

HILAL BEY MOSQUE IN KŪM AL-NŪR, DAQAHLIA (EGYPT): A HISTORIC AND ARCHITECTURAL STUDY

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ABSTRACT

This article documents and analyzes the 19th century historic mosque of Hilal Bey mosque in al-Daqahlia, within the Egyptian Delta. It was built according to the Egyptian provincial 'local' pattern that prevailed in Egypt during the 19th century onwards. The founder is Hilal Bey, a member of the *Majlis Shura al-nuwāb* at the time of Khedive Isma'il. The mosque was built, according to the existed foundation inscription in 1270 A.H. (1853). It is located in the village of *Kūm Al-nūr*, which belongs to the *Mīt Ghamr* city at the province of *al-Daqahlia*, northern Egypt.

The plan of the mosque forms a rectangular prayer hall without courtyard. The prayer hall consists of three aisles 'riwaqs' divided by two arcades with pointed arches. The aisles are paralleled to the qibla wall; the middle one is wider. The ceiling of the mosque is wooden. The mosque has some annexes in its southeastern part, including an oratory, an ablution fountain, and toilets.

This article aims to highlight the historic and architectural significance of this mosque, by its comparison with other contemporary related mosques. It concludes with a recommendation to protect and to invest it as well.

KEYWORDS

Hilal Bey, mosque, Egyptian Delta, Islamic Architecture, 19th century.

المخلص

بعد جامع هلال بك 1270 هـ (1853م)، بقرية كوم النور مركز ميت غمر بمحافظة الدقهلية، أحد الجوامع المشيد علي الطراز المصري 'المحلي' الذي ساد خلال القرن التاسع عشر الميلادي بمصر، وهو أحد أهم المساجد الأثرية بمحافظة الدقهلية. منشيء هذا الجامع هو هلال بك عضو مجلس الشوري في عهد الخديوي إسماعيل. الجامع ذو مسقط مستطيل، يتبع التخطيط المحلي المكون من ثلاثة أروقة أو بلاطات دون صحن أو دورقاعة، وقسم الجامع إلي ثلاثة أروقة موازية لجدار القبلة أكثرها اتساعاً الرواق الأوسط بواسطة بانكتين من العقود، وكل بانكة مكونة من أربعة عقود مدببة ذو مركزين، ويغطي الجامع سقف خشبي من براطيم خشبية، كما يحتوي الجامع علي مصلى وميضأة ومرحاض بجهته الجنوبية الشرقية. وتهدف هذه الورقة البحثية لتوثيق الجامع معمارياً وزخرفياً؛ بهدف إبراز أهميته التاريخية والمعمارية، وتحليل عناصره المعمارية والزخرفية، ومقارنته مع الجوامع التاريخية المعاصرة. وتوصي الدراسة بأهمية قيمة الجامع التاريخية والمعمارية وتوصي بالحفاظ عليه، ووضعه ضمن عداد الآثار الواجب حمايتها واستثمارها.

الكلمات الدالة

جامع، هلال بك، الدلتا، مصر، عمارة إسلامية، القرن 19م.

INTRODUCTION

During the 13th century A.H. (19th A.D.) many mosques have been built in the Egyptian Delta region. They, mostly, followed the Egyptian provincial 'local' style i.e. the mosques without courtyard, only a prayer hall divided into internal aisles 'riwaqs'. This plan was very common in *al-Daqahlia* region along with its towns and villages. In which is the mosque under discussion i.e. Hilal Bey Mosque, which is also known as the Bey "Bek" mosque. With the last name this historic building was registered in the record of the Islamic and Coptic monuments; as a result of the approval of the Permanent Committee for Islamic and Coptic Monuments in its session on 27/7/1999, and the approval of the Supreme Council of Antiquities' board in its session on 27/9/1999.

Almost there are no previous studies discussed the mosque under discussion; thus this article proposes a new documentation and an analyzed study of the Bey Mosque located in *Kūm Al-nūr* village at *Mīt Ghamr, Daqahlia* (Egypt).

THE FOUNDER & THE DATE OF CONSTRUCTION

Hilal Bey¹ was a member of the *Majlis Shura al-nuwāb*² from *al-Daqahlia*³ and *al-Sharqia* registrar⁴ in the Council⁵ at the time of Khedive Isma'il.⁶ The Egyptian parliament achieved a

¹ Bey is an old Turkish title, originally Persian, means a wise man or leader. For the Mughal and Turkmens, it is a title of honor. It equals "prince" for Arabs. The first holder of this title was Tughril Bey, the founder of the Seljuk Empire in 450A.H./1058 A.D. Then, its use prevailed to include princes and Sanjaks in the Ottoman Empire who were lower than Paşa. In the 19th century, this title was awarded to many personalities, some of which were occupying administrative positions and others of the royal family. In the age of Mehmed Ali, this title developed to be an honorary title. For the military men, this title was given to those of Amiralay Kaymakam ranks. This prevailed in Egypt till 1914. It should be noted that owing to the Law of Egyptian Titles on January 8th, 1923, the previous decrees issued in 1914-1915 were canceled. This title was divided into two ranks. While the first rank (his excellenc was bestowed on the officials whose monthly salary was not below 1200 pounds, the other (saheb aleza) was bestowed on the officials whose annual salary was not less than (800) pounds and it was sometimes given to persons of distinction who did great services to the country. Alkhatib, *Muajam Almuštalahat wa Al'iqab Altarikhia*, p.83; Barakat, *Alalqab walwazaif al'othmania*, pp.321-323.

² Throughout the Islamic and the direct Ottoman reigns, Egypt did not know representative councils. After the advent of the French campaign and the cultural shock, the Egyptians began to look for the West for imitation. Accordingly, the first sign of parliamentary life appeared in 1829 during the reign of Mehmed 'alī Paşa who established a council for discussions, comprising major traders, notable people, mayors, Shīkhs and scholars. Its main task was to express opinions about the public administrative issues, but Mehmed 'alī was not obliged to implement them. In other words, it was only an advisory council. Owing to Mehmed 'alī, this council was introduced and its responsibilities developed that it was comparable to the Parliaments of Europe. After his death, this council became inactive because Abbas Hīlmi I Paşa and Mehmed Said Paşa were not enthusiastic enough for it. Alrafīy, *'aṣr Mehmed 'alī*, pp.516-525.

³ Daqahlia: Dakahla is an Egyptian city on a branch of the Nile. It is four leagues from Damietta and six leagues from Damera. It is a flourishing city. A district is added to it. Consequently, it is called Daqahlia district. Albaghdady, *Moajam alboldan*, Vol.(2), p. 459.

⁴ al-Sharqia :It is called Sharqia because it is located to the east of Lower Egypt. In 1315, it was called Sharqia province, but in 1826 it was divided into small areas. In 1833, they were gathered to form one province, known as Sharqia directorate currently Zagazig. Ramzy, *Alqamous Algoghrafi Lūbilad ALmiṣria min 'hd godamaa ALmaṣrīn*, vol.(1), p.75 and vol.(2), p. 22.

⁵ Samy, *Taqwim alnil*, Vol.(4), pp. 672-674.

⁶ Khedive Isma'il: He was called Isma'il ibn Ibrahim Paşa bin Mehmed 'alī Paşa, the second son of Ibrahim Paşa. He was born on December 31st, 1830 in Traveler's Palace. He traveled on an educational mission to Paris to study engineering, mathematics and physics. Additionally, he studied military arts in the military school founded by his grandfather Mehmed 'alī Paşa and joined the Special Military School of Saint-Cyr. After returning to Egypt at the time of his uncle Said Paşa and presided over the highest judicial authority, namely Majles Alahkam. On January 18, 1863, he came to power and he was deposed on June 26, 1879. Then, he moved to Constantinople, where he stayed till his death on March 2, 1895 at the age of 65. He was buried in

significant leap with the establishment of *Majlis Shura al-nuwāb*⁷ in December 1866, comprising (75) representatives elected by the people of the large landowners each three years.

Hilal Bey, as a member of the *Majlis Shura al-nuwāb* from Daqahlia, played a prominent role in the first works of the Egyptian parliament (Fig. no.1). He suggested discussing the issue of “corvee” and mitigating its burdens. As a result, a committee was formed of the members of parliament to investigate the issue. It summoned ‘alī Paşa Mubarak and Isma’il Paşa. The committee submitted a detailed report to organize the “corvee” on the basis of public interest, and that it was compulsory to the age group (15–50) years. Additionally, it was equal to all people. The council approved the report and its contents. Hilal Bey died in late 1905 in the reign of the Khedive ‘Abbas ḥilmi II⁸ (1892–1914).

According to the foundation inscription above the main entrance of the mosque⁹, it was founded in 1270 A.H. (1853).¹⁰



Fig. 1. Minutes of the meeting of the opening session of *Majlis Shura al-nuwab*; in which Hilal Bey was mentioned (Azab, ṭahir and ṭahir, *Egyptian Majlis Shura al-nuwab*)

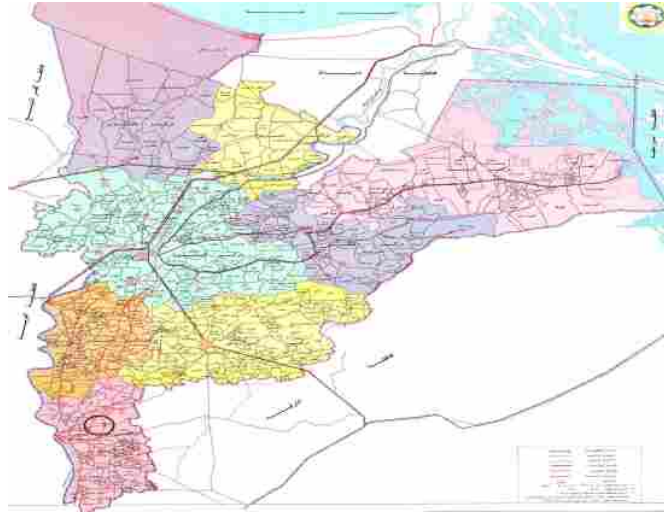


Fig. 2. Map of Dakahlia governorate including the site of Kūm Al-nūr where Hilal Bey mosque was established (*Armed Survey Department, 1993*)

Alrefaey mosque, Egypt. Sabry, *Tarikh Miṣr Alḥadith*, pp. 95-177; Zydan, *Tarajim mashahīr a-sharq fi alqarn alṭasi’ a’shar*, Vol.(1), pp. 49:60.

⁷ Khedive Isma’il had a real desire to engage the people, represented by the large landowners in expressing opinion in the issues of facilitating the work of the Egyptian government. However, this council was advisory not obligatory. It was established with the emergence of the Egyptian public opinion formed along with the Egyptian press and the liberation movement from the foreign intervention that was increasingly apparent by the end of Khedive Isma’il’s reign.

⁸ A report submitted to his excellence the Khedive by the mayor of Kūm Al-nūr regarding the village’s status, Al Ahlia Press, 1914, p.4

⁹ Samy, *Taqwim alnūl*, Vol.(2), pp. 666-680; Alayoubi, *Tarikh miṣr*, Vol.(1), pp. 68-73; Allrafiy, *‘Aṣr Isma’il*, pp.88:112.

¹⁰ In 1270 A.H. (1853), Khedive ‘Abbas Ḥilmi I died on Shawwal 18, 1270/July 13, 1854 and Sa’id Paşa came to power two days later on Shawwal 20, 1270A.H./ July 15, 1854.

Mokhtar, *Altawfikiat Alilhamilya*, p.1315.

SITE

Hilal Bey Mosque is located at ‘Abdullah Bey St.,¹¹ *Kūm Al-nūr*,¹² *Mīt Ghamr*,¹³ *al-Daqahlia*. It was built on a land owned by the same founder, who was the mayor of *Kūm Al-nūr* and member of *Majlis Shura al-nuwāb*¹⁴ (Figs. nos. 2–3).

THE EXTERIOR

The Northwestern ‘Main’ Façade. It, as well as the other façades, was built from hewn yellowish limestone.¹⁵ It measures 19.35 meters in length and 6.47 meters in height. In its western part, the main entrance of the mosque is found, far a bit from the façade center. The main entrance is a monumental one¹⁶ 7 meters in height and measures 3.88 meters across (Fig. 4, Pls. 1–2).

The portal protrudes 0.35 meters from the surrounding, and is a bit higher than the façade. The entrance opening measures 6.47 meters in height, 3.15 meters across and 0.57 meters in depth. The portal is crowned with a stalactite¹⁷ trilobed arch¹⁸. The arch is surrounded by an



Fig. 3. Map of the Egyptian Survey Authority in 1935 on which the location of Hilal Bey Mosque was written.

¹¹ ‘Abdullah Mehmed, mayor of *Kūm Al-nūr* and son of Hilal Bey. He was a second Lieutenant in the Egyptian army at the time of Abbas II ħilmi. He was sent to war in Sudan and appeared in the Battle of Omdurman in 1899. He worked in establishing the streets of Khartoum and Alhalfaya. After three years in service, he resigned because of his father fell ill in 1901. As a result, he returned to *Kūm Al-nūr* and was elected the mayor early in 1905. His father died late this year. See a report submitted to his excellence the Khedive by the mayor of *Kūm Al-nūr* regarding the village’s status, pp.3:11.

¹² *Kūm Al-nūr*: It is an old village that was formed at the time of the Arabs on the ruins of an ancient one known as Alpoul. Alef and lam of Alpoul are part of the word not the definite article. After the destruction of the ancient village, a village appeared, namely *Kūm Alpoul*. As a result of founding the current village, the whole villages were united to form *Kūm Alpoul*. Because of not adjusting the word “alpoul”, people thought that it was an etymology of urine. In the 6th Hijri century, the word was substituted with maa (water). Consequently, it became known as *Kūm Almaa*. Later, it was known as *Kūm Al-nūr* instead of Alpoul and Almaa. Ramzy, the author of the Encyclopedia of Egyptian places’ names, argued that it was better known as *Kūm Al-nūr* because if it was altered in the Ottoman era, there was no need to call it *Kūm Al-nūr*. In the map of the Description of Egypt and in 1228, it was mentioned with its present name. In 1903, it was mentioned that it was separated from *Kafr Eldalel* and they were known as *Kūm Al-nūr* and *Kafr Eldalel*, as nearby places. Ramzy, *Alqamous Algoghrafi*, vol.(2), pp. 259:260.

¹³ *Mīt Ghamr*: It is an ancient village that was originally called Mineat Ghamr. In 1228A.H., its named was altered to *Mīt Ford*. Mineat ħamad that was mentioned with Mineat Ghamr in Tuhfat Elarshad and Taj al-Arus because they are in a nearby place. Then, they were combined to form Mineat Ghamr. In the Ottoman era, Mineat ħamad was named *Kafr Albatal* after the prince ħamad who was known as Albatal. Although, it was separated from *Mīt Ghamr* in 1228A.H., they were combined in 1903 to be known as *Mīt Ghamr*. In 1871, it became known as *Mīt Ghamr* locality. Ramzy, *Alqamous Algoghrafi*, vol.(2), p.263.

