CHAPTER FIVE

ARCHITECTURE OF THE FATIMID PERIOD

THE AL-AZHAR MOSQUE (970)

Al-Azhar is today the most celebrated of all Cairo’s medieval mosques, more because of its historic and religious importance than its aesthetic value. It was the first mosque built in Fatimid Cairo and the first theological college, and has played a continuous role in the history of the city from its foundation to the present day. The mosque of ʿAmr, though important as Islam’s first mosque in Egypt, did not retain its role though the centuries.

Like the mosque of ʿAmr, al-Azhar was established as the central mosque of a new urban foundation. It does not carry the name of its founder, the Fatimid Caliph al-Muʿizz Al-Azhar is an epithet meaning “The Flourishing.” Some medieval sources call it simply the Great Mosque (jāmīʿ) of Cairo.

Caliph al-Muʿizz li-Dīn Allāh, after conquering Egypt and founding al-Qāhirah, assigned his general and vizier Jawhar al-Qiqili the task of building al-Azhar. The first prayers were held in the mosque in 972, and in 989 it acquired the status of a college with the appointment of thirty-five scholars to teach the Imāmī Shiʿa theology to which the Fatimids adhered. A hostel was built for them near the mosque.

Following the mosques of ʿAmr, al-ʿAskar, and Ibn ʿṬulun, al-Azhar was the fourth congregational mosque in Egypt. After the Ottoman conquest, when the Mamluk colleges (madrasa) were in decline, al-Azhar became the center of Islamic scholarship in Egypt and one of the principal theological universities of the Muslim world.

Because of its importance, the mosque of al-Azhar, like the mosque of ʿAmr, has undergone a series of enlargements and restorations throughout its history. Today, all styles and all periods of Cairo’s history are represented in its architecture.

The original mosque of al-Azhar was much smaller than the present building, and it was not at the exact center of the capital. Al-Qāhirah itself did not occupy much more than one square kilometer. The great Fatimid palace complex dominated the entire city. Al-Azhar is at a short distance from what was the main

avenue, Bayn al-Qaṣrayn (lit. “between the two palaces”).

THE ORIGINAL MOSQUE

As reconstructed by Creswell, the mosque originally had only three arcades around the courtyard; today it has four. This plan was common in North African and Andalusian architecture. The arcades are all carried on pre-Islamic columns with Corinthian capitals. Its original arches are round. The sanctuary had five aisles parallel to the qibla, and a transept with an aisle wider and higher than the rest that runs perpendicular to the main wall, thus enhancing the prayer niche to which it leads from the courtyard to the prayer niche.
There were three domes, one over the prayer niche and the two others at the corners of the qibla wall, but none has survived. This feature of three domes in the sanctuary was also found in North African architecture and must have been introduced to Egypt by Fatimid craftsmen. The two other arcades had only three aisles each. The mosque is said to have had a ziyāda.

The original minaret was a small construction standing above the main entrance and built of brick.

Of the original mosque the arcades, part of the stucco decoration, including the conch of the prayer niche and a few window grills have been preserved.

**Fatimid Additions**

In 1009 the Caliph al-Hākim restored the mosque, donating a new wooden door which is now in the Cairo Islamic Museum. In 1125, the Caliph al-Ămir donated a wooden prayer niche, now also at the museum. The most important Fatimid works, however, were carried out during the rule of the Caliph al-Hāfīẓ li-Dīn Allāh (1129–49), who added an arcade around the courtyard to give the mosque four arcades, the fourth composed of only one aisle on the northwestern side. The arches of this new courtyard facade differ from the original arches. They are called keel arches, as their profile resembles a ship’s keel pointing upwards. Al-Hāfīẓ also added a dome in front of the transept. It is hidden to the viewer from the courtyard by a screen wall (pābhtāq)—a portion of the facade wall taller than the rest which is meant to enhance the entrance to the sanctuary through the transept. This dome is richly decorated in carved stucco.

**Fatimid Decoration**

Original decorations include the conch of the prayer niche and the stucco inscriptions and arabesques on the
Arcades The conch of the prayer niche is decorated in a style very similar to that of the two unidentified prayer niches at the mosque of Ibn Tulun, which could be either Tulunid or Ikhshidid. This decoration is not in pure Samarra style, but is combined with the scrolls of palmettes typical of Byzantine decoration. Slightly ornate curved Kufic script frames the various arches of the prayer niche, windows, arcades and panels.

It appears that different periods of Fatimid decoration are represented in the stuccos of al-Azhar, but scholars have not yet sorted them out. On the wall facing the prayer niche, a naturalistic representation of a palm tree is repeated. Windows with geometric grills framed with bands of Kufic inscriptions appear to date from the foundation of the mosque. The stucco decora-

tions added by al-Hafiz adorning the walls and the dome are quite different from the original style, which is not surprising, as they were done more than a century later. The dome in front of the transept is decorated with a ring composed of lobed arches pointing toward the center. These arches carry ornate inscription bands. Interestingly, one of the stucco grills of the transitional zone of the dome of al-Hafiz includes bits of green and yellow glass, the earliest known example of such a window decoration. This late-period Fatimid decoration shows a more ornate type of Kufic script and more composition in surface designs, involving less repetition of patterns.

**AYYUBID AND MAMLUK RESTORATIONS**

Salah al-Din, who followed the Shafi'i rite in which only one congregational or Friday mosque within an urban agglomeration is allowed, cancelled Friday prayers at al-Azhar and permitted them only at the mosque of al-Hakim, which he no doubt preferred because of its larger size. He also removed the Fatimid silver belt from the prayer niche. The mosque of ʿAmr continued to serve as al-Fustat’s congregational mosque during Salah al-Din’s reign.

Under the Mamluks, the Hanafi rite had priority, and Sultan al-Zahir Baybars reestablished the Friday sermon at al-Azhar in 1266. He also replaced the minaret at the entrance with a higher one, and carried out other restorations.

