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The Factors Influencing the Change in Cairene Domestic Architecture After the Ottoman Conquest

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Introduction

The first half of the sixteenth century was a very critical period for Cairene architecture. During this period the Ottomans conquered Egypt; after almost six centuries of autonomy it was turned into a province under the Ottoman crown. The question is: did Egypt give up its domestic architectural heritage easily? And if not, did it witness any changes? If so, what are the factors influencing such changes?

The purpose of this paper is to discuss the architectural atmosphere in Cairo during this period from a very general perspective. In order to identify the factors responsible for any changes in Cairene domestic architecture, we require an awareness of the socio-economic situation, the urban conditions and the architectural trends of that period.

Socio-economic Situation

The social life in Egypt did not change much after the Ottoman conquest. The Mamluks and the Ottomans did not have a dissimilar culture; at least they spoke the same language.[1] The Ottomans were also pious Sunnis, so they respected the *'ulama* (theologians) and did not want to affect their role as the people's leaders, or the foundations under their supervision, the *awqaf* (religious endowments). The role of the *awqaf* system, however, was eliminated after the Ottoman conquest.[2] The Mamluk *amir*s who wanted to reflect their sovereignty through the domestic and religious structures that they built had adopted it before. However, after the Ottoman conquest there was no place for any major architectural manifestation in

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[1] Staffa, 229-231.
[2] Amin, 374.

Cairo since it was no longer the seat of the Mamluk Empire but only the capital of an Ottoman province. Many craftsmen were taken to Istanbul, as was the Abbasid Caliph who was captured and imprisoned in Istanbul only to be released after bequeathing his title (the Caliph, the leader of believers) to the Ottoman Sultan.[3] Cairo, therefore, was no longer the major metropolis of the Sunni world. Consequently, it had a different level of architectural patronage.

A major social factor during the Ottoman period was gender related, as the Ottomans were more conservative compared to the Mamluks. It is, therefore, suggested that women were allowed more freedom and were relatively more exposed during the Mamluk Period. Van Ghistele, describing Mamluk life, points out that "one sees women coming and going and paying visits to their folk."[4] However, the Ottomans had practiced more segregation as can be seen in the domestic architecture of their homeland, Anatolia. There, domestic architecture provided separate quarters, which were more communal to receive male guests, for men (the *selamlik*) and other quarters for the family members where females could practice their daily life activities (the *haremlik*). They stressed the *haremlik* privacy, covering its openings by projecting wooden grilles known as *kafes*[5] which may be the origin of the Egyptian *mashrabiyya* (the protruding turned-wood fenestration, bay window), as will be discussed below.

Contrasting with the relatively stagnant social conditions, economic life in Egypt witnessed remarkable changes after the Ottoman conquest. This can be illustrated by examining architectural patronage during this period. It can be divided into two groups. The first is the bourgeoisie: rich merchants and eminent religious scientists. This group, in spite of the harsh economic situation during the discussed period, remained in charge of construction in the old districts near the mosques and *wikala*s (malls surmounted by living units) on al-Azhar and al-Saliba streets, which were close to their workplaces. However, they had lost the inspiration that had existed in the construction of the royal and princely structures of the Mamluk period. Patrons of a different type replaced the great Mamluk patrons now, i.e., the Ottoman *wali*s (viceroys) and their prominent employees. They thought mainly of profitable foundations. They tended more towards building structures that had a commercial function. This explains the flourishing urbanization process in Bulaq where a lot of construction activities occurred. Huge numbers of *wikala*s in Bulaq (the major port and international trading center, especially for coffee) belong to the Ottoman period e.g., the huge *wikala*s of Sinan Pasha built in 1538-49 and of Mahmud Pasha built in 1565-1567. This can also explain why the *wali*s remained in Egypt after leaving office; they remained to supervise

[3] Staffa, 232.
[4] Ghistele, 160.
[5] Pinon &Borie, 650.

their foundations that, theoretically at least, were the Ottoman Sultan's properties.[6]

This socio-economic situation affected dramatically both the urban fabric and the architectural environment in Cairo. The urban tissue became denser, which was reflected in Cairene architecture. This leads us to assume that the changes in the Cairene urban fabric were the most important criterion responsible for any architectural changes occurring during the discussed period.

Urban Conditions

It is much safer to examine urban policy during the Mamluk period first to identify any changes occurring after the Ottoman invasion. The Mamluks founded many new quarters bordering Fatimid Cairo, which remained the most important urban centres and suffered from overpopulation and a very dense urban tissue. In contrast, the Mamluks founded many new quarters. The area between al-khalij al-Misri and al-Nasiri with its several large *birkas* (ponds) was quickly laid with gardens, villas and residential streets. Al-Fustat, al-Qahira and Bulaq were linked together by a network of streets surrounded by buildings. Nonetheless, there were gardens and promenades in the spaces in between.[7] The Mamluks created focal points, around which the population would be conglomerated. Then, they would move away from this point to found another center of attraction. As a result, different settlers filled the gaps in between; e.g., the Mamluks urbanized Bulaq by founding al-Khatiri as an urban center following that by building al-Ustadiriyya Mosque, making it a prominent urban center. Consequently, the area between al-Khatiri and al-Ustadiriyya was urbanized.[8] This urbanization trend remained until the end of the Mamluk period. The quarters founded by the Mamluks were al-Raydaniyya and al-Azbakiyya. Both had leisure houses and became pleasant places for the *amir*s.

