ARCHITECTURAL IDENTITY IN CONTEMPORARY CAIRO

Thesis of Masters of Science Degree in Architecture

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Abstract

Cairo: the urban legend, is one of the most ancient, multifaceted of cities. Seat of pharaohs, sultans and kings, prize of conquerors from Alexander to Saladin to Napoleon, "the city Defeater" has never stopped reinventing herself. The very nature of Cairo has ever reflected polycentric ensembles of urbanism and architecture that belonged to different user group, with different perspectives, conceptions and aspirations towards their city life. Sorrowfully over the past few decades, the city has lost most of its acquired identities for reasons beyond the scope of this research. Evidently, the city has undergone, and still undergoing, a process of urban and architectural change. Today, evidences of a general loss of its architectural identity are overwhelming to the extent that could be considered as "a city out of control"!

The research at hand tackles the topic of Contemporary architectural identity of Cairo. What are the features and considerations for designing today? The aim is to introduce new theoretical approaches for understanding contemporary Cairene architectural Identity with a practical application in a design project that aims at revitalizing one of Cairo's belle epoch features: Al-Azbakiyya area. The methodology is based on review of the cultural turning points and their reflection on the urban transformations and architectural identity of the city along its history. Following, is a discussion of the opportunities and threats of creating an authentic-yet contemporary- design in today's Cairo. Moving to the area of study, the research reaches its conclusion by introducing conceptual key aspects for designing in the twentieth century Cairo.

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CHAPTER 1
URBAN BACKGROUND
ABOUT GREATER CAIRO

1.1 Introduction

Cairo is located in the northern part of Egypt, 17 km to the south of the meeting point of the Nile's branches (Delta). It's the political and economic capital of Egypt. It's considered as the largest metropolitan area in Egypt and the largest urban area in Africa. Cairo is divided between three governorates (provinces) Cairo governorate, Giza governorate and Qalyubia governorate. It expands 27 km to the east of the Nile River and 34 km to the west. According to the last official population count performed by the Egyptian central agency for public mobilization and statistics (CAPMAS) in 2006, Cairo has a population of 17.8 million inhabitants, on the other hand according to the last estimate of CAPMAS[1] in 2012 Cairo has approximate population of 20.5 million inhabitants. Cairo is divided into 67 districts (municipalities), which is the smallest local unit in urban communities in Egypt. Each district is divided into sub-district or neighborhood to facilitate the district management.[2]

Cairo is a city with a very rich architectural legacy, through the history since its birth, it gained a very strong rban identity which was kept for centuries. The city passed through lots of phases of change, which enriched and drew its identity.

The biggest question of all, can we conceive this identity now? Or it became such monumental places which doesn't define the whole metropolis.

In the this research, , light will be shed on the urban growth of the city along ots history. We will try to find out if it's possible to retrieve the city's strong identity again, or creating a new identity for it, and how could be the means of doing so.

1.2 Climate and geographical background

Cairo is located at latitude of 30°6´ N and longitude of 31°24' E at an altitude of 75 m above sea level. It lays along the banks of the Nile River where it splits into two branches at the south of Delta. Cairo is surrounded by fertile agricultural land at North, West and South borders and a deserted land at the East border. Cairo is located 173 km south to the Mediterranean Sea and 128 km west to Suez Canal[3] . The topography of the city is almost flat land except for some hills at the south of the city (Al-Moataz) which was the southern borders of the old city. The climate of the city is mostly dry and hot in summer and moderate in winter with some rare showers. Cairo has highly fertile land thanks to the silt that is carried all the way from Lake Victoria[4] by the Nile River. Natural disasters rarely

1 CAPMAS is considered under presidential decree no. 2915 of 1964 the official source for data and statistical   information collection, preparation, processing, dissemination and giving official nature of the statistical figures in Egypt.
2 Heba Adel Ahmed Hussein (2011), Crime and Urban Planning in Egypt: Case Study: Greater Cairo, Ain Shams   University, Cairo. David Sims, The case of Cairo, Egypt: Understanding Slums: Case Studies for the Global Report on Human Settlements, University College London, London (2003).
3 The Suez Canal is a 163 km long canal that connects the Mediterranean Sea with the Gulf of Suez, a northern branch of the Red Sea.
4 Lake Victoria is largest lake in Africa and chief reservoir of the Nile, lying mainly in Tanzania and Uganda but bordering on Kenya.

