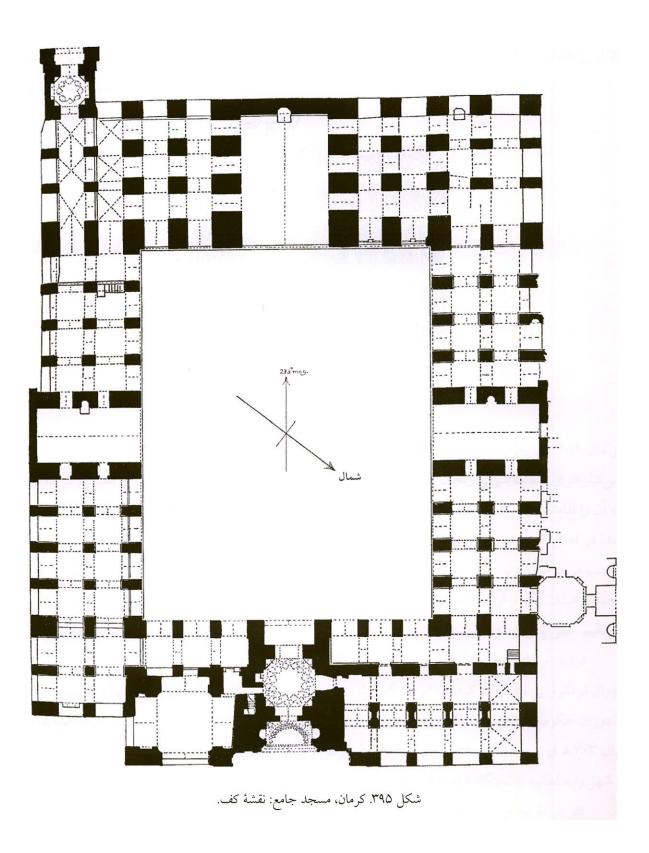
Weavers' huts (above), on the island of Djerba, southern Tunisia, are semi-excavated so as to take the lateral thrust of the transverse-arched vaults of the roof. (35)

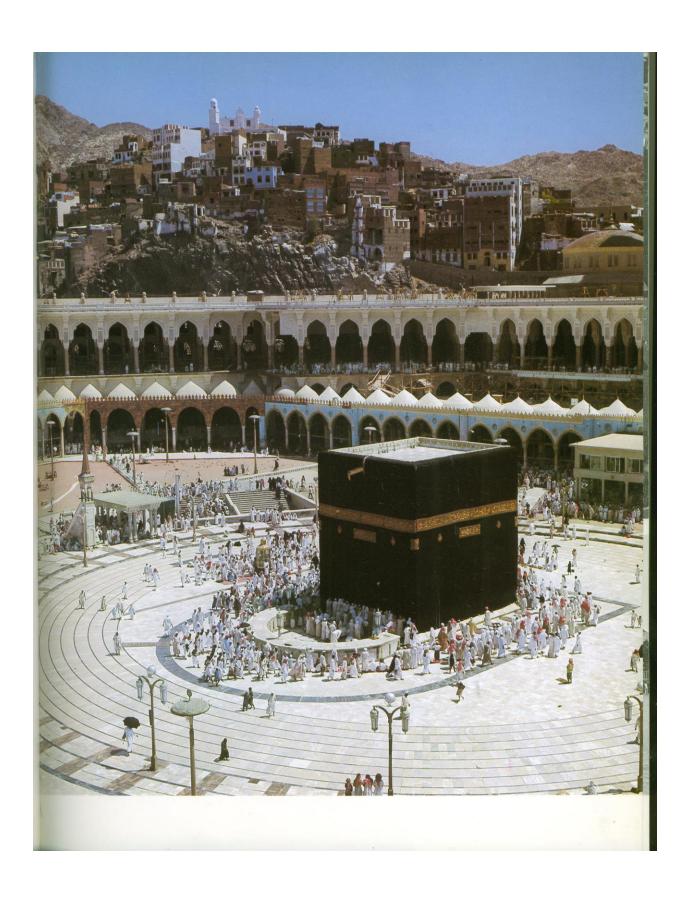


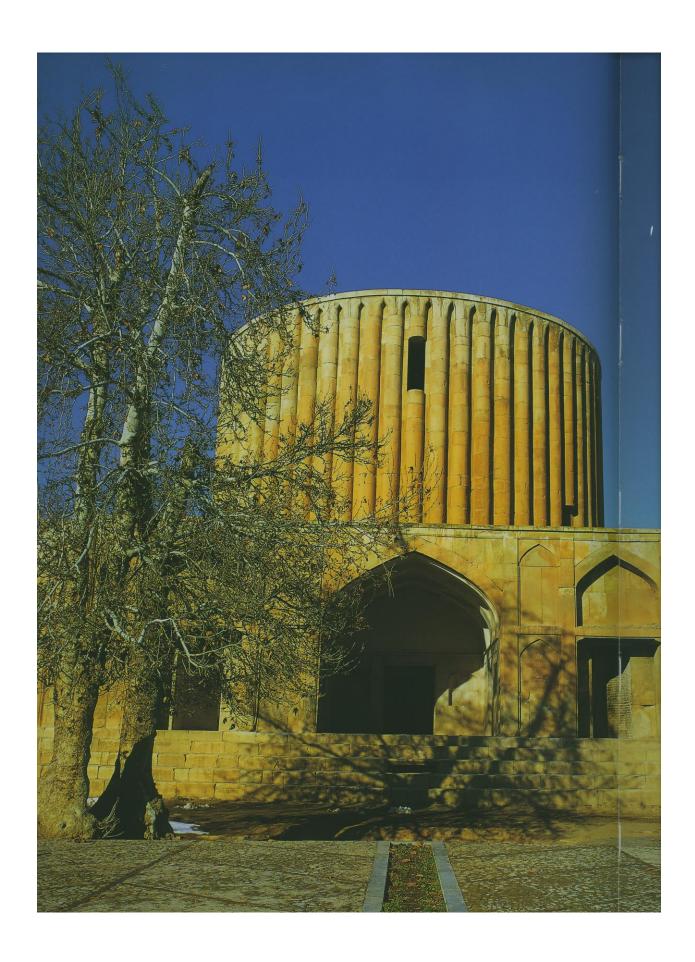
**Pigeon towers** (*above*) near Isfahan. Groupings of cylindrical towers, decorated with bands of folk-motifs, house the pigeons, who enter through the central turrets. (36)

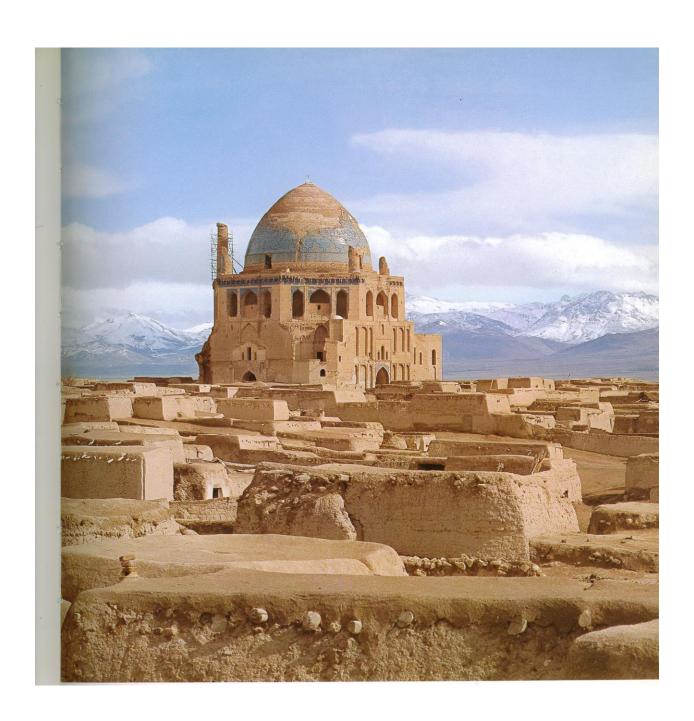
Rows of windmills (below) with apertures open to the prevailing winds are found in Sistan, eastern Iran. Vertical vanes of reeds power the millstones below. (37)