By the time of the Ottoman conquest, al-Raydaniyya, al-Azbakiyya and Birkat al-Fil had the least dense urban fabric and were filled with houses, palaces and gardens. The urban fabric of Suq al-Silah and the areas close to the citadel were slightly denser. They were the quarters in which the *amir*s lived. Bulaq had a strong commercial character. Al-Qahira had already become a very dense urban area because of its many functions. On the other hand, the expansion of al-Husayniyya, al-Darb al-Ahmar and the Northern Cemetery had subsided.[9] The districts close to the citadel remained

[6] Hanna 1981, 51.
[7] Williams, 36, 40, 44.
[8] Hanna 1981, 63.
[9] Behrens-Abouseif 1994, 43.

the quarter of the ruling class[10] because it was close to the horse market and the Maydan al-Rumayla (currently Salah al-Din Square). Prominent figures such as Khayr Bek lived in the Alin Aq Palace at al-Tabana in 1520 after becoming the viceroy of the Ottoman Sultan.

The Ottomans did not establish new quarters but they lived in and developed old ones.[11] They had to fill in the urban fabric founded by the Mamluks (**Figure 11**). Imposed courts in rectangular and square forms, as well as other architectural innovations had to be introduced; the façades were folded towards inside. Wherever possible, additions were added to original properties in order to increase the built areas. Projections were also introduced. Adding balconies to *in situ* buildings to increase the inner space was a tradition known in Anatolia in the fifteenth century, e.g., the Byzantine palace of Tekfur Sarayı.[12]

This construction process was supervised by the court represented by the *mimarbashı* who resembled his Mamluk predecessor *kabir al-muhandisin* or *ra'is al-muhandisin*.[13] Yet the former did not have to be an architect. This system was less restricted than its counterpart in Istanbul, known as "The Organization of Imperial Architecture" which allowed individuals to build but under its own supervision.[14] Consequently, many building violations occurred in Ottoman Cairo affecting its street profile and even inner courts (**Figures 6** and **7**). However, this image is not applicable to all the quarters. It may hold true in the case of Old Cairo and the districts nearby, such as al-Husayniyya and al-Darb al-Ahmar. But it is not fair to apply it to al-Azbakiyya and Birkat al-Fil, where we find large houses with linear layouts receiving their light and illumination from their long elevations overlooking gardens and ponds.

The above-discussed socio-economic and urban situations shed light on the eagerness of builders to maximize the built area without expanding outside the existing city. This intensive use of the urban area affected Cairene architecture, which had to be manipulated to fit the needs of the society.

Architectural Trends

Mamluk architecture, which had experienced the problem of dealing with the irregular land, provided a good example for its Ottoman successor. Aligning the building with the street and adding projections and balconies resting on corbels were commonly used practices in the Mamluk period. Even the different types of domestic architecture did not witness many

[10] Raymond 1982, 106.
[11] Behrens-Abouseif 1994, 42.
[12] Yenişehirlioğlu, 672.
[13] Hanna 1984, 8.
[14] Cezar, 283, 284.

changes, although this was dependent on the type of residence and its standard. The *hawsh* was the type of housing used by the very poor classes. From the documents Raymond describes it as "a large courtyard crammed with hovels four feet high where a lot of poor people lived, packed with their cattle."[15] This type of housing remained until even the early twentieth century.

The *rab'* (collective building) was a type of housing for the middle class group (**Figure 9**). It was a very flexible type of accommodation where one could rent a unit or more, depending on the size of the family. These *rab'*s were a lucrative investment and many *waqf*s (endowments) mention the profitable revenues of these properties that went to their owners: rich *amir*s or even sultans,[16] a trend that continued during the Ottoman period. *Rab'*s were built for the artisans, shopkeepers or others who wanted to be near of their workshops, shops or *madrasa*s (religious schools). Therefore, they were concentrated mostly along the *Qasaba* (the city main thoroughfare) and other main streets.[17] The only remarkable difference between the *rab'*s built during the Mamluk and the Ottoman period was the plan. The *rab'*s built by the Ottomans had regular plans which could be described as free standing buildings which might have necessitated newly urbanized areas.[18] In fact, the Ottomans had nothing to do with this since most of their commercial structures were concentrated in Bulaq where there were huge areas of land available. Even the Mamluks built regular plans whenever they had enough space. A good example of this is the freestanding Mosque of Farag Ibn Barquq, which has a regular plan because a huge piece of land was available.

The extended families from the upper-middle class who could afford accommodation larger than the *rab*' units lived in houses without courts. The best examples for this type of housing are the houses of al-Istanbuli and of Radwan.[19] They consisted of a common utility space on the ground floor surmounted by different apartments, the larger being devoted to the head of the family, the smaller for the other family members.[20] Unfortunately, we do not have similar existing examples from the Mamluk period, but we have been told by a *waqf* document of al-Sultan al-Ghuri that this system of housing was in use then.[21]

We may conclude that the different types of domestic architecture discussed above: poor, middle class and the upper-middle class houses

[15] Raymond 1982, 100.
[16] Ibrahim 1978, 24.
[17] See the map showing the *rab*'s location in Cairo, Raymond 1982, 103; Raymond 1980, 56.
[18] See the plan of wikalat al-Kharnub, Hanna 1983, 95.
[19] Hanna 1980.
[20] See the plans of Waqf Radwan, Hanna 1980, 67, 68.
[21] See Waqf no. 883, year 1516, Ministry of Awqaf, Hanna 1980, 43, 68.

without courts did not witness many changes after the Ottoman conquest. This was not the case with palatial architecture and the houses, which had expansion potentials. They were exposed to many changes to meet the newly introduced economic and urban conditions.