occur in Cairo, Nevertheless the earthquake of 1992[5] and the partial fall of Moqattam had some effects in the urban growth of the city, as large amount of individuals and families lost their homes and the government was responsible of providing new houses for them, the government started providing temporary housing areas for the families which by time became permanent because of the lack of attention of the government which led to leave a very big mark in the urban growth of the city. Lack of rain and existence of sand carried by wind affected the architecture in Cairo and in the whole Egypt throughout history Nevertheless in the last sixty years of Cairo's urbanism was mostly influenced by political reasons and influenced by the western architecture.[6]

Fig. 01: Situation of Egypt in the World map
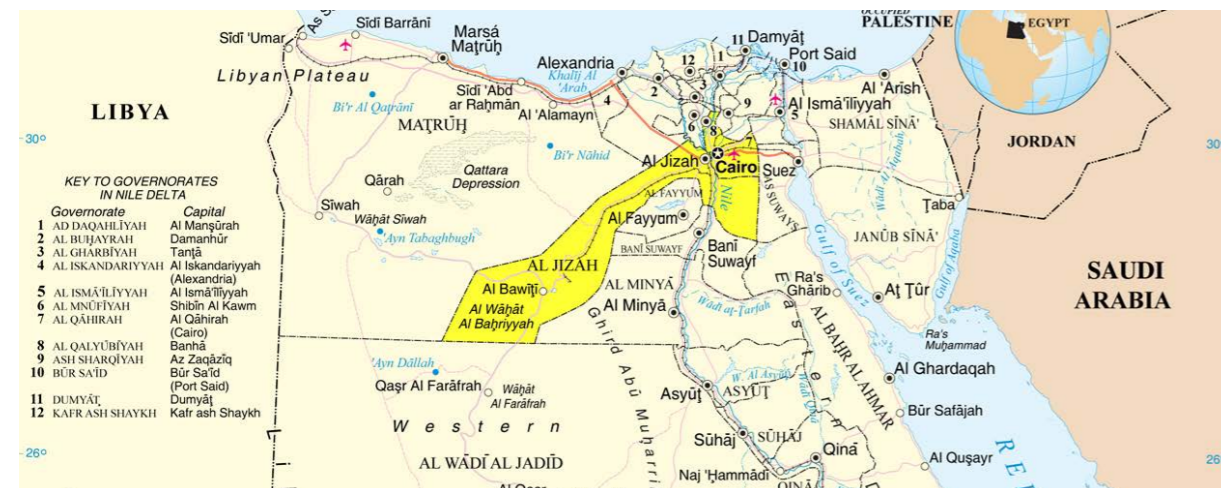

Fig. 02: Map Of Cairo

Fig. 03: Situation of Greater Cairo in Egypt

5 On Oct 12th 1992, an earthquake of magnitude mb=5.9 and Ms=5.2, hit the city of Cairo. It was that century's largest earthquake in northern Egypt with related destruction in the city of Cairo, the Nile valley and the Nile Delta areas.
6 Attia El-Sayed (1998), the 1992 Cairo earthquake: A case study of a small destructive event, Kluwer Academic Publishers, Dordrecht.
Wendell Cox (June 13th, 2012),   'The Evolving Urban Form: Cairo' 2012 [Online] Available, http://www.newgeography.com/content/002901-the-evolving-urban-form-cairo.
'Cairo Location Discussion' [Online] Available, http://www.cairo.climatemps.com/map.php
Amanda Briney,   'The Suez Canal Connects the Red Sea with the Mediterranean Sea: Egyptian Suez Canal Has Been Center of Conflict' [Online] Available, http://geography.about.com/od/specificplacesofinterest/a/suezcanal.htm

