CHAPTER TWO

STYLISTIC EVOLUTION OF ISLAMIC ARCHITECTURE IN CAIRO

THE FATIMID PERIOD (969-1167)

Not before the establishment of a Caliphate in Egypt under the Fatimids did an indigenous style in art and architecture crystallize. The mosque of Ibn Tulun, despite a few variations, is still a product of the Abbassid court art of Samarra.

While the arrival of a new dynasty need not automatically bring with it a change of style in arts and crafts, a new political system necessarily shapes the environment of the craftsman and thus brings new influences to bear upon his inherited methods and experience. The Fatimid reign promoted Egypt from a tribute-paying governorate within a Caliphate to a Caliphate itself, with Cairo the imperial capital.

Cairo’s new status as seat of the Fatimid Caliphate led to the emergence of a new, individual style. The arts and architecture of the Fatimid period show an integrated use of Coptic, Byzantine and Samarran elements. Foreign forms in Fatimid architecture and decoration thus express not a provincial version of an imperial prototype, but a demonstration that the new imperial city had considerable attraction for craftsmen and artists from many traditions in and outside Egypt.

The Fatimid dynasty ruled Egypt between 969 and 1171. They came from North Africa, where they had established an empire prior to their conquest of Egypt. They were Shi'a Muslims of the Isma'ili branch, claiming descent from the Prophet through his daughter Fatima (hence their name) and her son-in-law, the Caliph Ali Ibn Abi Talib, whom Shi'a especially venerate. The shahada, or tenet of the Muslim faith, “There is no God but Allah and Muhammad is the Prophet of Allah,” when spoken by Shi'a is supplemented by the phrase, ‘Ali waliyyu’llah, “Ali is the Protected of God.” According to Shi'a doctrine, the only legitimate and authoritative religious leaders are the imams, or descendants of Ali through his sons from Fatima, al-Hasan and al-Husayn. The imams, because of their ancestry, were considered by the Isma'iliis to be divinely inspired and therefore infallible. The Fatimid Caliphs were the imams of the community.

Under Fatimid Shi'a rule, most of the Egyptian population continued to be faithful to Sunnism, and were thus separated from their rulers by a religious barrier. This religious barrier might explain the building of a certain type of shrine, such as the Fatimid...
mashhads, memorial foundations dedicated to descendants of the Prophet Muḥammad who had died much earlier and most of whom had no connection with Egypt at all. These shrines, such as the shrines of Sayyida Nafisa, Sayyida Zaynab, and al-Husayn venerated by both Shiʿa and Sunni Muslims, are still venerated today, helped bridge the religious gap between rulers and subjects, and also enhanced the prestige of the Fatimid rulers, themselves descendants and relatives of the worshipped saints. Memorial buildings of this type were not peculiar to Egypt, they had appeared earlier in other parts of the Muslim world as well.

The Fatimid Caliphs were not buried in cemeteries, but within the confines of their own palaces. Their tombs and those of their ancestors were considered as shrines and visited on religious and official occasions. The outstanding architectural achievement of the Fatimid Caliphs, according to travelers’ and historians’ accounts, were their palaces. As nothing of these have survived except written descriptions, our visual experience of Fatimid architecture is restricted to a few surviving shrines, mosques, and the city gates. Though limited in number, these monuments show us the great creativity of Fatimid architecture and decoration, and the reasons for its long lasting influence in subsequent periods.

Fatimid mosques retained the hypostyle mosque plan, with column-supported arcades surrounding a courtyard. However, the keel arch was introduced, usually carried on pre-Islamic Corinthian capitals. An Islamic type of capital in the shape of a bell was used, and the shape was often repeated underneath the column to form its base, though set upside down. The piers of the mosque of Ibn Ṭūlūn already had such capitals and bases.

The prayer niche of a Fatimid mosque is always enhanced architecturally, either by a dome above it or by a transept (al-Azhar and al-Hākim have both), or by a widening of the aisle adjacent to the qibla wall (al-Aqmar mosque), or the aisle perpendicular to it (al-Ṣāliḥ Ṭalāʾīʾ mosque).

Aligning the facade of the mosque to the street, a feature characteristic of Cairene medieval architecture, appears for the first time in the Fatimid period. The al-Aqmar mosque is the earliest extant example, and is also the earliest extant example of an extensively decorated mosque façade. Facade decoration with recesses in which windows are placed is first seen at the mosque of al-Ṣāliḥ Ṭalāʾīʾ, and the location of a mosque above shops was also initiated during this period.

Fatimid minaret shapes show a clear evolution from al-Juyūšī to Abūʾl-Ghadanfar toward the mahkāra shape, a term meaning “incense burner,” which was used by Creswell to designate a rectangular shaft supporting an octagonal section with a ribbed helmet. This minaret shape, not, by the way, reminiscent of any known type of incense burner, was to become typical of minarets for the next two centuries.

It is known that marble was used for decoration, though none used in mosques has remained in place. Stucco, wood and stone carvings display floral designs, arabesques derived from Samarran and Byzantine motifs, and geometric patterns. Kufic inscription bands become increasingly ornate. Window grills have floral as well as geometric designs, and glass in stucco grills appears for the first time, a feature that was common from then on.

The Fatimid period introduced decorative features such as the keel-arched niche with fluted radiating hood, a variation on a late classic theme used widely in Coptic art. This fluted niche hood must have inspired architects to build fluted domes, a style continued in Mamluk architecture. The Fatimid use of inscription bands along the arches, however, was not continued, and is confined to the Fatimid period.

Although Samarran and Byzantine motifs inspired Fatimid decoration, these were further developed and modified into a complex and less repetitive treatment, emphasizing accommodation to the surface to be decorated.
THE AYYUBID PERIOD (1171-1250)

The Ayyubids, who adhered to the Shāfī'i rite of Islamic law, allowed only one Friday mosque within an urban area, which explains why they did not build any new major mosques. They built instead a number of madrasas, of which only one has survived. Many of their madrasas were established in houses or palaces. The madrasa was an institution sponsored by members of the ruling class for teaching theology and law according to an officially approved curriculum. Teaching in mosques was common since the beginning of Islamic history, but these early teaching institutions were private initiatives not subject to state control. The Shi'ites were the first to found official teaching institutions for the propagation of their own doctrine, as at al-Azhar. The Sunnis therefore emulated the system, promoting the madrasas to counteract Shi'a propaganda.

In a madrasa, the student acquired a higher education in law and theology to enable him to undertake scholarly or administrative duties. He was given food, lodging, clothing, and even a stipend. The khanqah was for the Sufis, who espoused the mystic, esoteric approach to religion, in which seclusion and ascetism played important roles. In the early khanqah, the Sufis led a monastic life according to their own strict regulations and were also sponsored in the same manner as the students of the madrasa.