The 1303 earthquake, significant in Cairo’s architectural history because of the restorations of monuments that followed, also damaged al-Azhar. Amir Salar restored the prayer niche and redecorated its spandrils. It was he who also added a beautiful prayer niche on the exterior wall of the mosque of ʿAmr, which we now know only from early photographs. Both of Salār’s prayer niches are decorated in the same style, with a row of niches filled with stucco geometrical ornaments and surmounted by delicate arabesques, a device we see also at the smaller Lajin prayer niche at Ibn Tulun.

Sultan Barquq found al-Azhar’s minaret too short, and in 1397 replaced it with a taller one in stone. Its structure, however, was defective, and it had to be destroyed a few years later. Sultan al-Muṣayyad built another minaret in the same place in 1424, but it also leaned and had to be removed. Sultan Qâytbây, whose architects were more skillful, ordered several restorations at al-Azhar, in 1468, 1476, and 1495. Among these were the main portal and the minaret above it,
both fine examples of the golden age of stone carving that characterizes Qaytbay’s architecture. Sultan al-Ghuri built a huge minaret in 1510, also near the main entrance. It has a double bulb and its shaft is decorated with pieces of blue faience.

In addition to restorations of individual structures, new buildings were added regularly to al-Azhar, for example the three madrasas of the Mamluk period. The madrasa of Taybars on the right side of the main entrance has not survived in its original architectural form, but it has a magnificent prayer niche with carved and inlaid marble, one of the finest in Cairo, with representations of trees in mosaics in the spandrels.

The madrasa of Amir Aqbughā, built in 1340 on the left side of the entrance, has its original portal, a minaret, and qibla wall decoration, including glass mosaics in the prayer niche and window recesses, where a vase and stylized plant motif is repeated. Both these madrasas are on the site of a former ziyāda of the mosque.

The madrasa of Jawhar al-Qanqabānī, built in 1440 on the northern side of the sanctuary, is fully preserved in its original architectural form, along with its decorations and a carved stone dome covering the mausoleum of the founder.

**Ottoman Restorations**

In the Ottoman period, a long series of restorations and enlargements were made at al-Azhar. The most important of these was Amir ‘Abd al-Rahmān Katkhuda’s enlargement in 1753, when the area of the mosque behind the original prayer niche was widened. He added a new facade, the one we see today, with its double round arches and the typical Ottoman cypress
to prevent birds from nesting in the mosque. Waterwheels served the fountains and latrines with water stored in cisterns.

There was a kitchen attached to the mosques where meals were prepared that were provided by charitable donations. At one time a large number of poor people were attached to the mosque and lived there on an almost regular basis. In 1415 a count was made of 750 such people, representing all the provinces of Egypt, along with foreigners. Orders were given to expel them from the mosque along with all their furniture and effects, as it was reported that forbidden things were going on in the mosque. Later, however, al-Azhar was surrounded by living quarters for a multitude of students and poor visitors.

Like the mosque of ʿAmr at al-Fustāṭ, al-Azhar at al-Qahira led the calls to prayer to be followed by the other mosques. It therefore had a number of sundials and a number of astronomers serving the mosque for the calculation of prayer times.

**Instruction**

Al-Azhar has been famous above all as a teaching center for Muslim theology. This tradition was begun soon after its foundation, with the teaching of Shīʿa theology. Ṣalāḥ al-Dīn's overthrow of the Fātimids led to the abolition of Shīʿa teaching in Egypt, and Sultan al-Zahir Baybars introduced Shāfiʿi teaching when he restored the mosque. Later, Sultan Ǧasam added the Ḥanafi rite, and eventually, all four rites were represented at al-Azhar.

During the Mamluk period, many madrasas in Cairo taught law and theology, but their decline after the Ottoman conquest raised the status of al-Azhar to its role of primary seat of Muslim learning in Egypt. Under the Ottomans (1517-1914), who, like the Mamluks before them, adhered to the Ḥanafi rite, the head of al-Azhar nonetheless remained a Shāfiʿi scholar, in common with the majority of the Egyptian population. In the Ottoman period, students came from all parts of the Ottoman Empire and the rest of the Muslim world to study at al-Azhar. The rulers and members of the ruling establishment were generous in endowing al-Azhar. Several kuttābs, primary schools for boys, were also attached to the mosque.

Today, Cairo's al-Azhar University is a modern university where all topics are taught. It is housed in buildings in the vicinity of the mosque.

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**Minor Structures**

Over the centuries, al-Azhar acquired several maqṣūras, one of them built by the founder Jawhar, and more than one prayer niche. There was a talisman tree carved above them. He also had three minarets built, two of which have survived on the southern and eastern walls. On the southern facade, he added a portal similar to the Gothic portal of al-Nāṣir Muḥammad's madrasa at the Nahṣāsīn mosque. He rebuilt the facade of the Tāybarsiyya and erected for himself a mausoleum dome on the southeastern corner of the enlarged mosque. Still more additions and restorations were carried out in the nineteenth and twentieth centuries.
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THE MOSQUE OF CALIPH AL-HĀKIM BI AMR ALLĀH (990-1003)

The circumstances in which the mosque of Caliph al-Hākim was built are rather unusual. It was founded in 990 by the Caliph al-Aziz, al-Hākim’s father, and a year later the first prayer was celebrated there, although the building was still incomplete. There is nothing unusual about this. The direction of Mecca dictates the orientation of every mosque, so the sanctuary is generally built first, followed by the rest of the structure. However, it was not until twelve years later, in 1002-3, that the Caliph al-Hākim is reported to have ordered completion of the mosque. The inscription on the southern minaret carries his name and the date 393/1003. In 1010 important alterations were made to the minarets, and in 1013 the furniture of the mosque was added and prayers again inaugurated.

