brilliant center of diversity under the Norman rulers in the twelfth century, ceased to be part of the Islamic world. In contrast, Anatolia, which had only been opened to Muslim settlement in the recent past, developed in the years following 1250 as a new center of Islamic art and culture and served as the staging-post for the expansion of Islam into the Balkans and southern Russia. Similarly, the Transoxiana, which had been limited to the plain presence from the eighth century, began to develop distinctive forms of Islamic art with the establishment of the Seljuk sultans in the thirteenth century.

Although the chronological and geographical scope of this book is roughly equivalent to that covered in the first volume, far more buildings and objects have survived from the later period to influence our documentation for them. This wealth of information has required several changes in approach. First, the importance of archaeology as an adjunct to the traditional techniques of art history has been superseded for the later period by an increased reliance on textual and archival sources, such as endowment deeds, registers, and notebooks. Second, the survival of greater amounts of evidence, both monumental and textual, has meant that only a fraction of the surviving works can be considered in a survey of this size. In the early period, a particular building or object may have been considered because it was the only one of its kind to survive. This is rarely the case for the later period, where myriad examples of a particular type have survived. In Cairo, for example, a large number of works attest to the activity at all levels of society after 1250, and thousands more buildings are known through texts and legal documents. Similarly, a survey of the ceramic tableware from Iznik in Turkey includes hundreds of examples from museums and private collections, without enumerating the even vaster quantity of related tile revetments which remain in situ.

The large amount of information and the greater number of examples mean that stylistic groupings can be worked out with greater refinement than in the earlier period. It is often possible to distinguish not only regional but also local styles. In the architecture of fifteenth-century Iran, for example, buildings from central Iran use an idiom quite different from those of the Safavid court at Tabriz, or both of which are quite distinct from those of the Mughal court in central India. The same is true of many other examples of Khirbat al-Mafjar and Transoxiana where the capitals were located. Sometimes stylistic groupings can be assigned to different levels of patronage. A group of carpets may belong to the Ottoman court type [121], for example, is distinguishable from another contemporary group made for the market. These distinctions are, of course, easier to make in media and regions that have been better studied. The art of the Persian illustrated book, for example, has long been appreciated in the West, although it should be said that more attention has been paid to styles of painting than to the art of writing, with the result that the hands of painters are more similar than those of calligraphers, who probably enjoyed greater status in their own time. Similarly, the scholarship of Indian art has a long history, and many buildings in India have been precisely measured and recorded, while in comparison the artistic traditions of North Africa are poorly documented and many buildings remain inaccessible to outsiders.

Readers may be surprised to find that favorite examples of particular types are missing from this book. Apart from the sheer impossibility of including every beautiful and well-known building of the period, we have often given pre- ference to works with specific iconographies, a means of a more beautiful example of the same type. Signed and dated works are the fixed points around which undated works can be clustered and from which the history of art is written. Our reliance on signed and dated works, however, should not give a false impression: as in the earlier period, only a minority of the works of art produced in the period contain such inscriptions. Our concern has been to find one to inflate the importance of the role of the individual, a concept which is largely a creation of the West in modern times, rather than to give a false impression of the diversity of the world; particularly in Iran, India, and Turkey, is notable for the emergence of distinct artistic personalities, such as the Persian painter Sultan-Muhammad and the Ottoman architect Sinan.

Although artists may have tended to sign and date the works they themselves held in highest esteem, they may also have been the works produced on commission for more important or munificent patrons. We have focused to some extent, therefore, on some objects that have been lost, and are on display for the first time at the Musée des Arts Décoratifs, Paris, as a result of the greater difficulty of finding evidence for some of the work. This is particularly true of Timurid, Mamluk, or Mughal decorative arts, where the amount of art in the individual dynasties held in sway. Yet not all art produced in fifteenth-century Iran and Central Asia can be connected directly, or even indirectly, with the patronage of the Timurid dynasty, and much “Timurid” art may have had little to do with the actual descendants of Timur.