1.3   History of the urban development

1.3.1   Medieval Cairo (647 A.D. – 1798 A.D.)

In the 7th century Arabs arrived Egypt where they had to face the weakened Roman army. They established there first military camp along the east band of the Nile not too far to the south of Delta[7] . Not too long after that, Romans retreated and Egypt fell under the control of the new comers and Al-Fustat[8] army camp eventually developed into a permanent city. Al-Fustat witnessed the final struggle between Umayyads[9] and Abbasids[10] , where the Umayyad Caliph was killed at Al-Fustat when he fled there to evade his pursuers. In the struggle, much of Al-Fustat was burnt. The seat of the Caliphate was moved from Damascus to Baghdad marking Abbasids as the new rulers of the Islamic world and with them Ikhshids[11] as the new rulers of Egypt. In 868 A.D., Ahmed Ibn Tulun, who had come originally from Iraq, was assigned as deputy for the Abbasid governor of Egypt. He added a new inland of the existing conurbation of Al-Fustat, where he assigned separate ethnic groups to form his army, he employed architects who followed Byzantine-Coptic traditions to build his mosque which stands now as a masterpiece in the southern part of Cairo, marking the location of his long vanished town.
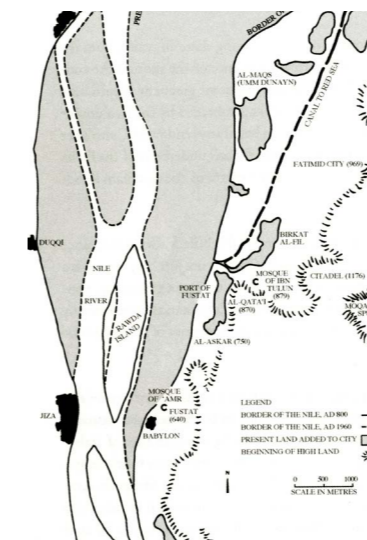

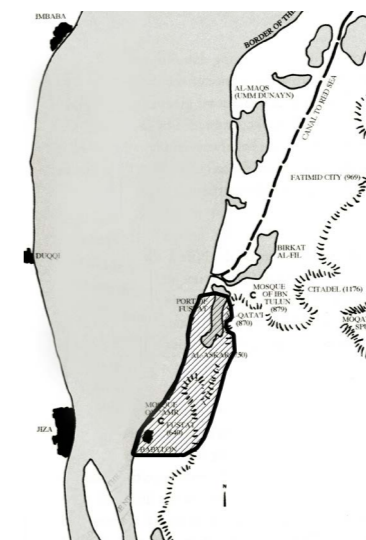Fig. 04: Map showing change in Nile's borders through history

Fig. 05: Map showing Fustat's location

Fig. 06: Map showing Fustat's main monuments

7 Delta is the area located between the two branches of the Nile. It's a very fertile agricultural area bordered by the Mediterranean Sea at the north.
8 Al-Fustat is the first capital of Egypt under the rule of the Muslims. Only Amr Ibn Al-A'as mosque and Ibn Tulun mosque and some other few monuments can be found now from the city. It's a part of Old Cairo now within the skeleton of modern Cairo where a big part of it is an archeological site
9 The Umayyad Caliphate was the second of the four major Islamic caliphates established after the death of Muhammad.
10 Second of the two great dynasties of the Muslim Empire of the Caliphate. It overthrew the Umayyad caliphate in ad 750 A.D. and reigned as the Abbasid caliphate until destroyed by the Mongol invasion in 1258A.D.
11 Ruled Egypt from 935A.D. to 969A.D. Muhammad bin Tughj Al-Ikhshid, a Turkic slave soldier, was appointed 'governor' by the Abbasid Caliph. The dynasty carried the Arabic title "Wali" reflecting their position as governors on behalf of the Abbasids. The Ikhshids came to an end when the Fatimid army conquered Fustat in 969A.D.

1.3.1.1 Fatimid Cairo (969 A.D. – 1171 A.D.)

Fatimids[12] were the first family which took the rule of Egypt to themselves separating it from the Islamic Capital in Baghdad. In 969 A.D., Jawhar Al-Siqilly, the general of the followers of the Shi'ite branch of Islam arrived to Egypt from Tunisia and overcame the resistance of the previous ruling Ikhshids. He proceeded to lay-out a new rectangular, more glorious princely city on the flat land north to Al-Qata'i and named it Al-Qahira, Cairo (the defeater). This well planned walled city was divided into four main quarters by 2 intersecting main routes. The North-South route, named after the Fatimid Caliph, l-Muizz Ledin Allah, stretched from the middle of the northern wall to the middle of the Southern wall where he built the palace of the ruler. The East-West route led from the gulf to Al-Azhar mosque which was destined to be the world's first university.[13]