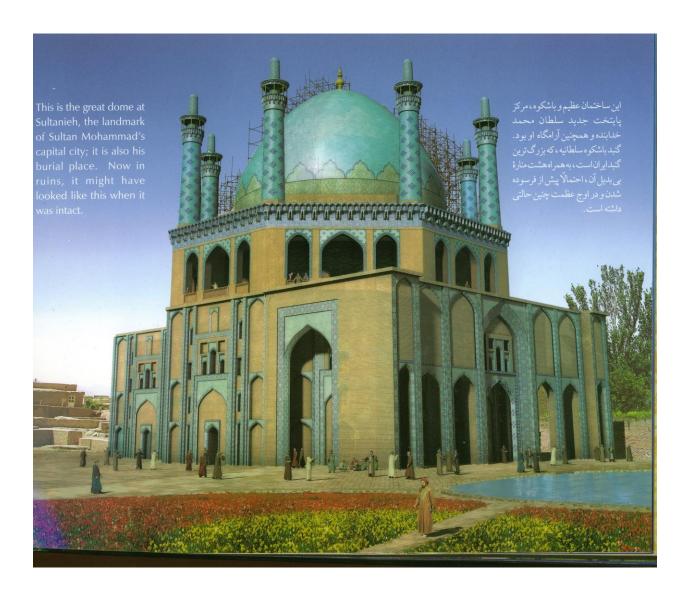


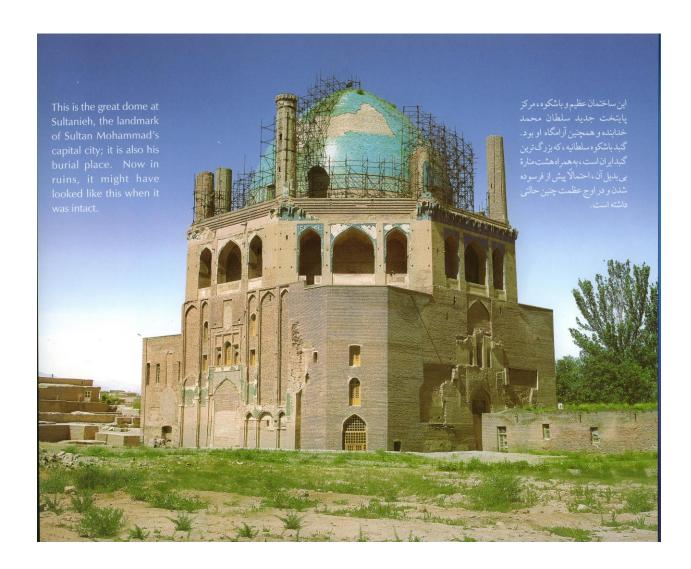


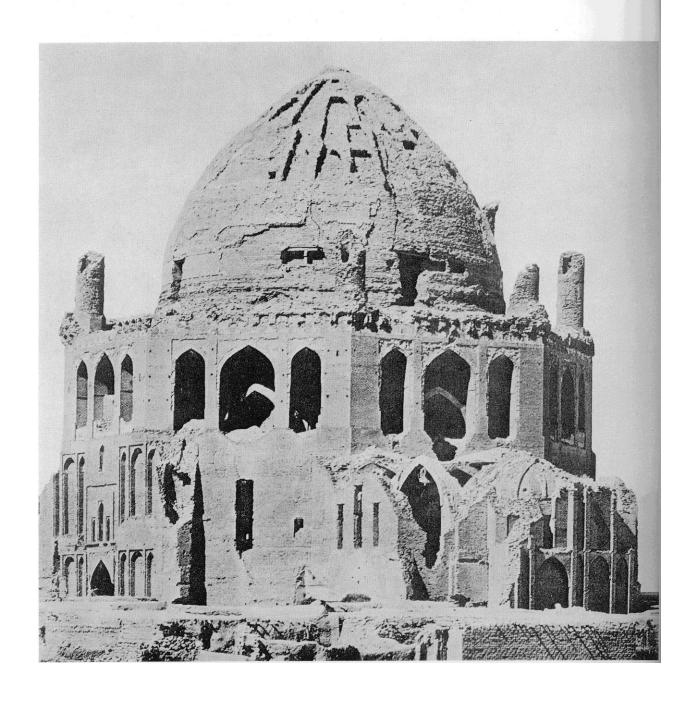


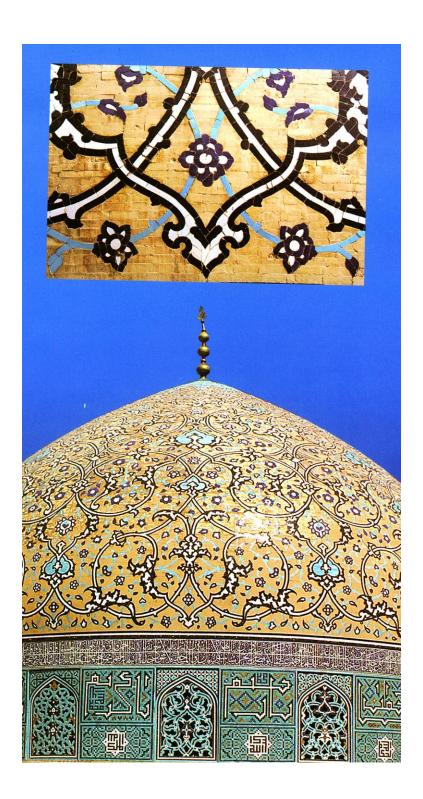


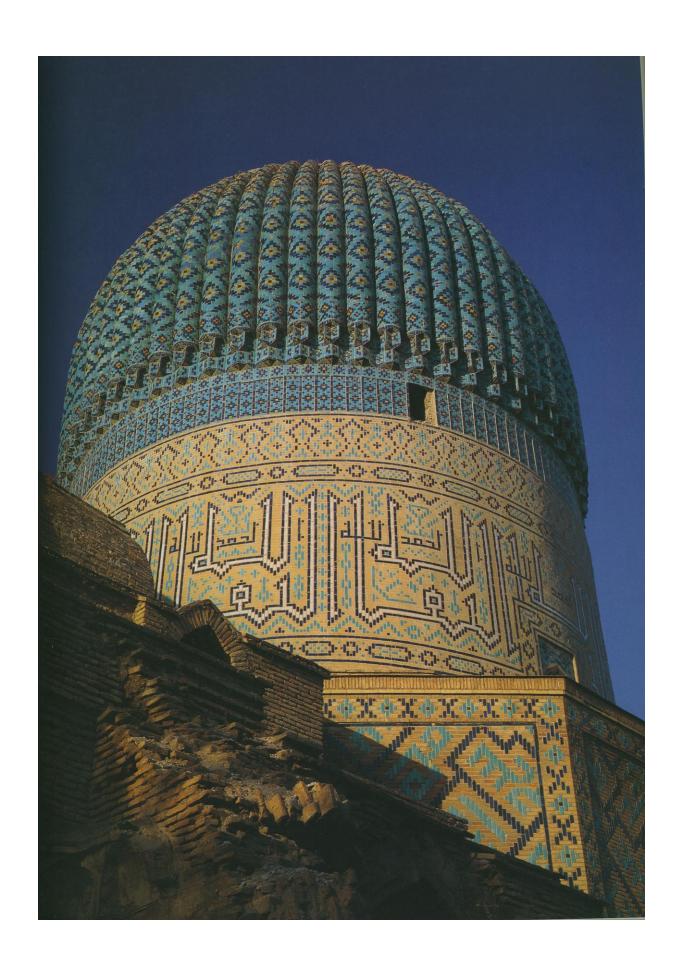




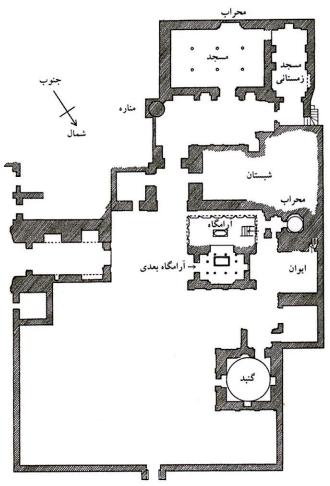




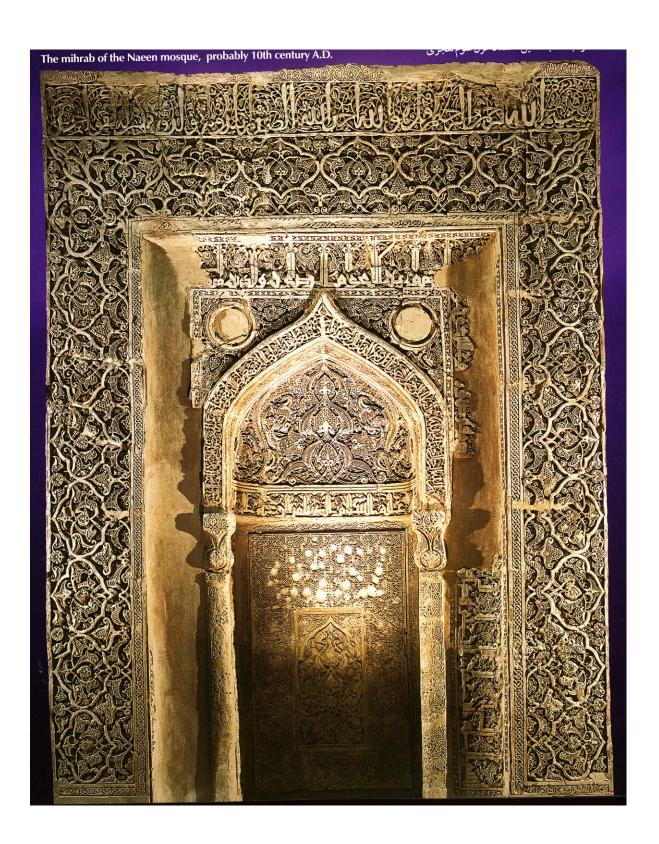








شكل ٣٨٨. بسطام، بقعهٔ بايزيد، مجموعهبناهاي جنوبي: نقشهٔ كف.