Imam Shāfī'i, founder of the rite known by his
name, who lived and died in Egypt, was especially revered by the Ayyubids. The first madrasa in Egypt was built by Ṣalāḥ al-Dīn near the tomb of Imām Shāfi’ī at the cemetery of al-Fusṭāṭ. Ṣalāḥ al-Dīn also sponsored a magnificent wooden cenotaph on the Imām’s grave, still in place today. Nothing of the madrasa has survived.

The first khanqāh of Egypt, also introduced by Ṣalāḥ al-Dīn, was established on the premises of a Fatimid palace in the center of al-Qāhirah. It too has not survived, but throughout the medieval period it was one of the most important khanqāhs of Cairo. Originally, it was exclusively for Sufis from outside Egypt.

Architecture

The break into the political and religious system introduced by Ayyubid rule in Egypt did not affect the arts to the same extent, although it led necessarily to innovations in the field of architecture, required by the establishment of new forms of religious institutions.

The madrasa and the khanqāh which were both planned to lodge their respective communities of students and Sufis, were necessarily built on a plan different from that of the traditional mosque. They had to include living units, a kitchen, sometimes a bath, a reception hall and stables which are elements of domestic architecture. Thus the īwān, which historians mention in an earlier residential context, was adopted in madrasa and khanqāh architecture. In its classic form, it was a hall open on one side and covered by a vault or a flat ceiling. In Cairo, early īwāns—Ayyubid and Bahri Mamluk—were vaulted; in the later Mamluk period they were often covered with a wooden ceiling. At the madrasa of al-Ṣāliḥ Najm al-Dīn, two īwāns face each other across a courtyard with the living units on the lateral sides built on several stories. At the end of the thirteenth century, the so-called cruciform plan was adopted with four unequal īwāns framing the courtyard and the living quarters occupying the corners of the courtyard.

In funerary architecture, the mausoleum of Imām Shāfi’ī continued the shrine tradition established by the Fatimids, on a superlative scale and with new meaning. The Imām Shāfi’ī dome, like that of al-Ṣāliḥ Najm al-Dīn, has a feature alien to Fatimid domes: its profile curves near the springing of the dome. This dome, however, was restored several times, and it is possible that its shape was remodeled, in which case the dome of al-Ṣāliḥ Najm al-Dīn would be the earliest extant example of this type of dome profile.

The facade of the madrasa of al-Ṣāliḥ Najm al-Dīn follows the pattern introduced at the mosque of al-Ṣāliḥ Ṭalāʾī, with windows in recessed panels along the whole length of the facade.

The minaret of al-Ṣāliḥ Najm al-Dīn is of the mabkharah type decorated with stalactites. The earliest mabkharah minaret, that of Abū’l-Ghadanfar (1157), is without stalactites.

There are two undated buildings attributed by Creswell to the late Ayyubid decade that could also
have been built in the first Mamluk decade. In either case, they deserve some mention here, as they represent a further step in the evolution of Cairo architecture of the mid-thirteenth century.

The Minaret of Zāwiyat al-Hunūd

One of these is a minaret known by its later designation as the minaret of Zāwiyat al-Hunūd. It is a mabkhara minaret which has retained more decorations than that of al-Ṣālib, with lozenges and keel arches and more stalactites. Its silhouette is more slender and elongated, and it therefore might well have been built around 1250, as Creswell suggests.

The Mausoleum of the Abbasid Caliphs

The other building is known as the mausoleum of the Abbasid Caliphs, as several Abbasid Caliphs were buried there after Sultan al-Zāhir Baybars founded a nominal Abbasid Caliphate in Cairo following the sack of Baghdad by the Mongols. It adjoins the shrine of Sayyida Nafisa in the cemetery of Fustat and is undated.

The mausoleum includes several cenotaphs, the earliest of which is that of an ambassador of the Abbasid court named Naḍla, who died in Egypt in 1243. There are also two sons of the Mamluk Sultan al-Zāhir Baybars buried under the same dome and other later Caliphs’ cenotaphs. The cenotaphs of course do not date the mausoleum itself; it might be older or later than the tombs. Creswell identifies it as having been built originally for Naḍla, the ambassador of the Abbasid Caliph, in 1243. Other arguments, such as the extraordinarily lavish decoration, favor its attribution to Sultan al-Zāhir Baybars who would have built it for his sons in the 1260’s, especially since the enclosure in which the mausoleum stands axially is assigned to al-Zāhir Baybars.

The mausoleum of the Abbasid Caliphs is one of the most finely decorated buildings of medieval Cairo. Its dome’s interior is covered with exquisitely carved stucco and painted medallions. It has a band of braided, painted Kufic script in its lower part, the only example in Cairene architectural decoration. The architec-
turally interesting feature of this building, whose exterior is very similar to that of Shajarat al-Durr in keel profile and carvings, lies in the transitional zone of the dome. Two-tiered squinches alternating with two-tiered windows resemble those at Sayyida Ruqayya, but here the space between squinch and windows is filled with niches so that the whole octagonal zone appears as a ring of niches, some forming stalactite squinches, some pierced with windows for light, and others carved to match the overall composition.

If this mausoleum is late Ayyubid as Creswell assumes (1242/3), this would be the first use of this device, a year earlier than in al-Ṣāliḥ’s dome (1243/4). This treatment of the transitional zone was subsequently adopted in all domes with squinches.

**Decoration**

Ayyubid decoration is quite distinct from that used by the Fatimids. The arabesques are more abstract and more intricate, to the extent that the basic design is concealed behind the densely carved curves very minutely and extremely delicately executed. Their basic arrangement, however, follows the usual geometric rules.

Indeed, the stuccos resemble lace, a prominent example being on the base of a minaret added in 1237 to the shrine of al-Ḥusayn whose original top has not survived. The decoration of Shajarat al-Durr’s dome gives the same impression. Stucco window grills are no longer treated geometrically, arabesques are used instead. Work in stone and wood follows the same trend. The woodwork of the cenotaphs of Imām Shāfī‘ī and the one added to the shrine of al-Husayn (now in the Islamic Museum) are perhaps the most beautiful in Cairo’s history. They are carved in deep relief in floral and geometric patterns and use both Kufic and naskhī scripts. The use of naskhī increases in Ayyubid decoration and is applied along with Kufic to decorate architecture and other artistic objects as well. Samarqand and Byzantine styles were fully supplanted in the Ayyubid period by Islamic decorative art forms.
THE BAHRI MAMLUK PERIOD (1250-1382)

Cairo’s legacy of Bahri Mamluk monuments is for the art historian a source of both delight and despair owing to the variety of forms and patterns adopted during this period, greater by far than that found in later periods.