¹⁴ - A report submitted to his excellence the Khedive by the mayor of *Kūm Al-nūr* regarding the village’s status, Al Ahlia Press, 1914, pp.4:5

¹⁵ Limestone: It is composed mainly of calcite (calcium carbonate). It also comprises quartz, hematite and magnetite. It is a sedimentary rock that comprises skeletal fragments of marine organisms. Although it is white, it may be white, red or blue according to the type and percentage of sediments. ‘Alī, *Tarmim alṣouar aljidaria*, p.24; ħilmi, *i’lm alm’adin*, pp. 319:322.

¹⁶ The main entrance of the Mosque of al-ħakim (380-403A.H/ 990-1013A.D) is the oldest relief monumental entrances in the Islamic architecture in Egypt. Alomary & Alṭayish, *al’imara fi miṣr alislamīh*, p.78.

¹⁷ Stalactite is a decoration composed of pieces of stones. Its upper part is brought into view than the lower one. Corniches are put next to each other. It may comprise many layers. Therefore, it is used at the top of walls, squinches, windows and in the transition area of the dome. Stalactites take many forms, ranging from the local,

interlaced band of carved stone ‘fret’¹⁹ that extends to frame the doorway. The spandrels of the entrance are decorated with a raised circular knot of a gear shape in the center, and a set of sides with interlaced ends. Additionally, frets surround the spandrels till the lower part of the entrance that also siege two parallel decorative bands carved in high relief. Each band comprises a decoration. Archaeologists identify it as a frame²⁰ which is a form of geometrical ornamentations that takes the shape of ‘y’ letter (Fig. 6), known as *al-kirandiz* or *al-kiranday*. It is implemented in the upside and downside form, either reversed or parallel encompassing certain forms. It is used in making frames that surround the various ornamental formations. Each band is headed by a hexagonal shape including two octagonal stars.²¹ Each one is surrounded by two spears.²² There are two *maksalas*²³ flank both sides of the entrance, each one is 57cm in length x 45cm in depth x 70cm in height. In addition, it has two similar façades; each façade is decorated with a geometrical formation mainly consisting of a square or rectangular shape of protruded stone frames,²⁴ known as a rib²⁵ and a semi-cane ornament²⁶ known as *al-banuhāt* (Figs. 5-6, Pl. 3).

Arab or carinated. This form was introduced in the Ayyobid era in the dome of Abbasid Caliphs 640A.H./1242A.D. on Alasharf St. in the burial ground of Saeeda Nafissa. Amīn & Ibrahim, *Almoṣṭalaḥat alm ‘amaria*, p.113.; Khalifa, *Aldawr almi ‘mary walfany lmoqarnasat*, pp.5:6.

¹⁸ Trilobed Arch: It is a local naming. It is known that the capitals of the Islamic Egypt (Fustat- al-‘Askar- Al-Qatā’i- Cairo) may be called cities of Egypt because they varied, containing relatively close settlements. The word Almadainy was not named after Al-Mada’in that was about 35km to the left southeast of the Tigris. The trilobed arches were introduced in Iran in the early 5th A.H./11th A.D. century in the mosque of Yazd in 429A.H./1037A.D. in the transition area of the dome. In Egypt, these arches were introduced toward the end of the 5th A.H./11th A.D. century in the transition areas of the domes of Fatimid mausoleums and the windows and openings among them. Najib, *Madrasit ala ‘mir Kabir Qirqmas*, pp.199:209.

¹⁹ Fret is a Persian word for a curve and two similar items. Architecturally, it represents an outstanding decoration that is carved in stone in the form of a frame or a chain, comprising two parallel lines that regularly intertwined. It is interspersed with hexagonal forms. In Egypt, it was introduced in the reign of Bahriyya Mamluks. It was implemented in the façade of the Madrasa of Sulṭān Ḥasan (757-762A.H./1356-1360A.D.). After that, it was implemented in the high relief form near the end of that era. Amīn & Ibrahim, *Almoṣṭalaḥat alm ‘amaria*, p.29; Omara, *Al‘anasir alzokhrofia*, p.21.

²⁰ Kishk, *Ashghal alkhashab fi al‘amair al‘othmania*, pp.164-414.

²¹ Octagram: It is known as Venus star. It appeared on the Ottoman flag for a short time. The Arab think believe that it is a symbol that Allah’s powers surpass those of nature. Zaki, *Ala‘lam wa sharat almulk fi wadi alnil*, p.35; Bahnasi, *Ma ‘any alnujom*, p.60.

²² As an ornamental element, a spear was originally introduced in the Greco-Roman era when the artist used to make it of the crown of the ionic palmyra’s snails. It also appeared in the architecture of Fatimid buildings where it was implemented on a frame circulating an arcade holding the dome in Al-Azhar Mosque 544A.H./1149A.D. Shaffī, *Al‘imara ala ‘rabia*, p.113; Creswell, *The Muslim Architecture of Egypt*, p.231.

²³ Maksala is a stone seat. They were created on both sides of the deep entrances. They were called this way because of the lazy people who prefer to sit on them. Their oldest example in Cairo buildings was created on both sides of the entrance of Amir Alin Aq Palace (693A.H./1293A.D). Abulfitouh, *Madakhil al ‘m ‘ar almamloukia*, p.55; Lam ‘y, *Altoraḥt alm ‘mary alislami fi miṣr*, p.9; Rizq, *Muajam Mustalahat Al‘imara wa Alfnonon alislamiḥ*, p.301.

²⁴ Using raised stone frames in the Islamic buildings known as *al-banuhāt* dates back to the Umayyad era. A frame that takes the form of a thin projection decorated the only door that remained from the external wall of Eastern al-Hayr Palace in the middle of the Syrian desert 110A.H./728-729A.D. After that, it was implemented on the façades of the two towers of Bab al Futuh in Cairo 480A.H./1078A.D. and Bab Zuwayla 485A.H./1092A.D. Later, it was implemented on Bab Elmodraj in the Saladin Citadel of Cairo 579AH./1183A.D. Then, it spread on the Mamluk buildings of Cairo, e.g. the façade of Baybars al-Bunduqdārī Palace that was founded in the 7th A.H./13th A.D. century. Omara, *Al‘anasir alzokhrofia*, Vol.(1), p.20.

²⁵ Rib is the simplest types used as a line among the decorations, either in the flat or curved surfaces. It is also used in the beginning or end of a set of decorations. It is known by its width; narrow or wide due to a surface known as “sennah”. Amīn et al., *Fan albina*, Vol.(1), p.151.

²⁶ The semi-cane ornament is a raised intertwined ornament used in flat or curved surfaces. If its size becomes bigger in the curved buildings, it is known as an anklet and if bigger, it is a tilsan. Amīn et al., *Fan albina*, Vol.(1), p.151.



Pl. 1. An old photo Hilal Bey Mosque
(A report submitted to his excellence the Khedive by the mayor of Kūm Al-nūr).



Pl. 2. NW façade of Hilal Bey Mosque
(All plates and figures not followed by the source are of the author)



Fig. 4. NW façade of Hilal Bey Mosque

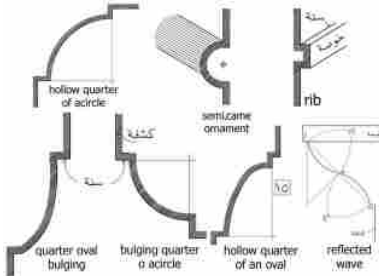


Fig. 5. Frames decorating Hilal Bey Mosque (Amīn et al., *Fan albina*)



Pl. 3. The main portal of Hilal Bey Mosque

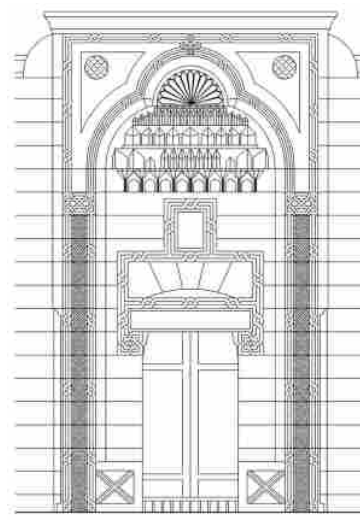
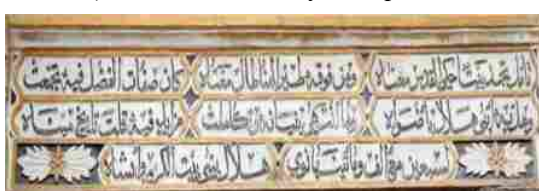


Fig. 6. The main portal of Hilal Bey Mosque.



Pl. 4. The shutters of the main door of Hilal Bey Mosque.



Pl. 6. The foundation inscription of Hilal Bey Mosque.



Fig. 8. The foundation inscription of Hilal Bey Mosque.

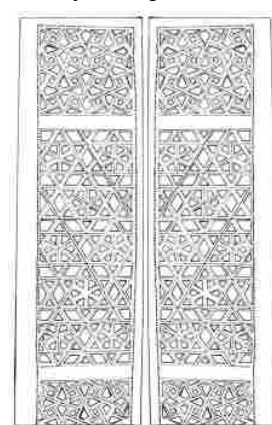


Fig. 7. The shutters of the main door of Hilal Bey Mosque.

The door opening measures 1.35 meters across and 2.58 meters in height. There is a wooden lathe barrier of (25cm) in the lower part. The wooden barrier consists of nine wooden

circular balusters.²⁷ The shutters were made of oak,²⁸ each of which comprises three interlaced²⁹ panels. The largest is middle one that decorated with polygon³⁰ 'hexagonal sarwa'.³¹ The polygons are separated by upside or downside equilateral triangles. Each triangle comprises three rhombuses in the three angles of the triangles. These rhombuses are separated by three small equilateral triangles. The upper and lower fillings of each shutter are identical in their decorative composition. In other words, they are mainly made of the inclined *mafruk*³² (Fig. 7, Pl. 4). Above the entrance, there is a lintel of white marble on which the foundation inscription was carved in a high relief pattern. It comprises three lines: each of the first two lines consists of three cartouches³³, while the third one of two cartouches only. The inscription was implemented in *Thuluth* script³⁴ with the letters in dark blue on a white ground. The frames of the cartouches are golden. Two golden octal petaliferous rose flank the third line.

The foundation inscription (Fig. 8, Pl. 5) praises the building and the founder, and gives, in rhymes,³⁵ the date construction and the founder's name, as follows:

- 1- تأمل تجد بَيْتًا حكي القدس مغناه/ ومن فوقه طَيْرُ الهنا طال مغناه/ كان صفات الفضل فيه تجمعت
- 2- وهلّ به أبهى هلال بأضواءه/ ولما انتهى بنيانه وتكاملت/ مزاياه فيه قلت تاريخ مبناه
- 3- لسبعين مع ألف ومأتيتها نوي / هلال بنيي بيت الكريم وأنشاه³⁶

²⁷ Etymologically, wooden balusters are originally Turkish meaning finger to indicate to the spiral or cyclic sticks that are often made of wood. They are used in balustrades. They may be of square, rectangular, conical or spiral sections. Abdulhafiz, *Almoṣṭalahat alm 'maria*, pp.29-30.

²⁸ Oak is exported to Egypt. Its trees grow in many parts of the world, including English oak which is characterized by durability and hardness. Also, there is a kind of oak characterized by shiny silver fibers resulting from the deployment of woodblock in a special way and it is expensive. Kishk, *Ashghal alkhshab fi al'amair al'othmania*, pp.79-80.

²⁹ Interlacing is making wood artifacts from small wooden pieces or panels of geometrical shapes in frames to form regular shapes, the most well-known of which is polygonal knotwork. It appeared in the late Fatimid era and the following eras. Fikry, *Masajid alqahira wamadaria*, Vol.(1), p.16; Naṣr, *altuḥaf alkhshabiah fi 'ṣr uṣrat Mehmed 'alī*, pp.190:194.

³⁰ A polygonal knotwork consists of the gear in the center and it is surrounded by a set of fillings in the form of small pointed almonds. It consists of four sides, known as the almond that consists a multi-sided star. It encloses a set of polygonal sides known as kinda. It was introduced in Egypt in the 6th A.H./12 A.D. century in the mihrab of Elsayyedah Ruqayyah that is currently kept in the Museum of Islamic Art, Cairo. Alṭayish, *Alfunon Alzokhrufia Alislamīh Almobakira*, p.20.

³¹ The latest example of polygonal knotwork is the coffin of Imam Shafi'I 574A.H/ 1178A.D. Abdulwahab, *Tarikh almasajid alatharia bi-lqahira*, Vol.(1), p.108; Ḥasan, *Fonon alislam*, p.462; Ḥasan, *Aṭlas alfonon*, p. 376.

³² This decorative element was modeled after the Greek swastika that moved to the Roman and Sassanid styles. It is oldest example in Iran in the Sassanid era is plaster artifact kept in the Metropolitan Museum of Art. Later, this decorative element moved to the Islamic art. A plaster artifact was found in Fustat that dates back to the early Islamic era. Furthermore .Shaffī, *Al'imara ala 'rabia*, p.95&217; Kishk, *Ashghal alkhshab fi al'amair al'othmania*, pp.157:158.

³³ Zawiat ḥasan Al-Rumī 929A.H./1522A.D. is considered the latest architectural example in Egypt in regard to the foundation texts that use lines and meters. Barakat, *Dirasat alkhaf wa-lalqab wa-lmanaṣib*, p.158.

³⁴ Scholars differed regarding the naming of this script. Undoubtedly, it has this naming because of comparing the size of Thuluth to that of Scroll. While Thuluth is written with a pencil of 8 palm felts, that of Scroll is written with a pencil of 24. It is characterized by serenity, persistence and diversity in the thickness of letters as they end with a thin part. Dawood, *Alkitabāt ala 'rabia 'la al'thar alislamīh*, pp.58-60.

³⁵ On analyzing the lines of the foundation text, it is found that the poet says "observe the mosque that you may find a place similar in holiness to that of Al-quds in blessing and purity. Birds fly over the mosque chanting in a manifestation of peace and satisfaction as if it combines all features of good and virtues, as well as others. Additionally, the most beautiful crescent topped it to reflect its colorful lights. By completing its architecture, all the good features were merged and it was completed in 1270 by Hilal Bik".

³⁶ - The foundation text of the mosque contains the date of establishment in two ways. While the first was in letters, the second was in ḥisab al-jumal, as follows:

Naūa + hilal + banī + bait+ al-karīm+ wa'nshahu
66 + 66 + 62 + 412 + 301 + 363 = 1270 A.H.