It will be no surprise to specialists of Islamic art that many of the works covered in this book, as in the previous volume, belong to the category known as the decorative, or minor, arts. One of the features that distinguishes the Islamic artistic tradition from those of the West or of the West is the tradition of the decorative arts. The use of precious materials in the decoration is one of the most distinctive arts. However, since the decorative arts are more closely related to the art of the court and less closely related to the art of the court, one might expect that the decorative arts would be more closely related to the art of the court and less closely related to the art of the court. This is the case, for example, in the case of the Moslem monarchs of the Seljuk era, who were closely related to the art of the court and less closely related to the art of the court. This is the case, for example, in the case of the Moslem monarchs of the Seljuk era, who were closely related to the art of the court and less closely related to the art of the court.
degree of uniformity over a broad area unknown (and virtually impossible) earlier. It was not necessary for Sinan to personally supervise the construction of the Sulaymaniyya mosque in Damascus [178]; he could design the building at the imperial studio in Istanbul and be reasonably sure that his intentions would be carried out on the site, although some details, particularly the elevation and materials of construction, may have been realized at site. Similarly, the imperial design studio of the Timurids and Ottoman courts, in contrast to royal ateliers of the earlier period, produced paper cartoons which could be used in the capital or abroad and realized in varying materials, colors, and scales. The same pattern sheet could have been used to design a small leather bookbinding, a set of glazed tiles, or an immense knotted carpet. A penciled drawing could be turned over to create compositions in mirror-reverse. Thus, the later period of Islamic art may be said to be characterized by an increasing separation between the medium and the decoration applied to it.

A final characteristic of many of the works considered in this volume is their superb technical finish. While some of the works of art from the earlier period, such as the mosaics of the Dome of the Rock or the ivory from Cordoba, are undeniably masterpieces of craftsmanship, the level of workmanship seen in objects from the later period is often technically superior. The finest silk carpets [157] produced under the Safavids, for example, sometimes have as many as 255 knots per square centimeter, and the carved hardstones of the Timurids [80] and Mughals [157] show an apparently effortless technical perfection rarely matched elsewhere. The flimsy intricacy of Persian book illustrations from the fifteenth and sixteenth centuries is breathtaking. Some of this refinement may be due to the greater resources available to patrons in the later Islamic period, although the Abbadid caliphs had been by no means poor. The degree of intricacy and high quality of finish was also a cultivated taste, for it increasingly came to represent the triumph of sedentary civilization over a perceived nomadic past. In the words of Ibn Khaldun, the fourteenth-century philosopher and historian:

'The crafts and sciences are the result of man’s ability to think, through which he is distinguished from the animals... The sciences and crafts come after the necessities. The (susceptibility) of the crafts to refinement, and the quality of the (purposes) they are to serve in the demands made by luxury and wealth, then correspond to the civilization of a given country.'

In the fall of 1253 the Great Khan Mongke, grandson of Chingiz Khan and supreme ruler of the Mongols in China, dispatched his brother Hulagu at the head of an army against the Isma'illis in northern Iran and the Abbasid caliph in Baghdad. Hulagu moved speedily across Iran, conquering and devastating wherever areas did not capitulate, and took Baghdad in 1258. This date marks the official establishment of the Mongol rulers in Persia known as Il-khanid or subordinate to the great khan in China. Hulagu and his immediate successors continued the nomadic practices of the steppe, wintering in the warmer lands of Mesopotamia and summering on the grassy plains of north-western Iran. They preferred living in tents, and only a few monuments of secular architecture remain from the second half of the thirteenth century. The Ilkhans controlled the lands from the Oxus almost to the Mediterranean and from the Caucasus to the Indian Ocean, territory that is now western Afghanistan, Iran, southern Russia, eastern Turkey, and Iraq. Earthquakes, invasions, and subsequent occupations have destroyed all but the odd building from their capitals at Maragha, Tabriz, Baghdad, and Sultanbeyli; and their urban infrastructure can hardly be gleaned from textual descriptions. Instead, it is provincial buildings in central and western Iran that have survived to provide an idea of the magnitude of architectural patronage under the Ilkhans.1

