Muslim Architecture Under Seljuk Patronage (1038-1327)
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Abstract

The Seljuks were the first Turkish dynasty to rule the Muslim World reviving the dying Caliphate. Their arrival introduced a fresh inspiration marked by their religious devotion and strong leadership. This period is renown for the spread of two unique building complexes; the caravanserais, which denoted the Seljuk's enthusiasm to trade and commerce, and the Madrassa, which reflected their desire to promote learning. This engendered prosperity and produced the desired intellectual and artistic revival for architectural and decorative activities. This article concentrates on the architectural and artistic contribution of this dynasty. In its first stage, the analysis deals with some of the most prominent edifices of this period based on their innovative character. Later, the emphasis shifts to assess the Seljuk's contribution to further development of Muslim architecture through a summary of the key architectural elements they introduced.

Background

The first Turkish contact with the political power in Islam was in the 11th century at the hands of the Seljuks. Herdsmen descending from a Turkish tribe called Ghuz, these people converted from old Shamanism, the central Asian religion, to Islam in the tenth century. Since then they became devout Muslims striving to defend and proclaim it in all circumstances. Their rule quickly expanded to Persia, Azerbaijan and Mesopotamia entering Abassid Baghdad in 1055, then Fatimid Syria and Palestine. They defeated the Byzantines in the battle of Manzikert in 1071 and managed to hold and pacify eastern and central Asia Minor.

Under religious devotion, strong leadership and social justice, the Muslim Caliphate regained its prosperity and prestige. In cultural and religious terms, this period saw the rise of mysticism known as Sufism. In scientific and intellectual life, names such as Al-Ghazali (1038-1111), in theology, and Umar Al-Khayam in poetry were some of the most renowned personage of this era. In artistic and architectural production, this period was considered, by Grabar, as the second epoch of Islamic classicism, reviving the great works of the Ummayads and the Abbasids. The variety and quality of its ornaments and the adequacy of its architectural techniques and forms brought a new breath of inspiration to Muslim architects and masons world-wide. Such creativity can be seen in the enormity of its monuments especially in Persia, Anatolia and Muslim Asia Minor.

Due to the vast area the Seljuk controlled, historians often refer to them as Seljuk of the West (Seljuk of the Rum and Anatolia), and Seljuk of the East (of Persia). Western provinces, with their capital Konya, suffered from the lack of peace at early stages, later prospered from Mediterranean trade and the activation of the old trade routes in Asia. Eastern provinces, and their capital Isfahan, however, enjoyed considerable calm and had greater architectural heritage from both the Sassanian and Abbasid past easily nurtured architectural and artistic activities. Persia in particular saw one of its most prosperous periods.
The astonishing speed in which the Seljuks adapted the general character of Islamic architecture in all their edifices was partly due to the employment of Arab and Iranian architects and masons. This was in addition to the religious devotion of Seljuk leaders who identified more with Islam rather than with their geographical origin. Meanwhile, the cultural amalgamation, resulting from the contact of the Seljuks with Persians and central Asians, enriched their architecture and introduced a number of new features, techniques and building types. The first of these was the use of both stone and brick material, the former extensively used in Rum (Anatolia) while the latter was chiefly used in Iran. This dual use of material and the advanced technical methods employed in the construction in load-bearing systems and vaults show the influence of local environments and building culture (see Mitchell, et al. 1978).

The Seljuk Iwan

In building types, the Seljuks made considerable changes to the traditional hypostyle mosque. The development of the Iwan plan revolutionised the form and function of the mosque, and later introduced new types of buildings involving the Madrassas, the hospitals and the caravansaries, which spread in Anatolia, Syria and Iran respectively. The Iwan plan, according to Godard (1965), was derived from the plan of houses of Khurasan. This was first applied in the Madrassa, then transmitted to the Mosque and later even to secular buildings and palaces.

The Iwan was also used by the Sassanians as vestibule leading to the main domed ceremonial hall (Godard, 1965). Scerrato (1980) added a new formula arguing that the Iwans were mainly developed to serve a number of functions including, prayer, teaching, lodging of teachers and students, keeping books and as a reading library as well as a number of charitable activities in stopping stations on the road of pilgrims intended to serve the ill and the needy. Scerrato links the dome it to the ceremonial and royal symbolism derived from the Sassanian tradition. The dome in the Mosque case indicates the principal space.