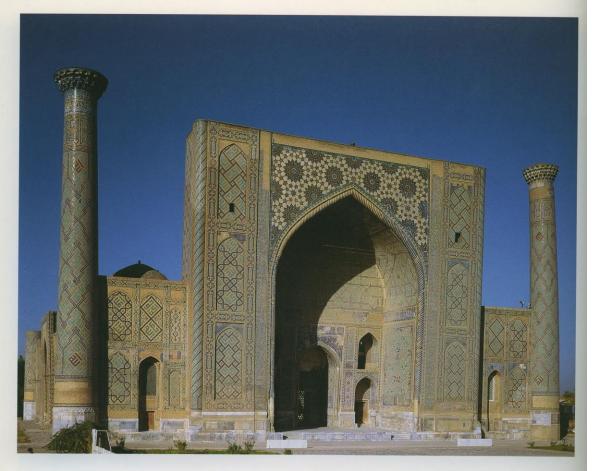


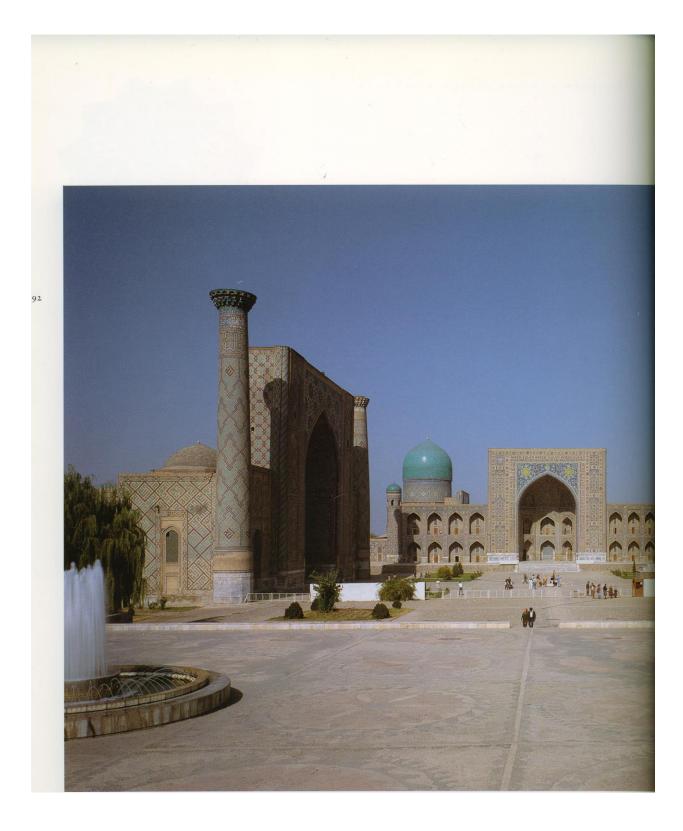
fig. 35 Madrasa of Ulugh-Beg ibn Shahrukh, Registan Samarqand, c. 1417–20

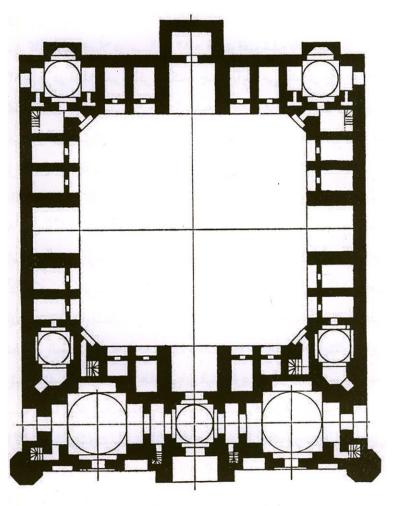
The ulema supplied these viziers to the Timurids as well as staffing the *diwans* (ministries) and madrasas of the city; hence, the ulema ran municipal affairs. While collaboration with a foreign military aristocracy was abhorred by many in the religious classes, those who did so were attached to their patrons in a traditional manner. In turn each Timurid prince was bound to a spiritual preceptor, much as Timur and his father were related by the spiritual and educational ties of *murid* (disciple) and *pir* (Sufi master) to a Transoxianan shaykh.<sup>39</sup>

The Timurids' religious activity should not always be interpreted as strictly a calculated policy to win support. Some of the princes were apparently genuinely interested in Islamic law and theology. Iskandar-Sultan, for example, an independent and often rebellious Timurid prince, showed in stark contrast to his aggressive political and military behavior an intense interest in spiritual matters. On at least two occasions he sent to theological adepts written questions on metaphysical issues that piqued his curiosity: What is the nature of love, of the intellect, of angels? Who is Satan? Was the *mi'raj* (Muhammad's nocturnal ascent to heaven) spiritual or physical? Many of his thoughts on these points are contained in the preface of his now-lost *Jami' al-sultani* (Royal chronicles), which has been preserved in a later version.<sup>40</sup> One of his extant anthologies also contains a commentary on Shiite doctrinal questions as well as an exposition of Sunni creed.<sup>41</sup>

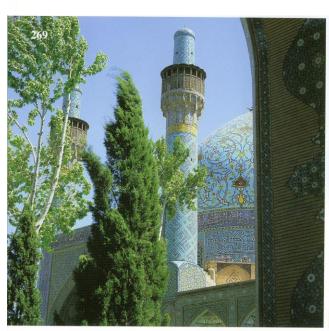
In addition Iskandar-Sultan maintained a personal rapport with the celebrated Sufi poet Shah Ni matullah Wali Kirmani and gave him revenues from the district of Taft to construct a large khanaqah there. After being removed from power, Iskandar led the life of an ascetic and installed himself for a number of months at the Shrine of Imamzada Sahl-i Ali near Isfahan.

Yet despite Iskandar's religious commitments, he maintained close ties through birth, marriage, and per-





شكل ۴۰۲. خرگرد، مدرسه: نقشهٔ كف.







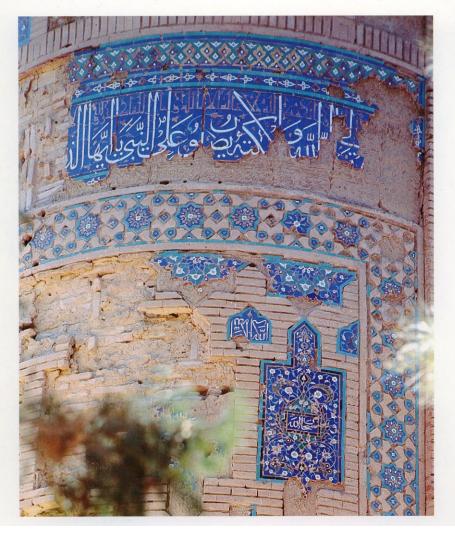
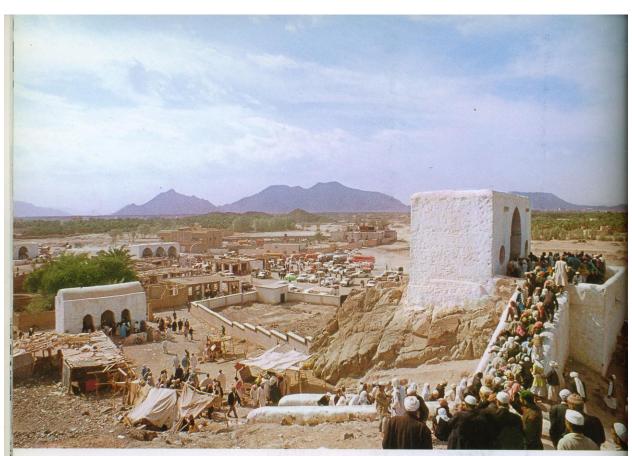


fig. 31 (opposite)