Fig. 07: Map of Fatimid Cairo with the changes and extensions done in Ayyubid and Mamluk Dynasties

Fig. 08: Map of Fatimid Cairo

12 Fatimids are a political and religious dynasty that dominated an empire in North Africa and subsequently in the Middle East from A.D. 909 to 1171 and tried unsuccessfully to oust the Abbasid caliphs as leaders of the Islamic world. It took its name from Fatimah, the daughter of the Prophet Mohamed.
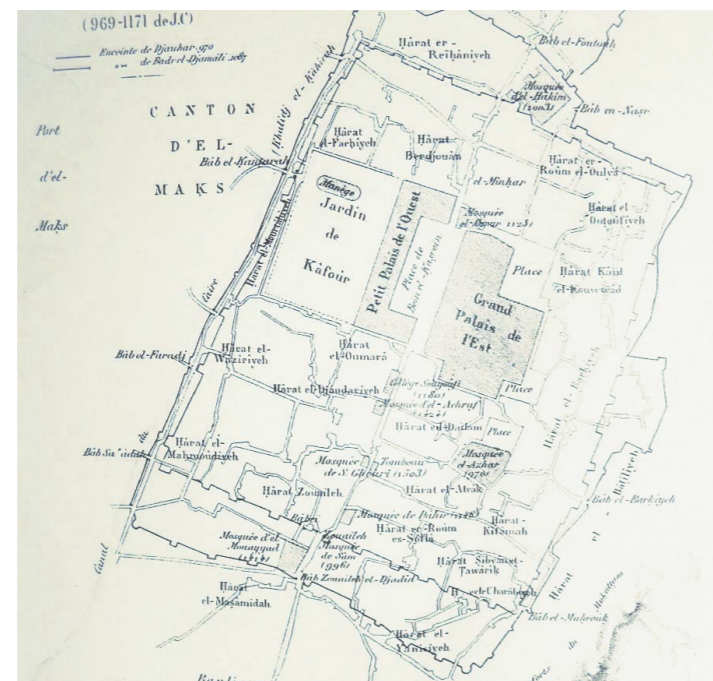13 Philip Jodido (2004), Cairo : Revitalising a Historic Metropolis, Aga Khan Trust for Culture

1.3.1.2 The two cities

During the 11th century we can recognize two thriving cities, Al-Fustat, the larger of the two cities whose northern limit was Ibn Tulun mosque, with no protecting walls around, it was occupied by the indigenous population and devoted to commercial and industrial activities. Visitors from 10th to mid.11th centuries reported that it completed in grandeur and prosperity with the greatest Islamic cities of the time. Accoeding to Al-Muqaddasi[14] the high-rise buildings of Al-Fustat resemble familliar minarets. According to Nasir Khusraw[15], a Persian traveler of the early 11th century, some of these buildings climbed as high as 14 stories up to roof gardens complete with ox-drawn wheels for irrigating them. Khusraw dedicates long descriptive passages to the city's thriving markets, and finally confesses:

I have seen so much wealth in Al-Fustat that if I tried to list or describe, my words would not be believed. I found it impossible to count or estimate it.

Al-Qahira instead, was a well-designed community serving the needs of a large and complex courtly society. It was divided into 10 separate quarters, containing gardens, palatial residences and mosques. According to Nasir Khusraw, he said:

I saw a series of buildings, terraces and rooms. There were twelve adjoining pavilions, all of them square in shape ... There was a throne in one of them that took up the entire width of the room. Three of its sides were made of gold on which were hunting scenes depicting riders racing their horses and other subjects; there were also inscriptions written in beautiful characters. The rugs and hangings were Greek satin and more woven precisely to fit the spot where they were to be placed. A balustrade of golden lattice work surrounded the throne, whose beauty defies all description. Behind the throne were steps of silver. I saw a tree that looked like an orange tree, whose branches, leaves and fruits were made of sugar. A thousand statuettes and figurines also made of sugar also placed there.[16]

14 A medieval Arab geographer, was author of the work Ahsan at-Taqasim fi Ma'rifat il-Aqalim ("The Best Divisions for Knowledge of the Regions"). He composed this work at the age of forty after having undertaken a long series of voyages through all of the countries of Islam.
15 A Persian poet, philosopher, Isma'ili scholar, traveler and one of the greatest writers in Persian literature.
16 Doris Behrens-Abouseif (1996), Islamic Architecture in Cairo : An Introduction, The American University in Cairo Press, Cairo. Philip Jodido (2004), Cairo : Revitalising a Historic Metropolis, Aga Khan Trust for Culture