The Ilkhans inherited a repertory of building types, forms, materials, and techniques of construction which had been developed in Iran in the previous period. The congregational mosque had evolved its classical form of a court with iwans on the four sides and a domed chamber on the qibla, and this plan was standard for other types of religious buildings such as madrasas and khanaqahs and for secular ones such as caravanserais. Graves were marked by tomb towers or by square or polygonal canopy-like mausoleums. The standard vocabulary of forms included iwans, domes, squinches, and minarets, and these were usually combined in predictable ways. The standard elevation in a dome chamber, for example, was tripartite; a zone of transition with squinches bridged the gap from a square or polygonal room to the circular base of a dome. The main façade was usually marked by a pishtaq, the high and formal gateway composed of an arch set within a rectangular frame and functioning like a shallow iwan. Minarets were often used as framing devices, either at the ends of the façade or at the sides of an iwan. High-quality baked brick was the preeminent medium of construction, and bricks were often laid in decorative patterns, although stucco revetment was also popular and inserts of terracotta and glazed tiles were used to enliven surfaces.2

In this period the traditional vocabulary would be modified in several ways. Individual buildings were grouped in monumental complexes, often centered around the grave of the patron or a revered figure. The earliest complexes were haphazardly arranged, although a pishtaq and elaborately decorated entrance gateway to the main façade—Proportions were altered as rooms became taller, arches more pointed, and minarets more attenuated. The new taste for verticality is combined with a refined sense of form, seen in monumental portals with soaring double minarets. Baked brick remained the major medium of construction, but new methods were developed for enlivening surfaces. Color became increasingly important; glazed bricks were added to exteriors, and interiors were decorated with tile revetments and carved and painted plaster. Muqarnas units were no longer structural elements constructed of brick, but decorative ones made of plaster and suspended from vaults or walls.

ARCHITECTURE UNDER THE ILKHANIDS

One of the first actions by the Ilkhani rulers after conquering Baghdad was to construct an observatory in their summer capital at Maragha in north-western Iran. Located on a hill five hundred meters north of the town, the building was begun in 1239. Excavations have uncovered sixteen units, including a central tower containing a quadrant (forty-five meters in diameter), a foundry for the manufacture of astronomical instruments, five round towers, and several large buildings. The large site and the quality of the materials, which included stone, baked brick, and glazed and luster tiles, show how important astronomy and astrology were to the shahanshah Mongol.3 Many structures from the early Ilkhani period were built of degradable materials, for contemporary accounts state that the Ilkhans used tents of horsehair and felt. The sole surviving example of Ilkhani palatial architecture is the summer palace begun by Aynaqa ca. 1275 and continued by his son Arghun a decade later [1]. The site, now known as Takt-i Sulayman, stands south-east of Lake Urmia in Azerbaijan on the foundations of the Sasanian sanctuary of Shiz. A huge courtyard (125 by 150 meters), oriented north–south, encompassed an artificial lake and was surrounded by porticoes with four iwans. Behind the north iwan was a domed room, which occupied the site of the Sasanian fire temple and probably served as Aynaqa's audience hall. Behind the west iwan was a transverse hall flanked by two octagonal kiosks; it had served as the throne-room of Khurram and became the living quarters of the Ilkhani sovereign. Plaster fragments on the ground indicate that the southern octagonal kiosk was covered with a muqarnas vault, composed of many individual plaster units. The excavations also uncovered a stucco plaque fifty centimeters on a side; the incised drawing on it represents one-quarter of the dome.
and was evidently used to guide the workmen in assembling the pre-cast units. This unique document is one of the earliest pieces of evidence for the use of architectural plans in the Islamic world and confirms the historical sources, which state that plans were sent from the capital to the provinces.4 The walls of the northern octagonal kiosk were revetted with a superb dado. The lower two meters were covered with star- and cross-shaped tiles overlaid in a technique known as lāqīvarīna, from the Persian word for lapsi lazuli (see Chapter 3 and plate 24). This dado was surmounted by a frieze of square tiles, thirty-five centimeters on a side, depicting simurghs and dragons among other heroic subjects. The wall was crowned with a wide band of painted plaster. The quality and abundance of the architectural decoration, particularly the marble capitals, the luster [4] and lāqīvarīna tiles, and the muqarnas dome, show that the Mongol sultans lavishly decorated their own homes. Both the placement, considered by the Ilkhanids to be the site where the Sassanian emperors had been crowned, and the decoration, luster tiles with verses and verses illustrating the themes of the Shāhānshāh, the Persian national epic composed by the poet Ferdowsī ca. 1000 at the court of Mahmud of Ghazna, were deliberately chosen to affirm Mongol connections to pre-Islamic Iranian kingship.5