The architecture of the Bahri Mamluks is primarily Cairene, based on the Fatimid and Ayyubid traditions that evolved into an indigenous Cairo art without, however, ever being closed to outside inspiration.

FUNCTIONS

The mosque of ʿAmr at Fustât was the congregational mosque of the city, which means that it was the mosque where the Friday sermon was held, first by ʿAmr himself, and subsequently by his successors, the first governors of Egypt and spiritual heads of the Muslim community. Of course it was not the only mosque of the city, for there were a multitude of others for the five daily prayers. The congregational mosque was called masjid jāmiʿ, and abbreviated as jāmiʿ, meaning congregational. The ordinary mosque was called masjid, which is the origin of the word “mosque.” Today, this terminological distinction no longer exists.

Every medieval urban agglomeration had its own congregational mosque. When, however, the cities and their Muslim communities grew, the number of Friday mosques increased. The cities of al-ʿAskar and al-Qāṭārī each had a Friday mosque. Al-Qāhirah had the al-Azhar and al-Hākim mosques. The Fatimid Caliph, in his position as both political and spiritual leader, held prayer each Friday in the four mosques of ʿAmr, Ibn Tūlūn, al-Azhar, and al-Hākim. Under the Ayyubids, the only congregational mosque of Cairo was that of al-Hākim, no doubt because it was the largest in the city. At Fustât, the mosque of ʿAmr continued to be the city’s Friday mosque. The Mamluks increased the number of Friday mosques, and from the time of Sultan Hasan, madrasas and khanqāhs also became simultaneously Friday mosques so that by the fifteenth century, each quarter and sometimes even each street had its own. The sermon delivered by the shaykh had at that time only a spiritual, and not a political, function.

PLANS

Creswell has demonstrated definitively that the madrasa plan called cruciform, consisting of a courtyard with four iwāns of unequal size and living units between them, developed in Egypt. The earliest known madrasas, those of al-Malik al-Kāmil and al-Malik al-Šāliḥ, had two iwāns facing each other across a courtyard, and at al-Ṣāliḥ’s madrasa, this form was duplicated. We do not know exactly how the lateral sides were treated, but the madrasa of Sultan Qalāwūn is rather similar in plan. There, the lateral sides each have a small room in the form of a recess, rather than a true iwan. In later madrasas, these recesses become larger, forming small iwāns. This plan is very similar to the qaṣʿa, or reception hall, of Mamluk and Ottoman residences, the only difference being that in the classic madrasa, the courtyard is not roofed or domed as it was in the residential qaṣʿa.

Hypostyle mosques continued to be built in the Bahri Mamluk period, but were no longer free-standing. In the already crowded urban setting, their plans generally lose their regularity. For example, the main entrance is no longer on the axis of the sanctuary.

With Shajar al-Duwal, who initiated the rule of the Bahri Mamluk sultans, it became traditional for the founder of a religious institution to add his own mausoleum to the building. The mausoleum dome was built to enhance the founder’s prestige, and its location was therefore important. Ideally a mausoleum attached to a religious building had to be oriented to Mecca and at the same time accessible from the street. The formula succeeds at the mausoleums of Qalāwūn, al-Nāṣir Muḥammad, and all others located on the west side of the street. Where the Mecca orientation does not coincide with the street, the street orientation was given preference.

Mausoleums were given large windows with iron grills, where a shaykh sat and recited the Quran both for the soul of the dead and to attract the attention and blessings of passersby. Often, mausoleums were much more richly decorated than the buildings they were attached to, a good example being that of Baybars al-Jashankīr.

FAÇADES

Mosaics and madrasas since their earliest history had primary schools for boys (maktāb or kutṭāb) attached to them, which were usually dedicated to the education of orphans. Other boys could take private lessons with teachers who taught in shops within the city, as the tales of “The Schoolmaster” and “The Split-Mouth Schoolmaster” of the Arabian Nights tell us. Judging
from the number of kuttābs that survived, most men in medieval Cairo must have been literate.

By the end of the Bahri Mamluk period, an architectural device was developed for such structures: a loggia occupying a corner with a double arch on each side surmounted the sābīl or water-house. The sābīl was another pious foundation that could be attached to a mosque. It was a place where the thirsty passerby could get a drink of water. A man especially employed for that purpose would serve him behind the large sābīl window. Since the madrasa of Amir Iljāy al-Yūsufī, the combination of a sābīl with a kuttāb became a standard feature of the facades, always at the corner, of religious foundations.

Bahri Mamluk facades standardize the panel-and-recess pattern begun at the mosque of al-Ṣāliḥ Ṭālāʾī. The recesses are crowned with stalactites and have large rectangular lower windows with iron grills and higher arched or double arched windows with stucco grills and colored glass.

Portals

Various types of portals were used before the stalactite portal became typical during the mid-fourteenth century. The Qalāwūn complex has a round arch decorated in the spandrels with interlacing stripes of black and white marble. At the khanqāh of Baybars al-Jashankīr the portal is a round arch with cushion vousoir. At the mosques of al-Māridānī and Aqsunqur, pointed arches characterize the entrance recess. The mosques of Ulmās (1330) and Bashtāk (1336) have a rectangular recess with dripping stalactites above the entrance bay. The mosque of Amir Husayn has a pointed arch with moldings radiating from a central point above the lintel and interlacing to form the vousoir of the arch. The northern portal of al-Nāshī’s mosque at the Citadel has a trilobed shallow recess.

Eventually, the stalactite portal composed of a half-dome resting on stalactites predominates, and later is used exclusively. Creswell traces its origins to Syria,
where there are examples earlier than those in Egypt. This, however, is not a definitive argument, for many earlier buildings in Cairo that have not survived may have had this feature. The vestibules are almost always cross-vaulted.

**MINARETS**

Minaret evolution is continuous from al-Juyūshi and Abū'l-Ghadasfar toward the more slender mabkhara type such as those of Sanjar and Sunqur al-Sa'di where the octagonal section above the rectangular first story increases proportionally. The minaret of al-Mâridânî is the earliest surviving example of a new type of minaret with completely octagonal shaft and a top that is not a mabkhara, but a pavilion of eight columns, carrying above a crown of stalactites a pear-shaped bulb. This top is the standard for later Mamluk minarets, and the mabkhara top disappears in the second half of the fourteenth century. In later minarets, the rectangular shaft is supplanted by an octagonal first story.

**DOMES**

Two types of dome profiles are used in the Bahri Mamluk period, those like Baybars al-Jashankir’s that curves near the base and are usually plain, and those like Sanjar’s and Salâr’s that begin cylindrically and curve at a higher level and are often ribbed. Inscription bands carved in stucco decorate the drums of Bahri Mamluk domes.