SITE
SELECTED
BY JAWHAR

CAMP FOR
JAWHAR'S FORCES
(TEMPORARY)

STEEP INCLINE

MOQATTAM
SPUR

RAWDA
ISLAND

LEGEND

WATER

PERIODICALLY FLOODED

RIVER EDGE, AD 800

DENSELY SETTLED CITY

RUINS OR SPARSELY SETTLED

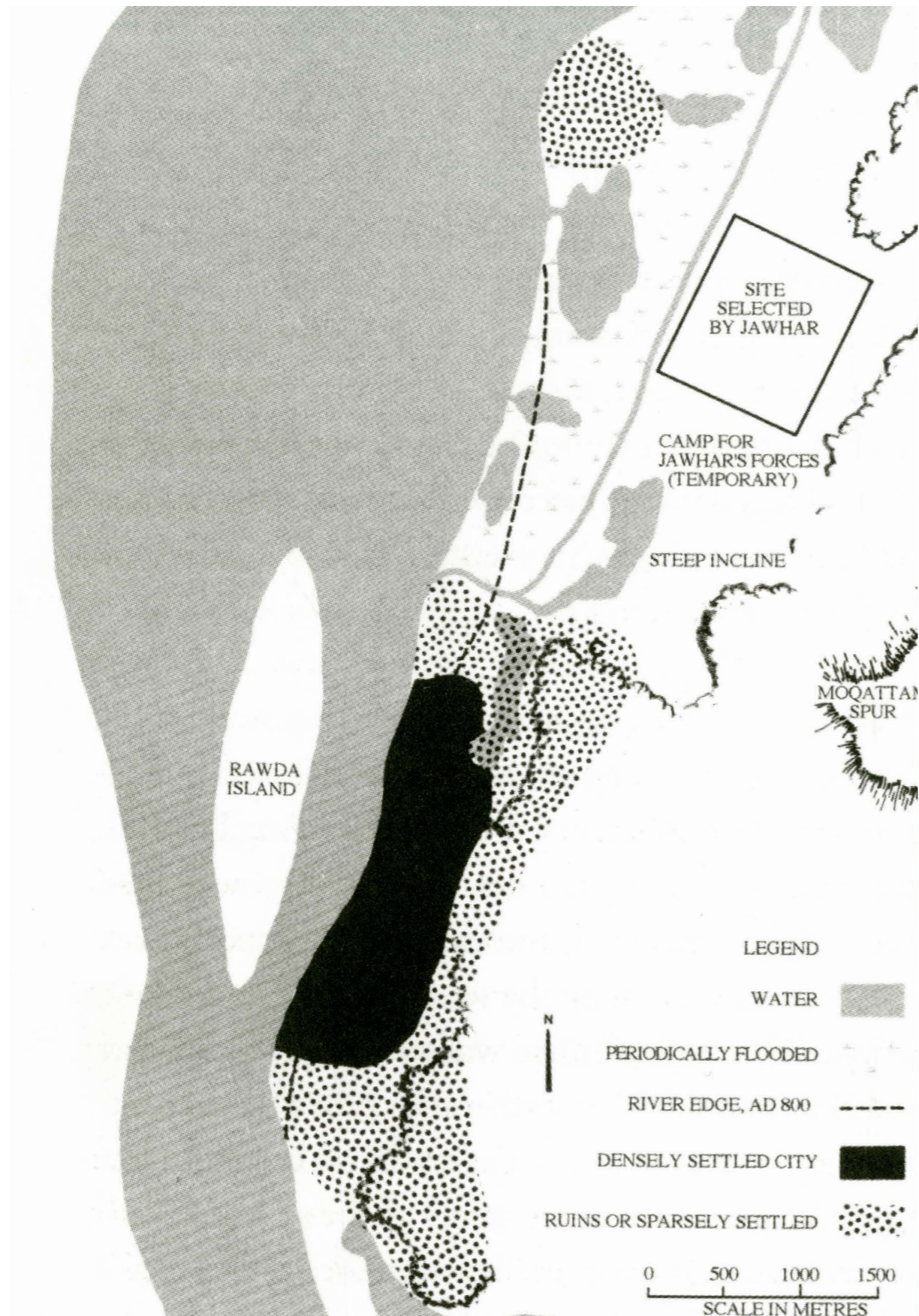0   500   1000   1500
SCALE IN METRES

Fig. 09: Map of location of the two cities

1.3.1.3 Death of Al-Fustat

During the late 11th century huge military campaigns started striking the Middle East (crusades), aiming to control Jerusalem and most possible lands around. They started there invasion in Egypt that's when Shawar the vizier ordered the unprotected Al-Fustat to be burnt in 1168 to prevent it from being captured by the invaders and becoming a siege point for Al-Qahira, it kept burning for 54 days, the smokes rising from the city drove the crusaders army away. All the inhabitants ran away to take shelter at the nearby walled Cairo. The remains of the city were eventually absorbed by nearby Cairo which became the new capital of Egypt and had been transformed from a princely city into overflowing metropolis. Today, Al-Fustat is part of Old Cairo, with few buildings remaining from its days as a capital.

1.3.1.4 Ayyubid Dynasty (1171 A.D. – 1250 A.D.)

Salah Al-Din[17] arrived Egypt during the war against crusaders through his campaign to unite all Arab provinces to stand against the crusaders. Although he was never to spend much time in Egypt, because his campaign demanded constant attention abroad, he planned to strengthen and expand Cairo's walls, extending the northern wall all the way to Al-Maqs. He also built the Mountain Citadel on the spur of Al-Moqattam hills. The construction