Transliteration:

- 1- Ta'mal tajid baītan ḥaka al-Qudsu ma'nahu/ wamin fawqīhi ṭairu al-hana ṭala maghnahu/ k'na ṣifatu al-faḍlu fīhi tajam't
- 2- wahala bihi 'bha hilalun bi-aḍūahu/ walamma 'ntaha bonānuhu watakamalat/ mazaīahu fīhi qultu al-tarikh mabnahu
- 3- lisab'īna ma'a alfin wam'tīnha nawa/ hilalu bana baītu al-karīmu wa'nshahu

The opening door is crowned with a marble flat arch; above which is a tympanum 'nafees', then a relieving arch.³⁷ An interlaced carved stone band 'fret' frames the previous composition. The stone voussoirs of the aforementioned relieving arch is decorated in high relief with geometric patterns; consisted of simple polygons. Above the relieving arch, and beneath the portal's trilobed arch, is a rectangular window (52cm in height and 35cm across) with well carved³⁸ and decorated wooden grills. This window is also framed by an interlaced carved stone band 'fret' (Fig. 9, Pl. 3)

The façade's windows come in three tiers. Windows of the lower tier are rectangular (2.23meters in height and 1.11meters across) with stone frames, covered with iron gratings, and crowned with flat arches; above which is a tympanum 'nafees', then a relieving arch. The stone frames are decorated with a geometric tinsel 'torsades'.³⁹ The latter consists of two intersecting lines enclosing rhombuses carved on the stone (Fig. 9, Pl. 6). The windows of the second tier are also rectangular (1.17 meters in height and 0.82 meters across), covered with inclined lathe⁴⁰ wooden grills; consist of four octagonal⁴¹ shapes that enclose a silver cross (Fig. 10, Pl. 7). The windows of the upper (third) tier are oval, near to a circle, covered with modern metal wires. It is worthy noted that the three tiers windows of the western corner of this façade have been recently plugged up with cement inside and outside. But the lower window direct northern the main entrance, was originally plugged up; providing an internal closet, as certified by an old photo. The façade is topped with a protruded stone

³⁷ The relieving arch is composed of an arc of the circumference. It is also-called the relieving. It is a part of a circle to relieve the loads on the lintens for their safety. It was used in the classical Roman architecture. Its oldest example in the Islamic era was found in Qaṣr al-Hayr al-Sharqī 110A.H./728-9A.D. Alkasbany, *Tatawru nuzum al'imara*, 1993, p.74.; Ḥasanin, *Ashghal alrukham fi al'imara aldinia fi Madinat alqahira*, p.98; ḥamdy, *dirasa fi al'imara alislamīh*, p.91.

³⁸ It is the piercing of different decorations in wood by defining them in certain places. Then, the undecorated (ground) parts are pierced that separate the decorative units. It is hard to define where and when this mood began. However, when reviewing the ancient Egyptian heritage, 3000 years ago, the old Egyptian furniture included them and shell and ivory was used. Furthermore, furniture covered with these decorations was used in the European and Scandinavia countries in the 16th and 17th centuries. In the 18th century-Europe, furniture works evolved and became well-known. Abubashim, *Fan ala'rkt*, p.11; Kishk, *Ashghal alkhshab fi al'amair al'othmania*, pp.130:1

³⁹ They are well-known decorative elements since the ancient times in Iraq, Egypt and the Greek era. They were also used in the Islamic arts in the Fatimid ceramic of metallic luster. Shaffī, *Al'imara ala'rabiya*, p.217; Ḥasan, *Atlas alfonon*, p. 39.

⁴⁰ It is called this way when the leaves are taken off from trees. It is used as turning wood in the Islamic architecture when the wood takes the form of small rectangular or square pieces joined together to take the form of geometric shapes and they are fixed on the outer openings to prevent those outside the place from seeing what the details of what goes on inside, but not vice-versa. However, they do not block light or air. Amīn & Ibrahim, *Almoṣṭalahat alm'amaria*, p.40; I'zzat, *Tarikh alathath*, p.145; Nazīf, *dirasat fi al'imara alislamīh*, pp.256:258.

⁴¹ It is composed of tiny pieces of wood where the carpenter fixes them upon each other according to certain spaces, taking the form of a right angle. The light emanating from the space among the wooden pieces takes the form of an inclined octagon. Abubakr, *Almanabir fi miṣr*, p.223.

moulding ‘cornice’ of double bands; the lower called a ‘rib’ and the other known as a reflected wave (Fig. 5).⁴²

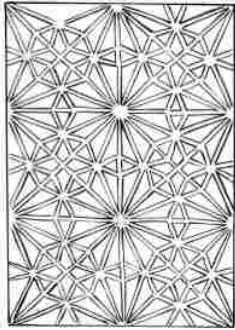
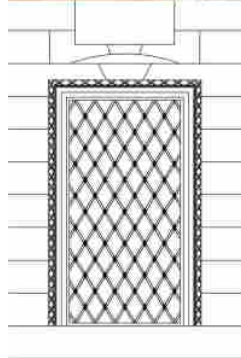


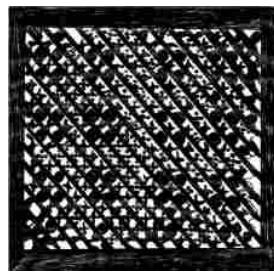
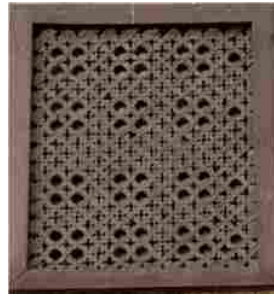
Fig. 9. The window above the foundation inscription



Pl. 8. The Northern corner of Hilal Bey Mosque (the minaret)



Pl. 6 & Fig. 10. The lower window of the NW façade



Pl. 7. & Fig. 11. The rectangular window with its lathe wood in the NW facade

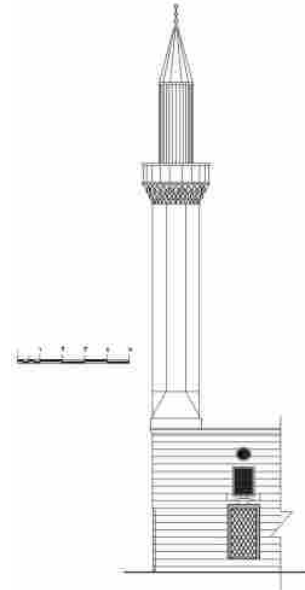


Fig. 12 :The minaret of Hilal Bey Mosque

THE MINARET

The upper part of the minaret collapsed result of the earthquake that struck Egypt in 1992; and only its lower part exists. The minaret occupies the northern corner of the mosque; which locates the intersection of the northwest and northeast façades. As the minaret appears in an old photo; it was Ottoman style. Its stone base is has a rectangular plan: 2meters by 1.26meters, and raises 6.47meters in height. The architect was keen on cutting the edges of the minaret’s base, specifically at the intersection corners of its walls. It is crowned with a linear camel neck arch engraved in stone.⁴³ The architect was keen on cutting the edges⁴⁴ of the minaret’s base in order to respect the streets’ plan ‘*khaṭ tanzīm alṭariq*’. The minaret’s

⁴² It is an ornament that consists of a blowing curve above a hollowing out one. Amīn et al., *Fan albina*, p.154.

⁴³ It is a developed form of arches that was taken from two Gothic arches in the Ottoman architecture, namely gooseneck and squinch arches. There is a top like the gooseneck arch that is based on the buttresses of two other arches. The camel neck arch differs from the gooseneck one because it is circular, not lancet. This type of arches is ornamental, rather than being architectural as it does not help carry the ceiling or other items of the building. Alkasbany, *Taṭaww nuzum alī ‘mara*, pp.273:4.; Nigm, *Alṭoroz alm ‘maria walfania*, pp.459:460.

⁴⁴ Cutting the edges of the minaret’s bases to respect the traffic was carried out because of the narrow main and subsidiary roads, as well as many twinings in lanes and routes. It also might help protect the building because of the passing of carriages. Additionally, it gave more space to the road, especially in narrow lanes and routes. One of the oldest forms of this treatment in the Islamic buildings dated back to the Aḥmad ibn Tulon mosque that was established in the Tulonian age. The builder cut the edges of stone props from inside to get rid of the sharp edges of the building in order to provide more width and space, to help the worshiper see the imam in the mihrab and the orator on the pulpit from any position, to decrease the size of the prop itself and to provide the largest amount of light in the kiblāh. Alkihlawy, *Athar mora ‘at itjah alqiblah wa khaṭ tanzīm alṭariq*, pp.134:5.

base is topped with the same moulding as the main façade. The minaret's door almost centers its southwestern wall; it has a rectangular opening 2.16 meters in length and 0.78 meter across. Above which, is a small rectangular window 1 meter in height and 0.5 meter across. The door leads to stone stairs that torsade on a cylinder pier and they, in turn, end with a wrecked door at the top of the mosque. Above the minaret's base, there is a transition area; has also a square plan (2.10 meters in height), built of brick, that was covered with a layer of mortar. The top parts of the corners of this transition area form inverted sliding triangles.⁴⁵ The rest of the minaret is wrecked. A 1990s provides the description of the minaret. There was an octagonal shaft above the aforementioned base. Which topped an octagonal *şerfe* rests on stalactites. There were arched openings that ventilate and light the interior of the minaret. Above this shaft another shorter and more slender octagonal storey, then the conical top of the minaret (Figs. 12, 16, Pls. 1, 8).

The Southeastern Façade 'qibla wall'. It measures 19.35meters in length and 6.47meters in height. A part of this façade has been recently covered with mortar. In its mid, there is the projection of the buffet of the *mihrab*.⁴⁶ It is a semicircular and ends with a semicircular small window and at its top there is an oval window covered with modern metal wires. The inner part of the oval window is decorated with a protruded stone band. On each side of the projection, there are two vertical rows of windows that are similar in the architectural and decorative elements. But it is noted that the three windows southern the *mihrab* have been recently plugged up with cement inside and outside. Regarding the lower windows in this façade are plugged up since the construction of the mosque providing a bookstore⁴⁷ '*kutbā'*' instead of the window (Pls. 9, 21). Attached to the southeast façade from the eastern side, there is a recent room for the officials of the Ministry of Antiquities and beside it the burial ground⁴⁸ of Shīkh Khalīl al-hajrasī⁴⁹ (Fig. 16). In addition, the oratory is attached to the southeast façade since the time of construction the mosque. This façade is topped with the protruded stone cornice as the one of northwest façade (Fig. 13, Pl. 9).

The Southwestern Façade. It measures 13.21 meters in length and 6.47meters in height. This façade has been recently covered with mortar. In its mid, there is a rectangular door opening of 2.38 meters in length and 1.30 meters across. It links the mosque with its annexes: the oratory, the lavatory and the latrines. Above the door, there is rectangular window, upon which there is an oval lunette. Only a window was created on the right side of the entrance and above it there is another oval lunette. All the windows and small windows

⁴⁵ The western minaret of Sulṭan an-Nasir Meḥmed - Qalawūn Mosque (735A.H./1334A.D.) in the southwest square of the Saladin Citadel of Cairo contained the first right-angledtriangle of these sliding triangles in the architecture of minarets. Mousa, *Taḡawr alm'zana almişria bimadinat alqahira*, pp. 580&720.

⁴⁶ The architect tended to support the mihrab with an outside projection because of the depth of the mihrab's buffet. Such depth in the mihrab causes an architectural defect in the wall of the kiblah. It was also created in the façade of the kiblah wall in Egypt in the mosque of al-şaleḥ ṭal' bin Ruzīk (555A.H./1160A.D.), the cemetery, and Iwan of al-tha'liba 613A.H./1216 A.D. and the dome of Shajar al-Dur 648A.H./1250A.D.

⁴⁷ Architecturally, the bookstore is a rectangular opening in the wall. It is divided into higher and lower levels using a middle shelf to be ultimately utilized. In the first row (ground), is used to keep books and other items and the middle one is used for the same purpose. This opening is often closed by two wooden decorated shutters. Najib, *Madrasit ala'mir Kabir Qirqmas*, p. 210.

⁴⁸ Establishing a burial ground instead of a mausoleum was introduced for the first time in Egypt in the burial ground attached to the mosque of Prince Manjak Alyoussfi in Alḥataba 750A.H./1349A.D. Ibrahīm, *Ala'thar alislamīh albaqia bi-sharq aldelta*, p.217.

⁴⁹ He was an ascetic and one of the great scholars of Al-Azhar. He was born near the end of the 12th century in 1195H./1781A.D. He was brought up by his uncle Meḥmed al-ḥifnawī al-hajrasī. He was one of the closest students to Shīkh 'bdullah ḥijazī al-sharqawī. At the age of 16, he learned the Holy Qur'an by heart and mastered the modes of recitation and principles of Sharia sciences. His uncle sent him to Shīkh Eldamhohy who taught him and after the death of this sheikh, al-hajrasī became the Shīkh of the Khalūtī order. He died on 10 Rajab 1269H./18 April 1853A.D. Alboghdady, *Hidiat Al'rifin*, Vol.(2), p.391.

of this façade resemble those of the northwest one in the architectural and ornamental contexts. Additionally, the southwest façade is topped with a protruded stone cornice that resembles that of the northwestern façade (Fig. 14, Pl. 10).

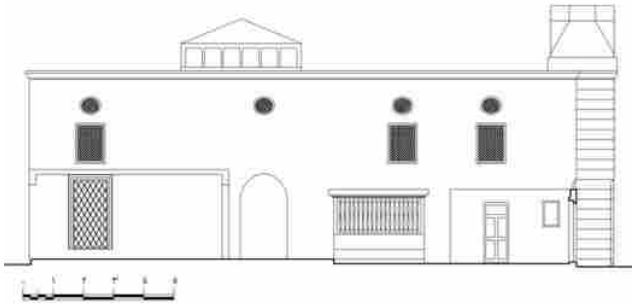


Fig. 13 & Pl. 9. SE façade of Hilal Bey Mosque

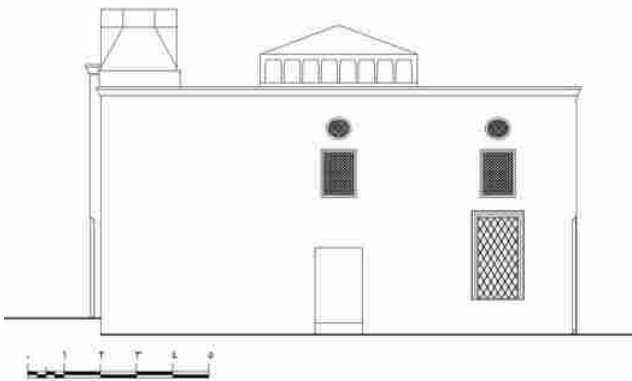


Fig. 14 & Pl. 10. SW façade of Hilal Bey Mosque

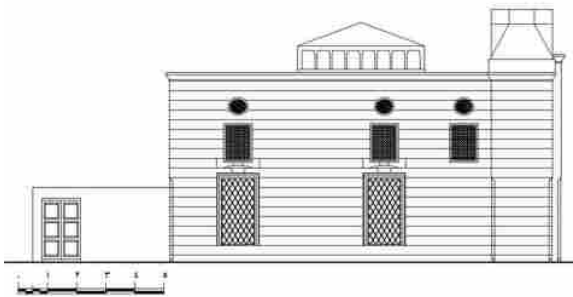


Fig. 15 & Pl. 11. NE façade of Hilal Bey Mosque

The Northeastern Façade. It measures 13.21 meters in length and 6.47 meters in height. It has three vertical rows of windows that each of which comprises three windows, but the middle one next to the minaret encloses two tiers of windows only. All the windows and small windows of the northeast façade resemble those of the northwestern one in the architectural and ornamental contexts, with the same topped stone cornice (Fig. 15, Pl. 11).