Originally, the mosque stood outside the city walls of Jawhar. When Badr al-Jamāli later rebuilt the walls in stone, he enlarged them slightly so as to include the mosque of al-Hākim within the confines of the city, and the northern wall of the mosque was incorporated in the city’s wall. Like al-Azhar, this mosque has a epithet, al-Anwar, “the Illuminated”.

The mosque of al-Hākim suffered much throughout its history, in the 1303 earthquake and later. Nineteenth-century artists show it in an advanced state of ruin. It was recently restored.

GENERAL DESCRIPTION

The mosque is an irregular rectangle with four arcades surrounding a courtyard, and its architecture combines features of both the Ibn Tulun and al-Azhar mosques. Like Ibn Tulun’s mosque it has pointed arches supported by rectangular brick piers, but the arcades are higher and the mosque is smaller than Ibn Tulun’s, giving the whole a more vertical appearance. Like al-Azhar, it has a transept crossing the prayer hall perpendicularly and three domes at the qibla wall, one over the prayer niche and two at the corners. The new features are the building of two minarets protruding at the facade corners of the mosque, and the monumental portal. The whole facade configuration is inspired by that of the mosque in Mahdīyya (Tunisia), the Fatimid capital in North Africa. The facade and the minarets are built in stone; the rest is of brick.

THE MINARETS

Maqrizī, the fifteenth-century historian, writes that in 1010, alterations were made to the minarets of al-Hākim, adding to them two ārkān (sing. ārán, “corner”), 100 cubits (about 60 meters) high. These are the
two minaret structures we see today, they resemble propylons of an ancient Egyptian temple, wrapping the original minarets.

Creswell misinterprets the 100 cubits indicated by Maqrizi as referring to the circumference of the cubes. But the word jilān means "in height" as opposed to ʿardān "in width," even if Maqrizi's 100 cubits is an exaggeration. The cubes originally must have totally hidden the original minarets except perhaps the very tops.

Al-Hākim is presented by medieval historians as the most eccentric and whimsical man who ever ruled Egypt. He is popularly known for having forbidden the preparation of mulūkhiyya, the favorite meal of the Egyptians. In architectural matters, he was certainly not always pragmatic. He demolished a belvedere built by his father and ordered it to be plundered. He also more than once tore down and rebuilt the mosque of Rāshida at Fustāṭ. The possibility cannot be excluded that he disliked the minarets built by his father and therefore decided to hide them behind the cubes. The mosque was in use long before al-Hākim carried out his alterations. The fact that the original minarets were only hidden, not pulled down, may have been the architect's device to preserve these two masterpieces of stonework, which are unparalleled in Cairo's minaret architecture.

The Outer Minarets

The two square minarets of al-Hākim are not identical. The southern minaret has a lower band of foliated Kufic inscriptions carved in stone. At roof level, it is adorned with crenellations very similar to those at Ibn Tūlūn's mosque, the only surviving imitation of this remarkable and intricate type of creneling. It is possible that the mosque, so largely inspired by that of Ibn Tūlūn, had more of these crenellations, destroyed in the 1303 earthquake, which severely damaged the mosque. The upper story is adorned at its top with a band of interlaced geometrics in stucco similar to those that crown Fatimid prayer niches.

The northern cube's lower part was incorporated into the masonry of Badr al-Jamālī's wall adjoining the mosque. The upper story's eastern side has a band of Mamluk naskhī script of Quranic text which must be attributed to Amir Baybars al-Jashankīr, who restored the mosque after the earthquake. Both mabhkāra style minaret tops are also attributed to Baybars al-Jashankīr, and do not quite fit with the rest of the structure. They are similar, but not identical, and are of light brick construction replacing the originals toppled by the earthquake.

The Original Minarets

Inside the cubes, the original minarets of al-Hākim's mosque were found well preserved in their wrappings when discovered in modern times. As the space between the inner and outer structures is rather small, the best way to admire these original minarets is to look at Creswell's photographs and drawings.
The two towers are differ from each other in shape and decoration. The southern shaft begins as a rectangle that turns octagonal above the roof level, while the northern tower is a tapering cylinder which Creswell compares to a stethoscope, standing on a rectangular base. The northern minaret is decorated with horizontal carved bands and with lozenges, and its windows are decorated with carved frames. Its decoration is similar to that of the minaret of Sfax in Tunisia.

The southern minaret’s decoration resembles that of the entrance, with a large band of Kufic inscriptions carrying al-Hākim’s name and the date. It also has a band of alternating rectangles, one protruding and the next receding, the first example of a pattern that appears later at the mosque of al-Ṣāliḥ Ṭālāḍī and the mausoleum of al-Ṣāliḥ Najm al-Dīn. At the level of the roof there is a small room inside this minaret with carved niches, a carved ceiling, and carved entrance. It is possible that the roof of the mosque was used for some religious purpose. So was the roof of the mosque of Ṭāhir, as it once had a small brick prayer niche. It was photographed by Creswell before it disappeared.

Decoration

As in al-Azhar, but unlike the mosque of Ibn Tulun, the windows of the al-Hākim mosque are set in such a way that they correspond to the position of the arcades, so that there is a window on the axis of each arch.

Only a few of the original window grills have survived. Among these is a window with a stucco grill made of elongated Kufic letters forming the word “Allāh,” repeated symmetrically from right to left. It was reflected in a mirror. This style, which is North African but of later date, may have been done in a later Ayyubid or early Mamluk restoration.

The inscriptions of Ibn Tulun are on a wooden frieze running along the arcades, hardly visible beneath the ceiling, but al-Hākim’s mosque, like al-Azhar, has a stucco band running along the arches of the mosque with ornate Kufic inscriptions of Quranic texts. In the transept stucco panels show a stylized tree motif of mixed Byzantine and Samarran style. The wooden beams between the arches are carved with Samarran patterns. The original decoration of the prayer niche has not survived.