Changes in Palatial Architecture

Large houses and palaces consisted mainly of a *qa'a* (living hall) and its dependencies. In some examples there was more than one *qa'a*; large town houses consisted of two *qa'as* and their dependencies on the ground and the first floor.[22] The *qa'a*, literally, is a flat level and it was used first to indicate the courtyard in al-Fustat houses.[23] Later, the *qa'a* became a term applied to the whole living quarter, the *majlis* and its confronting *iwan* or *majlis* with a court in between. It is suggested by Hazem Sayed[24] that the Fustat houses began with a *qa'a* with a Hiri *majlis* and a covered court as the case of *qa'a* of Dayr al-Banat. This later developed into the traditional *qa'a* and *durqa'a* of a T-plan such as the *qa'a* of Ahmad Quhya.[25] The same idea is supported by Hasan Fathy who maintains that the court in Fustat houses was semi-covered by a shade, a tent, or a light structure only open above the *fasqiyya* (fountain), resembling the atrium in the traditional Roman house. This opening was covered later by the *mamraq* **(**lantern), to cover the traditional *durqa'a* underneath it (**Figure 1**).[26] This leads us to assume that the *sahn* (court) had already been covered by the thirteenth or early fourteenth century.

The court as we can see it in some early Ottoman houses as an integrated architectural element, was not known or utilized during the Mamluk period. There was no need for an inner space to give light and ventilation since the houses during the Mamluk period were well lit and ventilated because of being aligned with the street, the *Khalij*, or the banks of the different ponds in Cairo. For instance the houses of al-Azbakiyya were aligned with the banks of the pond in a linear manner to receive light and ventilation from the street and a good view of the pond. An example is the house and the structures of Amir Azbak in al-Azbakiyya.[27] Discussing this idea, Behrens-Abouseif points out in her article about the court in Cairene architecture that the Mamluk house had no courts, and if there were then it would have been stables, which were not integrated in the structure.[28]

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[22] Ibrahim, Up-To-Date Concepts, 1981, 96.
[23] Ibrahim, Residential Architecture, 1984, 47.
[24] Sayed, 31-53.
[25] Ostraz, fig.H and Lezine, figs. 7, 11.
[26] Fathy, 137.
[27] See the schematic reconstruction of the quarter of Azbak according to its *waqf* description showing the palace *rab*‘ and the Mosque of Amir Azbak overlooking Birkat al-Azbakiyya, Behrens-Abouseif 1985, 31.
[28] Behrens-Abouseif 1995, 411.

In her opinion, the court as we know it in Ottoman houses appeared only in the crowded urban centers. The idea was to keep all the previous living units but within a smaller space which had to be compensated during the Ottoman period by introducing the court, as an integrated architectural element in the layout of the house, which replaced the views of the ponds and the large gardens. It included a small garden and sometimes a *fasqiyya* and offered space for inner elevations as well as providing light and ventilation to the house. The previous long facades with many openings overlooking streets and ponds with many openings now surrounded a court (**Figure 5**).

The changes in the Cairene house after the Ottoman conquest were not only concentrated on the court. The *qa'a* also witnessed some modifications. Its dimensions and height were reduced, having thus more intimate proportions (compare the Mamluk *qa'a* in Zaynab Khatun late fifteenth century, **Figure 3**, with the Ottoman *qa'a* of the Shabashiri House eighteenth century, **Figure 8**). The main trend was the reduction of space and the number of the constituents of each element.

For example, the number of the modules of the *maq'ad* was reduced from five (or three which was common during the late Mamluk, Circassian Period as in **Figure 2**) to two (**Figure 4**).[29] Nevertheless, the *qa'a* preserved its traditional elements, the two *iwan*s and the *durqa'a*. This formula did not change until the seventeenth century when the traditional *qa'a* was supplemented by the *qa'a misriyya* and the *qa'a nisf-misriyya*, a *qa'a* with an *iwan* and a *durqa'a* such as the principal *qa'a* in Bayt al-Sinnari.[30] The *durqa'a* also shrank to become a narrow rectangle during the same period.[31] Although the dimensions of the *qa'a* in general were reduced there was a great effort to keep its traditional elements and their proportions; in spite of reducing the *qa'a* considerably, it had always two *iwan*s and a *durqa'a*. Even when there was not enough space, a small rectangle was given to the *durqa'a* and a small recess could have been used to symbolize, compensate the disappearance of, one of the two *iwan*s.

As for the changes in the architectural details of the *qa'a* during the Ottoman period, Lezine points out that the *kurdi*s (decorative brackets) in the Ottoman *qa'a*s were more elongated with narrow wooden brackets. The occuli surmounting the main openings in the Mamluk *qa'a*s were replaced by rectangular openings.[32] The stone courses used in the construction of the *qa'a* or the house in general differed during the Ottoman period. However, we do not start to see the long, narrow cut-stone in Ottoman masonry before the eighteenth century. The abovementioned changes were responsible for the formation of an Ottoman variation of the traditional Mamluk *qa'a*.

[29] Pauty, 37.
[30] Hanna, Vocabulaire, 1991, 23.
[31] Fathy, 145.
[32] Lezine, 129.