THE INTERIOR

Accessing the prayer hall is through the entrance that almost in the mid of the northwestern façade.⁵⁰ It is a form of direct pivot entrances. The prayer hall has a rectangular plan (19.35 meters by 13.21 meters); divided into three aisles paralleling the qibla wall. The

⁵⁰ Abdulsattar Maḥmūd recorded a summarized architectural description of Hilal Bik Mosque. Alnīry, *dīrasa tariykhīy atharyh limuhafāzat aldaqhilyah*, pp.274:5.

largest aisle is the middle one (4 meters in width), while the other two aisles are 3.44 meters in width. Two arcades (Figs. 16-17, Pl. 12) dividing the aisle; each arcade consists of four pointed arches, that of two centers⁵¹ with 3.67 meters span, rest on three marble columns (3.37 meters in height) and the side wall on two stone pilasters.⁵² The arcades' columns are different; each one of the first arcade, towards the qibla wall, consists of a square base, decorated with protruded marble frame 'rib', then the column's cylinder shaft that of onyx marble.⁵³ The upper and lower parts of the column are decorated with raised marble ornaments. The capitals are composite style⁵⁴ (Fig. 18, Pls. 13-14). The 2nd arcade columns consist of a bell-shaped base, a cylindrical shaft of onyx marble, and the capital. From the upper and lower parts, the column is encircled with protruded and similar marble decorations. The capitals are Corinthian⁵⁵ (Fig. 18, Pls. 15-16). Above these capitals there are wooden abacus; on which rest the arches of the aisles, reducing the pressure⁵⁶ of the heavy ceiling. There are wooden tie beams⁵⁷ are connecting the arcades' arches with the walls; to ensure equal distribution of loads on walls, and to enforce the arcades, with an additional secondary function, for hanging the means of lighting. The spandrels of each arcade enclose three open circular lunettes whose diameter is (40cm) in order to mitigate the pressure of the ceiling on the arches.

Qibla wall. The southeastern wall 'qibla wall' measures 16.84 meters in length and 6 meters in height. The lower parts of this wall, as well as the all walls of the mosque are coated with yellowish moulded stone building⁵⁸ up to 1.25 meters in height. Beneath this stone lower

⁵¹ The oldest example of such arches is in the Umayyad Mosque, Damascus 88-96H./707-714A.D. in the façade of the transept looking over the courtyard. It was claimed that this type of arches was created in the Pre-Islamic Era in Qasr Ibn Wardan 560-564A.D. in the Levant. However, it was argued that it appeared in the famous Sassanid monument of Khosrow palace in Al-Mada'in. Shaffi, *Al'imara ala'rabia*, p.207.

⁵² It is a projection that is meant to make it larger to increase its robustness, to distribute a larger burden, including arches...etc on the wall, to prevent the wall from being wrecked or to decorate it. Amīn et al., *Fan albina*, p. 36.

⁵³ It is a type of marble of various colors. It is known as fat and meat because of its incitement or it resembles onyx that is used in making beads. Saudy, *Alrukham fi miṣr fi 'sr dawlat almamalīk albahria*, p.20; Ḥasanin, *Ashghal alrukham fi al'mara aldinia fi Madinat alqahira*, p.28.

⁵⁴ The Roman architecture utilized the styles of the Greek columns (the Tuscan, Dorique and ionic) and two other orders were added that were originally inspired by the previous three ones; the composite was one of them. It was called the composite because of its design that integrated the Corinthian and ionic. While it adopted the acanthus leaves from the Corinthian order in the lower part of the capital, it adopted the spiral scrolls in the upper part. Almasry, *Tarikh Alfān*, p.189.; Bishay, Ibrahim and Abdulmigīd, *Tarikh althakrafa*, pp.304-305.

⁵⁵ The Roman architecture utilized the styles of the Greek columns (the Tuscan, Dorique and ionic) and two other orders were added that were originally inspired by the previous three ones; the Corinthian was one of them and was introduced by Callimachus. The name "Corinthian" is derived from the ancient Greek city of Corinth. This order resembled the ionic one, but it exceeded the ionic in being more beautiful and the most widely used in the Roman buildings because the Roman people were lovers of greatness and greatness and splendor. Qadous, *Tarikh 'am lfunon*, pp.121-122; Almasry, *Tarikh Alfān*, p.188.

⁵⁶ The so-called wooden cushions or tympanums architectural style was transferred from the Byzantine architecture to the Islamic one. Its oldest example is in the Mosque of Amr ibn al-As, Fustat (421A.H./642A.D.). Shaffi, *Al'imara ala'rabia*, pp.148-9; Nazīf, *dirasat fi al'imara alislamīh*, p.58; Rizq, *Muajam Mustalahat Al'imara wa Alfonon alislamīh*, p.191.

⁵⁷ They were widely used in the patand of the mosques' arcades in the 19th century because of being affected by the Byzantine architecture. They were introduced for the first time in the Islamic architecture in Qubbat al-Sakrah. In Egypt, they were introduced in the Mosque of al-ḥakim (380-403A.H./990-1013A.D.). Marzouq, *Masajid alqahira*, p.75.

⁵⁸ These stones were moulded in a good way forming flat and regular surfaces. The surfaces are often polished and the filings are always good and less thicker than the other parts of the buildings. The walls in which the stones are used, they are built inside and outside from moulded stones. They are used in the façades of some buildings that are known as the buildings of harmonized stones and of different sizes. Amīn et al., *Fan albina*, Vol.(1), pp.99-111.

parts, there is a protruded course called ‘*qasas*’⁵⁹ (Pl. 12) and topped with protruded stone frames. From the bottom-up, they are a concave of quarter of a circle form, a convex of a quarter of a circle⁶⁰ form also, and a rib, respectively. The upper part of this wall and the other internal walls of the prayer hall are whitewashed yellow till the ceiling with height 4.76 meters. Flank *the mihrab* a recess on each side raises 60cm in height above the ground level. The recess directly eastern the *mihrab* replaced the suggested window, and then plugged up. It is 1.19meters in height, 77cm across and 57cm in depth. Additionally, the windows in both recesses are void of decorations. The other two lateral recesses flanking the *mihrab* raise 60cm above the ground level, with dimensions 5.11meters in height, 1.13meters across, and 57cm in depth. Each one of latter recesses contains three windows: the lower window has two modern wooden shutters, while the other windows described above in the southeastern façade (Fig. 19, Pl. 17).

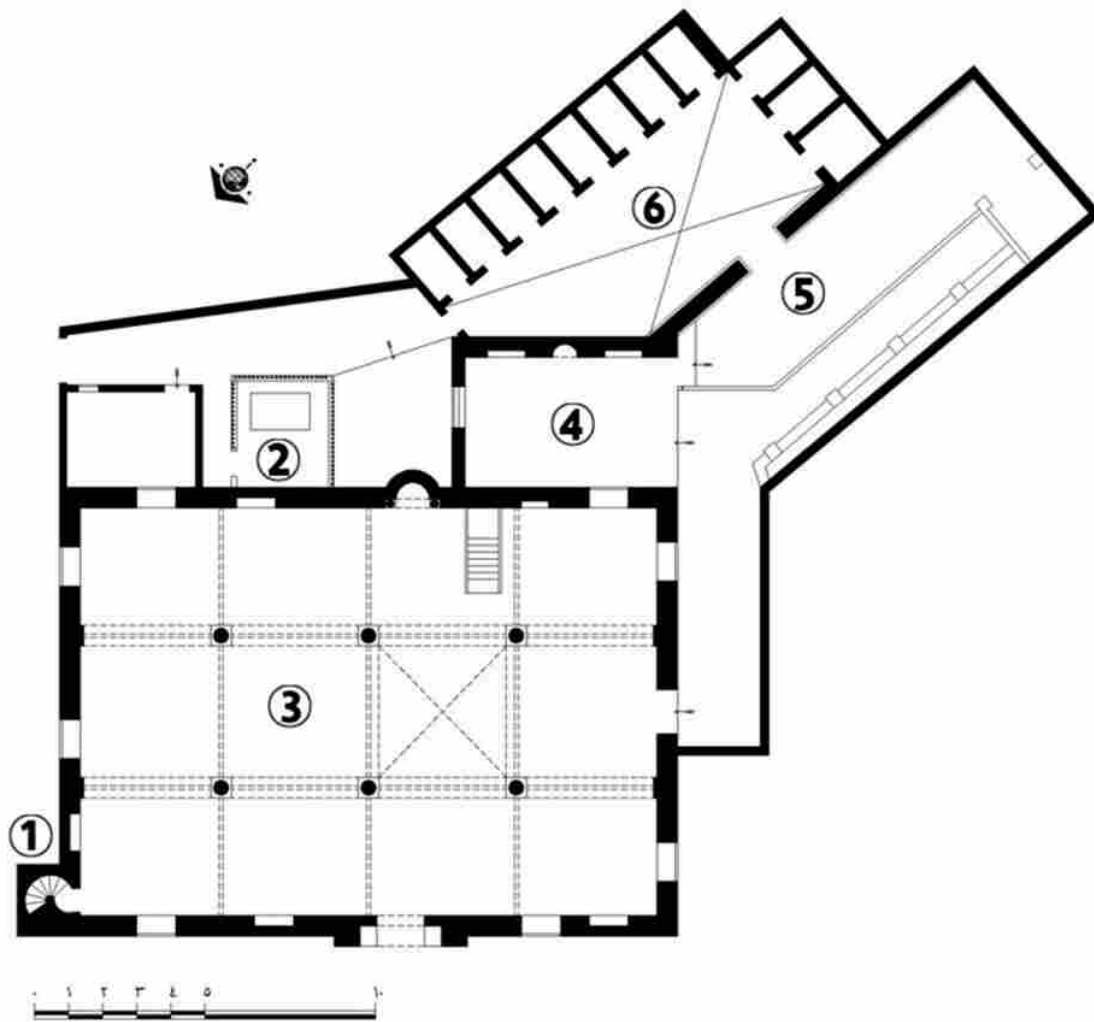


Fig. 16. A plan of Hilal Bey Mosque

⁵⁹ It is the raised part of any bond above the base of the building. It is about a quarter of a brick. The raised bonds are created to increase the horizontal area and the surface of the lower base in order to distribute the pressure on a larger surface. Additionally, they are created to enlarge the thickness of the wall to hold the different parts of the ceiling and to have an architectural shape of projecting brackets in different areas. Amīn et al., *Fan albina*, Vol.(1), pp. 65-66.

⁶⁰ It is a quarter of a circle. Amīn et al., *Fan albina*, Vol.(1), p.152



Pl. 12. The interior of Hilal Bey Mosque



Pl. 13 & 14. A column of the 1st arcade next to the qibla wall & its capital



Pl. 15 & 16. A column of the mid arcade & its capital



Pl. 17. The qibla wall of Hilal Bey Mosque

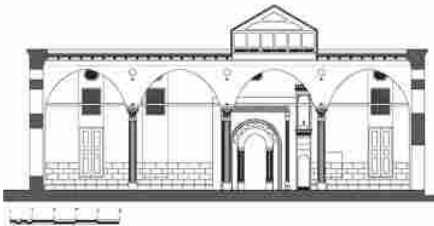


Fig. 17. An interior section of Hilal Bey Mosque towards the qibla wall

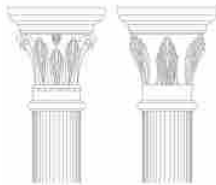


Fig. 18. Capitals of columns

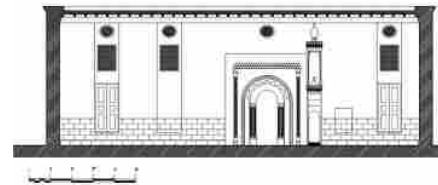


Fig. 19. The qibla wall of Hilal Bey Mosque

The *Mihrab*. The *mihrab* is located in the southern part of the qibla wall rather than the mid. The *mihrab* niche is placed within a large rectangular stone composition 4.28 meters in height and 3.80 meters in width. It protrudes about 10cm. In its upper part, there are two semi-protruded columns known as the lobe; each one consists of a base, shaft and capital. Their decorations are engraved in a high relief pattern. The base consists of much stone licentiousness, including the rib, semi-cane ornament, right concave quarter of oval (down-up), respectively. It is decorated with equilateral triangles that are down and up interchangeably. Then, there is another stone licentiousness, known as quarter⁶¹ over bulging and it is decorated with zigzag pendentives⁶², followed by a stone licentiousness, known as

⁶¹ It is a curve that equals a quarter of an ellipse. Amīn et al., *Fan albina*, Vol.(1), p.152.

⁶² It is known as zigzag and pendentive. It takes the form of lines with acute angles like the blade of a saw. It was originally used in the Greek, Roman, Sassanid, Byzantine and ancient Egyptian arts. In Egypt, it was

inverted wave decorated with acanthus leaves⁶³ in an inverted way. After that, there is a stone licentiousness, known as semi-cane ornament. The body of each column is decorated with two parallel bands moulded with semi-circular cloves in an embossing pattern, enclosing a band of high relief pyramid forms. The capital of each column followed the Corinthian style and it is based on some stone licentiousness that are (down-up) the rib, semi-cane ornament and rib, respectively. Above the capital, there are also some stone licentiousness, as follows: the rib, concave quarter of a circle, rib, concave quarter of a circle and convex quarter of a circle. The two columns are separated by two moulding bands, enclosing a rectangular area void of decoration. The lower band consists of many ribbons; two parallel moulding ribbons decorated with semi-circular cloves and enclosing a ribbon of pyramid figures in an embossing pattern, while the upper one shows two stone-licentiousness: namely a concave quarter of a circle and convex quarter of a circle. In the middle of the large rectangular stone composition, there is a rectangular recess of 3 meters in height, 1.66 meters across and 5cm in depth that is arched with a blind arcade⁶⁴ of seven camel-neck arches. Beneath the end of the two arches at the end of the 8th arcade, there are 8 oval figures on each side that are implemented in a high relief on the stone. Furthermore, the rectangular recess is enclosed in 3 moulding bands that extended to the lower part of the recess in a high relief pattern on stone. Inside-out, they are a semi-cane ornament, convex quarter of a circle and torsades that consists of two broken intersected lines, enclosing rhombuses. The spandrels of the rectangular recess and the surrounding area are decorated with recurrent geometric figures consisting of a hexagon that comprises 3 rhombuses engraved in a high relief pattern on stone. In this *şadr*, is the *mihrab* niche; with a semi-circular plan crowned with a semi-circular arch. The *mihrab* niche is 2.44 meters in height, 1 meter across and 68cm in depth. Its arch rests on two columns; each one consists of a stone base, cylinder shaft of onyx marble and its enclosed, in the upper and lower parts, with brass collar that is decorated with copper licentiousness, namely the semi-cane ornament in

introduced in the inner part of Bab an-naşr (480H/1092A.D.), then in Borj Elzofr in Cairo Citadel (572H./1176A.D.). In the Mamluk era, this ornament was used in the arch of the northeastern entrance of Al Zahir Baibars Al Bunduqdari Mosque (667a.H./1269A.D.). Shaffī, *Al'imara ala'rabia*, p. 95; Ḥasan, *alḥiliat alzokhrofia 'la 'ma'ir alqahira*, pp.110-111.