“It seems highly probable that the concept of domed hall linked to royalty was not lost in Islamic Iran, especially if we consider that, in line with Sassanian usage, the exceptionally heavy royal crown, weighed down with symbols, was not actually worn by the Ghaznavid sovereigns but suspended over their head. The crown of Masud I (1030-1041) was held up by four statues and consequently speaking it was in fact a dome. The throne room of Masud III in his Ghazni palace (completed in 1111) was made up of an Iwan standing in front of a hall that was probably domed.” (Scerrato, p.73)

The above view is untenable as the introduction of the Mihrab/dome appeared earlier in the Umayyad Great mosque Mosque of Damascus (745) and later in the Kairawan Mosque (836), long before its introduction to Iran. If it was a Sassanian inspiration it would have first appeared in Persian mosques before anywhere else.

The first mosque to adopt the four Iwan plan was the Friday Mosque of Isfahan (Masjid-I-Jami) which was originally built by the Abbasids in the 9th century. The Seljuk Caliph, Nizam Al-Mulk (1029-1092) made some additions including the construction of a large brick dome, in front of the Mihrab, in the old hall on its Abbasid cylindrical piers imitating Umayyad and Abbasid mosques. Historic sources indicate that Nizam Al-Mulk copied the Umayyad Great Mosque of Damascus, which he had visited in 1086 (Hattstein and Delius, 2000). His political rival, Taj Al-Mulk built (between 1088/89) a great domed pavilion, at the opposite end
on the axis of the Mihrab and the southern dome of Nizam Al-Mulk. The dome consisted of similar formal elements of its sister in the south in terms of the hemispheric shape, the eight tripartite squinches, as well as the brick construction techniques. However, it 'attained a perfection seldom equalled and never surpassed' (Hoag, 1987, p.95). This perfection is especially seen in the verticality expressed by the alignment of the decorated blind panels of the walls and the squinches and windows above them. In the words of Hoag (1987)

“He (the architect of Taj Al-Mulk) achieved a structural consonance and a hierarchy of ordered parts not again approached until the High Gothic of thirteen century Europe” Hoag (p.95)

The four Iwans were believed to have been erected after the fire of 1121/1122, in which both domes escaped damage3 (Hoag, 1987) (figure 1).

![Figure 1. The four Iwan Mosque, Masjid-I-Jami, Isfahan (Iran).](image)

The Seljuk Kiosk Mosque and General Plan

Another Seljuk innovation in the plan of the mosque appeared in what Andre Godard called the Mosque Kiosque. This usually small edifice is characterised by its unusual plan, which consists of a domed hall, standing on arches, with three open sides giving it the Kiosk character (Godard, 1965). This type of mosque was often attached to large building complexes such as caravanserais and Madrassas. The Kiosk Mosque also formed the original structure of later larger mosques such as the one at Gulpaygan (1105-1118), at Qazvin (1106-1114), and at Jameh Mosque (1072-1092) found in Ardestan (Iran) (figure 2), or incorporated in Madrassas such as the one in the Haydariya Madrassa.
Figure 2. Jameh Mosque (Ardestan) (1072-1092) in its early stages was a Kiosk Mosque.

In Anatolia, there are indications that the Seljuk may have integrated the basilical plan of Christian churches into the mosque and Madrassa plans producing a longitudinal shape, rather than customary wide. Seljuk contacts with Christians in neighbouring Byzantium, and the newly Muslim Armenia (11th century) could have resulted in this inspiration, which also resulted in the gradual disappearance of the open courtyard, probably also due to climatic influences too. Examples of these changes can be seen in mosques in Divrighi and Erzurum, Alaaddin Mosque in Nighde, Gokmedrese Mosque in Amasya and the enclosed sections of the caravanserai buildings such as Sultan Han near Kayseri (began 1229). The influence of Seljuk Iran in Anatolia appears in the use of Iwan in a number of examples especially in Khawand Khatun at Kayseri (1238), but the Iwan type entrance "Pishtaq" with its powerful symbolism was maintained in the majority of religious and secular monuments.