The other elements of the Cairene house, such as the dependencies of the *qa'a*, did not witness many changes. Utilitarian spaces, such as latrines and kitchens did not change at all.[33] Yet, the *hamam* (bath) is a dilemma. It is considered by Behrens-Abouseif to be one of the three most important innovations (the court, the *hamam* and the *mashrabiyya*) introduced by the Ottomans to Cairene domestic architecture.[34] Nevertheless, some documents indicate that the palaces of some Mamluk *amir*s had *hamam*s. For example, the *waqfiyya* of al-amir Khayr Bek dating to 1506 maintains that the palace of al-amir Qurqumas (amir al-Jalb), in front of the *madrasa* of Um al-Sultan Sha'ban, had a *hamam*.[35] Another example is in the house of Amir Dulat Bay; the remains of this house are a huge *qa'a* and its dependencies, which now form the main *qa'a* in Bayt al-Razzaz. This *qa'a* has some remains of what could have been a *hammam*.[36]

Another important feature, which is thought to be an Ottoman innovation in the Cairene domestic architecture, is the *mashrabiyya*. According to B. W. Lane, the fenestration system of the domestic architecture in the Mamluk period was similar to that used in religious buildings, turned wood or metal screens.[37] Behrens-Abouseif maintains that the *mashrabiyya* as we know it through the Ottoman period, a wooden balcony supported on wooden brackets and covered with turned wood grilles (**Figure 10**) was introduced to Egypt after the Ottoman conquest. However, the technique of the openings covered by turned-wood grilles was common in Egypt, which leads us to surmise that the *mashrabiyya* was a meeting point between the Ottoman projecting box covering window openings and the Egyptian woodwork. This hypothesis can be supported by examining the Anatolian origin of this projecting element. The openings, especially those of the *harim*, used to be covered by a projecting wooden grille known as *kafes*, literarily a cage, similar in their form to the Cairene *mashrabiyya*, which is consequently thought to be an Egyptian reinterpretation of the Anatolian *kafes* with the use of the turned wood.[38]

Other elements that could have had Anatolian origins and appeared in Cairene domestic architecture after the Ottoman conquest are the *mandara* (male reception room on the ground floor) and the *takhtabush* (male, open reception area, frequently underneath the *maq'ad,* on the ground floor and open to the court). The former is a male reception room in a form resembling that of the *qa'a* or part of it and analogous to the male quarter in the Anatolian house: the *selamlık*, which was just a separate reception room

[33] Hanna, Cuisine, 1991, 409.
[34] Behrens-Abouseif 1991, 411.
[35] Ismai'il, 54.
[36] The descriptions of this palace are in *huja* no. 1709, 1808 AD., Reg. no. 359 al-Bab al-'Ali 1233, 382, 383; Isma'il, 73
[37] Behrens-Abuseif, Mashrabiyya, 1991, 718.
[38] Pinon & Borie, 650.

on the ground floor. It was important in the Cairene house to match the Ottoman social custom of gender segregation inside the house. However, the term *mandara* did not become common in the *waqf* documents before the seventeenth century. We have many reception rooms on the ground floor overlooking the court from the sixteenth century that might have later been called the *mandara*, e.g., the reception room overlooking the court in the Zaynab Khatun House.

A later feature, the *takhtabush*, was an open reception on the ground floor devoted to the reception of the male guests for whom access to the house was not desired (**Figure 5**).[39] To my knowledge, there are no examples of the *takhtabush* dating earlier than the seventeenth century, after which it became very common. Its inspiration may have been the Anatolian *hayat*, to which it is similar in form.[40]

Conclusion

We noticed that not many changes occurred in the social situation in Egypt after the Ottoman conquest. The ruling class was replaced by another, i.e., the Turkish *wali*s and their assistants who were later from the former Mamluks. The major change was in economic status. After being the seat of the Mamluk Empire, Cairo became the capital of an Ottoman province. Cairo had to pay an annual tribute to Istanbul. This economic burden, together with the change of the type of patronage (investors seeking maximum profits) caused a change in the treatment of the urban fabric.

The existing residential quarters had to be redeveloped. The exterior elevations and the number of entrances had to be eliminated and replaced by inner ones, folded inward, with a single entrance or two at most. Therefore, the court as an integrated element, essential for the illumination and the ventilation of the inner areas of the house, such as the inner *qa'a* s or annexed chambers had to be introduced in the sense that we know it today through the different Ottoman houses in the main, crowded quarters in Cairo. However, many houses from the Ottoman period, especially those where larger land areas were available, did not depend on inner courts but on their gardens, thus enabling them to have a linear positioning of their elements and to enjoy the views of the ponds, the promenades they overlooked, or the plot of lands (used as stables or gardens) within the premises of the house, e.g. Al-Razaz House.

The general trend was to economize on the spaces of the different elements forming the traditional Cairene house without affecting it, which was the reason for the change in the proportions of the *qa'a* s and the *durqa'a*s.

[39] Hanna, Vocabulaire, 1991, 24.
[40] See the plans of House of Ahchi Ilyas Caddesi, Pinon & Boire, 650, 660.

Cairene domestic architecture was also influenced by that of Anatolia. The *mashrabiyya* is the most obvious example of this influence or inspiration from the *kafes* in Anatolian domestic architecture. The *hamam* is a feature that appeared in the important Cairene houses before the Ottoman conquest but it only became a common element after that. Later, we find an Egyptian reinterpretation of the Anatolian *selamlık* and *hayat*, represented in the Cairene *takhtabush* and *mandara*. However, these did not become common before the seventeenth century.

In general we may say that the change in the Cairene domestic architecture was the result of a series of changes in the economic situation in Egypt after the Ottoman conquest that affected the deeds of the patrons in Egypt and consequently their needs. That was reflected on the urban fabric, which was built up only in areas that already existed before the Ottoman conquest, without any expansion outside them. Consequently, architecture in general, especially residential architecture, witnessed some dramatic changes in order to comply with the new urban development as well as the needs and tastes of the new patrons.