⁶³ Acanthus leaf is large and pointed and it grows in stone. It was known in Egypt a long time ago. In the 2nd half of the 5th century, Lotus was modified with this plant which led to have acanthus as an independent ornamental unit. It is thought that, artists and decorators did not initially copy the plant as is in nature, but they tried palmettes that were similar to acanthus. In addition, acanthus was the most widely used floral ornaments in the Coptic art that also moved to the Islamic one. It was also found in the Hellenistic period. Bishay, Ibrahim and Abdulmigīd, *Tarikh althakhrifa*, pp.251-270; Alshal, *Muṣṭalaḥat fi alfan waltarbya alfan*, p.111; Yusif, *Dirasa atharia lil-anasir alzokhrufia wa-lasalib asinsi*, p.142; Alshahawy, *Ba'd Mazahir Alta'thirat Albizantia*, pp.80-81; Yusif, *ashgh'l alurkham fi q'sr alamir Mehmed 'ati*, pp.362-364.

⁶⁴ It is an element that was originally Sassanid. It was introduced to the Umayyad architecture in the desert of the Levant and was also used in the decoration of the early Islamic metal antiques, e.g. a bronze pot that dated back to the Umayyad caliph Marwan bin Mehmed (2H./8A.D. century). It was also used in the decoration of wooden artifacts in Egypt in the 3rd and 4th Hijri (9-10A.D.) centuries. It continued into the Fatimid period, for example in the inner part of the Caliph al-ḥafiz's dome in the northern end of the transept of Al-Azhar mosque 544a.H. (1149A.D.). After that, it moved to the Mamluk era when it was used in the decoration of the apron and the mihrab of the shrine of Sultan Qalawūn 683-684a.H. (1284-1285A.D.). This mihrab was the first in which this element was used in its decoration in Egypt. Then, it continued to be used in the Ottoman period. Omara, *Al'anasir alzokhrofia*, p.35.

addition to a Tuscan or a Doric capital.⁶⁵ Above the *mihrab*, there is an oval small window covered with modern metal wires (Fig. 20, Pl. 18).

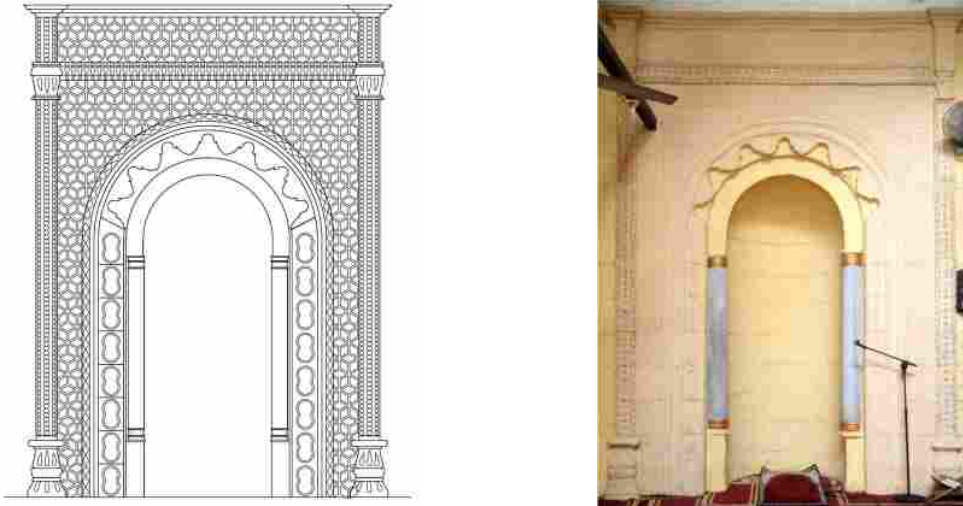


Fig. 20 & Pl. 18. The mihrab of Hilal Bey Mosque

The *Minbar*.⁶⁶ It is placed direct southern the *mihrab*. It is a wooden made of Oak and Beech.⁶⁷ It has a wooden rectangular base adorned with geometric figures engraved in a high relief pattern and the polygon interchangeably, enclosing quadrilateral geometric forms. The *minbar* consists of a frontal panel, a *risha*, a seat, two shutters and the *djawsaq* (Fig. 21).

The frontal panel has the *minbar*'s entrance; it is an arched opening crowned with a keel arch, and each spandrel is adorned with a crescent containing a polygon.⁶⁸ It is closed with four shutters with similar decorations. Each shutter is divided into four decorative areas: 1) the lower area contains rectangular pieces void of decorations, 2) the second area is decorated with turning and hexagon *mofawaq* surrounded by angels, 3) The third area is the

⁶⁵ The Tuscan order was named after Tuscany, Italy, but historians claimed that it was transferred from Etruria, Anatolia. The authors of the Renaissance period known it from the Roman building because it was preferred in the construction of many palaces for its simplicity and elegance. For example, it was employed in the northern entrances of Palace of Ismael Sedeek 1286A.H. (1869A.D.) in Lazoghly square; before each entrance, there are two columns of the Tuscan order. Almasry, *Tarikh Alfay*, p.186; Nigm, *Altoroz alm'maria walfania*, pp.320:321.

⁶⁶ Taman elaborated the description of the pulpit of Hilal Bey Mosque. Taman, *Almanabir Albaqia fi Shark Aldelta*, pp.36:38.

⁶⁷ Beech is a type of wood that is imported by Egypt. It often grows in the northern temperate region of Europe, Asia and North America, such as Armenia and Anatolia. It largely grows in the European mountains, e.g. the Alps. It is a flexible wood and has several forms, such as the red and white that are both used in the various woodworks. Kishk, *Ashghal alkhashab fi al'amair al'othmania*, p.79.

⁶⁸ The crescent is a lunar phase that refers to the moon. It has a religious significance for the Muslims. Therefore, it is noted that it is mentioned in the Holy Qur'an. For example, (they ask you, [O Meħmed], about the new moons. Say, "They are measurements of time for the people and for ħajj" (1:189). For the Muslims, it refers to the beginning of the Hijri month and indicates the times of prayers and ħajj. The polygonal knotworks were used to refer to the goddess Nut in the ancient Egyptian religion, while they represent the perfect man in the Greek philosophy. The oldest Islamic building that was decorated with these two elements was Rock Dome in which the inner part of the middle octagon arcade was decorated with a crescent enclosing a hexagonal star and surrounded by eight polygonal knotworks. Another scene was observed in a corner of the Kaaba that contained a star. In Egypt, their oldest example was found in the remaining buildings of the apex of the mihrab's arch in Alhakem Mosque (380-403A.H./990-1013A.D.). Zaki, *Al'alam almişry*, p.11; Nigm, *dirasa ħawl almadlalat alfalakia waldinia*, pp.88-89; Nigm, *Shi'ar alothmanin 'la ala'ma'ir walfunon*, p.179; Creswell, *The Muslim Architecture of Egypt*, p.231; Yaşin, *Alramzyh aldinyh fi alzkhrafh alislamih*, p.60.

largest takes the form of a rectangle and contains polygons of 8 *kendas*⁶⁹ and the polygons are separated by pentagrams, as well as quadrilateral and pentagonal geometric figures implemented in interlacing form, 4) and the upper ‘fourth’ area is decorated with a turning of a complete cross. Above the arch of the frontal panel, there is a moulding band similar to that of the base of the *minbar*. It is decorated with polygons in the upper and lower parts, as well as hexagonal and quadrilateral geometric figures separated by hexagonal star. Above this band, there is a cornice of two rows of stalactites of parabolic arches with pendants, upon which there is a row of windows in the form of pentagonal leaves on a base of arcade with keel arches. The *djawsaq* is crowned with a semi-circular hood voided of decorations. Above the dome, there is the figure of a bird. Both side of the *minbar*’s frontal door are similar in decoration; each section is divided into five decorative areas, among which the largest is the middle one, which is a rectangular area decorated with a 10-*kendas* polygon.⁷⁰ The polygon is enclosed with pentagonal stars and quadrilateral figures. In the upper and lower parts of the aforementioned polygon there are two inversed halves of polygon, each half has 6 *kendas*, and enclosed with four pentagonal stars that separate it from the full polygon. In addition, the upper and lower halves of the polygon, there is a half polygon of 5 *kendas*. While the 1st and 5th areas of both sides are decorated in turning figure of small balusters, the 2nd and 4th areas are square and are decorated with the turning of hexagonal *almofawaq*⁷¹ (Fig.no.22).



Pl. 19. The frontal door of the *minbar*, Hilal Bey Mosque



Pl. 20. The risha, rawda door, seat and *djawsaq* of the *minbar*, Hilal Bey Mosque

The *minbar* sides ‘risha’. Both are right angled-triangle form, with interlaced geometric decorations. Each side ‘risha’ comprised 3 polygons of 16 *kendas* in the center, surrounded by pentagonal star patterns interchanged with the so-called house-crow. This composition is encircled by 9 halves of polygons; each one among which has 9 *kendas*. Moreover, each side ‘risha’ has a quarter of polygon of 3 *kendas*, and the complete and the halves polygons are separated by 10 ornamental units that take the form of octagons surrounded by 4 hexagons and separated by 4 quadrilateral stars. In the balustrade of the *minbar*, there are various types of balustrade. It is divided into 13 ornamental panels and 6 triangular panels of the sides are

⁶⁹ The oldest wooden example that was decorated with this element is the risha of the Al-aqsa Mosque’s minbar (564A.H./1169A.D.) Kishk, *Ashghal alkhashab fi al’amair al’othmania*, p.139.

⁷⁰ Its oldest example is the frontal panel of Alsaleh Mosque 555A.H./1160 A.D. Kishk, *Ashghal alkhashab fi al’amair al’othmania*, p.141.

⁷¹ It is a hexagonal turning form with tripartite units connected with small turning units. Kishk, *Ashghal alkhashab fi al’amair al’othmania*, p.415.

decorated with *alkharṭ almaymouny almoraba'* and *altemsaḥ alqae'ma*. This is formed by the turning of octagonal patterns with oval handles. The 4th, 3rd, 7th and 11th panels are filled with hexagon *almofawaq* turning and surrounded with triangles, while the 5th and 9th ones are filled with complete crosswise turning (Fig. 23).

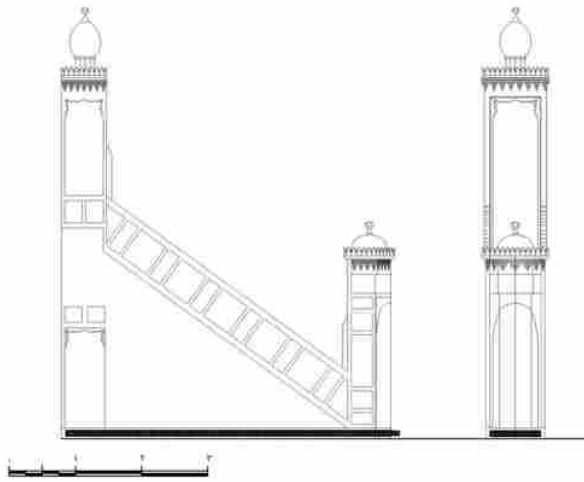


Fig. 21. The *minbar* of Hilal Bey Mosque

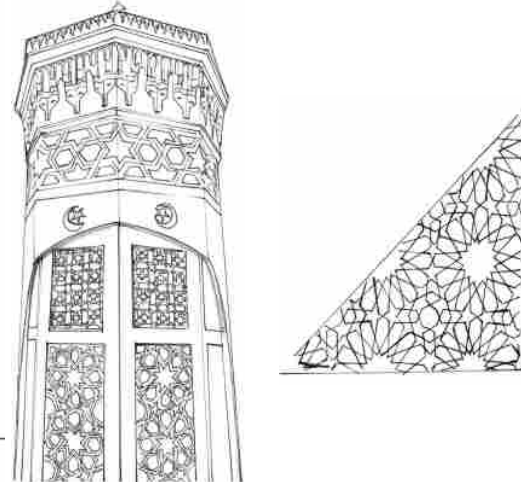


Fig.22 &23. The frontal door of the *minbar* & the *risha*

The shutters. They placed at the end of the sides of the *minber 'risha'* and each of them is surrounded by serrated decorations and semi-circular figures implemented in cutting and piercing. They are closed by two wooden shutters void of decorations and above them, there are two panels filled with octagonal turning with oval handles. Above the shutters from the two sides, there is a rectangular area of a full polygon of 10 *kendas* surrounded with a quarter of polygon of 3 *kendas* in the four corners. They are implemented in the additive panels practice.

Seat. It is a square wooden sitting accessed by 8 steps void of decoration. It has two sides that each of which has 2 square panels of the fine crosswise turning.

The *djawsaq*. It consists of 4 cross-sectional pillars, enclosing 3 openings that are decorated with chevron decorations from the upper and lower parts similar two those around the shutters. The 4th side is the back of the seat that takes the form of a horse-shoe arch. The *djawsaq* is crowned with a cornice of two rows of stalactites of parabolic arches with pendants and each row is crowned with a row of small windows, taking the form of a triple leaf. Above the *djawsaq*, there is an onion-form dome above which there is a pillar of 3 spherical bulges with a bird figure at the top.

The northwestern wall. In its mid is the entrance of the prayer hall. The entrance dimensions are 5.71 meters in height, 1.42 meters across and 50cm in depth. Two recesses flank the entrance, each one raises 60cm from the ground level, and it is 5.11 meters in height, 1.13 meters across and 57cm in depth. Moreover, it contains 3 windows, except for the one northern the entrance that contains only 2 windows. The lower window in both recesses is closed with modern wooden shutters, but the other windows as were described above in the northwest facade (Fig. 24, Pl. 21).

The southwestern wall. In the middle of the southwest side, the entrance of the mosque exists. Its entrance dimensions are 5.71 meters in height, 1.30 meters across and 57cm in depth. Flanks the entrance a recess on each side has the same above measurements of the

recesses of the NW wall. Additionally, it contains 3 windows. The lower window in every recess is closed with two modern wooden shutters, while the other windows as those described in the NW façade (Fig. 25, Pl. 22).