In the domes’ interiors are two main types of transitional zones. The earlier type has several-tiered squinches alternating with several-tiered windows and niches; windows, squinches and niches all have the same profile. Later, pendenti ves are used, first in wood as at al-Nâṣir Muḥammad’s Citadel mosque, then in stone. In these, windows are arched instead of forming a pyramidal profile with several lights. There are also a few examples with stone squinches.

Domes are built higher, achieved primarily by increasing the height of the transitional zone. Stone domes make their first appearance under the Bahri Mamluks, but reach the height of their beauty under the Circassian Mamluks in the fifteenth century.

**DECORATION**

In decoration, stucco is increasingly used on the exteriors of minarets and domes. Facades built of stone have carving and also inlaid marble, especially at the joggled lintels and in inscriptions above portals. Not much marble survives from pre-Mamluk times, but in the Mamluk period it was customary to panel walls with polychrome marble (dado), and marble gradually supplanted the stucco used in prayer niches. Panels with marbles and stones and mother of pearl inlaid in minute patterns characterize Bahri Mamluk wall and prayer-niche decoration. After Qâlâwûn, use of square Kufic marble inlay decoration becomes widespread.

Vousoirs of arches are generally decorated with ablaq masonry, rather than the Fatimid style stucco inscription bands. In addition to the pre-Islamic and the Islamic bell-shaped capital, capitals sometimes have carved stalactites, as at Sultan Hasan’s mosque. Stalactites on minarets decorated each ring of balcony, each

Pl 13 The prayer niche at the madrasa of Taybars attached to al-Azhar, 1309/10 (Greswell)
ring having a different pattern. Stalactites also adorn the recesses of facades, but in interiors, we see them mainly in the transitional zones of domes.

Window grills are no longer geometric, but floral patterned and quite intricate, often including colored glass. There are also several beautiful wooden grills.

**Foreign Influence in Bahri Mamluk Architecture**

Architecture has always been an international craft, and medieval architects moved to where there was most to be built and where patronage could be expected. Architectural styles thus reached far beyond political frontiers.

Foreign influences on Egyptian architecture under Islam came through several channels. The concept of the mosque came from Medina with the Abū al-ʿAsir conquerors, and as Islam spread, the various requirements of mosque building developed everywhere with substantial similarities. We see at the mosque of Ibn Tulun reflections of a style created in the imperial Abassid capital of Samarra and imitated in Egypt at a time when a local Islamic style had not yet crystallized. The situation during Fatimid rule was quite different. When Egypt became a Caliphate, Egyptian architecture drew away from imitating the arts of the Abbasids.

Monks from Edessa coming as refugees from the Saljuq invasion demonstrated their skills in Badr al-Jamali's fortified walls. The Persian artists who designed al-Juyush's and al-Aflal's prayer niches might have been Shi'a sympathizers or travelers eager to visit Fatimid Egypt. North African influences were continuous throughout the Fatimid and Bahri Mamluk periods. This is first seen at the mosque of al-Hakim, the minaret of al-Juyushi, and in various ornaments. In this case, craftsmen must have accompanied the Fatimid conquerors to Egypt, later ones may have visited in Egypt on their way to or from their Mecca pilgrimage.

The Andalusian style, obvious in the Imam Shafi'i mausoleum, the minaret of Lajin, and several other buildings of the thirteenth and fourteenth centuries, could also have been brought by craftsmen on pilgrimage, or by refugees from the Spanish Reconquista, when Christian dominance must have diminished opportunities for artisans in Spain.

The mosque of al-Zahir Baybars had a huge dome, the origins of which were in Saljuq Persia. The idea was adopted in eastern Anatolia, close to the Ayubid and Mamluk sphere of power, and from there reached Cairo. According to Creswell, Syrian elements such as the stalactite portal and ablaq or striped masonry came to Cairo in a similar manner. In the thirteenth century, Mongol invasions pushed masses of people out of devastated countries, and Egypt received large numbers from Syria and Mesopotamia. Among them were craftsmen who introduced new arts and techniques. During the reign of al-Nasir Baybars, thousands of Mongol refugees settled in Cairo.

Diplomatic exchanges often brought with them artistic imports, such as Qalawun's Byzantine and Sicilian elements and, under the reign of al-Nasir Muhammad, Persian techniques and patterns in faience mosaic and stucco.

Battles with the Crusaders and the presence of Crusader prisoners also played a role in the arts. In the Cairo War trophies were especially esteemed: the dome of al-Zahir Baybars was made of captured materials, the portal of al-Nasir came from a church, and a number of western capitals can be seen in Cairo buildings such as the khaneqah of Baybars al-Jashanski, the madrasa of Sunqur al-Sa'di, the mosque of al-Nasir, and the madrasa of Sultan Hasan. If they were captured from the Crusaders, such trophies had, in addition to their material value, a symbolic importance. Creswell detects French craftsmanship in the iron window above Qalawun's entrance that may have been made by a Crusader artist.

Maqrizi tells us that craftsmen from all over the world came for the building of the mosque of Sultan Hasan. Muslim and Christian Anatolian influences are obvious in the mosque's architecture and decoration. Even Chinese lotus and chrysanthemum patterns appear on its walls. The art objects Cairenes enjoyed importing from the Far East, such as porcelain and silks, thanks to the flourishing trade routes, brought many objects to Cairo that inspired local craftsmen.

The madrasa of Sarghitmish and the Sulthanyya mausoleums have double shell domes with high drums, a style totally alien to Cairo but familiar in eastern Islamic architecture. Not only were there foreign architects in Cairo, but the Mamluks themselves came from Central Asia, from the Caucasus, and even Europe. Al-Nasir Muhammad had a Chinese mausoleum, Arghunshah, given to him as a present by the Mongol ruler of Iran. The madrasas and khaneqahs of Cairo housed large numbers of foreign students and Sufis, and priority was often given to foreigners. The madrasa of Sarghitmish, for example, was frequented primarily by foreigners.
This series of foreign elements in Cairo architecture by no means implies that the indigenous architecture was poor or provincial in comparison; on the contrary, the adapted elements made Cairo architecture cosmopolitan and innovative. Faience mosaics applied in a mosque no more made it Persian than a horseshoe arch made a building Andalusian. The mosque of Sultan Hasan is Mamluk in style in spite of importation of craftsmen “from all over the world.” Mamluk here refers not to the ethnic origins of the Mamluk rulers, but to the Cairo Mamluks, and the architectural traditions that evolved in Cairo.