The mosque of al-Hākim had a ziyāda added later. It was begun by the Caliph al-Zahir (1021-36) and completed by Sultan al-Ṣāliḥ Najm al-Dīn at the end of the Ayyubid period (1240-49), and by Sultan al-Mu'izz Aybak (1250-57) at the beginning of the Mamluk period. This ziyāda, on the southern side of the mosque, has an entrance which Creswell assigns to the late eleventh century.

Later Additions

At the time of the restorations carried out by Amir Baybars al-Jashankir in 1303, teaching of the four rites of Islamic law was introduced at al-Hākim, along with a kuttāb for boys.

The mosque was restored in 1360 by Sultan Hasan, and in the fifteenth century a merchant added a minaret to the sanctuary which is no longer extant. In the nineteenth century it was restored by Shaykh ‘Umar Makram, who added a prayer niche inlaid with marble. The first Islamic Museum was housed in the mosque at the end of the nineteenth century.

Descriptions of the Caliph’s Friday sermons at al-Hākim have survived. The Caliph arrived riding under a golden umbrella, wearing white silk and holding a scepter. Five thousand guards and an orchestra accompanied the procession. The Caliph entered the mosque from an entrance near the pulpit, his ministers carrying carpets and curtains to spread before him. In front of the mihrab were carpets, and curtains with Quranic inscriptions hung on both sides of the prayer niche. The Chief Qāḍī perfumed the pulpit with incense as the Caliph arrived accompanied by drums and horns and greeted his officials gathered around the maqṣūra in order of protocol. He rose to the pulpit and his vizier kissed his hands and feet while standing on a lowet step, and closed the curtains, hiding the Caliph’s face, at the top of the pulpit, which resembled a dome. The Chief Qāḍī stood at the foot of the pulpit while the Caliph read a short sermon prepared by the office of protocol. The Caliph recounted his ancestors descending from the Prophet’s daughter Fātimah, one by one. The vizier then opened the curtains and backed down the steps, and the Caliph stood on the silk rugs of the prayer niche to lead the prayer, his officials arranged behind him in proper order. Some stood round the maqṣūra with their backs to the qibla, as security guards. Trumpets and drums accompanied the procession back to the palace.

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THE MASHHAD OF AL-JUYUSHI (1085)

On top of the Muqatta‘in hill, overlooking the cemetery of the city, the city itself, and its environs, stands a small mosque. It is known as the mosque of al-Juyushī, after the title of its sponsor, Amīr al-Juyushī (Chief of the Armies), the Armenian vizier of the Fatimid Caliph al-Mustansir (1036-1094), Badr al-Jamālī. The mosque has a foundation inscription above its entrance identifying it as a mashhād, or shrine. In whose memory was it founded? Neither the inscriptions of the mashhād nor the historians tell us.

While Farīd Shāfīī interprets the mashhād al-Juyushī as a watchtower disguised as a mosque, Grabar sees it as a memorial to the victories of Badr al-Jamālī over the rebellions and disorders that had long plagued the Fatimid Empire. A small domed chamber projecting on the northern side of the sanctuary could have been intended as a mausoleum, but the mashhād is not the tomb of Badr al-Jamālī, who according to Maqrīzī was buried outside Bāb al-Nāṣr. There is indeed a Fatimid mausoleum there, marked on the map of the Description de l’Égypte as the “chapel of Shaykh Badr,” which would have been the popular version of al-Jamālī’s name. A street in the same area is called Shaykh Najm, and Abū‘l-Najm was one of the honorific titles of Badr al-Jamālī.

The building is the most complete mashhād that has survived from the Fatimid period, probably because it was not dedicated to a person of religious importance, and therefore was not the center of a cult, which would have subjected it to restorations and embellishments by the cult’s followers. In the Ottoman period, the mosque of al-Juyushī was used by dervishes as a monastery.

GENERAL DESCRIPTION

The small structure is built around a courtyard. One enters it from a plain door without a portal, underneath the minaret situated on the axis of the prayer hall. On the lateral sides and on both sides of the minaret are rooms. The facade of the courtyard is composed of a

Fig 16 The mashhād of al-Juyushī, plan and elevation (Creswell)
large keel arch supported by two pairs of columns and flanked by two smaller arches, giving the facade the tripartite composition frequently found in Fatimid architecture. The prayer hall itself is roofed with cross-vaults except for the bay above the prayer niche, which is crowned by a dome on plain squinches. A small domed room on the northeastern side of the sanctuary, projecting outside, was thought by Creswell to be a later addition, but Farid Shāfī’s investigation of the masonry showed that it is part of the original construction.

The prayer niche of this mashhad is lavishly decorated with stucco carving in the spandrels of the niche arch. The couch itself has eighteenth-century Ottoman painting that covers other parts of the sanctuary as well. The decoration of the Juyūshī prayer niche was compared by Creswell to Persian stuccos. The prayer niche at the mosque of Ibn Tulun added by al-Afḍal Shāhīnshāh, son of Badr al-Jamālī, also resembles Persian prayer niches in composition and decoration.

The dome’s interior is decorated with stucco carving and at the summit is a medallion with the names of Muhammad and ‘All; on the square part of the dome an inscription band carries a Quranic text. These kiosks, and the presence of a minaret in such a remote place, prompted Farid Shāfī to interpret the Juyūshī mosque as a watchtower disguised in the shape of a mosque; the small domed structures were for guards. Badr al-Jamālī was commander of the armies, and a successful one, who built the fortifications of Cairo whose surviving three gates and parts of the city walls are testimony to the power of their sponsors. A watchtower on the Muqattam hill, according to Shāfī, would have served to give early warning of any suspect movements from outside the country or from within, such as the rebellion from the south that al-Jamālī had to suppress. However, one may question why a watchtower should be disguised. The presence of the prayer niches in the domed structures on the roof suggests that these small rooms were intended for the meditation and seclusion of the mosque obviously provided Grabar’s interpretation, supported by Rāġīb, is that it commemorates Badr al-Jamālī’s military achievements. Rāġīb sees the building as part of the group of shrines built by the Fatimids in the cemetery.