The northeastern wall. It contains 3 recesses that raise 60cm from the ground level. Each one is 5.11 meters in height, 1.13 meters across and 57cm in depth, and contains 3 windows. The lower window in all recesses is internally closed with modern wooden shutters, while the other windows as were described in the northeast façade (Fig. 26, Pl. 23).

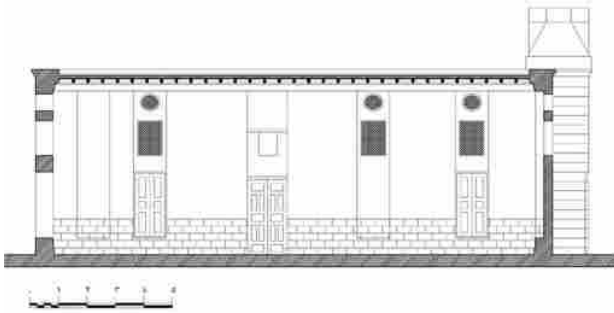


Fig. 24 & Pl. 21. The NW wall of the prayer hall of Hilal Bey Mosque

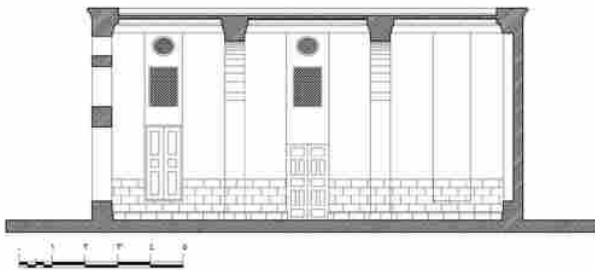


Fig. 25 & Pl. 22. The SW wall of the prayer hall of Hilal Bey Mosque

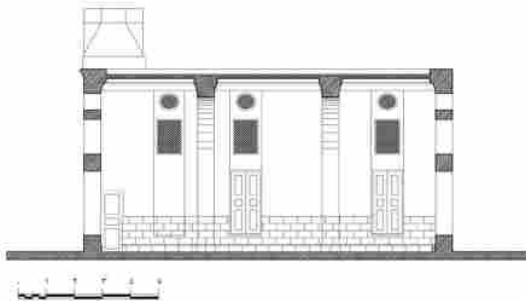


Fig. 26 & Pl. 23. The NE wall of the prayer hall of Hilal Bey Mosque

Floors and Ceilings. The floor is covered with modern ceramic tiles, while the ceiling is made of wood on wooden braces⁷² (pl. 24). The two ends of each brace are decorated with a rectangle wooden panel executed in piercing; ending with an arrow's head form beneath two reverse crescents separated by a rhombus. Above these two crescents, there are two

⁷² They are the wooden blocks that cover the ceiling. The runner is from (4.60m) to (13.80m) long. It is placed longitudinally and horizontally and the wooden panels are put above it. In addition, it is decorated with floral and geometric ornaments and painted with various colors and it is sometimes polished with gold and lazord. It often consists of many parts, including the naal that takes a (nearly) square section and the middle part that is named as seaha and it is often circular and rectangular section. Between every two runners, there are square and rectangular socles. Abdulḥafiz, *Almoṣṭalaḥat alm'maria*, p. 30.

rhombuses, followed by a crescent, then a rhombus, respectively, then atop a wooden upright (Fig. 27, Pl. 25). There is a rectangular wooden lantern⁷³ covers the mid of the middle aisle of the prayer hall. It is measures 4 meters in length, 3.10 meters in width and 1 meter in height; atop which is a pyramidal wooden ceiling of 85cm in height. In each one of both longitudinal sides of the lantern open eight similar windows closed with glass; each one is surrounded by a wooden frame that takes the form of a segmental arch. However, in each one of both short sides, open six similar windows (65cm in height, 41cm across), closed by glass, within a wooden frame crowned with a depressed arch. Below each side of the lantern, there are three rectangular areas that are decorated with embossing wood frets. Additionally, each side of the rectangular ceiling is decorated with geometric patterns of wooden pieces ‘*sadaieb*’.⁷⁴ This shape consists of two parts form together an equilateral triangle (Fig. 28, Pl. 26). The first part is a rectangular figure; its short sides with cut-off corners, and the angles of the rectangle formed as arrows’ heads. While the second ‘upper’ part is an equilateral triangle; which its base resembles an arrows’ heads as well.



Pl. 24. The ceiling wooden braces, Hilal Mosque



Fig. 27 & Pl. 25. Detail of the decorations of the wooden braces of the ceiling of Hilal Bey Mosque

Pl. 26. The lantern of Hilal Bey Mosque’s ceiling

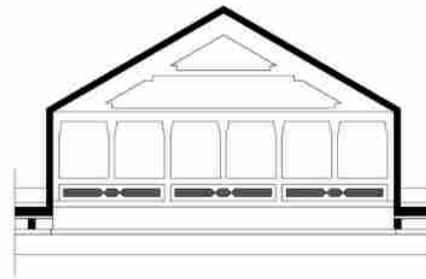
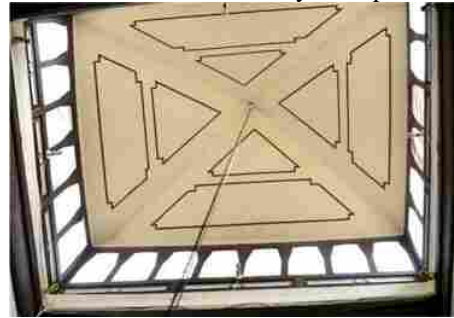


Fig. 28 & Pl. 26. The lantern of the ceiling of Hilal Bey Mosque: A photo & a section

The Oratory ‘*Almusalla*’.⁷⁵ It is next to the southeastern façade of the mosque. It is an *iwan* with a rectangular plan of 6.20 meters in length, 3.79 meters across and 3.40 meters in height. It opens completely by its southwestern façade overlooking the ablution fountain. In the mid of the southeast wall of the *musalla* the *mihrab* is placed; a semi-circular niche of 81cm across, 35cm in depth and 2.35 meters in height. Its arched hood is adorned with ray

⁷³ Linguistically, it means the sound of weapon, paper..etc. Architecturally, it is the skylight raised from the ceiling of the room, corridor or stairs. It often takes the form of a wooden polygon or octagon with wooden veils and glass windows. Abdulḥafiz, *Almoṣṭalahat alm ‘maria*, p. 116.

⁷⁴ They represent an industrial method in decoration with sadaieb and raised frames that are fixed on the wooden ceiling. They are either singular or dual. Kishk, *Ashghal alkhashab fi al’amair al’othmania*, p. 412.

⁷⁵ Attaching musallas to the buildings was familiar in Egypt, e.g. to the cemetery of Emetsh Elbejashy in Bab Elwazir 785A.H./1383 A.D. Additionally, they were attached to some Ottoman public drinkings in Cairo, e.g. to the public drinking of Muṣṭafa Sinan in Souq al-silah (1040A.H./1630.D.). Najīb, *Madrasit Khayrbak bi-bab Elwazir*, p.35; Alḥussiny, *Al’asbila alothmania albaqia bimadinat alqahira*, 1982, p.408.

lines⁷⁶ in intaglio pattern on plaster. The *mihrab* has been recently painted with oil. There is a rectangular recess flanks the *mihrab* on each side, used as a bookstore. It raises 60cm from the ground level, and its dimensions are 2.26 meters in height, 1 meter across and 30cm in depth. Furthermore, in the northeastern wall of the *musalla*, there is a rectangular recess with the same aforementioned dimensions; in which is a rectangular window of 1.69 meters in height and 1 meter across. The floor is covered with modern ceramic tiles, while the ceiling is covered with wood on wooden braces (Figs. 16, 29, Pls. 27, 28).



Pl. 27. The *musalla* of Hilal Bey Mosque

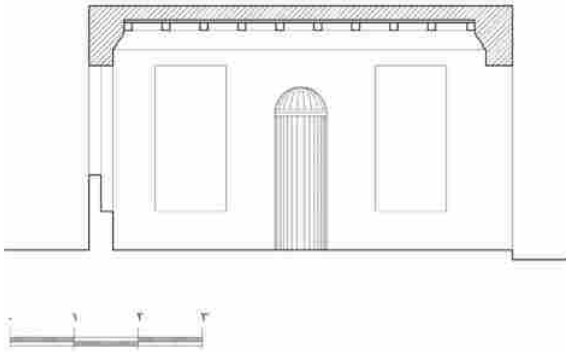


Fig. 29 & Pl. 28. The SE wall of the *musalla* of Hilal Bey Mosque

The ablution fountain and latrines. The ablution fountain or lavatory occupies the northern part and the latrines in the southern one. The south-east wall (measures 6.78 meters length and 2 meters in height) of the lavatory separates the lavatory and the latrines. A rectangular opening door (2 meters in length and 1.26 meters across) centers the aforementioned wall. In front of the lavatory is an open rectangular corridor (11.37 meters in length and 3 meters in width). It has a rectangular plan of (12.64 meters in length and 2.41 meters in width) and its wall measure 2 meters in height. In front of the northwestern wall, there is a rectangular brick basin measures 12.64 meters in length, 50cm in width and 30cm in depth. Above this basin, small brick seats were built, facing the water taps. The lavatory is covered with a wooden ceiling based on 6 wooden braces, formed of *sanboksat*⁷⁷ (Figs. 16, 30).

⁷⁶ Ray lines were utilized in the mihrab of Sayyidah Ruqayyah Mosque (527A.H./1133A.D.). Rays emanate from a small window in the middle that contains Kufic calligraphy of the word of "Allah" and ends with 3 rows of salacites that are gradually wider (in-out). This is also the case of the decorations in the mihrab of the southwest side in the lower part of this mosque. Hasan, *Almaharib fi miṣr fi ala'ṣr alothmany wa a'ṣr Mehmed 'alī*, p.203.

⁷⁷ It is known as the bearing knee and angle. It is either inscriptions or piercings in the form of triangles that are placed above the entrance of the building, doors and windows. It consists of a flat part and an eaves. Fahmy, Fahmy, *almaṭa' alquomria fi Alabnya Alaskria*, 1868, pp32-33; I'ssa, *Mostalaḥat alfan alislami*, p.31.

The latrines are fronted by an open rectangular corridor measuring 10.80 meters in length and 4.36 meters in width. There are 11 latrines in the mosque taking the 'L' form. Its southeastern side comprises 8 latrines; each one has a rectangular plan measures 1.83 meters in length, 1.14 meters in width and 3 meters in height, with a rectangular opening door (2 meters in length and 68cm across) closed by a wooden shutter. Above the door, there is a rectangular window (1.14 meters in height and 50cm across). The latrines' southwestern side comprises 3 restrooms as the above-mentioned ones (Figs. 16, 5) except of their width which is 1.49 meters.



Pl.no.29: The latrines of Hilal Bey Mosque

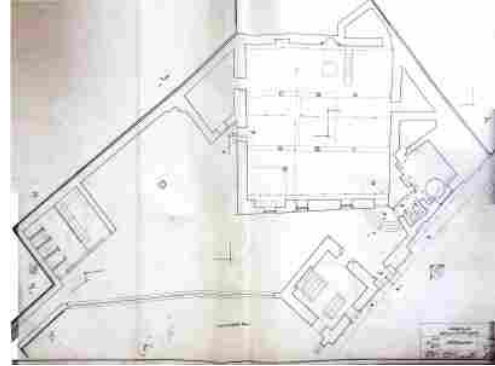


Fig.no.31: A projection of Hasan Paşa Tahir Mosque (Islamic and Coptic Monuments Record Center- Ministry of Antiquities)

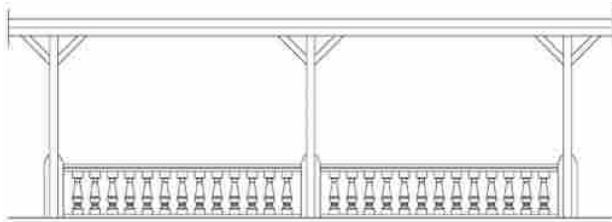


Fig. 30 & Pl. 30. The lavatory of Hilal Bey Mosque

ANALYSIS

Plan. Hilal Bey Mosque follows the plan that so-called the aisles without a courtyard; a local Egyptian style⁷⁸ that dominated, especially outside the Capital, during the Ottoman era onwards till the end of the 13th A.H./19th A.D. century. It consists of a rectangular area divided into aisles by a number of arcades and they differed from one mosque to another. These arcades comprise rows of columns topped by arches parallel to the *qibla* wall and topped by the ceiling. There were various examples for this plan in Cairo in the 19th century, among which are 'bī Dar' Mosque of Bab Alkhalq (1217-1218H./1801-1802A.D.), Hassan Paşa Tahir Mosque in Birkat al-fil St. (1224 A.H./1810A.D.) (Fig.no.31) and Sulīyman Paşa al-faransawī Mosque⁷⁹ Kūrnīsh Al-nīl St. (1276 A.H./1859A.D.). It was also known in the Egyptian Delta in the 19th century, including al 'Abassī Mosque⁸⁰ at Rosetta (1st half of the

⁷⁸ The Egyptian (local) style: Hilal Bik Mosque follows the Egyptian local style that takes many forms. For example, porticos without court planning that comprises a rectangular space divided into three courts with three arcades parallel to the *qibla* wall. This form was introduced in Egypt in the era of 'umar bin al-khaṭṭab, e.g. in 'mr bin al-'as mosque in its early stages (21A.H./641A.D.). Sant Katrīn mosque (429-433A.H./1037-1041A.D. or 495-500A.H./1101-1106A.D.) is its oldest examples in Egypt. Alḥadad, *Bohoth wadīrasat fī al'imara alīslamīh*, pp.272-281,167:188.

⁷⁹ - ḥajaj, *Alḥoraz alm 'mary walfany limasajid alqahira*, p.11,20,113.

⁸⁰ -Darwīsh, *'ma'r Rashīd wama biha min Tuḥaf Khashabia*, p.135.

13th A.H/ 19th A.D), ‘Abduraḥīm Mosque at Tanṭa-Gharbia (1229A.H/ 1813A.D), al-‘Adawī Mosque at Samanoud-Gharbia (1265A.H/ 1848A.D.), ‘Aisha and ḥassiba Mosque⁸¹ at Sarsamūs village- Munūfia (1292 A.H./ 1875 A.D.), Maṣṣūr Qbaudīn Mosque at Abūshusha St. in Alexandria (1252 A.H./ 1836A.D.) and ‘lī al-maṣrī Mosque⁸² at al-bab al-‘kḥdar- in Alexandria (1275 A.H. / 1858A.D.).