Mausoleum dome of the *madrasa* of Gawharshad (detail) Herat, c. 1432

Minaret at the *madrasa* of Gawharshad (detail) Herat, c. 1432

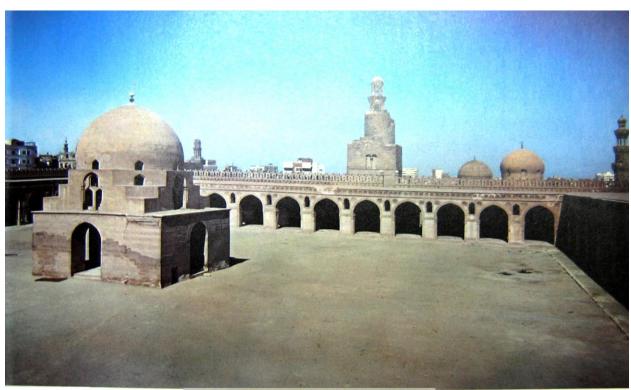


Memorial mosques dot the field of the historic Battle of the Ditch, when the supporters of the Prophet successfully defended Medina. Five mosques commemorate the sites of the command posts occupied by the leaders. That on the right was the Prophet's, and is predictably crowded with pilgrims, their heads covered as a sign of reverence. (29)

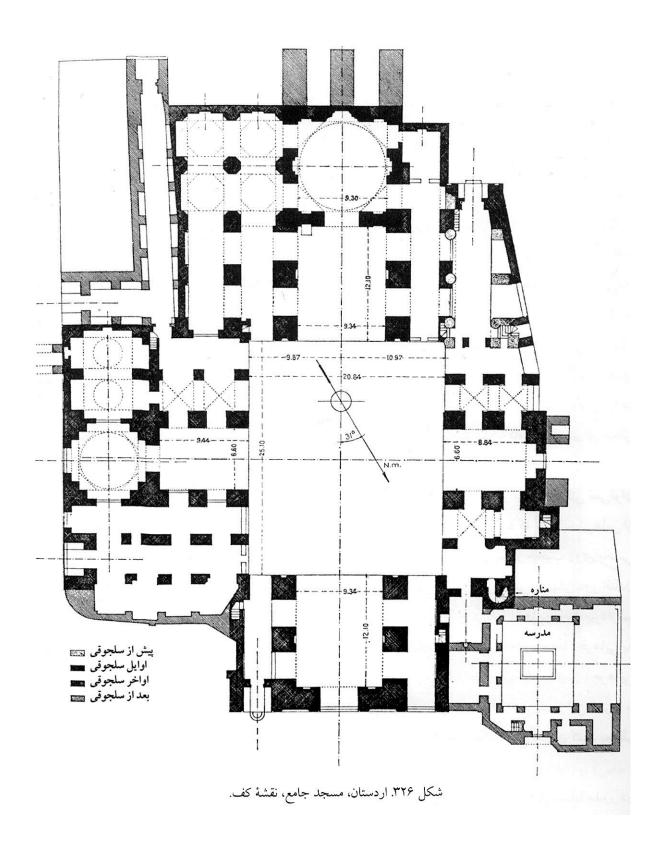
In a cemetery on the outskirts of Edirne, the architect Sinan built a tomb for his grand-daughter. This view shows the oratory with an open trellis-work mihrāb enclosed in the typical keel-type arch favoured by the Ottomans, with the tombs lying beyond on the same axis. The floor is uncarpeted, as funeral prayers do not involve prostration, and the places where they are said are not subject to the same canons of purity as obtain in a mosque. Far right: two 'anthropomorphic' headstones in the same cemetery. The symbolic tops indicate the professions of those buried beneath. (30,31)

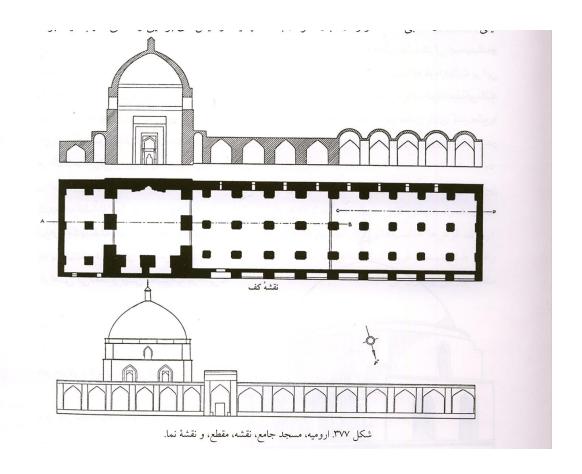


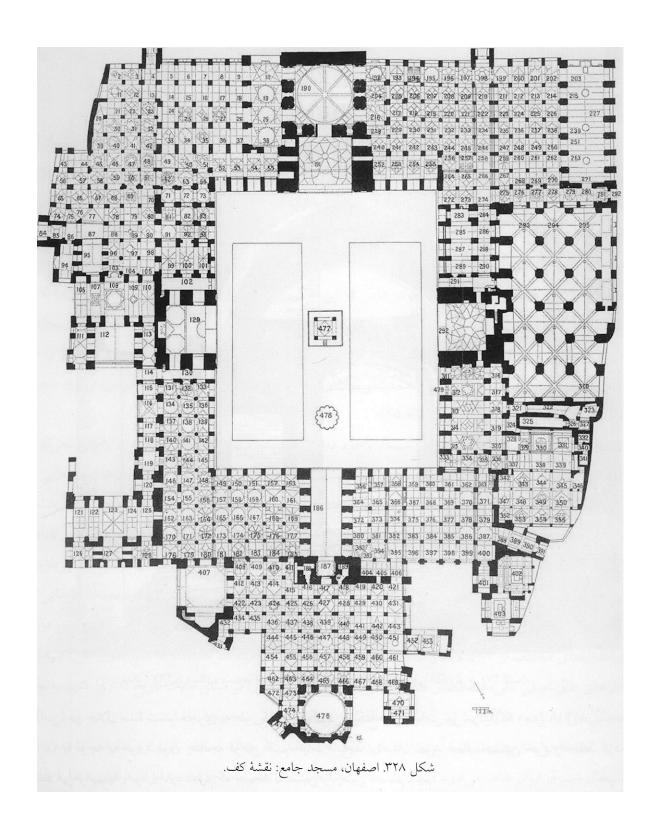


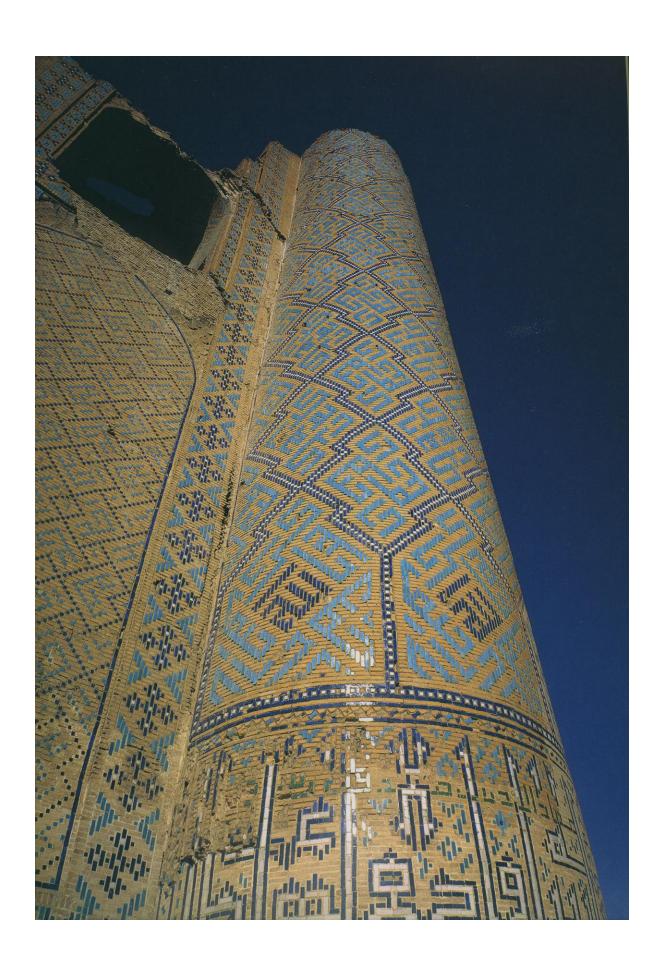


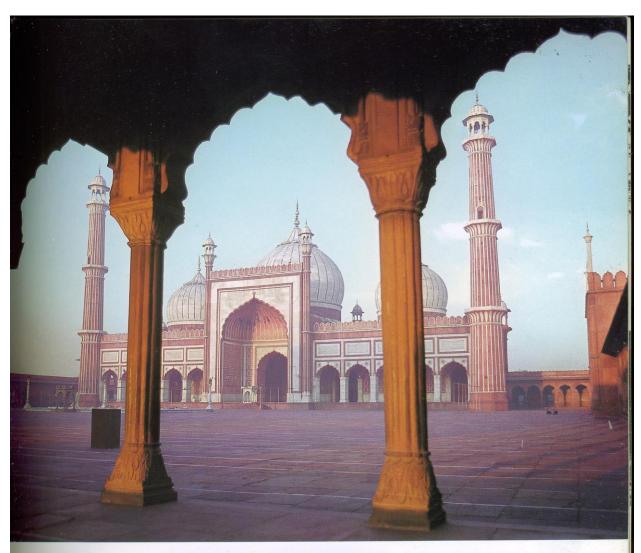
Courtyard of the mosque of Ibn Tulun, Cairo. 877-79