During the vizirate of al-Afḍal, son of Badr al-Jamālī, the observatory which used to be at another place on the Muqattam further to the south was transferred to the neighborhood of the Juyūshī mosque, because it was thought to be more appropriate for astronomic observations.

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**THE WALLS AND GATES OF BADR AL-JAMĀLĪ (1087-92)**

When it was founded by al-Mu’izz and his general Jawhar al-Siqilli, the city of al-Qāhira was surrounded by brick walls with several gates on each side of the rectangle. Later, Badr al-Jamālī, vizier of the Caliph al-Mustaṣfir and Amir al-Juyūsh (commander of the armies), replaced these walls with walls of stone. The new enclosure was only slightly larger than the first, and most of the new gates carried the names of those they replaced.
Substantial portions of these walls on the northern side of the city and the gates, Bāb al-Futūḥ and Bāb al-Naṣr, have survived. On the south side are remains of the walls and the gate called Bāb Zuwayla. None of the several other city gates has survived, but Maqrizi’s accounts show us that they were Badr al-Jamālī’s outstanding achievements. The gates and walls of Badr al-Jamālī are considered masterpieces of stone architecture. Many pharaonic temples were destroyed to construct them, and we can see large blocks of stone bearing pharaonic inscriptions and motifs. Marble, cut stone, and wood were always expensive materials in Egypt, quarrying old monuments for building materials is as old as the Old Kingdom, and still goes on today.

Badr al-Jamālī’s walls are built on three levels. The street level, including the vestibules or entrance halls of the gates, was originally higher than the street, and the gates were reached by ramps. Between the stone blocks, horizontally set columns were used to consolidate the masonry in the lower part of the walls. The second level consists of galleries connected with vaulted rooms and halls with arrow slits on the outside and larger openings on the city side. These run along the entirety of the walls except at the junctures of the gates. The gates are solid up to the level of two-thirds of their height, and thus block the passage from one section to the other, for the sake of better defense.

Towers are interspersed along the walls with halls and rooms. They protrude, with slits on three sides, to allow the guards a full view of the exterior. The third level forms a terrace, protected by the upper part of the walls and their round topped rectangular crenellations. During the Fatimid period there was an observatory on the terrace above Bāb al-Naṣr.

The outstanding features of Badr al-Jamālī’s fortifications are the quality of the stone treatment, unparalleled in Cairo, and the variety of vaults used in the walls and gates: shallow domes, barrel vaults, cross vaults, and also a spiral vault in a staircase at Bāb al-Naṣr. Only round arches are used in the architecture of the whole wall complex.

Bāb al-Naṣr (Gate of Victory)

Bāb al-Naṣr is composed of two rectangular towers, which are solid stone up to the second level. The entrance vestibule is cross vaulted and a pair of shallow domes on spherical pendentives cover the upper level of the towers. At Bāb al-Futūḥ, the arrangement is the opposite, with the entrance vestibule having a shallow dome and the towers each with a cross vault with a carved medallion at the intersection. Above the entrance arch an inscription slab in Kufic carries the shahada with the Shi’a reference to ʿAli.

A very significant feature of decoration at Bāb al-Naṣr are the shields and swords that Creswell identifies as Byzantine in shape. Some point downward and some are circular; they are no doubt symbolic of the walls as being the shields of the city, protecting it against invaders. The name, “Gate of Victory,” like Bāb al-Futūḥ, “Gate of Conquest,” should also be understood as talismanic. Interestingly, these fine walls were never challenged by invaders, and by the late medieval period were so encroached upon by other buildings that travelers often reported that Cairo had no fortifications at all.

During the reign of the Caliph al-ʿĀmir, his vizier, al-Maʿmūn al-Baṭāʾīḫī who built the al-Aqmar mosque, transferred the observatory from the Muqtaṭṭam hill and established it at Bāb al-Naṣr. The transportation of the heavy metal observatory was an extremely difficult task that needed scaffolds and wheels, a large team of workers, and an architectural structure to support it. Al-Maʿmūn, however, fell in disgrace before the observatory could be used, and the angry Caliph ordered it to be dismounted because it had been named al-rāṣed al-maʿmūnī, which attributed it to the vizier instead of the Caliph.

Bonaparte’s troops (1798-1801) used Badr al-Jamālī’s fortifications to protect themselves from the rebellious Cairo population. The Husayniyya quarter, famous for its untamed character, was not easy to subdue. After a French officer of Polish origin, Schulkowsky, was killed by a Husayniyya resident, the French troops bombarded Husayniyya from the walls and entirely demolished the quarter. French officers’ names can still be seen carved near the upper level of the gates. The French blocked up the crenellations at the top and enlarged the arrow slits for canon holes. Creswell also attributes the machicoulis at Bāb al-Naṣr, a protruding structure used to spill burning liquids on attackers, to the French. It was not until the twentieth century that the walls were cleared and made visible again.

Between Bāb al-Naṣr and Bāb al-Futūḥ, a handsome Kufic inscription of Quranic texts carved in stone runs along the wall. The northern wall of the mosque of al-Hākim is incorporated in this part of the fortifications.
BĀB AL-FUTŪH (Gate of Conquest)

Bāb al-Futūh’s towers are semicircular; its decoration is both different and more extensive than that at Bāb al-NAṣr. The towers each have a carved round arch and above each arch is a carved rectangle with three arrow slits, lighting the upper rooms. A carved molding running along the facade of the towers, two parallel lines with loops between them, is the earliest example of such decoration in Cairo but it later became typical in Mamluk architecture.