Building Materials. Different building materials were used for the construction of Hilal Bey Mosque, such as stone in the walls, bricks in the minaret, marble in the columns and the foundation inscription, as well as wood in the doors, windows, *minbar*, ceiling, lantern and glass in the lantern. Stone was used in building the walls of many mosques in Cairo in the 19th century, as in Raḍwan Bey ‘bi ashawarīb that also known as Mehmed Shirīf Paṣa Mosque⁸³ in al-kirdasī St. (1277A.H/ 1859A.D), while limestone was used in the mosques of the Delta as found in Aḥmad Bey al-shirīf Zawia⁸⁴ (1285A.H/1868A.D) at ‘bīar village, Gharbia. Brick, though its advantage of resisting water and fire, was not widely used in the building of Cariene mosques during the 19th century, especially if compared to stone. Marble columns were widely used in the 19th century mosques of Cairo, including the Imam Shafī‘ī Mosque in Qarafit Imam Shafī‘ī (1303-1309H./ 1885-1890A.D.) and Mehmed ‘lī Paṣa Mosque⁸⁵ at the Citadel (1244-1265A.H./ 1827-1848A.D.). Furthermore, marble was used for the foundation inscriptions in some mosques in Cairo at that time, as the case of al-qabr al- ṭawīl Mosque,⁸⁶ at al-baqarī St. (1285A.H./1867A.D.). Wood was also extensively used in the architecture of the 19th century mosques of Cairo because it is known by its light weight and good heat insulation. Therefore, it was used in manufacturing all doors, windows, *minbars* and ceilings of the mosques of Cairo, as well as those of Upper and Lower Egypt in the 19th century.

Façades. Hilal Bey Mosque has strong and solid façades result of using stone built pilasters that support the walls on the interior. These pilasters have rectangular elevation and increase holding the walls both vertically and horizontally. They resemble those of other mosques in Cairo at the same time, including al-shuhad’ Mosque at An-naṣr St. (1276-1277A.H/ 1859-1860A.D). Additionally, Hilal Bey Mosque has four façades like those of the Mehmed ‘lī Paṣa Mosque. These façades end with protruded stone bands similar to those of the Sulīyman Paṣa al-faransawī Mosque. The angles of the minaret’s base take the form of quarter of a circle engraved in stone. Moreover, the corners of the minaret’s base are cut-off in order to respect the road, as in the 19th century mosque of Sulīman ‘gha al-silḥdar⁸⁷ at al-Muizz St. (1253-1255A.H./ 1836-1838A.D.) in Cairo; especially at the corner of the southwestern façade.

The Entrances. Due to their vital role, the architects paid great attention to the entrances of the mosques that reflected in both its architecture and decoration. Hilal Bey Mosque has two entrances like some mosques of Cairo in the 19th century as in the Mosque of Ḥassan Paṣa Ṭahir⁸⁸ and in the Delta there is the Mosque of al-Qadī Ḥussain⁸⁹ at Samannoud-Gharbia (1285A.H/ 1867A.D). The main entrance is to the left of the northwestern façade. This pattern was found in the 19th century mosques of Cairo as the entrance of the Mosque of

⁸¹ - Albatway, *Al‘ma‘r aldenia alislamia albaqia bil-dilta*, p8,26,70.

⁸² - Diqmaq, *Almasajid albaqia fi aliskandaria*, p110,184.

⁸³ - ḥajaj, *Alṭoraz alm‘mary walfany limasajid alqahira*, p.130.

⁸⁴ - Albatway, *Al‘ma‘r aldenia alislamia albaqia bil-dilta*, pp46:56.

⁸⁵ - ḥajaj, *Alṭoraz alm‘mary walfany limasajid alqahira*, pp224,71:94.

⁸⁶ - ḥajaj, *Alṭoraz alm‘mary walfany limasajid alqahira*, pp179:180.

⁸⁷ - ḥajaj, *Alṭoraz alm‘mary walfany limasajid alqahira*, pp125,71-94,113,44:46

⁸⁸ - ḥajaj, *Alṭoraz alm‘mary walfany limasajid alqahira*, pp20:24.

⁸⁹ - Albatway, *Al‘ma‘r aldenia alislamia albaqia bil-dilta*, pp37:45.

Sulīman ḥ̣gha al-silḥdar⁹⁰, and in the Delta is the Idrīs Mosque⁹¹ at Idrīs St. out of Sulṭan Ḥussīn St. at al-Manṣura (1321A.H/ 1899A.D.). The main entrance of this mosque is a direct pivotal i.e. it is placed on the axis of the *mihrab*. This pattern found in many examples in the 19th century mosques of Cairo as the case of the entrance of al-dawakhlī Mosque⁹² at al-dawakhlī St. (1228A.H/ 1813A.D.) and in the Delta, in al-nūr Mosque⁹³ at alṭawīla village, Daqahlia (1286A.H/ 1868A.D.). The entrance of the northwestern façade of Hilal Bey Mosque is a monumental entrance. It was also found in Cairo in the 19th century, as the northeastern entrance of Imam Shafīṭ Mosque⁹⁴ and in the Delta as the case of the entrance of Idrīs Mosque,⁹⁵ Manṣura. Additionally, this entrance has two seats '*maksalas*' as those of the northeastern entrance of Imam Shafīṭ Mosque in Cairo and the northeastern façade of the Great Mosque⁹⁶ on Mansī St. at Bilbīs-Sharqia (1277 A.H/1860A.D). Furthermore, the portal of the Hilal Bey Mosque is arched with a stalactite triangular arch, and its apex is decorated with ray decorations. The pattern is common in the 19th century mosques of Cairo such as the three entrances of the Shīkh Salīḥ Abū ḥadid Mosque at Shīkh Salīḥ al-ḥanafy St. at Saīda Zaīnab (1279-1280H./ 1862-1863 A.D.). The second entrance of Hilal Bey Mosque opens in the mid of the southwestern façade; it is a lateral direct one i.e. leads to the interior of the prayer hall directly but it is not on the axis of the *mihrab*. The same pattern is found in the Ḥassan Bey Ṭahir Mosque in Cairo and al-Qadī Ḥussain at Samannoud-Delta.

Windows. They were mainly functioned to provide the interior of the prayer hall with light and as possible and when there was a need. Windows, as well as in most mosques in Cairo during the 19th century, are rectangular in the thickness of the walls closed by gratings and/or wooden shutters. The windows of al-ḥmar Mosque, ṭtaba (1264A.H/ 1847A.D) and Mehmed Bey al-madbul Mosque⁹⁷ al-madbulī St. (1292 A.H/ 1874 A.D) present a good example of such windows. The windows of Hilal Bey Mosque that arched with relieving arches, closed by iron gratings are similar to those of the façades of Ṣalīḥ Abū ḥadid Mosque, and they are closed also with two wooden shutters as in most Cairo mosques during the 19th century.

There are different types and forms of windows with, sometimes, different functions. The upper windows of the facades of the mosques are usually smaller than the lower windows as the case of the mosque under discussion; the same pattern is found in the Sulīyman Paṣa al-faransawī Mosque at Kūrniṣh al-nīl St. (1276A.H./ 1859A.D.), Ḥassan Paṣa Ṭahir Mosque. Those of Hilal Bey Mosque are closed by veils of leathe wood like those of the Mosque of ḥ̣dulṣiz al-dirīnī⁹⁸ in Manīl al-Rawḍa Qaṣr al-ṭnī (1291-1292A.H/ 1873-1874A.D.). In addition to the above-mentioned windows, there are small oval windows '*qamarriya*' as those of the upper tiers' windows of Hilal Bey Mosque. Such windows are found in many historic mosques in Cairo during the 19th century as the case of the oval window atop the *mihrab* of Mehmed ḥ̣alī Paṣa Mosque.

Arches. Arches were largely used to crown the openings of the doors and windows, and also to distribute the ceilings loads on the perimeter walls. The first category of arches that atop the openings are basically including flat arch and segmental or depressed arch. Flat arches

⁹⁰ - ḥajaj, *Alṭoraz alm 'mary walfany limasajid alqahira*, p.44.

⁹¹ - Ibrahim, *Ala'thar alislamīh albaqia bi-sharq aldelta*, 1995,pp208:209.

⁹² - ḥajaj, *Alṭoraz alm 'mary walfany limasajid alqahira*, p.31.

⁹³ - Albatway, *Al'ma'r aldenia alislamia albaqia bil-dilta*, pp57;69.

⁹⁴ - ḥajaj, *Alṭoraz alm 'mary walfany limasajid alqahira*, pp217;219

⁹⁵ - Ibrahim, *Ala'thar alislamīh albaqia bi-sharq aldelta*, pp208:209.

⁹⁶ Ibrahim, *Ala'thar alislamīh albaqia bi-sharq aldelta*, pp205:206.

⁹⁷ - ḥajaj, *Alṭoraz alm 'mary walfany limasajid alqahira*, pp57:59,196.

⁹⁸ - ḥajaj, *Alṭoraz alm 'mary walfany limasajid alqahira*, pp113,219,22:26,85.

usually topped of the openings of the doors and windows, atypical pattern in Islamic architecture. Such marble –or stone– flat arch that is atop the main entrance of the northwestern façade of Hilal Bey Mosque is found in many examples in the 19th century mosques of Cairo. These flat arches whether marble or stone, were adorned with writings and geometric decoration. As found in the mosque under discussion, the marble flat arch is used for the foundation inscription. The same pattern is found in the 19th century mosques in Cairo as in the Saīda Nafisa Mosque⁹⁹ (1314A.H./ 1895A.D.). The stone flat arches atop the windows' openings of the façades of Hilal Bey Mosque are decorated with geometric motifs (Pl. 3).

Segmental arch is used in Hilal Bey Mosque for relieving arches above the openings of the doors and windows. The same pattern appears in the 19th century mosques of Cairo as those of the openings of Bishtak Mosque at Pūr Saīd St. (1277-1278A.H/ 1860-1861A.D.). Between the flat arch and the relieving arch is the tympanum '*nafees*'. This composition is common in the the 19th century mosques of Cairo such as the entrance to the *Sebil* of the Mosque of Shīkh Darwish 'shmawī at al-'ataba (1266-1267A.H/ 1849-1850A.D.). On the other hand, the pointed arches were used in the arcades of Hilal Bey Mosque. Pointed arches were also used in temporary Cairo mosques in the same position as in the Mehmed Bey al-madbul Mosque, the Mosque of Shīkh Saliḥ Abū ḥadīd,¹⁰⁰ and al-Tawfiqī Mosque¹⁰¹ at shuhada' al-qital St., Pūr Saīd (1303A.H. / 1885A.D.) as well.

The Minaret. Hilal Bey Mosque has a single minaret following the Ottoman provincial style, located at the northern corner of the northwestern façade. Unfortunately, the upper part of the minaret is missed, and only the base survives. An old photo depicted the minaret and shows that was composed of a square base topped by two calendric stories and ending with a conical top. A similar minaret is found at the Sulīman Paşa al-faransawī Mosque¹⁰² in Cairo, and al-Qaḍī Ḥussain¹⁰³ mosque in the Delta.

Columns. Marble columns were used in the arcades of the prayer hall of Hilal Bey Mosque. Marble columns were used widely for the same purpose in the 19th century mosques of Cairo such as al-dwakhli mosque, Shīkh ṣaliḥ abū ḥadīd mosque's *musalla* and *haram*. The columns of the mosque under discussion have various bases; while those of the 1st arcade next to the *qibla* wall are square like those in Ḥassan Paşa Ṭahir Mosque, those of the middle arcade are bell-like as those of the *musalla* of Shīkh Darwish 'ashmawī at 'shmawī St. al-'ataba (1266-1267A.H/ 1849-1850A.D.). The columns' shafts in Hilal Bey Mosque are cylindrical like those of Imam Shafi'ī Mosque. The columns' capitals in Hilal Bey Mosque are varied; those of the 1st arcade are composite (Ionic and Corinthian styles) like those of Jawhar Al-īnī, assaīd Jawhar Lane (1229A.H./1814A.D.), while the ones of the middle arcade are Corinthian like those in the small prayer of Sulīman 'gha al-silḥdar Mosque.

The *mihrab* columns, of Hilal Bey Mosque, have stone bases and cylindrical shafts. The same pattern is found in the 19th century Cariene mosques as in Al-juharī Mosque at al-Muskī (1262-1265A.H/ 1845-1848A.D.). The columns' capitals are Doric or Tuscan style like those of al-juharī Mosque¹⁰⁴.

The Mihrab. *Mihrabs* were one of the most important architectural elements in mosque; because they define the plan and manage the distribution of its elements. The *mihrab* of the

⁹⁹ ḥajaj, *Alṭoraz alm 'mary walfany limasajid alqahira*, pp20-21,206,234,254,256.

¹⁰⁰ ḥajaj, *Alṭoraz alm 'mary walfany limasajid alqahira*, pp139-140,100,195,162.

¹⁰¹ Ibrahim, *Ala'thar alislamīth albaqia bi-sharq aldelta*, p.188

¹⁰² ḥajaj, *Alṭoraz alm 'mary walfany limasajid alqahira*, pp113-114.

¹⁰³ Albatway, *Al'ma'r aldenia alislamia albaqia bil-dilta*, pp37-45.

¹⁰⁴ ḥajaj, *Alṭoraz alm 'mary walfany limasajid alqahira*, pp31,158,25,100,224,37,51,66-67.

mosque under discussion is placed a bit southern the southeastern wall. The same pattern is found in 19th century mosques of Cairo as the case of the stone *mihrab* in the Mosque of Shīkh Darwish ‘ashmawī and that of al-qabr altawīl Mosque.¹⁰⁵ The *mihrab* of Hilal Bey Mosque is protruded from the southeastern façade as the ones in some mosques in the Delta during the 19th century such as the Mosque of Aḥmad Nafi‘ at Mīt Ghamr-Daqahlia (1270A.H/ 1853A.D.) and al-Tawfīqī Mosque¹⁰⁶ at shuhada’ al-qītal St. al-‘arab district at Pūr Saīd (1303A.H/ 1885A.D). The *mihrab* of the mosque under discussion is of stone like 19th century Cariene ‘arif Paşa Mosque at Tabbana St. (1282A.H/ 1864A.D.). The *mihrab* here is also painted as like other temporary mosques in Cairo as in the Imam Shafi‘ī Mosque. It has also a rectangular arched recess with a blind semi-circular arcade of seven camel-neck arches similar to that of Ḥassan Paşa Ṭahir Mosque. Moreover, the *mihrab*’s niche is a non-decorated semi-circular one like that of Qūsūn Mosque. The *mihrab*’s hood comes within a semicircular arch as the case of the *mihrab* of Mehmed ‘alī Paşa Mosque. The arch of the *mihrab* under discussion is rests on two columns; each one has a rectangular stone base and a doric (Tuscan) capital. The same pattern is found in other mosques such as Al-Juhārī Mosque. Regarding the *mihrab* of the *musalla* in Hilal Bey Mosque, it is a semicircular niche covered with a hood within a semicircular arch resembling the one of the Mosque of Shīkh Salīḥ Abū ḥadīd¹⁰⁷, as an example of the 19th century Cariene *mihrabs*. Finally, the *mihrab*’s hood is decorated with ray lines on gypsum as in the *mihrab* of al-u‘rabī Mosque (1219A.H/ 1804A.D.), and that of al-‘abbasī Mosque (1224A.H/ 1809A.D) in Rosetta.¹⁰⁸

The Minbar. The *minbar* of the mosque under discussion presents an example of the Egyptian *minbars*, i.e. comprising a dome atop the *djawsaq* and another one above its door. Mainly, it consists of several parts, including the frontal door, *risha*, stairs lead to the Imam’s seat, *djawsaq* covers the Imam’s seat, and the *rawḍa* doors. The Imam’s seat is decorated with embossing geometric figures and quadrilateral shapes within parts of a polygon engraved on wood. The frontal door of the *minbar* has two lateral sides, covered with a wooden dome. The same pattern is found in other 19th century mosques in Cairo as the case of Ḥassan al-anwar Mosque¹⁰⁹ (1280A.H/ 1863A.D.). The frontal door is arched with a parabolic arch and it is closed with four wooden shutters. The 19th century Al-ma‘īnī Mosque¹¹⁰ at Damietta (1238A.H/ 1821A.D) presents a similar example of the Delta mosques. The *risha* of the *minbar* is decorated with interlaced full, half and quarters of a polygon, similar to those of the mosques in Cairo such as al-shafi‘ī Mosque. The Imam’s seat has a square plan; its sides are decorated with polygons like the ones of al-Shamia Mosque at Nubar St. (1315-1316A.H/ 1896-1897A.D.). The *rawḍa* doors are not decorated similar to those of the 19th century mosques in Cairo as Ḥussīn Paşa Abī ‘isb‘ at Ḥussīn al-qumrī lane (1288A.H/ 1870A.D). The *minbar*’s *djawsaq* is covered with an onion-shape dome. Among the similar examples of the 19th century mosques in Cairo is the Ḥassan Paşa Ṭahir Mosque¹¹¹, and also in the Delta as in the Great Mosque in Zagazig¹¹² (1248A.H/ 1832A.D.).