That foreign influence implies the opposite of cultural poverty is illustrated by Ibn Iyās, who wrote that the Ottomans, after they conquered a country, customarily took some of its craftsmen home, and at the same time introduced Turkish craftsmen to the new provinces. The prestige of a ruler was enhanced by collecting and sponsoring foreign art forms. Indeed, in the later Mamluk period, when Egypt’s foreign relations were more limited and foreign influences no longer played a role in the arts, innovation and diminished forms become comparatively static.

**THE CIRCASSIAN MAMLUK PERIOD**

(1382-1517)

**Functions**

At the end of the fourteenth century, which corresponds to the beginning of the Circassian Mamluk period, a change had taken place in the function of religious institutions, the origins of which had already started under the Bahri Mamluks. This was the drawing together of various institutions into the multi-functional religious complex. The madrasa-jāmi’ combination has already been mentioned in connection with Sultan Hasan. Under Sultan al-Zahir Barquq, the complex included a khānqāh as well, thus forming a madrasa-khanqāh-jāmi’. Later the functions of both the madrasa and the khānqāh were reduced, so that every Friday mosque is called a madrasa, even without a teaching curriculum, and they all—whether called madrasa, jāmi’, or khānqāh—had Sufi rites, though the Sufis no longer had to live in them. The khānqāh had lost its monastic character. Already under the Bahri Mamluks, a madrasa commonly included Sufi activities and the khānqāh gave regular courses in Islamic law for its mystic community.

Living units no longer formed an integral part of the architecture of the religious complex. Rather, they were integrated into the commercial part of the complex, as a ṭarīqa, an apartment complex for families, to be rented to persons of different professions by the endowment’s administrator. This meant that the strict khānqāh and madrasa regulations were abandoned over time, and the original function of the mosque as a place open to all kinds of religious activities was revived. The main difference was that a multitude, instead of a few, congregational mosques now served the city. The architectural consequence of this development was the small covered mosque, instead of the hypostyle or the cruciform plan with living units around the courtyard.

Architecturally less known than the khānqāh and the madrasa was the zāwiyah. This was a religious foundation of rather individual character, built by or for a shaykh to spread a particular form of Sufism or propagate a certain order (ṭarīqa). The shaykh generally lived in the zāwiyah, sometimes along with disciples and visitors. When he died, he might be buried in the zāwiyah; when that happened, the place then became a shrine. The zāwiyas and shrines continued to be the center of the Sufi community founded by the shaykh and were perpetuated by his successors, who may or may not be his descendants. The community enlarged and endowed the foundation. Sometimes rulers also contributed, for several Mamluk sultans shared the popular veneration of Sufi saints. A zāwiyah might thus grow considerably, depending upon the importance of its members, and be repeatedly restored and embellished. For this reason, few zāwiyas have retained their original architectural features. Therefore, the zāwiyah of Shaykh Zayn al-Din Yusuf is of special interest, not only because it retained its original shape, but also because it shows that a shaykh could build like a sultan.

In the fifteenth century, Sufi shaykhs are often mentioned as sponsors of zāwiyas which are also referred to as madrasas and Friday mosques.

**Plans**

Two large mosques were built at the beginning of the fifteenth century, the khānqāh of Faraj Ibn Barquq in the cemetery and the madrasa-khanqāh of Sultan al-Mu’ayyad in the city. The mosque of al-Mu’ayyad is the last mosque of this size to have been built within the confines of the crowded capital’s walls.
As the number of religious foundations with Friday mosques increased, the size of the prayer hall was reduced. Even where space was available, as in the cemetery, or in the city center where a sultan could always contrive to get the land he desired, the space dedicated to the mosque proper remained quite small, though other structures, for example the living units attached to a religious foundation, increased in size. Since the reign of Barsbây, these had acquired the character of duplex apartments, each with its own latrine.

Small mosques were usually covered. While the mosque of Barsbây in the cemetery is an oblong hall with three aisles parallel to the prayer niche, the qāʾa plan became common in the second half of the fifteenth century. This is a reduced cruciform plan where the central courtyard is small, and covered. It is paved with marble, unlike the large open courtyards paved with stone and sometimes planted with trees. The covered cruciform plan resembled the reception halls, or qāʾas, in Mamluk and Ottoman palaces. The plan of the mosque of Barsbây was repeated in other mosques such as the mosque of Sīdī Madīyan (c. 1465) and the mosque of Jānim al-Bahlawān (1478-1510). In both cases, a wooden lantern protruding above the ceiling provided light to the interior.

In the reign of Sultan al-Ashraf Qāyrbây, several richly decorated mosques of the qāʾa type were built. They were often at the junction of two streets, with the sabil-kuttab at the corner of the building. Their facades are densely pierced with windows, as the mosques had no open courtyards to provide light. With the qāʾa plan, the ablution fountain is removed from the center of the mosque and adjoins the building outside. Also, there is no space for the bench called the dīkkat al-muballīgh in the qibla iwân, it becomes instead a balcony or loggia in the western iwân facing the prayer niche, reached by a staircase in the wall.

The reduced facades of the late Mamluk mosques have no space for the large inscription band along the upper part of the walls, common on earlier buildings; it is applied instead along the covered courtyard above the arches of the four iwâns. Moldings and keel arches, features that characterized either exterior or courtyard facades, are now found in the roofed central space of the qāʾa mosque.

Domes

Stone domes are a characteristic feature of Mamluk architecture in Egypt. They have no parallel elsewhere in the Muslim world. Stone domes, judging from the surviving evidence, seem to have begun their development in the first half of the fourteenth century and to have reached their zenith in the second half of the fifteenth century, declining soon afterward and disappearing shortly after the Ottoman conquest in 1517.

According to Christel Kessler, who studied the evolution of stone domes, the ribbed stone helmet of the mabkhara-style minaret of Amir Qīṣūn (1336) may have furnished the idea of repeating the same pattern on a larger scale as in a dome, since the architectural principle is the same.

The earliest surviving stone domes are small structures and are all ribbed, except for the unidentified one at the double mausoleum of Sanjar. The mason began by translating into stone what he had practiced with brick, at first without making much effort to adapt to the new material. For example, the early domes appear to have been coated with plaster to conceal the joints between the stone blocks. Later, however, the mason learned to conceal the joints in the spaces between the ribs, making plastering no longer necessary. With time and experience, the carving possibilities that stone offered introduced variations on the theme of ribbing. Instead of decorating the dome surface with rows of convex ribs, concave and convex ribs were alternated, a device applied earlier in the transition zone of Bashtāk’s minaret (1336) on the stepped area and later on the transition zone of the domes of Faraj’s khanqâh.

More variations followed, such as ribbing carved on oblique lines, as at Iljāy al-Yūsufī’s and Aytimish al-Bajāsī’s domes (1383/4). This pattern had been used earlier to decorate columns, as at the niches on the al-Aqmar mosque facade, the minaret of Ibn Tūlūn between the horseshoe arches, and at the corners of the facade of Sultan Ḥasan’s mosque.