Ghazan Khan's accession in 1295 marked a change in both Ilkhanid society and architectural patronage. He severed links with the Great Khan in China, thereby accelerating acceptance of the culture of the sedentary Persians over that of the nomadic Mongols. He converted to Islam, taking the Muslim name of Mahmud. He and his prime minister Rashid al-Din (d. 1318) also inaugurated a vast program of reforms which revitalized the economy and provided an economic basis for significant amounts of new construction, particularly religious buildings. He ordered caravanserai built along the major trade routes and bath houses in every city; the revenues from these buildings could support the mosques he also ordered. The effects of Ghazan's reforms continued through the reign of his two successors, his brother Uljaytu (r. 1304–16) and his nephew Abu Sa'id (r. 1317–35), and the major works of Ilkhanid religious architecture thus date from the period 1295–1335.

Ghazan's single greatest project was his tomb complex in a western suburb of Tabriz. Earlier Ilkhanid rulers had followed Mongol burial practice and concealed gravestones, but Ghazan adopted the traditions of Islamic Iran and ordered a charitable foundation to surround his "lofty" tomb. The complex included a hospice, hospital, library, observatory, academy of philosophy, fountain, pavilions, and two madrasas for students of Hamāni and Shāfi'i law. Only fragments of brick and tile remain, but texts describe the mausoleum as a twelve-sided structure containing a semi-subterranean crypt, a chamber for the cenotaph, and a crowning dome. Rashid al-Din followed royal precedent and ordered his own funerary complex in an eastern suburb of Tabriz. It too has disappeared, but the surviving endowment deed allows a reconstruction of the buildings and enumeration of the personnel and services provided.4 Four structures were enclosed within a sturdy wall behind a monumental portal: a hospice, hamam, hospital, and tomb with winter and summer mosques. The deed also specified that copies of the Koran, collections of prophetic traditions, and Arabic and Persian copies of Rashid al-Din's own works were to be commissioned annually by the supervisor of the endowment and distributed throughout the realm (see Chapter 3). Tile fragments glazed in light and dark blue and similar to those found at Ghazan's tomb complex litter the site.

The imperial scale of Ilkhanid architecture can best be seen in the magnificent tomb of Uljaytu at Sultanīya. Arghun had chosen the site, some one hundred and twenty kilometers north-west of Qazvin on the road to Tabriz, as his summer residence, and Uljaytu transformed it into the capital of the empire, hence its name "Imperial." Like most Iranian cities, it had an outer wall and an inner citadel. The outer ramparts measured thirty thousand paces around; the inner citadel was protected by a moat, sixteen round towers, and a single gate in a machicolated wall broad enough for four horsemen to ride abreast. These features are visible in the earliest representation of the site [3], contained in Matracli Nasuh's account, made in 1557–8, of the Ottoman sultan Süleyman's campaigns in Iraq and Iran. The largest monument within the citadel was the sultan's tomb complex, which included a mosque, madrasa, hospice, hospital, guesthouse, and other buildings.