Floors and Ceilings. Generally, the floors and the ceilings are important to help the mosques to functions perfectly; floors to keep the prayer hall clean, and the ceilings to protect the worshipers from the fluctuations of weather with flexibility of providing the interior with the

¹⁰⁵ ḥajaj, *Alḥoraz alm ‘mary walfany limasajid alqahira*, pp100-101,183.

¹⁰⁶ Ibrahim, *Ala’tar alislamīh albaqia bi-sharq aldelta*, pp187,171.

¹⁰⁷ ḥajaj, *Alḥoraz alm ‘mary walfany limasajid alqahira*, pp177,225-226,25-26,241,84-85,66-67,158-159.

¹⁰⁸ Hasan , *Almaharib fi miṣr*, 2006,p203

¹⁰⁹ ḥajaj, *Alḥoraz alm ‘mary walfany limasajid alqahira*, p172.

¹¹⁰ Taman, *Almanabir Albaqia fi Shark Aldelta*, pp.26:29.

¹¹¹ ḥajaj, *Alḥoraz alm ‘mary walfany limasajid alqahira*, pp.226-228,270-271,190-191,26-27.

¹¹² Ibrahim, *Ala’tar alislamīh albaqia bi-sharq aldelta*, p162.

needed light and ventilation. The floor of Hilal Bey Mosque is covered with ceramic tiles, as the 19th century mosques in Cairo such as ‘abdul’ziz al-drīnī Mosque. While the mosque’s ceiling is made of wood on wooden braces with decorated ends of geometric ornaments. The same pattern is found in the 19th century mosques of Cairo and Delta as in Qūsūn Mosque,¹¹³ and al-Sharif Zawia¹¹⁴ in ‘abyar.

The Lantern. Diverse covering types come in response of the different requirements of the mosque’s architecture. In other words, it was a type of a treatment of the atmosphere to obtain natural indirect light.¹¹⁵ Hilal Bey Mosque has one lantern lights the prayer hall as found in the Sulīyman Paşa al-faransawī Mosque. It has a rectangular plan centers the middle *rewaq* similar to the one in Ḥassan Paşa Ṭahir Mosque.¹¹⁶ It contains rectangular arched windows topped with a segmental arch and closed with wooden shutters with glass. The same pattern is found in those of al-Qaḍī Ḥussain Mosque, Sīdī ‘abduraḥīm Mosque and al-Sharif Zawia¹¹⁷ in ‘abyar. The lantern is covered with a pyramid-like cover similar to that of the Mehmed Bey al-madbul Mosque.¹¹⁸

The Oratory ‘Almusalla’. The attached *musalla* of Hilal Bey Mosque is located between the prayer hall and the latrines. This *musalla* is covered with a wooden ceiling on wooden bracers void of decorations. The 19th Century mosques of Sulīyman Paşa al-faransawī, Al-juharī and Ḥassan Paşa Ṭahir are just examples of this pattern in Cairo. The niche of the *mihrab* centers its southeastern wall, it is a semi-circular recess topped with a semicircular arched hood, resembling the case of al-Ḥatū Mosque.¹¹⁹

The ablution fountain (lavatory). The architect was keen to build the ablution fountain (lavatory) separated from the prayer hall to keep the latter’s purity and cleanness. Moreover, it was not built behind the qibla wall respecting the direction of the qibla; so it comes at a lateral corner to the prayer hall. It has a rectangular plan as in the Shirīf Paşa al-kabīr mosque at Al-kirdasī St. (1277A.H/ 1860A.D.). The wooden ceiling of the lavatory of Hilal Bey Mosque rests on the walls and wooden braces, supported by *sanbouksat* and wooden columns. The same pattern is noticed in the 19th century mosques of Cairo as in the lavatory of Jawhar al-īnī.¹²⁰

DECORATIVE PATTERNS

Inscriptions. Hilal Bey Mosque has one inscription; the foundation inscription atop the main entrance. It is written in Arabic in the *thuluth* script with embossing on marble. The foundation texts of some mosques in Cairo in the 19th century were written in the same script, such as Ḥassan Paşa Ṭahir, al-‘aḥmar and al-barbarī mosques (1307A.H/ 1888A.D.). Writing the foundation text of Hilal Bik Mosque followed the system of lines; it comprised 3 lines. The 1st and 2nd lines contain three cartouches, while the 3rd one has only two cartouches. Such kind of inscriptions were found widely in the 19th century mosques of Cairo such as Mehmed ‘alī Paşa and Saīda Nafīsa.

Geometric Ornaments. The geometric ornaments varied including the stone bands, the rib, semi-cane ornament, concave quarter of a circle, reflected wave and convex quarter of a

¹¹³ ḥajaj, *Alṭoraz alm ‘mary walfany limasajid alqahira*, p210,246.

¹¹⁴ Albatway, *Al ‘ma’r aldenia alislamia albaqia bil-dilta*, p53.

¹¹⁵ Waziry, *al‘imarh alislamīh walbiy‘ah*, p.131.

¹¹⁶ ḥajaj, *Alṭoraz alm ‘mary walfany limasajid alqahira*, pp117,27.

¹¹⁷ Albatway, *Al ‘ma’r aldenia alislamia albaqia bil-dilta*, pp44,15,53.

¹¹⁸ ḥajaj, *Alṭoraz alm ‘mary walfany limasajid alqahira*, p202.

¹¹⁹ ḥajaj, *Alṭoraz alm ‘mary walfany limasajid alqahira*, p127.

¹²⁰ ḥajaj, *Alṭoraz alm ‘mary walfany limasajid alqahira*, p136,41.

circle. They were widely used in adorning the entrances, windows, niches ...etc, such as in the Mosques of Sulīyman 'āgha al-silḥdar and Bishtak. Frets were used in framing the entrances of Hilal Bey Mosque. They were also utilized in the entrance of the 'abdul'ziz al-dirīnī mosque and the main entrance of Ḥassan Paşa Ṭahir Mosque. Zigzag decoration was employed in the decoration of the stone *mihrab* niche in Hilal Bey Mosque, as well as other mosques in Cairo, including the mosque of Sulīyman 'āgha al-silḥdar. Polygons of 8 *kendas* adorn the frontal door of the *minbar*. The same pattern is used in the minaret, *minbar*, and *dikat almobelgh* of Saīda Nafisa Mosque. Additionally, the two sides of the *minbar's* frontal door are decorated with 10-*kendas* polygons. Shafī'ī Mosque was an example of this decoration in the 19th Century Cairo. The two *risha* of the Hilal Bik Mosque's *minbar* are decorated with 16-*kendas* polygons, as found in the courtyard's ceiling of Qūsūn Mosque. Furthermore, the back of the *minbar's* seat in Hilal Bey Mosque is decorated with a horse-shoe arch and this decoration was used in other mosques in Cairo during the 19th century, such as Sulīyman Paşa al-faransawī Mosque.¹²¹

The *risha* of the *minbar* in Hilal Bey Mosque is decorated with quadrilateral and pentagonal stars. For example, the ceiling of the vestibule of the Shamiya Mosque is decorated with pentagonal stars, while the shutters of the southwestern entrance of Qūsūn Mosque and the entrance of the chamber of the keeper were decorated with pentagonal stars. The main entrance of Hilal Bey Mosque has octagonal stars. Such element was found in the 19th century mosques of Cairo as in Al-Juhārī Mosque. The shutters of the main entrance of Hilal Bey Mosque are decorated with inclined *mafrūk* that was found in other mosques in Cairo during the 19th century, as the case of the dome of Bishtak Mosque.¹²² It was also employed in the Delta mosques, including the shutters in the northwestern façade of Shīkh Maṣṣūr al-Faham Mosque,¹²³ Alexandria (1262A.H/ 1845A.D). The windows of Hilal Bey Mosque are surrounded by rhombuses. These shapes were found in the 19th century mosques of Cairo as in the ceiling and braces of 'abī Dar' Mosque. The main wooden door and the inner part of the lantern of Hilal Bey Mosque are decorated with arrows' heads that were also used in other mosques of Cairo during the 19th century, as in the *minbar* of the mosque of Ḥassan al-'anwar at Misr al-qadima (1280 H./1863 A.D.). The upper segment of the arch of the main portal and the hood of the *mihrab* of the *musalla* in Hilal Bey Mosque are decorated with ray-lines; a typical pattern in the 19th century mosques of Cairo with distinguished examples of Ḥassan Paşa Ṭahir and Bishtak mosques.¹²⁴ The same decorations were also found in the Delta mosques as the case of the small windows of the northeastern and southwestern entrances of the Mosque of al-Ṣalīh Najm-u-Idīn Ayub¹²⁵ in al-Manṣūra (13thA.H/ 19thA.D. century).

The façade of the main entrance of Hilal Bey Mosque was decorated with the so-called mallet or *deqmaq* (al-*kirandiz* or al-*kiranday*); which was also found in the Delta 19th century

¹²¹ hajaj, *Alṭoraz alm'mary walfany limasajid alqahira*, pp44-45,139,206,24-25,52,254-255,260-263,228,250,115.

¹²² hajaj, *Alṭoraz alm'mary walfany limasajid alqahira*, pp269,235,67,145.

¹²³ Diqmaq, *Almasajid albaqia fi aliskandaria*, pp117:127.

¹²⁴ hajaj, *Alṭoraz alm'mary walfany limasajid alqahira*, pp17,172-173,20,143.

¹²⁵ Albatway, *Al'ma'r aldenia alislamia albaqia bil-dilta*, pp19:21.

mosques as the case of the base of the minaret of ‘abdul‘aziz Radwan Mosque in al-Zaqaziq, al-Sharqia (1339A.H/ 1920A.D).¹²⁶ The stone *şadr* of the *mihrab* and the windows’ frames of the façades of Hilal Bey Mosque were decorated with torsades, a common pattern in the 19th century mosques of Cairo as in the ceiling of the southeastern *iwān* of Al-shamia Mosque. The rectangular recess of the *mihrab* of Hilal Bey Mosque was decorated with a 7-arches blind arcade of the so-called camel-neck arches. Such arcade was appeared in the 19th century mosques of Cairo as the case of the *mihrab* of Saīda Nafisa mosque, in which comes in a pointed and semi-circular arched form. The frontal door of the *minbar* of Hilal Bey Mosque is decorated with a painted crescent, the same pattern was also found in the 19th century mosques in Cairo as in the ceiling of Jawhar al-aīnī Mosque.¹²⁷

Foliote motifs. The columns’ capitals of the arcade next to the *qibla* wall were decorated with acanthus leaves that were appeared in the 19th century mosques of Cairo as the case of Bishtak mosque.¹²⁸ Acanthus leaves were used in the 19th century Delta mosques with a distinguished example of the columns of the northwestern entrance of al-ṭaruṭī mosque, Faqūs, al-Sharqia (1355A.H/1936A.D).¹²⁹ They were also found in the interior of the tomb attached to the Beshtak mosque. The foundation inscription of Hilal Bey Mosque was decorated with octagonal flowers. This motif appeared as well in the 19th century mosques in Cairo as the case of the ceiling of the corridor of ‘Abī Dar’ Mosque and in the shutters of the main entrance and the *minbar* and the *maqşura* of the attached mausoleum of the Shīkh Şaliḥ abū Ḥadīd Mosque. Finally, the foundation inscription of Hilal Bey Mosque is also decorated with dart dentate leaves; a pattern was used in the contemporary mosques of Cairo such as in the interior of the half domes of Meḥmed ‘Alī Mosque.¹³⁰

CONCLUSION

Considering the above documentation and analysis of Hilal Bey Mosque, who was a senator in the *Shoura* Council at the time of Khedive Isma‘il, we can now identify a number of results as follows: 1) Hilal Bey Mosque is a provincial ottoman mosque bears much local features; a typical pattern in the 19th century mosques in Cairo and in the Egyptian provinces as well. 2) The plan of the mosque and more specifically the prayer hall comprises a rectangular area divided with aisles and covered with a wooden ceiling. 3) Yellowish limestone was used in the construction of the mosque was brought from the quarries of Cairo, and transferred to the site of the mosque i.e. *Kūm Al-nūr* in boats by the river; since such quarries in the Delta were rare. 4) There is an *iwān*-form oratory attached to the mosque on its southeastern side. 5) the functionalism rather than the aesthetic aspect was the main factor in the design of the Hilal Bey Mosque; as appeared in the decentralization placement of the *mihrab*, the main entrance, and in the dissymmetrical distribution of the windows of the mosque’s façades.

¹²⁶ Albatway, *Al‘ma‘r aldenia alislamia albaqia bil-dilta*, p154.

¹²⁷ hajaj, *Alṭoraz alm‘mary walfany limasajid alqahira*, pp274,259,40.

¹²⁸ hajaj, *Alṭoraz alm‘mary walfany limasajid alqahira*, p401.

¹²⁹ Albatway, *Al‘ma‘r aldenia alislamia albaqia bil-dilta*, p220.

¹³⁰ hajaj, *Alṭoraz alm‘mary walfany limasajid alqahira*, pp13,154,157,159-160,93.

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