of the citadel attracted settlements in the area between the existing southern walls and the approaches to it. As Salah Al-Din was following the Sunni branch of Islam unlike Fatimids who followed Shi'ite, one of his missions was to spread the Sunni beliefs in the country, such mission which had a big influence on the architecture of Cairo. As much military buildings he had built to protects the city from crusader's attacks, he also built lots of new mosques and schools to spread his religious beliefs, removing and converting palaces of Fatimids into mosques and schools to serve his cause. Due to the expansions he had done with the walls of Cairo, the city had witnessed major urban expansions pursuing the new boarders which were marked by the new walls. After the death of Salah Al-Din, his family started the Ayyubid dynasty[18] and ruled Egypt 'During the next few decades, Cairo expanded into a world Capital, becoming the most populous city of the world outside China.[19]
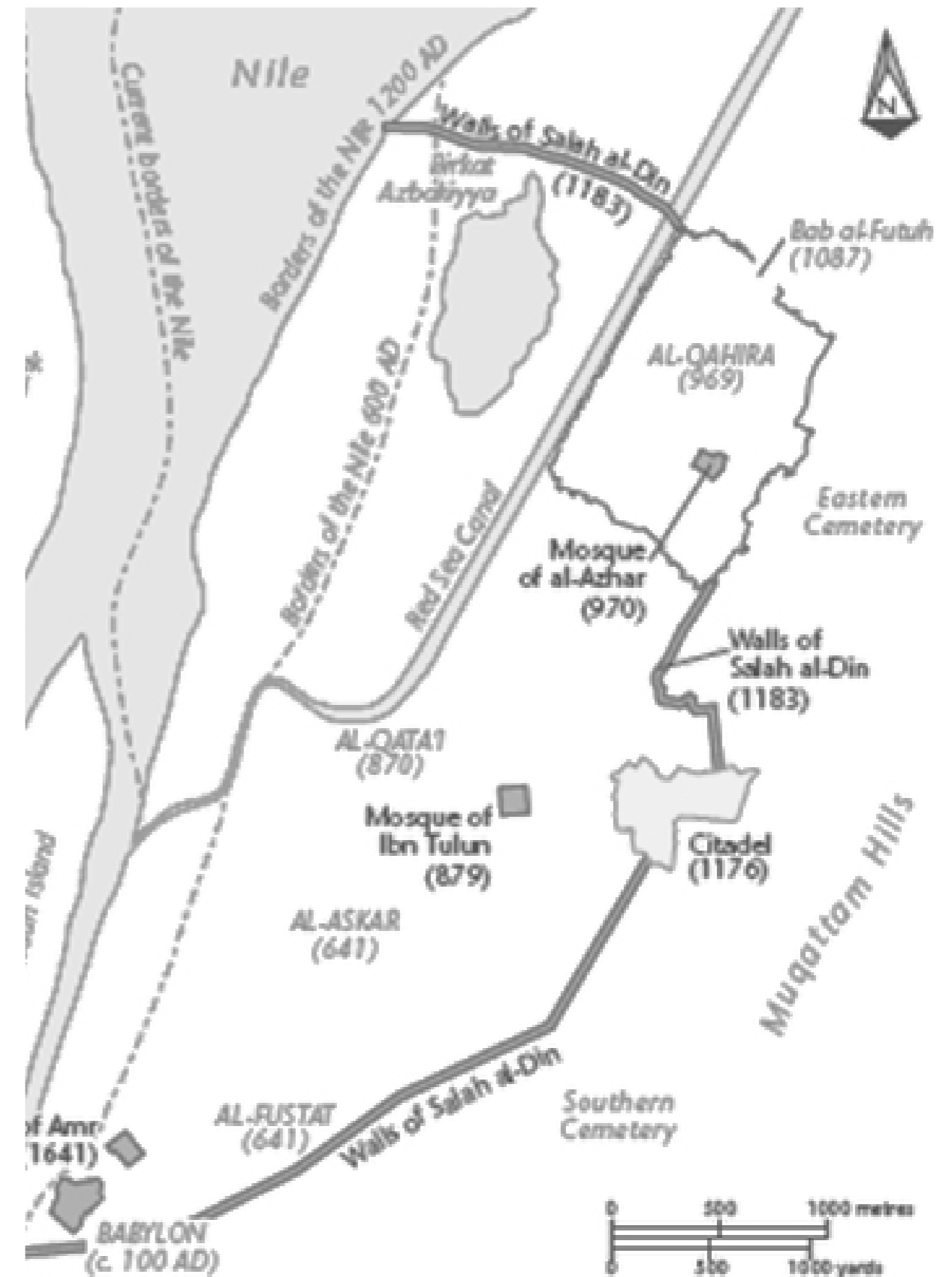
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17 (1137 A.D. – 1193 A.D.) Muslim sultan of Egypt, Syria, Yemen, and Palestine, founder of the Ayyubid dynasty, and the most famous of Muslim heroes. In wars against the Christian Crusaders, he achieved great success with the capture of Jerusalem (October 2, 1187), ending its nearly nine decades of occupation by the Franks.
18 A Muslim dynasty of Kurdish origin, founded by Salah Al-Din and centered in Egypt. The dynasty ruled much of the Middle East during the 12th and 13th centuries.
19 Philip Jodido (2004), Cairo : Revitalising a Historic Metropolis, Aga Khan Trust for Culture