Thus, it can be seen that Egypt did not give up its domestic architectural heritage. Tenaciously, Cairo's houses kept their traditional elements. However, these elements were manipulated to fit the new socio-economic and urban circumstances.

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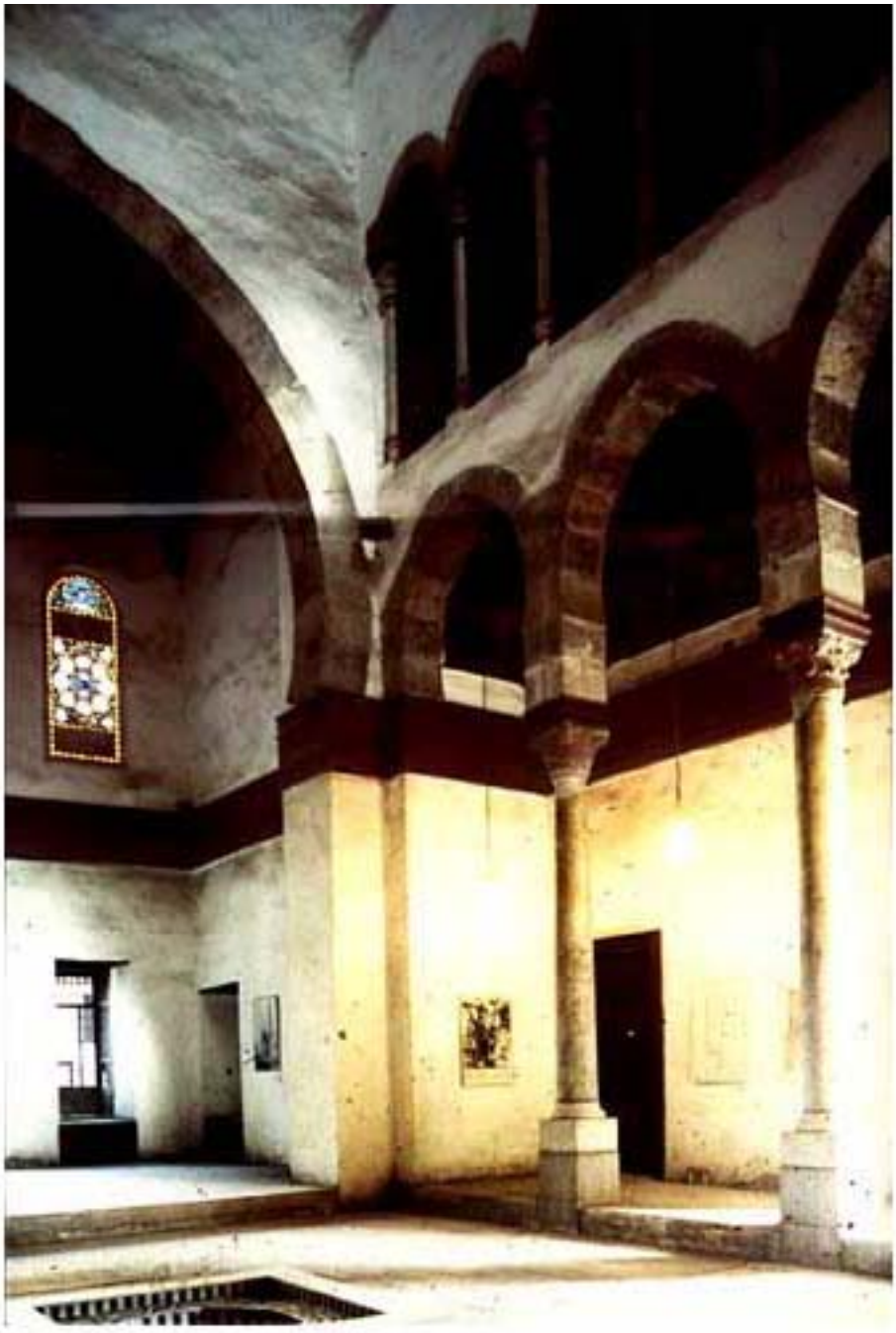

Figure 1: *Qa'a* of Bashtak, Bayn al-Qasrayn, Gamaliyya, 14th century.
An early Mamluk (Bahri) example that reflects the lofty proportions of the Mamluk *Qa'a* that continued during the Circassian Mamluk Period
Photo by Prof. B. O'Kane

Figure 2: The 3-bay *Maq'ad* of Qaytbay, Maradani Street, al-Darb al-Ahmar, late 15th century.
An example of the wide loggia during the Circassian Mamluk period
Photo by Prof. B. O'Kane

Figure 3: The Mamluk part (the original) of the *Qa'a* of Zaynab Khatun, Al-Azhar, Late 15th century. The exhibited lofty proportions and decorations, especially the wooden brackets and ornamented friezes and ceiling, are very characteristic of the Mamluk Period especially of Qaytbay's Reign.
Photo by Prof. B. O'Kane

Figure 4: The 2-bay *Maq'ad* of Zaynab Khatun, Ottoman Phase
This *Maq'ad* is a very typical Ottoman one in its form.
Photo by Arch. A. Hassaballah

Figure 5: The *Takhtabush* of Al-Suhimi House, Al-Darb Al-Asfar Alley, Gamaliyya, ca. 18th century. A typical element in the court of the Ottoman house in Cairo
Photo by Arch. A. Hassaballah