The inner flanks of the towers on both sides of the entrance have round arches with cushion voussoirs (s. Pls. 68 & 72), and the entrance itself is decorated with a row of carved lozenges filled with crosses and rosettes. Atop the entrance arch are carved brackets, two of them with a ram’s head. The ram is the sign of the zodiac related to the planet Mars, or al-Qāhir, the sign in ascendency when the city was officially founded.

Following an ancient oriental tradition, particularly in Egypt, the rams’ heads obviously had talismanic meaning. The only Islamic motifs on the walls apart from the Quranic inscriptions are the carved rectangles with an eight-pointed star found between the carved brackets.

The vestibule is covered with a shallow dome and the transition between the rectangular room and the spherical dome and the transition between the rectangular room and the spherical dome are formed by pendentives rather than squinches. Squinches are more typical of eastern—Persian and Mesopotamian—architecture; pendentives were used in Byzantine dome architecture.

BĀB ZUWAYLA

Bāb Zuwayla is on the southern wall of the city, and is dated 1091-92. The Fatimid armies included mem-
Pl 53  Bāb Zuwayla
bers of the Zuwayla, a North African tribe. Like Bāb al-Futūh, it has a pair of semicircular towers, solid stone for two-thirds of their height. The inner flanks of the towers near the entrance are decorated with lobed arches (s. Pl. 4) These arches had been used earlier in North African architecture and must have been introduced by craftsmen accompanying the Fatimids' conquest of Egypt. This type of arch is often seen in later Fatimid and Mamluk architecture. Inside the vestibule to the right, coming from the south, there is a half-domed recess with two exquisitely carved arches at the corners. They have a trilobed curve and the upper part is treated like a shell. The left-hand side was modified when Sultan al-Mu'ayyad built his mosque near the gate and had his minarets placed on the towers. Between the two towers and facing the southern outskirts of the city is a loggia that Creswell identifies as the place for the ceremonial orchestra announcing royal processions to the accompaniment of music. The presence of an orchestra at the city gates was an old oriental tradition.

Looking at Bāb Zuwayla from within the city, we see a gabled roof between the two towers that clearly show the Byzantine origins of the gate architecture. In fact, as noted above, most features of the walls and gates are entirely foreign to Islamic art, apart from some Quranic inscriptions Maqrizi comments that Bāb al-Futūh, Bāb al-Nasr and Bāb Zuwayla, the only gates that did survive, were built by three Christian monks from Edessa (eastern Turkey) who came to Egypt fleeing from the Saljuq conquest of eastern Anatolia.

Unfortunately, nothing similar in that area, or in Armenia, the homeland of Badr al-Jamali, where Creswell believes prototypes of the Cairo gates should be found, has survived. The only analogous architecture is in Hadrian's tower in the Coptic quarter of Old Cairo.

As the Byzantine Empire covered a large area of Anatolia and the eastern Mediterranean, including northern Mesopotamia where Edessa is situated, there is little reason to question Maqrizi's account of the origins of Badr al-Jamali's fortifications. Round arches with spherical pendentives, Byzantine-style shields, lozenges filled with rosettes, and cushion voussoirs all belong to Byzantine architectural tradition.

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THE AL-AQMAR MOSQUE (1125)

In the heart of the Fatimid city, north of the site once occupied by the great Fatimid palace, stands a small mosque known as al-Aqmar. This again is not the name of its founder, but an epithet that can be translated as "The Moonlit." It was founded by the vizier of the Caliph al-Amir, Ma'mun al-Batari.

THE EXTERIOR

This building is of major importance for Cairo's architecture, for several reasons. One is the lavish decoration of its facade. Though the mosque has its own unique features, it also inspired the decoration of many buildings of subsequent periods. Another reason can be seen in the architectural plan of the mosque. The facade is aligned with the street, while the interior of the mosque is properly oriented toward Mecca and has an otherwise regular layout. The adjustment is made in the facade wall, which is thicker on one end than the other. Small rooms are inserted in the thicker part of the wall. This device is typical of later urban

Pl. 54 The al-Aqmar mosque.
religious architecture and expresses the great care architects took to avoid disturbing the street alignment with mosque facades set askew.

The facade of al-Aqmar mosque is brick faced with stone and has a highly sophisticated decoration scheme. Originally, the portal must have been in the center of the facade. A later building hid the right side, but it is assumed that the right side was decorated like the left. The middle of the tripartite composition is dominated by a protruding portal decorated with a large keel arch niche carved with fluting radiating from a central medallion, like a sunrise or shell motif. The medallion has the name Muhammad repeated in a circular interlacing pattern forming a circle, with the name ʿAlī at the center.

On both sides of the main niche, smaller niches, also with fluted hoods, are surmounted with recesses crowned with stalactites, the earliest extant stalactites on a facade decoration.

To the left of the portal another shallow niche repeats the sunrise or shell motif with a medallion in the center. Above it, a circular clean cut in the stone reveals the brick wall, indicating that a medallion once existed there. Two lozenges, one with geometric carving and the other with a vase and plant motif, are surmounted on both sides of the missing medallion by two strange, carved panels. The one to the right represents a closed door, similar to the door of al-Hākim (in the Islamic Museum), and the one to the left shows a niche with a geometric grill resembling a window, from whose apex hangs a lamp.

The al-Aqmar mosque no doubt has a highly symbolic meaning within the Shīʿa context. Caroline Williams has interpreted the two plants standing in the vase as symbolic of Hasan and Husayn, sons of the Caliph ʿAlī by his wife Fāṭima. This pattern is frequent in Coptic art, with many examples in the Coptic Museum in Old Cairo. The niches with the hanging lamp and closed door placed symmetrically on each side of the missing medallion might be more than mere decoration.