Uljaytu's tomb [4] is the only part of the complex at Sultanīya to survive. It is an enormous octagon, some thirty-eight meters in diameter, which is oriented almost cardinaly [5]. The north wall projects to meet the lateral walls, thereby creating triangular compartments which house stairs to the upper stories. To the south, a rectangular hall measuring fifteen by twenty meters is attached to the central
octagonal space, which measures twenty-five meters in diameter and is surmounted by a fifty-meter high dome ringed by eight minarets. The interior of the octagonal hall has eight arched openings with balconies. Above them, on the exterior, a ring of galleries overlooks the surrounding plain and provides a visual transition from the flat walls (which probably abutted subsidiary structures on several sides) to the ethereal blue-glazed dome. The subtle design of interpenetrating volumes is complemented by the sophisticated gallery vaults [7]. The two dozen vaults display a wide variety of carved and plaster motifs, painted in red, yellow, green, and white. Many of the strapwork panels closely resemble contemporary manuscript illumination, suggesting that Ilkhanid designers provided patterns used on different scales in architecture and manuscripts. The lofty interior, one of the largest uninterrupted spaces of medieval times, comes as an awesome surprise after the stately exterior. The spatial elegance and grandeur attest to the abilities of the designer(s), who were able to realize the sultan's desire for monumentality with sophistication and grace.

The interior of Uljaytu's tomb was decorated in two phases: a first phase in brick and tile and a second one over it in painted plaster. This redecoration has provoked the wildest speculation. At first, scholars attributed the redecoration to the Safavid period; then it was linked to Uljaytu's conversion to Shi'ism and to a spurious tale of his desire to transfer the bodies of 'Ali and Husayn, the two most revered Shi'i martyrs, from Iraq. Inscriptions provide three fixed poles for the history of the building. The exterior decoration was complete in 1312; the interior decoration in brick and tile was finished in 1313, when the building was dedicated with much celebration, including the issuing of commemorative copper coins. The redecoration in painted plaster was ordered within the next three years, before the sultan's death in December 1316. These dates cannot be correlated with any shift in piety or taste, and the redecoration was probably ordered to commemorate the brief period when Uljaytu was recognized as protector of the Holy Cities of Arabia.8

Not only did Ilkhanid sultans and viziers erect charitable foundations around their own tombs, but the same patrons also commemorated the graves of Sufi shaykhs with monumental tomb complexes. Some were built around the graves of renowned historical figures. In northern Iran, the grave of Bayzid Bastami (d. 874 or 875), one of the most celebrated mystics in Islam, was a focus for much Ilkhanid work, including superb decoration in cut and painted plaster and a large, flanged tomb tower [6] dedicated to Uljaytu's infant...

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5. Uljanot, Tomb of Uljaytu, axonometric view

6. Bastami, flanged tower, 1316–9

7. Uljanot, Tomb of Uljaytu, vaults of the exterior galleries
son. With an interior diameter measuring just over six meters, the tower is articulated with twenty-five flanges whose vertically makes the tower seem more lofty than its actual height (it measures only 13.56 meters from base to top of the cornice). Iran had a long tradition of tomb towers, but the placement of the Bastam tower represents a new development. Standing behind the qibla wall of the town’s congregational mosque, the tomb became the focus of all prayers uttered there, a development also seen in contemporary Mashwak architecture (see Chapter 6). Although the sultan was the major patron at Bastam, lesser individuals might donate furnishings, as for example the candlestick donated to the shrine in 1308–9 by the vizier Karim al-Din Shughani [9].