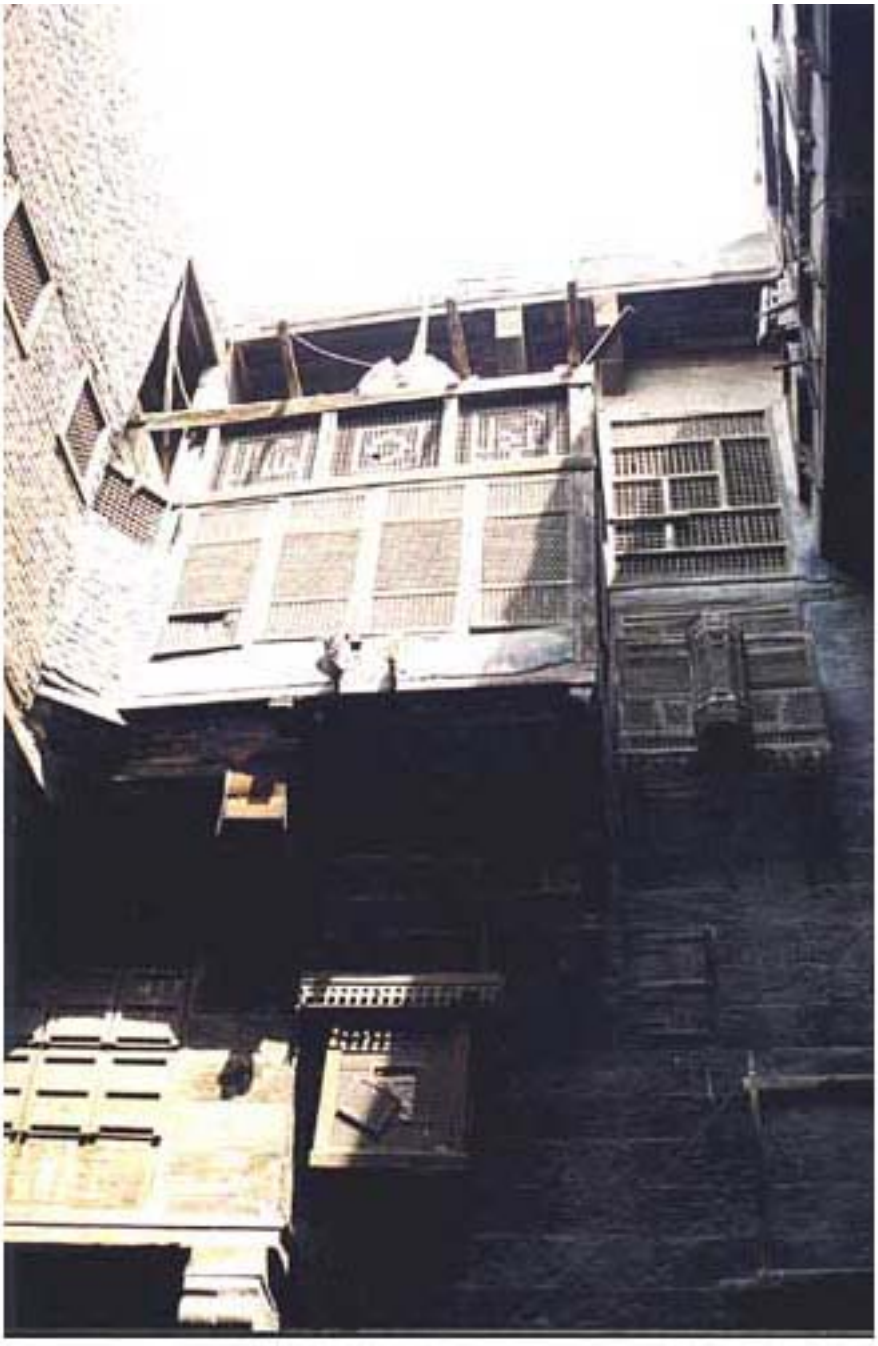

Figure 6: the court of Al-Shabashiri House, 18th century. The intensive expansions and protrusions added on the upper floors minimise the illumination penetrating the inner court. An example of the intensive expansions that contributed to the filling-in process of the Cairene Urban Fabric during the Ottoman Period.
Photo by Arch. A. Hassaballah

Figure 7: the court in Al-Shabashiri House, 18th century
Photo by Arch. A. Hassaballah

Figure 8: *Qa'a* of Shabashiri, 18th century, a typical *Qa'a* from the Ottoman Period with its intimate proportions and its relatively modest decoration, compared to the intensively decorated Mamluk *Qa'as*.
Photo by Arch. A. Hassaballah