In addition to changes in the plan, there has been increasing emphasis on the dome of the Mihrab area, which slowly became dominant feature in the arrangement of the internal space of the Mosque especially under the Ottoman succession (see forthcoming article). This approach originated from the Great Mosque of Dunasyr (Iraq) where the sanctuary was made of three barrel vaulted naves (Riwaqs) running parallel to the Qibla and an emphasised Mihrab dome (about 33 feet across), which cut across two of the three naves in an unprecedented manner.

In the earliest charitable complex "Kulliye" of Khawand Khatun⁴ (1238 at Kayseri) the courtyard receded to a small square in the heart of the mosque while the Mihrab dome continued to extend over the two Riwaqs parallel to the Qibla wall. The roof consisted of 10 barrel vaults reflecting the number of aisles of the sanctuary while the central nave leading the Mihrab consisted of two aisles perpendicular to the Qibla wall (the T Plan) and also covered with barrel vaults running in the direction of the nave.

In Ulu Cami complex of Divrighi (Turkey) which consisted of a mosque and a hospital (both built between 1228-1229) the courtyard disappeared completely (figure 3). The mosque, nearly a square, consisting of five aisled prayer hall with five bays deep has a number of fascinating features which were linked by some scholars to Gothic architecture and Baroque art (see Aslanapa,1971).
The former appears in the internal features of its roof, which was made of sixteen stone vaults of varying, and complex forms similar to that of gothic vaulting. The latter feature is found in the remarkable resemblance of the ornamentation and décor style of its portals especially the Northern entrance gate where the Pishtaq frame was decorated with “baroque” forms characterised by its embroidery patterns (figures 4 & 5). The other feature associating with Gothic is the porch of the hospital (figure 6), which has a Gothic appearance with its receding archivolts (Hoag, 1987, p.112).
The Seljuk Minarets

Connected with this development in Seljuk mosques in Iran is the form of minaret which took a new dimension substantially different from that of North Africa. The adoption of the cylindrical form, instead of the usual square, with tapered shafts often broken by balconies supported on Muqarnas was an Iranian preference later expanded to most of Muslim Asia. The oldest example found is that at Saveh (1010) and at Damghan (1026-29) (Hoag, 1987, p.95). Other examples of cylindrical minarets survived in various parts of Muslim Asia.

In Afghanistan we find a good example with superimposed shaft in Jam (western Afghanistan), built between 1163 and 1203 with polygon base and a height of 200 feet (figure 7).

In Bukhara, we find examples of tapered shaft minarets such as the minaret of Kalan's Mosque (figure 8) built in 1127 by the Qarakhanid Arslan Shah (1102-1129) with 46 meters height (150 feet) and that of Vabkent's mosque built in 1141 and with 41 meters (135 feet) height.

A third example of these minarets is found in India and Anatolia with their shafts being supported by semi-cylindrical grooves as in Qutb Minar Minaret (Delhi 1199) (figure 9). In addition to the form, the Seljuk introduced the practice of implanting dual minarets flanking the entrance with the oldest instances appearing in Tabas in Iran (Scerrato, 1980).
The Seljuk Madrassa

In addition to these developments made in the form, function and character of the mosque, the Seljuks expanded the use of Madrassa which, according to Van Berchem, first appeared in Khurasan early 10th century as an adaptation of the teacher’s house to receive students. In the middle of 11th century, the Madrassa was adopted by the Seljuk Emir Nizam Al-Mulk to become a public domain under his control, an inspiration from the Ghasnavids rulers of Persia who used it for teaching theology. The oldest Madrassa was founded by Nizam Al-Mulk in Baghdad in 1067 (but without a trace).

Evidence from the Madrassas that succeeded, (built between 1080 and 1092) at Kharghird in Khurasan, shows the use of four Iwan plan (Scerrato, (1980, p.72). However, Hattstein & Delius (2000) referred to another Madrassa known as the Khoja Mashad Madrassa (south of Tajikistan) as the oldest discovered Madrassa dating back to between 9th and 11th centuries. This displayed most of the features found in the Madrassas that followed at a later stage. This included the courtyard with four Iwans, and living chambers and study halls. However, the main portal was connected directly to the courtyard rather than through a vestibule as found in later Madrassas (Hattstein & Delius (2000 p.363). The southern side of this courtyard consisted of two large domed halls of similar size built of brick. The eastern hall was a mausoleum built in the 9th century was incorporated in the Madrassa while the second, more recent, was a mosque built in the 11th century.