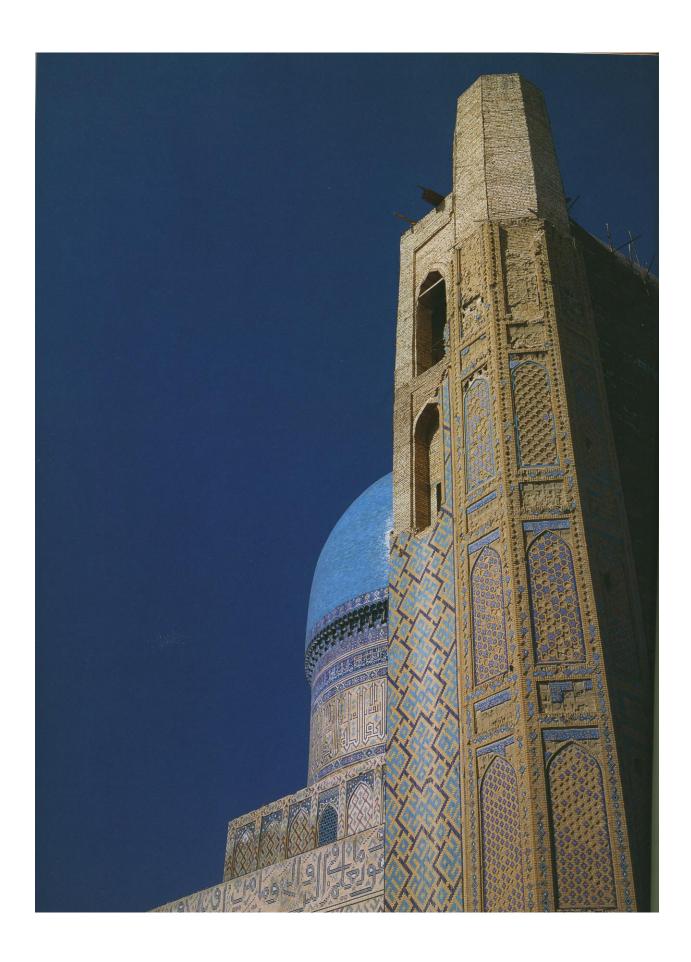


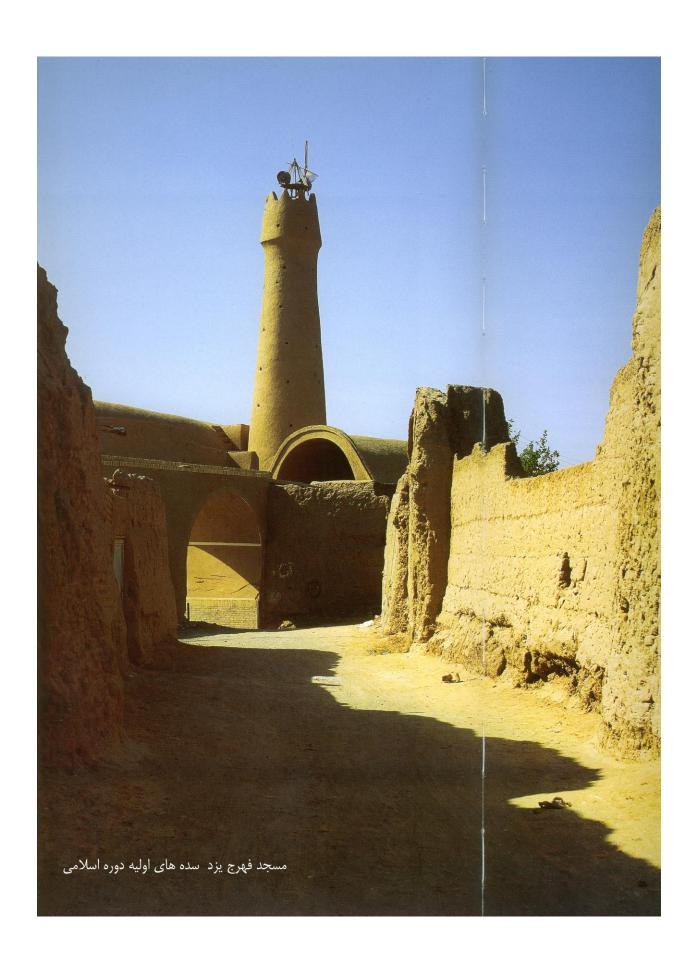


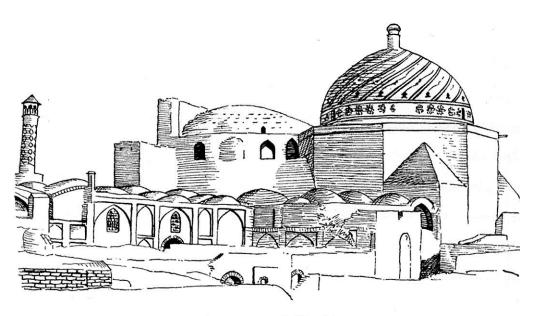


The courtyard afforded an opportunity for architectural display, which the Ottomans, the Safavids and especially the Mughals seized with enthusiasm. In Delhi (above), the courtyard of the Jāmi 'Masjid is surrounded by finely sculptured arches. There is an ablution tank in the middle. (10)

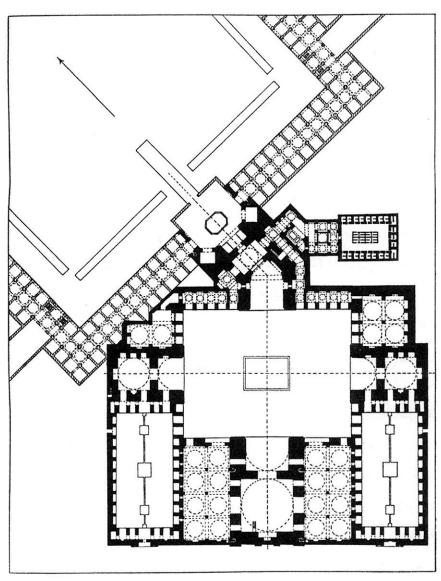
Fountains could also be works of art. In this mosque at Istanbul, each tap is set in a finely worked niche. In front are stone stools so that the worshipper can isolate himself from the ritually impure floor. (11)