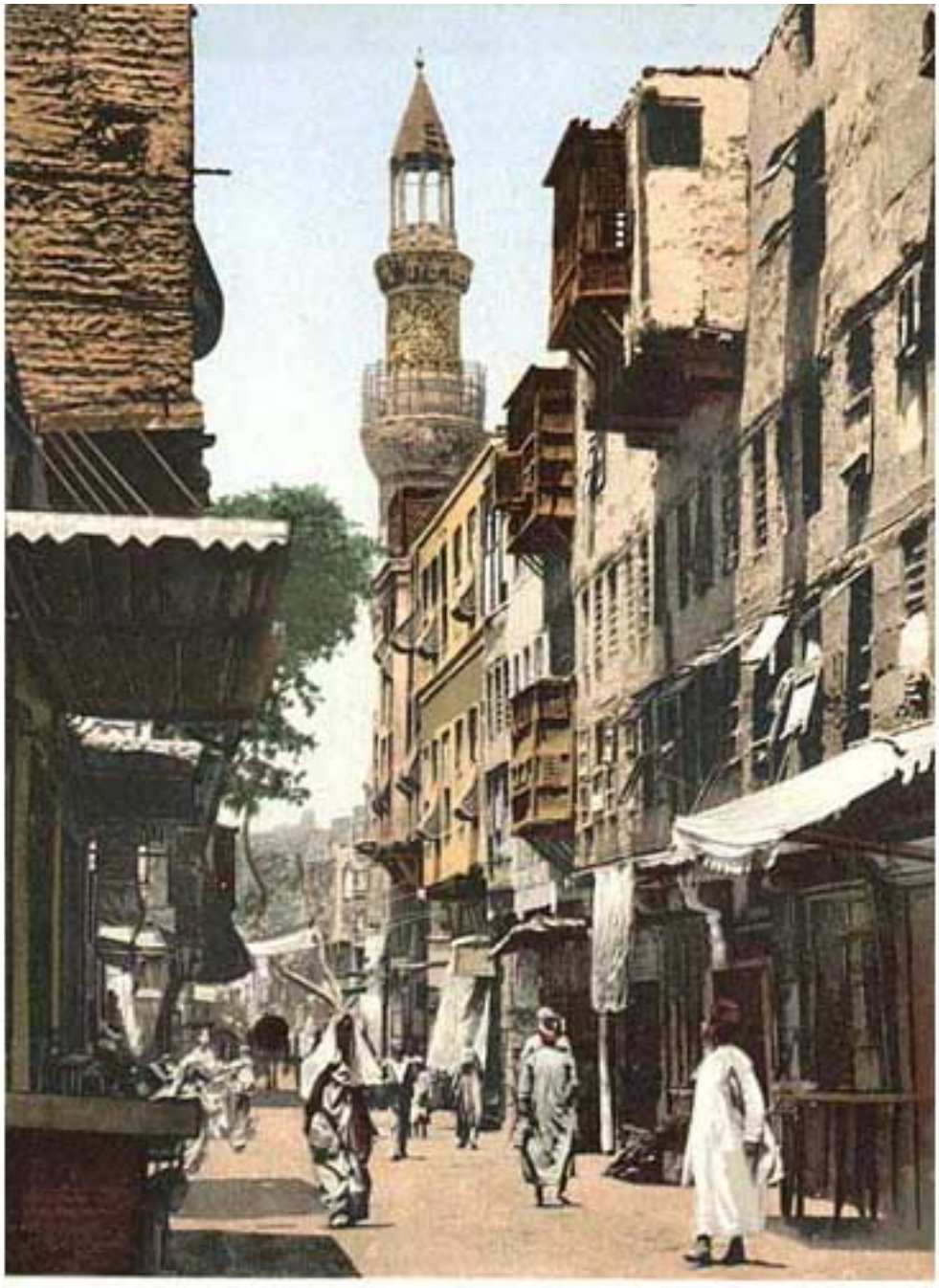

Figure 9: Al-Surrugiyya Street, a typical traditional Cairene Street with *Rab's* and many protrusions, a photo taken in late 19th century. Carte Postale, Arch. A. Hassaballah's photo collection.