The best surviving examples of Madrassas are those found in Anatolia, with their Iranian character including the use of the Iwan and the double minaret framing the portal. As in mosques, Anatolia converted the courtyard into a central domed area connecting to a number of chambers (rooms) which provided classes for students. These arrangements can be seen in the famous Karatay Madrassa in Konya founded (1251-1252) by Jelaleddin Karatay, a vizier of Sultan Izzeddin Keykavus. Here the courtyard was covered with huge dome perforated for the purpose of light, transforming it into a central area equipped with a pool for ablution. The Iwan is located on the west while the portal, which falls out of axis with the Iwan, is
unframed by the pishtaq and decorated with Syrian inspired knot design, lattice work, and polychromy as well as with the classic Seljuk Muqarnas. The dome was treated with particular care supported at its base by huge fan like connecting triangular structures (a total of 5 in each corner), each one evoking the name of Prophets, Muhammed, Issa (Jesus), and Mussa (Moses) giving it the symbolic appearance of the universal tent extending to the four corners of the universe and supported on these 5 pillars.

In decorative terms, the dome was covered with blue and black glazed tiles in the supporting pendentives (fans), the base of the dome is covered with a circular band of calligraphy, and its main body was covered with rosettes of blue centre and black outer looking like bursting stars. These meanings were also expressed in the decoration of other parts and walls of the building reflecting the dominant Sufi traditions dominating this particular period. This dome set precedent for Anatolian architects and artists quickly spreading in this region.

It was imitated in the Ince Minare Madrassa (Konya 1265), which does not substantially differ from Karatay but more famous for its portal which represents one of the most opulent works of Seljuk architectural decoration (Scerrato, 1980) with its Thuluth Naskhi type of calligraphy presented like a tapestry motif incorporating some vegetal (leaf and fruit) motifs. The whole composition created a baroque effect (figure 10), a style which later appeared in Europe in the 16th century.

**Figure 10.** Ince Minare portal, showing details of its "Baroque" effect calligraphy and vegetal motifs.
The Seljuk Caravanserai (the Khan)

The other building type spread by the Seljuk was the caravanserais or khans (Anatolia) or Ribat⁵. These were charitable foundations providing travellers with three days of free shelter, food and entertainment (in some cases) as part of the charitable work emphasised by Islam towards travellers (Ibn Al-Sabil) and were set up at regular intervals, about 30km, along important trade routes in Asia Minor. Physically, these structures consisted of a courtyard pierced with Iwans and along its walls rooms were arranged according to their function involving lodging rooms, depots, guard rooms and stables. This organisation is found in Rabat-i-Malik, a typical early Seljuk caravanserai in Iran which was built between 1078-1079 by Sultan Nasr⁶ on the road of Bukhara and Samarkand. The structure resembled Abbasid desert palaces with a square plan guarded by strong walls which were buttressed by a number of semi circular towers. Later, this plan was altered leading to the emergence of two separate functional sections as in the case of Rabat Sharaf caravanserai built between 1114-1115 on the road between Nishapur and Merv (Godard, 1980) (figure 11), and Akcha Qala (11th century) about 80km north east of Merv. Both structures had two separate courtyards arranged on longitudinal axis with similar design principles of the four Iwan mosque and Madrassa. The first courtyard contained depots and stables while the second seemed to be reserved for accommodation (Hoag, 1987).

These spatial arrangements were also maintained in most of caravanserai in Anatolia which also contained two main sections, the first being evolved into a barrel vaulted hall used for sleeping arrangements. In some Hans, as in Sultan Han near Kayseri, this hall took the form of a basilica with an axial monumental portal (representing the central nave) opening into the second section of the building. This is the Sahn, a courtyard surrounded by one or two storey arcades comprising a number of rooms accommodating bathing services, storage, and stables as well as the staff working in the Khan such as physicians, cooks, and musicians. Seljuk caravanserais in Anatolia often had in the centre of their court a freestanding Masjid, "Kiosk" mosque. As with most of Muslim buildings, these were often provided with high quality architecture and décor which reaches its highest standards in the mosque and portal (Rice, 1979).