After ribbing, the zigzag, used earlier on minarets such as that of al-Nāṣir Muḥammad at the Citadel and several others, became fashionable. This pattern appeared on many domes, the most prominent examples being the domes of Faraj Ibn Barqūq’s khanqâh. These are the largest Mamluk stone domes in Cairo and are only slightly smaller than the Imām Shāfīʿī wooden dome. Faraj’s domes are masterpieces of stone architecture that have elegantly resisted the effects of time.

Encouraged, the architects tried a more difficult device, adapting a geometric star pattern, usually used on flat surfaces, to the dome. The conch in the portal of the mosque of Ahmad al-Mihmandār (1345) has a star pattern on the concave surface, but this presented
Pl 14 The stone dome of Amir Ayīmish al-Bajāsī, 1383
no serious challenge, as the conch is quite small. On a large dome surface, the difficulty of adjusting the repetitive geometric star pattern to the diminishing area toward the apex, while keeping its rules of composition, is obvious.

The domes of Sultan Barsbāy

Sultan Barsbāy had four mausoleums built in his funerary complex, of which three are still standing. His own mausoleum, according to Kessler, appears to have been built first, judging from the execution of the work. The row of eight-pointed stars on the lower part of the dome change toward the top of the dome, to seven-pointed, then six-pointed, stars resulting in the appearance of a surface divided into three zones and lacking homogeneity.

The other two domes are treated differently. The one on the north side, that of Jānibak, has a row of halves of twelve-pointed stars radiating from the base of the dome, and ten-pointed stars above them. The ten-pointed stars do not exactly surmount the twelve pointed stars; rather the two types of stars are set in a zig-zag arrangement.

The dome on the east side of Barsbāy’s mausoleum has eight-pointed instead of twelve-pointed star halves radiating from the base of the dome. Each star is surmounted by another twelve-pointed star, and between
them on each side is an eight-pointed star. The whole surface appears homogeneous, if somewhat crowded, because the stars are so tightly connected. Toward the apex of the dome seven-pointed stars lead to the top. In both these cases, there is a consistency in the star pattern that is lacking in the larger, first dome. In all of them, however, the weak point was at the apex, and the next step in the evolution of stone domes dealt with this problem.

The dome of Sultan Qāytbāy

The Qāyṭbāy period introduced new ideas on the subject of dome construction. The small dome Qāyṭbāy had built before becoming sultan has a floral star pattern, based as usual on geometric calculations. The lower half has twelve-pointed stars and above them full eight-pointed stars, the whole executed in curves with arabesques.

The dome on the mausoleum attached to Qāyṭbāy’s mosque in the cemetery shows that the designer for the first time reversed these principles. Instead of basing the pattern on the principle of a star applied on a decreasing, or triangular, base to apex surface, the star was designed for a circular surface, the center of which is the apex of the dome. Of course, unlike a flat circular area, the dome surface has irregularities. In this case they met with the star pattern not near the apex, but nearer to the base of the dome, where the lines resulting from the central star at the apex have to be logically continued. Thus, the design of Qāyṭbāy’s dome is made from a bird’s eye view: a sixteen-pointed star centered on the apex and covering the upper half of the dome, with the lines continued to form a row of seven-pointed stars around it.
pointed irregular stars surrounding it and, at the base of the dome, halves of ten-pointed stars. To conceal the irregularities resulting here at the middle part of the dome, arabesque patterns fill the whole space framed by the angular geometric lines.

This is perhaps the most beautiful carved stone dome in Cairo, and it seems to have discouraged any imitations. Afterwards, masons were content with repetitive geometric or floral patterns, such as those seen on the domes of Qaṣṣūh Abū Saʿīd (1499), al-Ṣādiq al-Ṭūmānbāy (1501), Khāyrbak (1502), and Qānībāy (1503).

As long as brick domes were built, the transitional zone was developed from plain to composite squinches built on several tiers with a pyramidal layout; the result was the formation of stalactites. In the early fourteenth century, triangular pendentives were also used in the transitional zone. They were first built in wood, as at the Citadel mosque of al-Nāṣir Muhammad, and later...
Pl 18 The mosque of Amir Jānim al-Bahlawān, 1478-1510
also in stone. Early stone domes, such as the anonymous dome added at Sanjar's mausoleum and the dome of Aydumur al-Bahlawan, had stone composite squinches imitating brick architecture. Domes moved toward greater height rather than greater diameter. This was achieved by extending the transitional zone, so that eventually the domes looked almost like small towers.

On the outside, the zone of transition, instead of being stepped at the corners, sometimes had pyramidal structures as on minarets leading from the rectangular to circular part. Both types are used at the funerary complex of Sultan Barsbây, which also used a new decorative device. Its steps are carved concave-convex to form an undulating profile. At the dome of Qijnas the exterior transitional zone is composed of several superimposed pyramids.

Minarets

The minarets of this period are slender and elegant. They were usually octagonal in the first story and circular in the second, except in the reign of Sultan al-Ghurî when totally rectangular minarets were used for the first time since Qalâwûn. At their top were double bulbs. There are four bulbs at the funerary complex of Sultan al-Ghurî. The minarets were richly carved, more so than ever before. The fashion of carved shafts appeared by the end of the fourteenth century to replace stone inlaid ablaq patterns previously used to adorn the middle section. Craftsmen applied their most careful work to the middle sections, creating a different pattern on each minaret.

Portals

In the fourteenth century, the trilobe portal developed from a plain conch on stalactites to more intricate variations on the same theme, with molding and carvings framing the trilobed arch, carvings adorning the conch, pendentives used underneath the stalactites, and use of various types of stalactites in different proportions. In the fifteenth century we see a new type of portal treatment. The portal vault is still trilobed, but its interior is carved with groins in the shape of a half-star. Sometimes the niches formed by the intersecting groins were filled with stalactites, and often the conch was adorned with an ablaq inlaid pattern as in some prayer niches of this period. In the second half of the fifteenth century, both types of portals were used simultaneously.

Groin vaults became fashionable beginning in the late fourteenth century, a fine example is found in the vestibule of the madrasa of Iljây al-Yûsufi. Other magnificent vaults of this type can be seen in the Khân al-Khalîlî at the portal of Sultan al-Ghurî. Later, the groin vault will influence the architecture of domes, as in the squinches of the Rifâ'î zâwiya of Barsbây, probably redone later, and at the two domes of Amir Yashbak.