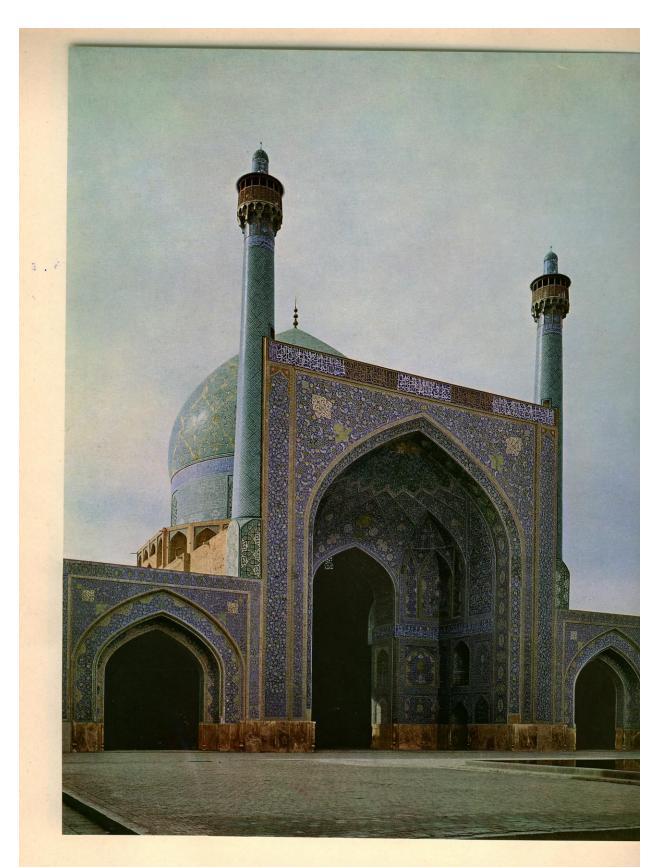




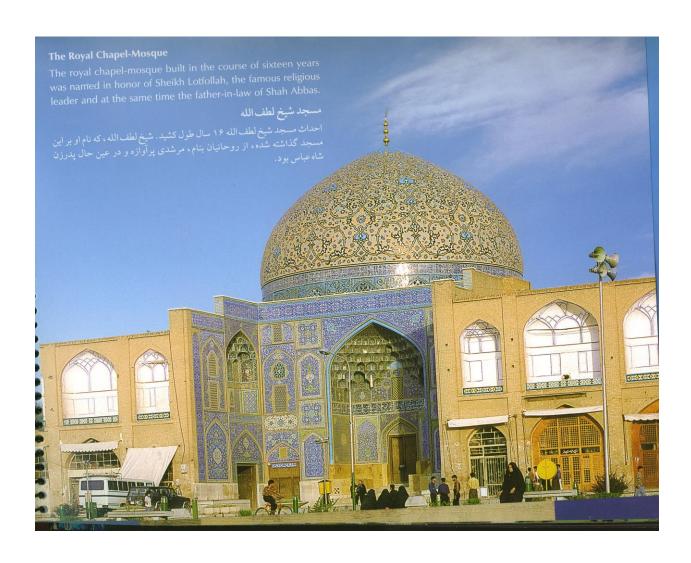
شکل ۳۴۰. قزوین، مسجد جامع.



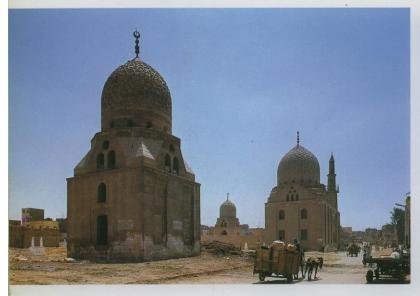
شكل ٢١٩. ا صفهان، مسجد شاه [امام]: نقشهٔ كف.



MOSQUÉE ROYALE D'ISPAHAN, IWÂN SUD (1612-1637).



## The mausoleum

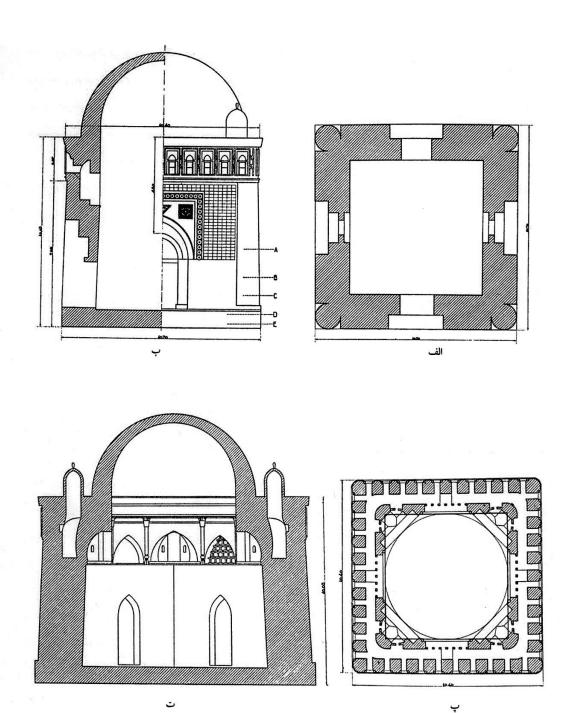




Outliving death, the power and glory of Muslim rulers was given public expression in a series of magnificent tombs. Despite a lack of orthodox religious sanction, these tombs are characteristic of virtually all Islamic dynasties. In Cairo, the Qarafa cemetery (above) is a competitive display of family wealth. The Gunbad-i Qābūs ('Dome of Qābūs'), near Gorgan in Iran (upper right), was built by this local ruler in 1006 to house his remains and commemorate his name. In the second objective he succeeded, but his body, which is said to have been suspended in a coffin some 50 metres above the ground, has long since disappeared. (20,21)

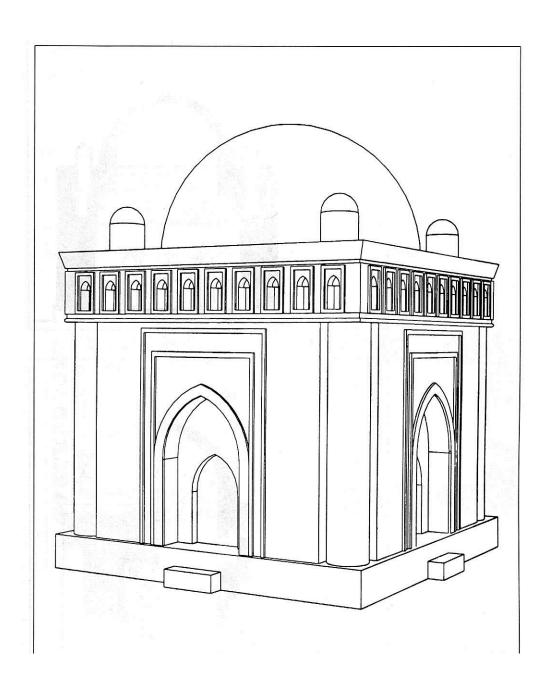


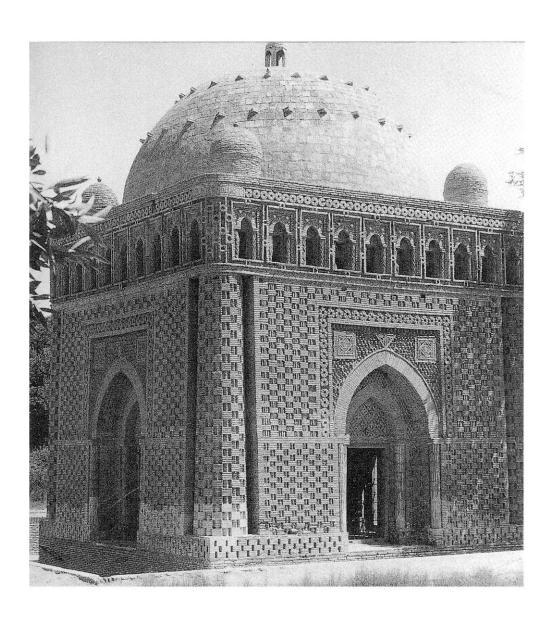
At Sasaram, India, stands the mausoleum of Shīr Shāh Sūr, an Afghan who temporarily ousted the Mughals between 1540 and 1545. Less famous than the Tāj Mahal, it is nevertheless its rival in dignity and monumental effect. The dome, reflected like that of the Tāj in an artificial lake, rises more than 50 metres above the water. (22)

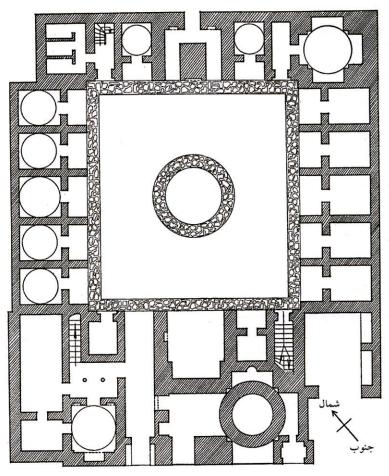


شکل ۳۲۴ الف \_ ت. بخارا، آرامگاه اسماعیل سامانی. الف. نقشهٔ کف؛ برش و نقشهٔ نمای عمودی. پ. نقشهٔ تالار بالایی. ت. مقطع قطری.