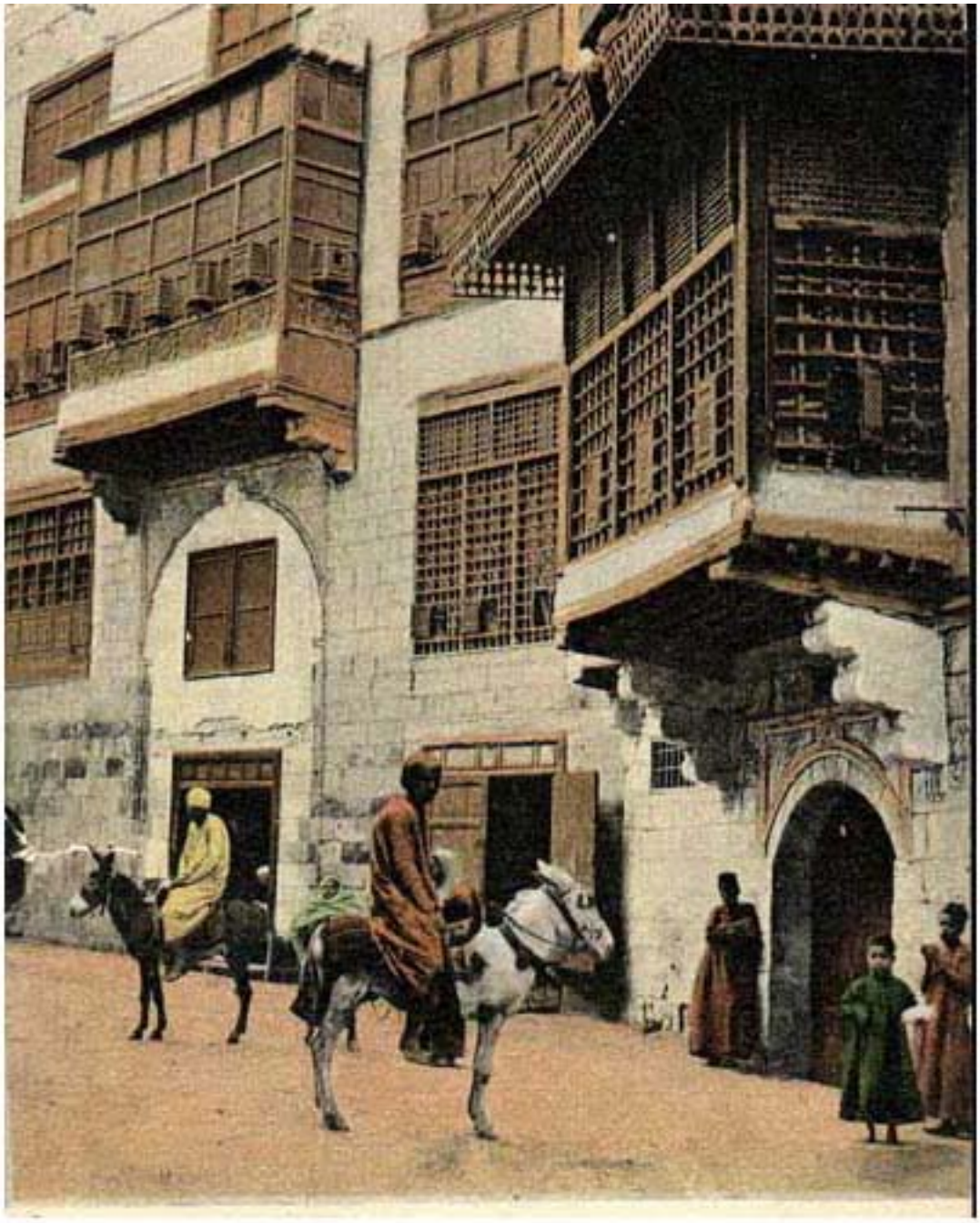

Figure 10: The elevation of Al-Razaz Palace, Darb Al-Tabanna, 17th and 18th centuries, a photo taken in late 19th century.
Carte postale, Arch. A. Hassaballah's photo collection

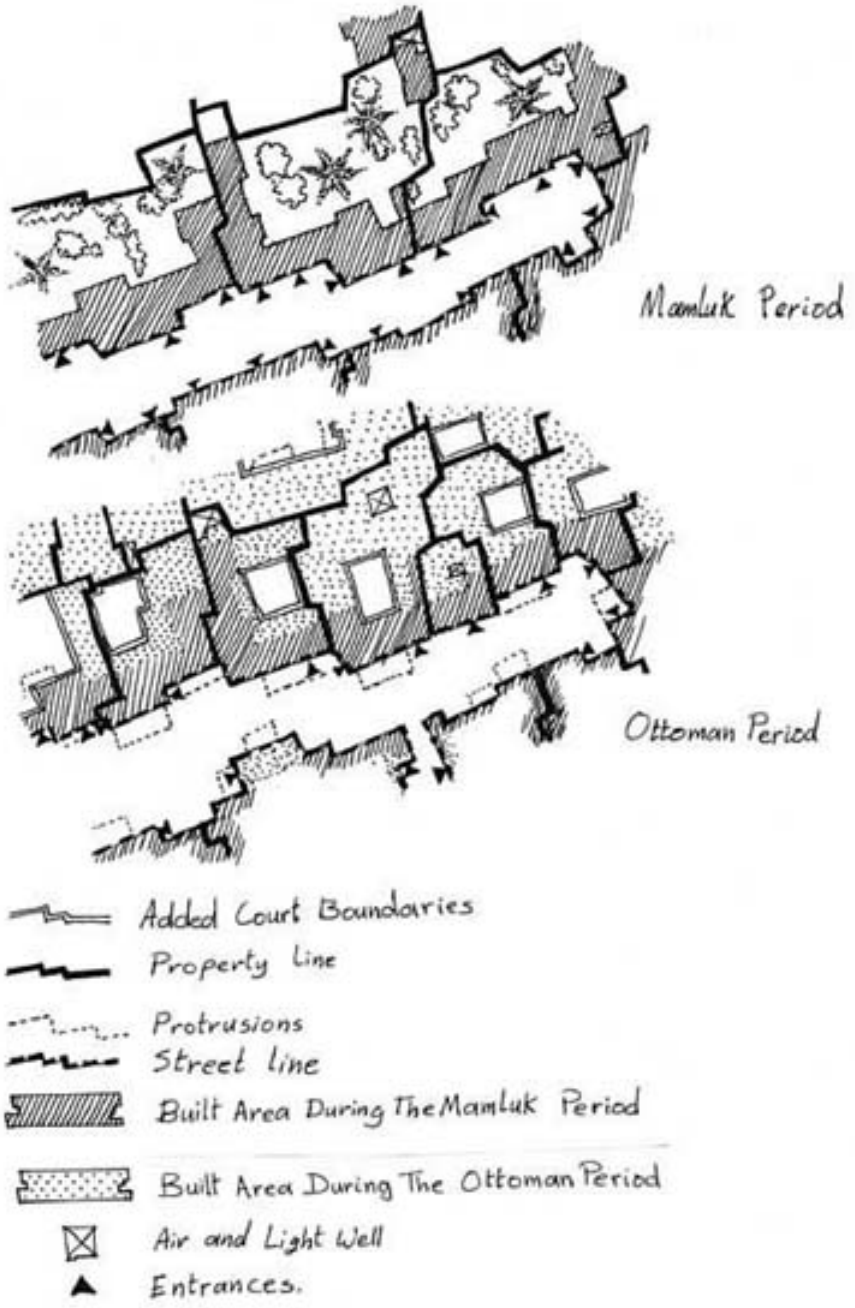

Figure 11: Suggested reconstruction of the possible urban morphology of a typical Cairene fabric from the Mamluk period to the Ottoman Period