Two inscription bands run along the facade. The one at the top has a historic text referring to the Caliph al-Mustaʿṣir in whose reign the mosque was built, and the lower band underneath the hooded portal niche has a Quranic text. Another special feature of this facade is a chamfered corner carved with the names of Muḥammad and ʿAlī.

The original minaret did not survive. Today we see on the left door jamb of the portal the circular base of the minaret built in the late fourteenth century by Amir Yalbughā al-Sālimī. It is a brick construction covered with stucco chevron carving and a molding with openwork bosses and a stalactite cornice. The structure above the balcony is of more recent date.

**The Interior**

The interior of the mosque has not retained much of its original form. The small sanctuary has three aisles and faces the courtyard with only a triple arcade, the three other arcades have only one aisle each.
A special feature of the interior architecture is that each bay’s ceiling is covered by a shallow brick dome, instead of being flat, except for the aisle parallel to the qibla wall, which is wider than the rest and is covered with a flat wooden ceiling. As the mosque was in ruins when the Mamluk Amir Yalbughā al-Sālim restored it in 1397, Creswell assumes that he also restored the ceiling, which originally could have been flat. This type of roofing is not known from the Fatimid period, but is used in the early fifteenth century at the mosque of Faraj Ibn Barqūq.

Except for some wood carving on the beams and doors and a stucco inscription band along some of the arches, nothing of the original interior decoration remains.

The mosque was again restored in the nineteenth century during the reign of Muḥammad ʿAlī by Amir Sulaymān Aḡā al-Sāḥib, who also built the mosque across the street from al-Aqmar.

THE SHOPS

The mosque of al-Aqmar was not at street level, as it is today, but much higher than the street level of the time, standing above a row of shops. The rising level has buried the shops, at the mosque of al-Sāliḥ Ṭalāʿī, the shops have been excavated.

The shops had an important functional purpose. The income of their rents were waqf, endowments for the benefit of a pious institution to maintain the institution and pay its personnel long after the founder’s death. The founding of a religious institution was always accompanied by an endowment of land or commercial structures in the city such as apartment buildings, public baths (hammām), shops, or factories. The founder himself also thereby secured tax-free income from the rents collected.

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THE MASHHAD OF SAYYIDA RUQAYYA

(1133)

The shrine, or mashhad, of al-Juyūshī most likely commemorates a secular person or idea, but the mashhad of Sayyida Ruqayya built in the Fustāt cemetery is a religious building. Sayyida Ruqayya, a descendent of the Caliph ʿAlī, son-in-law of the Prophet, never came to Egypt, so this shrine is not a mausoleum, but what is called a mashhad ruʿya, a visual memorial.

The architecture of the shrine recalls that of al-Juyūshī, except that this building appears truncated: the facade through which we enter today must originally have overlooked a courtyard or enclosure, but is now open to the cemetery.

A dome above the prayer niche forms the center of a hall wider than it is deep, and the side rooms are not vaulted as they are at al-Juyūshī, but have a flat wooden ceiling. The two side rooms flanking the domed area each have a prayer niche; the third, the central one, is the main prayer niche. Two more prayer niches are carved on either side of the entrance, outside the sanctuary. The dome is larger than any previous dome and is also fluted, inside and out, with the profile of a curved keel arch.

Instead of a plain squinch as in previous domes, the octagonal transitional zone of this dome is more complex. It is higher, and has four two-tiered squinches at the corners subdivided into keel-arch niches, thus forming large stalactites. The windows set between the squinches repeat the outline of the squinches themselves, a device used earlier in plain domes where the squinch arch alternates with a similar blind arch.

Above the transitional zone is an octagonal drum, the space just underneath the spherical part of the dome. This drum is unique in Fatimid architecture. Each side of the octagon is pierced by a pair of lobed
windows with stucco geometric grills, a feature occurring in Cairo architecture only at the mosque of Sinān Pasha (1571). Similar lobed arches are found at Bāb Zuwayla, where they are carved in stone on each side of the entrance, and inside the dome added at al-Azhar by the Caliph al-Ḥāfiz, where they also appear as decorations carved in stucco. This type of window is found in earlier North African architecture.

The glory of Sayyida Ruqayya’s shrine, as Creswell calls it, is its main prayer niche, one of the great masterpieces of stucco in Egypt, carved in a manner totally different from that of the mosque of al-Juyūşi. Here, the conch is filled with flutes radiating from a central medallion in the lower part of the conch like a sunrise motif, whose origin is the shell of classical niches. The flutes, or ribs of the niche, form along the arch’s edges a large stalactite frame. This was no doubt inspired by the niches decorating the facade of the al-Aqmar mosque. Fluted niches can be seen at the ninth-century outer wall at the mosque of ‘Amr and at the mosque of Ibn Tulun. Fluted domes were built at the mosque of Qayrawān in the ninth century. The two secondary prayer niches are minor in size and decoration, but follow the same pattern. The fluted dome seems to have been inspired by the use of fluted niches, which themselves are half domes. An interesting feature is the complicated interlaced band of geometrical decoration that crowns the whole decorative field of the mihrāb, a feature also found on the southern minaret of the mosque of al-Ḥākim, and in many Fatimid prayer niches. A concave band of Kufic inscription curves forward to allow easier reading of the inscription set above the prayer niche. This feature, also of North African origin, is used in the inscription band of the mosque of al-Ḥākim and the prayer niche of the mashhad of al-Juyūshi.

In the Islamic Museum is a wooden portable prayer niche that was found at the shrine of Sayyida Ruqayya. Its style is Fatimid, with geometric work, and it shows traces of green paint. It is also decorated on the back, suggesting that it was to be freestanding, perhaps in a courtyard for special congregational occasions.