Decoration

The decoration of domes and minarets in this period consisted primarily of stone carving. It reached its highest quality during the reign of Sultan Qâytbây and abruptly declined thereafter. Marble inlay was also used extensively in facade decoration, as at the mosque of Qijnas and the sabil of Sultan Qâytbây. Stucco decoration almost disappears, though we see it used extensively at the Qubbat al-Fadâiyya. There are also remains of stucco wall decoration at the mosque of Sultan Qâytbây at Rawda. The only area where stucco decoration shows continuity, however, is in window grills. Window grills used as decoration evolve continuously from Ibn Tûlûn to the Ottoman period. In the fifteenth century they are no longer repetitive geometric or floral patterns; the surface of the grill is divided into fields with inscriptions, horizontal bands, and medallions with various patterns, and filled with colored glass.

Prayer Niches

The use of marble inlay was less frequent in fifteenth-century prayer niches. It was replaced by stone, and the conchs are either plain, decorated with ablaq masonry, or are carved. Marble dadoes were still used to panel the interior walls of mosques, but a new style of marble inlay appeared at the mosque of Abû Bakr Ibn Muzhir. There, the marble is finely carved and filled with red and black paste in a delicate scroll arabesque pattern that contrasts with the fourteenth-century geometric inlay patterns. The new style was used until the early sixteenth century, though its quality declined compared to the examples signed by ʻAbd al-Qâdir al-Naqqâsh. An earlier example of such mar-
ble inlay is found on an inscription slab on the north wall of the sanctuary of the Maridānī mosque. The marble is carved and filled with a green gypsum paste.

Arches

Until the fourteenth century both round and pointed arches were used, but in the fifteenth century the pointed arch prevails, always framed by a voussoir of ablaq masonry. The iwāns of cruciform mosques, with open or covered courtyards, have pointed arches. Inside, they are no longer vaulted but covered by a flat wooden ceiling, richly decorated. An exception, however, is the madrasa of Amir Qānibāy al-Rammāḥ (Amīr Akhūr), where a cross vault is used at the iwān opposite the prayer niche. The qibla iwān itself is covered by a shallow dome on pendentives carried by round arches.

THE OTTOMAN PERIOD (1517-1914)

The Sixteenth and Seventeenth Centuries

The Ottoman conquest of Egypt in 1517 changed the status of Cairo from an imperial seat to a provincial capital. It became a city without a sultan, governed by a viceroy called a pasha, sent from Istanbul for a limited period. Cairo was simply a stage in the pasha’s career. There were a multitude of Ottoman governors between 1517 and 1798 when Napoleon conquered Egypt. Some of them left religious buildings of interest, but others remained only a name in a long list. Buildings, however, were erected not only by the pashas, but by amirs and members of the religious establishment. The Ottoman period has left us nearly one hundred sabil-kuttābs in various styles.

The Ottoman conquest did not radically disturb the evolution of Cairene architecture. It introduced some
new architectural and decorative patterns that resulted in innovations when incorporated into the local repertoire.

The Ottomans built three types of mosque architecture in Cairo: buildings totally Ottoman in style, though not necessarily in decoration, such as the mosques of Sulaymān Pasha and the mosque of Malika Šafiyya, buildings of hybrid style, such as the mosque of Sinān Pasha, and a Mamluk style of mosque with an Ottoman style of minaret, such as the mosques of Mahmūd Pasha and ʿUthmān Katkhudā. In place of the Mamluk khanqāh, the takīyya, an institution where Sufis lived, studied, and worshipped, appears with the Ottomans. A new plan came with the takīyya, a courtyard surrounded by cells that is independent of the mosque. The Takīyya Sulaymānīyya and the takīyya of Sultan Māhmūd (1750) are both, however, called “madrasa” in their founding inscriptions.

The dome and minaret were the most characteristic features of Mamluk architecture, and they were both affected by the new political situation. The mausoleum dome nearly disappeared from religious architecture. Governors did not stay long enough in Cairo to die there, or at least did not plan to remain until the end of their lives. There are, however, a few funerary domes, that of Amir Sulaymān, built shortly after the conquest (1544), the mausoleum of Māhmūd Pasha, and the stone dome of the shrine of Aḥār al-Nabī dedicated to objects attributed to the Prophet, not to a person, built in the seventeenth century (1662). The mosque of Yūsuf al-Ḥān had a family mausoleum next to it that was pulled down in the nineteenth century. Amir ʿAbd al-Raḥmān Katkhudā built onto the mosque of al-Azhar, when restoring and enlarging it, a mausoleum for himself. In general, sponsors of religious buildings were buried in a corner of the mosque and not even near the qibla, as were Muḥammad Bey Abū l-Dhahāb and Muḥammad ʿAlī.

The tradition of domed mausoleums for rulers was revived again in the nineteenth century when Muḥammad ʿAlī built a funerary complex for his family near the mausoleum of Imām Shāfiʿī. Later, the mother of the Khedive Ismāʿīl erected the Rūfīʿi mosque, which includes other royal tombs.

When the funerary dome disappeared, the domed mosque, which had existed in Cairo before the Ottoman period, reappeared. It had been typical of...
Ottoman architecture, followed and developed the Byzantine tradition. The mosque of Sinan Pasha followed the pattern of the Fadawiyya dome, and was later imitated by Muhammed Abul-Dhabab at his mosque near al-Azhar. All these domes were built on squinches without an exterior transitional zone. The profiles of Ottoman domes, unlike those of the Mamluk domes, are round and lack the exterior transitional zone enhancing their height. With the Ottoman conquest, the round arch, used earlier by the Fatimids and Bahri Mamluks, again became common.

An abrupt change is observed in minaret architecture. The Mamluk shaft was replaced by the provincial version of the pencil-shaped minaret, rather squat, with only one balcony, and usually decorated with vertical moldings to enhance the faceted structure of the shaft. Ibn Iyās writes that Ottoman conquerors traditionally took home craftsmen from conquered countries and introduced their own craftsmen, and it must have been in this way that the Ottoman minaret reached Cairo. In the Egyptian hinterland, however, minarets continued to be built in the pre-Ottoman style.

With the loss of domed mausoleum architecture and Mamluk minarets, the art of stalactites declined in Cairo, since the transitional zone of the funerary domes, the balconies of minarets, and portals were the features that best displayed Mamluk stalactite carving. Portals of the Ottoman period were often simple shallow trilobed recesses without a vault. When they were vaulted, the trilobed groin-vaulted type was usually adopted.

Mamluk-style windows continued, as did the Mamluk tradition of paneling interiors with polychrome marble dadoes. The prayer niche of the mosque of Uthmān Katkhudā, built in the early eighteenth century, looks totally Mamluk. Turkish elements were introduced, such as the use of Ottoman tiles with floral patterns, as at the mosque of Aqsunqur restored by Ibrāhīm Aghā, the sabāl-kuttāb of ʿAbd al-Rahmān Katkhudā, and the Siḥaymī house. Their quality was usually inferior to the tiles in Istanbul, and their installation showed that local craftsmen did not become familiar with the technique. Blue-green Turkish tiles were often used to decorate the lintels of mosque entrance doors.