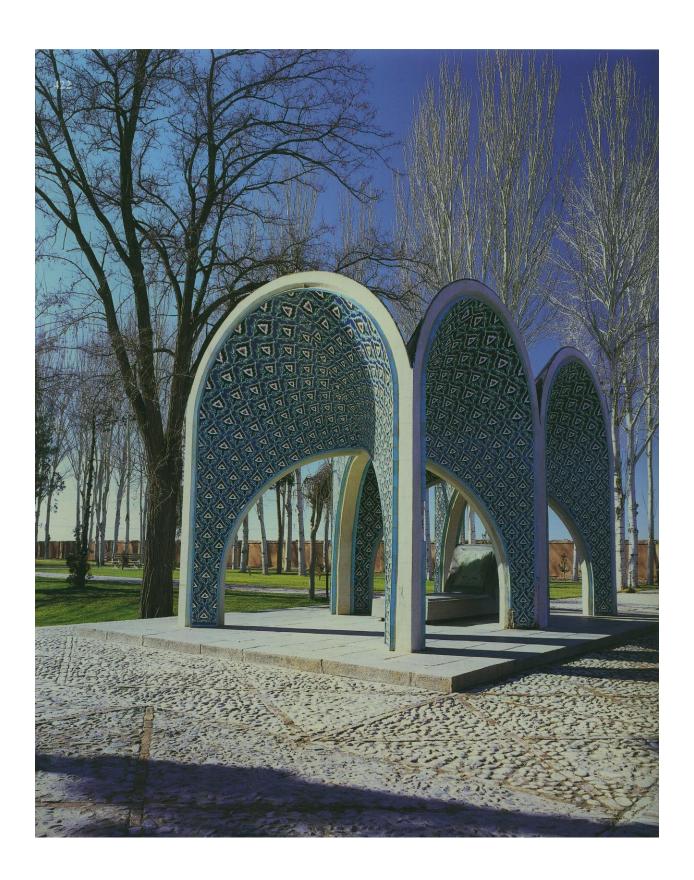
ارتفاع در سکنجها (که طی صد سال به قوسی عمیقاً شانهدار تغییر یافت)، قوسهای خاگی شکل راهروها، ستونهای درگیر در گوشههای هشت ضلعی که یادآور ستونهای میان سکنجهایی است که در محوطهٔ بودایی





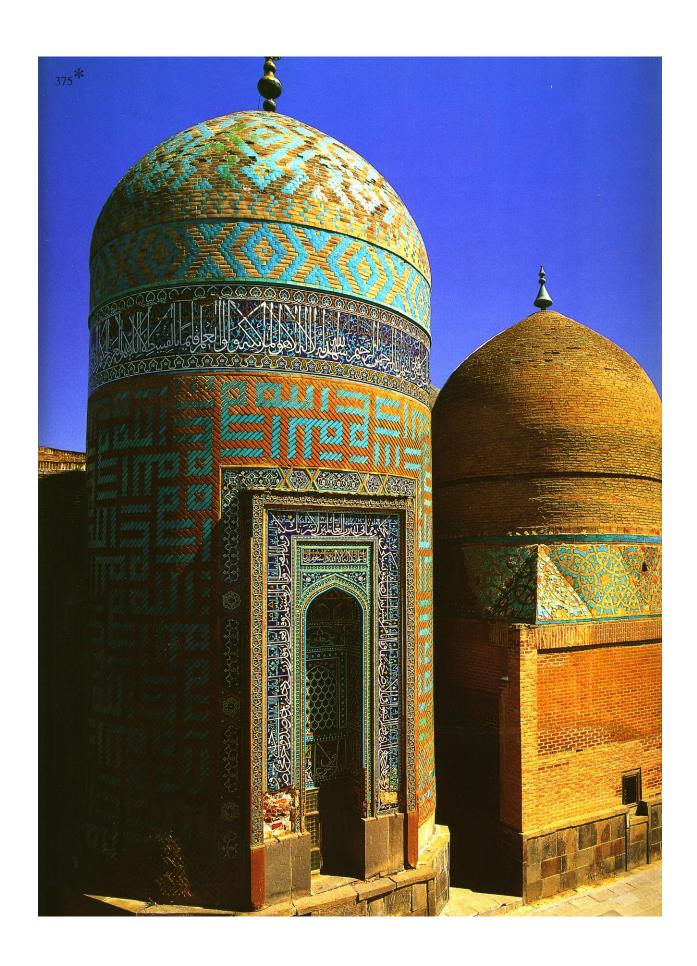


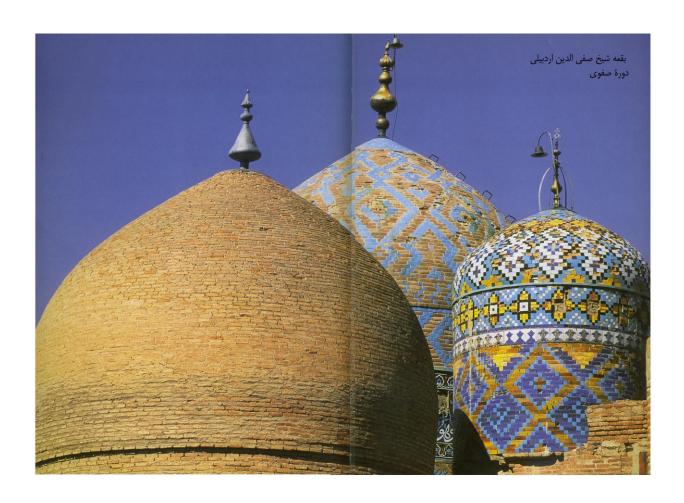
شكل ٣٨٩. بسطام، بقعهٔ بايزيد، مدرسه: نقشهٔ كف.











ough which nomadic tribes infiltrated Iran. Hostile contacts tween Iran and Central Asian tribes are alluded to in Ferdowsi's nowned Shahnameh (Book of Kings).

the eleventh century, the Seljuqs, a large nomadic confeadracy Turkish origin, pushed through northern Iran and established emselves as a local dynasty with a powerful military machine.

1040, they decisively defeated the local lers in Iran and proceeded to conquer

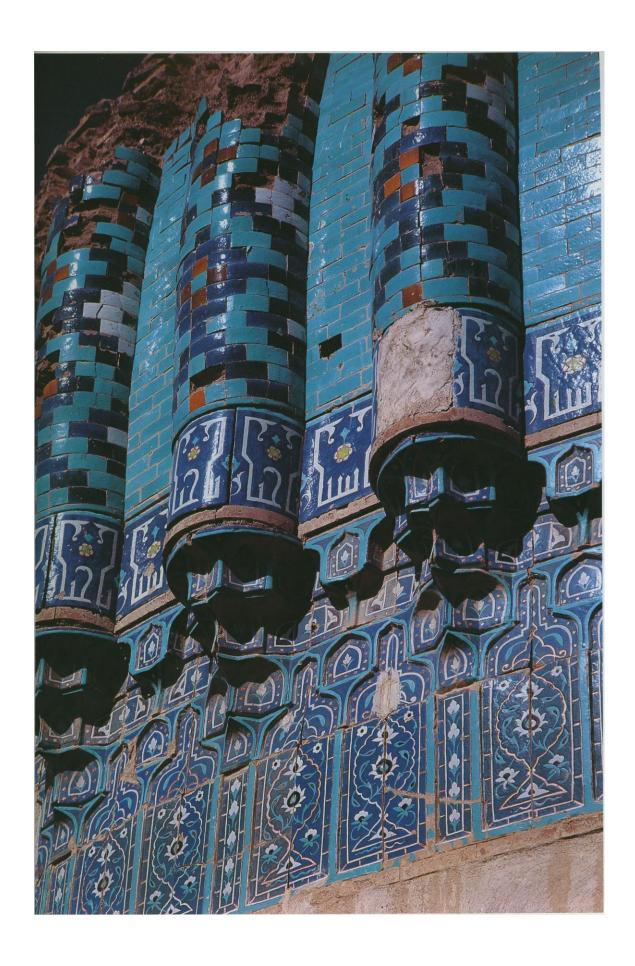
ighdad, the seat of Islamic caliphate. hen they entered the capital city in 55, the caliph received the Seljuq leader, ghrul-Beg, and appointed him Sultan

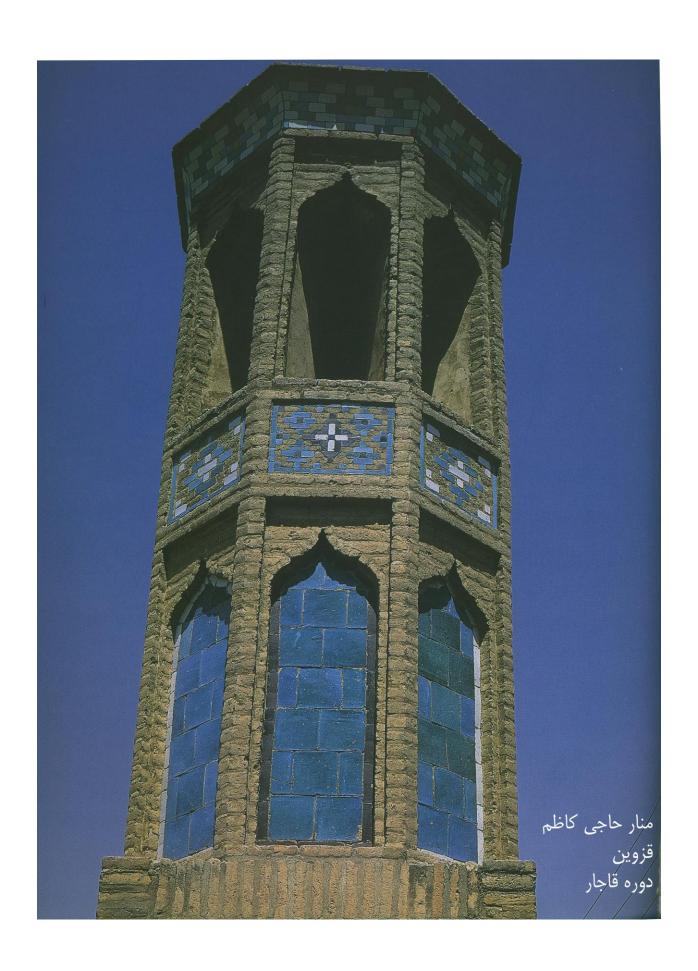
th hereditary rights.