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**MAUSOLEUM OF YAHYĀ AL-SHABĪH (c. 1150)**

In the southern part of the cemetery, not far from the dome of Imām Shāfī‘i, is the mausoleum of Yahyā al-Shabīh. At first glance, its dome, which dominates the whole structure, looks much like that of Sayyida Ruqayya. It is also ribbed and has a similar profile, but it lacks the octagonal drum with lobed windows of Sayyida Ruqayya’s dome. The plan of the building is also different. The dome stands above a chamber that is open on four sides and thus connected to a corridor or ambulatory surrounding it on three sides. On the southeastern side of this ambulatory are three prayer niches, the central and larger one of which is on the axis of the domed chamber and crowned by a small plain dome.

The prayer niches are decorated in the style of Sayyida Ruqayya, but are plainer and inferior in quality. According to Creswell’s reconstruction of this building, an adjacent space on the northeastern side could have included a courtyard with rooms on the
qibla side. This type of plan was applied in other shrines, such as those of Qāsim Abū Ṭayyib and Umm Kultāhum.

The domed chamber of Yahyā al-Shabīh includes several wooden cenotaphs (tābūt) with plain Kufic inscriptions that belong to tombs of earlier date, above which this mausoleum was erected Yahya, a descendant of the Prophet, was called al-Shabīh, “The Similar One,” on account of his supposed resemblance to the Prophet.

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THE MOSQUE OF VIZIER AL-ŠĀLIH ṬALĀʾĪ (1160)

Like al-Aqmār, the mosque of al-Šālih Ṭalāʾī was built by a vizier. Originally it was intended as a shrine for the head of al Husayn brought from Asakrūn to Cairo by al-Šālih. The Caliph, however, decided that such a sacred relic should not be placed anywhere but in the Caliph’s palace itself. The relic is still on the same site, today in the mosque of Sayyidnā al-Husayn, the palace itself disappeared long ago.

The mosque of al-Šālih was built outside Bāb Zuwayla, facing it from the south. When it was built it was not a Friday mosque. It became so only in 1252, when the mosque was first renovated.

Again like al-Aqmār, the mosque of al-Šālih Ṭalāʾī was built above a row of shops. The shops have been excavated and are now more than two meters beneath the street level. They are again being used. A few steps lead to the mosque itself.

The Exterior

The mosque has several noteworthy features. Like al-Azmār, it was originally built with only three arcades around the courtyard. Instead of a fourth arcade on the northwest, the mosque had an arcade outside, forming part of the facade, a feature unique in Cairo mosques. The arcade, used here as a portico, is composed of four columns carrying five keel arches flanked on each corner by a small room. The ceiling of this arcade has its original decoration and is the only Fatimid ceiling still extant.

The mosque was damaged by the 1303 earthquake, and restored in the late fifteenth century. When it was restored at the beginning of this century by the Committee for the Preservation of Islamic Monuments, a northwest arcade was added inside the mosque, a misreading of the original plan. The mosque, which at that time was very dilapidated, had to be almost totally rebuilt. Only the original qibla wall remained, but old stones with original decorations were reused when possible. The original minaret must have been at the main entrance. The mosque also has two other side entrances.

A carved molding runs along the arches of the stone facades on all four sides of the mosque, as well as the similar arches of the recesses, and the four walls were originally free standing. Each of the four arched recesses had a large iron grilled window, now walled up, placed near the floor level of the mosque. Cairo architects adopted this facade treatment in nearly all later mosques.

As in Bādrl al-Jamāl’s city walls, horizontally placed columns have been used to strengthen the masonry. Remains of a stepped and stucco-carved crenellations can still be seen on the northern facade. The northwest corner of the building is chamfered, a device already used at al-Aqmār, though here the treatment is different.

Other facade decorations include a band with alternating rectangles, one receding, one protruding, as on the southern minaret of al-Ḥākim. There are two more bands with inscriptions, the upper one at the top of the facade.

The northern facade is prolonged beyond the qibla wall, suggesting that another structure was once enclosed here, perhaps the shrine for al-Husayn.

The magnificent carved and lathed wooden screen, a modern copy of an older one, was not originally outside the mosque, but inside, to screen the prayer hall from the courtyard, as in many medieval mosques.

The Interior

While the outer walls are of stone, the inner arcades are of brick, also with keel arches. These were originally framed with a carved band bearing stucco Kufic Qur’anic inscriptions. The Kufic script here is of the ornate, late Fatimid type, with curved letters on a background decorated with scrolls representing stylized stalks with floral motifs.

The prayer niche, not original, was redecorated with painted wood in the Mamluk period. Some of the
original window grills have survived. A very interesting one is that near the prayer niche showing the earliest extant use of naskhī script in architectural decoration in Cairo. From then on, both Kufic and naskhī scripts were used, but naskhī predominated in the Mamluk period. Next to the prayer niche is a rectangular opening framed with stucco decoration. This opening is not a window, but a malqaf or windcatcher connected to a shaft in the qibla wall that goes to the roof. It was once topped by an enclosure with a sloping lid that opened to the north to catch fresh breezes.

Decoration

In addition to the stucco band framing the arches and the Corinthian capitals, which were once gilded, the mosque is decorated with rosettes carved on the arcaded walls. They are fluted, and the rosette's center is below the true geometric center, compensating for distortion when seen from below, a device used in classical art. Rectangular openings above the arches are decorated with beautifully carved stucco grills, and the tie beams between the arches are carved in a repetitive floral pattern.

The door of the mosque, a replica, is wooden, carved on the inner side and covered on the outside with sheet bronze that has an applied geometric star pattern. The original door is at the Islamic Museum.

The wooden pulpit in the mosque of al-Ṣāliḥ Ṭalāʾī is the second earliest Mamluk pulpit in Cairo, dated 1299 and commissioned by Amir Baktūmūr al-Juqan-dār. The oldest is that commissioned by Sultan Lājin at the mosque of Ibn Ṭūlūn.

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