An interesting evolution in this period appears in the style of moldings and in their more extensive use. In the Bahri Mamluk period there were two parallel lines connected with circular loops placed in few spots, usually at the apex of arches, and they often framed portals and arches. Later moldings show an increase in the number of loops. In Ottoman moldings, the loops are placed at small intervals and are angular instead of circular.

Ottoman floral elements are sometimes used in stone and marble carvings. A prominent example is the portal of the al-Azhar mosque added by ʿAbd al-Rahmān Katkhudā, with the typically Ottoman cypress tree.

The cushion vousoir of Byzantine origin, used in the Fatimid and early Mamluk periods, also reappears in the Ottoman period. We find it at the entrance to the madrassa of Qalāwūn, rebuilt by ʿAbd al-Rahmān Katkhudā, and at an Ottoman gate of the Citadel. In fact, Ottoman architecture in Cairo shows a revival of several Byzantine and Anatolian patterns including the round arch and spherical pendenteve. These patterns,
abandoned in the late Mamluk period, were reintroduced to Cairo architecture by the Turks, who had preserved them from Byzantine heritage.

**The Late Eighteenth Century**

‘Abd al-Rahmān Katkhudā (died 1776/7) was an amir who made notable contributions to Cairo’s architectural heritage. He restored or rebuilt almost all the important shrines of the city and a number of old mosques, the most prominent one being the al-Azhar. A certain style with several characteristic features developed during these works of building, restoration, and rebuilding. The use of wide round arches, sometimes scalloped, with a row of small round and lobed arches, is seen at Katkhudā’s mosque in the Mūskī quarter (1754/55) and at his zāwiya at Mugharbilīn (1729). Round arches also characterize the triple façade of his sabil on Muʿizz street (1744).

Bands of stone carved in repetitive arabesques had no local precedent in Cairo. Such bands frame the double arch at the al-Azhar entrance (1753/54), the entrance to the Taybarsiyā madrasa at al-Azhar, the entrance of the zāwiya at Mugharbilīn (1754), and the façade of ‘Abd al-Rahmān’s mosque in the Muski quarter. The stalactites decorating the buildings of ‘Abd al-Rahmān Katkhudā show considerable improvement in quality compared to those of the previous century. We see this quality at the sabil-kuttāb in Muʿizz street, the
balcony of the zawiya of Mugharbilin, and the portal of the mosque he rebuilt near the madrasa of Barsbây, known as the Jâmi‘ al-Muțahhir (1774), whose handsome stalactite portal, rare during this period, is signed by the craftsman in the middle of its fluted conch. The stalactites are carved and pierced. Another innovation of this period is seen in the iron grills of mosque and sabil windows. Instead of plain rectangles, they are often more elaborate, with geometric or floral patterns. A good example is the window at the Țaybarsiyya madrasa at al-Azhar restored by ʿAbd al-Rahman Katkhüda, and the sabils of Ruqayya Dûdû (1761) and Nafisa al-Baydâ (1796).

A feature characteristic of late Ottoman architecture are the cartouches with inscriptions in nasta‘liq, later also riḥānī, scripts. They usually contain either verses of poetry or the foundation date.

**The Ottoman Period Sabîls**

Sultan Qâytbây had built a free-standing sabîl-kuttâb in the city when all others of the period were attached to the corner of a mosque. The Ottoman period left a great number of these structures. The sabîl-kuttâb of Khusraw Pasha (1535) near the mausoleum of al-Ṣâliḥ Najm al-Dîn and opposite the madrasa of Qalâwûn is an imitation of the sabîl-kuttâb of Sultan al-Ghûrî that protrudes as a rectangular building with three facades on the street, decorated with marble inlay and joggled lintels. The upper struc-
ture, which is the kuttāb, is shaped like an arced loggia, like all Mamluk sabil-kuttābs. Not far away is the sabil-kuttāb of ʿAbd al-ṭāhir Katkhudā occupying the corner of two intersecting streets, a landmark of the medieval city. It also has three facades and a portal on the eastern side. Mamluk-style marble inlay decorates the spandrels of its round arches which also include Ottoman floral patterns carved in marble. An elaborate stalactite cornice separates the upper and lower parts on the exterior. The windows of the sabil, instead of being rectangular as was usual, are round-arched like the arches including them. Their iron grills are more elaborate than the Mamluk grills. At the cornices flanking the windows, are engaged marble columns carved with flutes half oblique and half vertical. The kuttāb on the upper floor is built entirely of wood. The interior of the sabil is paneled with İzniq style blue and green tiles. Some are floral, and some form a stylized representation of Mecca. Others carry inscriptions.

In the course of the eighteenth century, the sabil form developed from three angular facades into a semicircular shape with three facets, each including a window. The round arches on marble columns that give a relief decoration to the facade include round-arched windows with elaborate bronze grills, often framed with dense moldings and loops and sometimes including bits of blue-green Turkish tiles and Turkish flower motifs.

Architecture in the time of Muhammad ʿAlī

The architecture of the first half of the nineteenth century, corresponding to the reigns of Muḥammad ʿAlī and the Khedive Ṭabāṣīr, is characterized by a style that was totally alien to Cairo architectural traditions.

Fig 6 The sabil-kuttāb of Sultan Mahmūd, 1750 (Coste)
Turkish architecture and decoration, already influenced by Europe, was introduced into Cairo.

We no longer see stalactites, arabesques, or geometric designs, nor Mamluk naskhi or thuluth script. Instead, there are vases with acanthus-like leaves and realistic flowers forming oval rings, applied repetitively. Epigraphy is also treated differently, set in cartouches in nastâ'îq or riûânî script; carved or painted poetry passages are sometimes written in Turkish. White marble is often combined with carved, painted and gilded wood.

The round arch predominates and is often curved at the springings. Window grills are made of cast bronze and are often the most attractive feature of facade architecture, with their elaborate, lacy openwork patterns. These grills were also used for funerary enclosures in mosques.

Funerary architecture appears again, bringing with it the onion-shaped dome, decorated with moldings or ribs, as at the mausoleum of the Muhammad 'Ali family at Imam Shâfi'i. The domed mausoleum attached to the complex of Hasan Pasha Tâhir has no prototype in Cairene architecture.

Pl 27 The sabil-kuttâb of Ismâ'il Pasha, 1828
Pl 28 The sabil-kuttab of İbrâhîm Pasha, late nineteenth century