Other shrines honored contemporary mystics. At Natanz in central Iran, the grave of ‘Abd al-Samad (d. 1299), the leading Shuwa’rwardi sheikh of the day, developed into a major shrine complex in the decade following his death. The vizier Zayn al-Din Masturi (put to death in 1312 with his associate Karim al-Din Shughani) refurbished the town’s congregational mosque and built a tomb, minaret, and hospice adjacent to it. The builders attempted to unify these disparate structures behind a single slightly curved façade [8]. Decorated in glazed tile, stucco, and terracotta and flickering in the shadow of an immense plane tree, it has often been compared to an illustration from a contemporary Persian manuscript. The irregular depth of the iwans in the mosque, the uneven floor levels, and the haphazard organization of the interior [9] show that the builders were constrained both by the topography of the site and by the structures already built on it. The tomb is a chamber approximately six meters square erected on the site of ‘Abd al-Samad’s residence across a lann from the mosque. As at Bastam, the shape is traditional, but the interior is decorated with the finest fittings Zayn al-Din could procure. The walls were once revetted with a 1.35-meter dado of luster tiles, now dispersed in museums throughout the world, and often recognizable by a frieze of paired birds whose heads were later defaced by some zealous iconoclast [10]. Large, specially ordered luster tiles also decorated the mihrab and the cenotaph, but the glory of the room is still a spectacular twelve-tier muqarnas vault [11]. Eight screened windows admit a subdued light which plays across the faceted surfaces to reveal the sculptural richness of the vault and illuminates the superbly designed and carved stucco inscription band that encircles the base of the dome. ‘‘Traces of an equally fine inscription band in the north iwan of the mosque are signed by Haydar, the master carver who executed the finest sculptural achievement of the age, the mihrab added to Isfahan’s congregational mosque in 1310. Over six meters high and three broad, the Isfahan mihrab exhibits the typical arrangement of concentric niches within rectangular frames [12]. It is distinguished from other examples, such as that at the small shrine known as Pir-i Bulan at Linjan outside Isfahan, by the crispness of its carving. Each area of the composition is worked in a distinct pattern; each pattern is worked simultaneously on several levels. The outer rectangular frame, for example, has a ground of double arabesque scrolls sprouting carved and stippled palmettes which supports an elegant inscription in skuluk script. The inscriptions include praise on the twelve imams revered by the Shi’ites and traditions of ‘Ali, the Prophet’s successor, and the choice of texts suggests that the mihrab was commissioned to commemorate Hajjane’s conversion to Shi’ism at the end of 1309. Haydar, who signed the work beside the foundation inscription in the tympanum, was one of the most famous calligraphers of the day. He was one of the six pupils of Yaqut al-Musta’ simi, the “cygnoise of calligraphers” (see Chapter 3), and was himself the teacher of such calligraphers as Abdallah Sayrafi and such viziers as Taj al-Din ‘Ali Shah and Rashid al- Din’s sons, Ghiyath al-Din Muhammad.

Taj al-Din was a wily nouveau-riche cloth merchant who rose meteorically to the head of the vizirate, arranging Rashid al-Din’s downfall in the process. He currried favor by presenting the sultan with such gifts as an elaborate jeweled barge to float along the Tigris and underwriting such projects as a cloth bazaar for Sultaniyat. The vizier’s ambition is evident in the new congregational mosque he ordered in Tabriz ca. 1315. A large forecourt with a central pool one hundred and fifty cubits square preceded an elephantine brick iwan [13]. The vault, which subsequently collapsed, originally spanned thirty meters and sprang from walls ten meters thick and twenty-five meters high. In its own day it was lauded as larger than the iwan at Qazvin, the Sassanian palace outside of Baghdad considered to be one of the wonders of the world, and visitors marveled at its rich revetment in marble and tile, although only the baked brick work remains.

Other Ilkhanid mosques had too iwans. That at Ashtiaran, thirty-three kilometers south-west of Isfahan, was ordered in 1315 by an accountant in the Ilkhanid administration for his
house town. The indifferent construction is covered with showy stucco and tile revetments. The most common mosque plan, however, continued to have four iwans and a dome as developed in Iran several centuries earlier. It can best be seen in the now restored congregational mosque at Varamin, forty-two kilometers south of Tehran. The mosque, ordered in 1322 during the reign of Ullayti's son and successor Abu Sa'id, is a freestanding rectangle sixty-six by forty-three meters. Lateral entrances lead to iwans on the court, but the major entrance is from the north. Its elaborate portal, probably once flanked by minarets, prefigures the facade of the sanctuary iwan which leads from the court to the dome chamber. The dome chamber, just over ten meters in diameter, also presents the classic elevation developed in the Saljuq period. A square chamber supports an octagonal zone of four squinches alternating with four blind arches. This in turn supports a sixteen-sided zone on which rests the dome. The building is distinguished from its Saljuq prototypes by its attenuated pro-