![Figure 11. Ribat Sharaf caravanserai](image-url)
The Seljuk Mausoleum

Another building typology which saw considerable development under the Seljuk patronage was the mausoleum. This type of building evolved from early funerary monuments which were first erected to honour the Umayyad rulers in the 8th century. However, under the Seljuks it took a new dimension hosting the remains of important people not only rulers but also religious scholars. Their spread was particularly due to the expansion of Sufism which was widely practised in Persia as well as Anatolia and Asia Minor.

Seljuk mausoleums display great diversity of forms involving the octagonal, cylindrical (also called tower) and square shapes topped with a dome (mainly Persia) or conical roof (especially in Anatolia). These monuments can be found freestanding in cemeteries, or attached to particular buildings connected with the deceased such as mosques or Madrassas. Here, architecture reached its highest refinement and beauty. Due to the religious, social or political importance of the people buried in these tombs, the mausoleums were often highly decorated with symbolic designs depicting paradise awaiting the soul of the founder, and large amount of calligraphic inscriptions from the Quran connected with death and paradise, and sometimes the good works and the guided life of the deceased were also expressed.

In central Asia and Persia, the earliest Seljuk tombs were cylindrical or tower type which seems to be derived from earlier tower tombs of the area especially the celebrated Gunbad-i-Qabus at Gurgan, Iran (1007). This monument was built for Shams Al-Maali Qabus (978-1012), consisting of a cylinder supported by 10 buttresses planned by rotating a square five times within the circle (Hoag, 1987, p.92), and had a conical roof (figure 12). Such features appeared also in Tughril tomb at Rayy, (1139-1140 near Tahran) with the latter having more muqarnas decoration and more impressive Pishtag doorway. As for the square mausoleums, historians established that the Seljuks derived this type from existing examples especially the tomb of Ismail, the Samanid ruler at Bukhara. This was built, according to an inscription found before 943 with a square plan supported by semi circular buttresses at corners and a domed roof with dog teeth décor and four small projections (dome lets) were planted at the corners of the roof (figure 13). However, the tomb is famous for its brick decoration which exceeded in quality and richness those found in the Abbasid Baghdad Gate at Raqqa (775) and the Great Mosque of Samarra. Examples derived from this tomb include the Gunbad-i-Surkh (1147-1148) at Maragha (west Persia) which developed similar square plan, semi-circular corner buttresses and domed roof as well as the tomb of Sultan Sanjar at Merv (around 1157).

Octagonal and cylindrical shapes topped with conical roof were the most popular in Anatolia. Among the examples in Anatolia is the decagonal mausoleum of Kilic Arslan II which was built in the centre of the courtyard of Ala al-Din mosque in Konya between 1192/1193. The other famous octagonal mausoleum with twelve sides is the Doner Kumbet tomb built for Princess Shah Jihan Khatun around 1275. It consists of two storeys, the lower floor is the burial space while the upper floor is a prayer room. The most important feature of the building is its baroque style ornaments which decorate the exterior of the first floor. An example of the square tombs “turbe” in Turkish, is the Mahperi Khwand Khatun built at the complex “Kulliye” she founded in 1238 at Kayseri.
There are numerous innovative architectural contributions made during the Seljuk Dynasty. Some of these are listed below:

- Introducing the new concept of the four Iwan mosque.
- Covering the courtyard which was widely used in Anatolia to cope with climatic circumstances.
- Expanding the use of Madrassa to spread learning in the Islamic world.
- Expanding and elaborating the Mausoleum architecture.
- Introducing Caravanserais (Khans).
- Advancing the use of the conical dome.
- Promoting the use of muqarnas motifs.
- Introducing the first elements of the baroque art that spread to Europe in the 16th century.

References

Notes

1 Initially in Parthian Assur Palace (2nd century A.D.).
2 Hoag (1987) suggested that this edifice was built for Terkan Khtun, the wife of Malik Shah and daughter of the Qarakhanid Sultan Tamghach Khan.
3 According to Scerrato (1980) the fire took place between 1120-1121.
4 The earliest charitable "Kulliye" (College).
5 This is different from Ribat in North Africa which refers to a theological boarding college for volunteer fighters.
6 The Qarakhanid ruler (1068-1080) and the son in law of Sultan Alp Arslan.