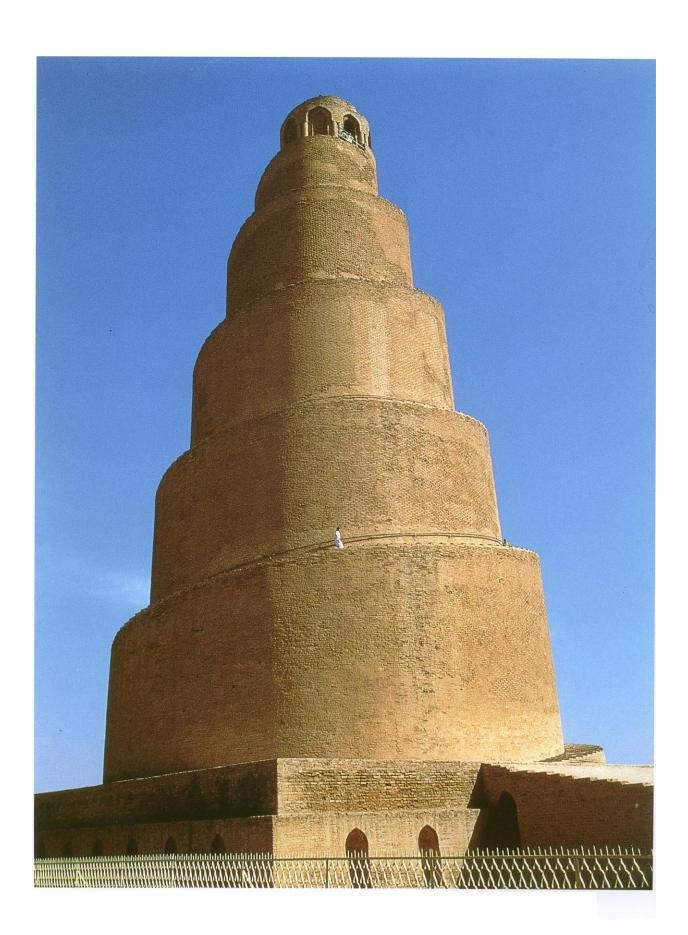
یایی در شرق و شمال شرقی ایران دارد، بازتابی نیز از یورش بی امان قبایل تاتار به ایران پس از اسلام است. در قرن پنجم هجری ، کوچ روهای ترک نژاد یی، که پس از گسترش اسلام در ماوراءالنهر مسلمان شده بودند، در جستجوی بهتر به شمال شرقی ایران مهاجرت کردند و در

جا ماندند. آنان در حکم سلسله ای محلی، للفت اسلامي دست يافتند. خليفه عباسي از ري، طغرل بيک سلجوقي را به حضور پذيرفت

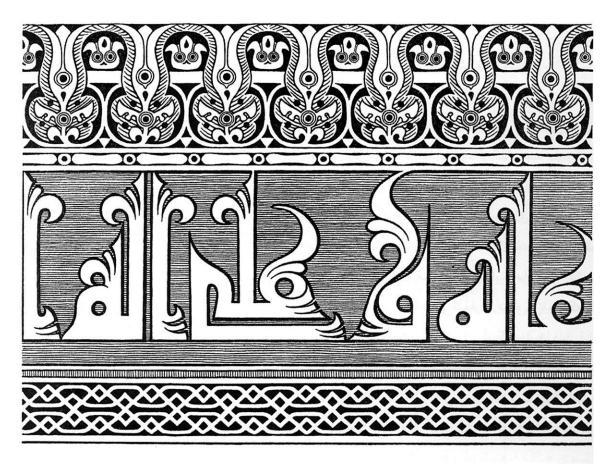




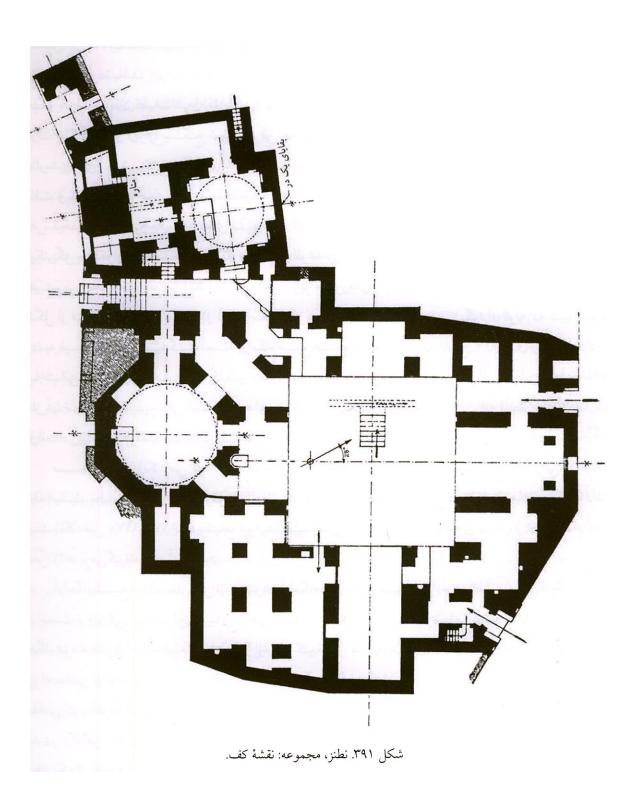








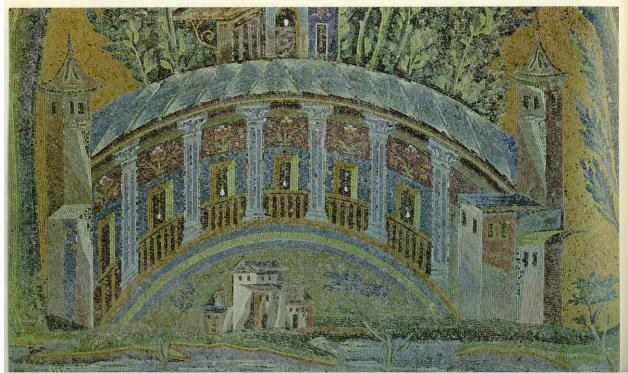
شکل ۴۵۸. نایین، مسجد جامع، افریز خوشنویسی، گچبری برجسته.

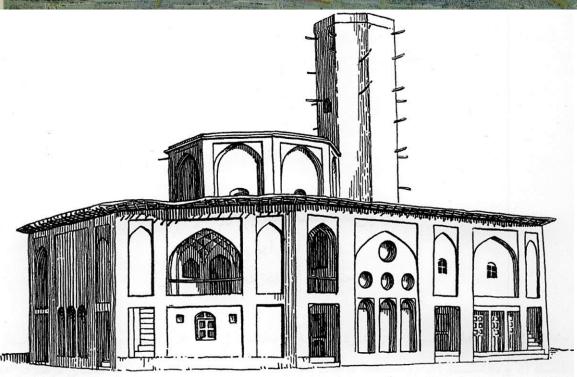




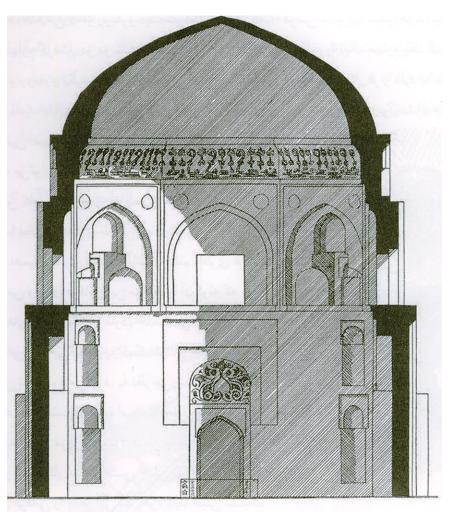


Paysage riverain, détail: l'hippodrome - 715 environ - mosaïque du mur ouest de la cour. Damas, Grande Mosquée.





شکل ۴۳۳. یزد، سرای شخصی، اوایل سدهٔ دوازدهم هجری.



شكل ۳۴۵. يزد، بقعهٔ دوازدهامام: مقطع اجمالي.