Fig. 10: Map Showing the wall extensions of Salah Al-Din

1.3.1.5 Mamluks Dynasty (1250 A.D. – 1517 A.D.)

In 1250 A.D. Mamluks[20] took control over the country and started the Mamluk dynasty. Cairo expanded on all of its sides, restricted by some rules. Mamluks focused lots of effort on developing the road leading from Bab Zuwayla to the citadel and its royal palaces. Some other natural circumstances had its role in shaping the city. The Nile's borders had shifted to west in the 14th century, transforming Bulaq Island to a port on the eastern bank of the Nile, and leaving Al-Maqs port far inland. The gulf was feeding some ponds in the western outstrikts, when the Nile flooded, it fed its ponds with water, leaving it green spots of land after the flood. The beauty of these ponds attracted Cairene people to found summer resorts there, as well as many princely residences, especially Birkat Al-Fil, and Al-Azbakiyya Lake, where residing and promenading became "en vogue" in the late Mamluk period, and remained fashionable under the Ottomans. Cairo witnessed the biggest movement in urbanism, architecture and art. Many Bahari and Burji Mamluk buildings are still standing today as a proof of how architecture in the Mamluk dynasty was rich with new techniques that's Cairo has never witnessed before. The city started to grow outside the walls during that dynasty, the following map is showing Cairo's expansion at the time of Sultan Al-Nasser Ibn Qalawun.[21]

1.3.1.6 Ottomans (1517 A.D. – 1798 A.D.)

In early 16th century a war started between Mamluk Sultanate and Ottoman Empire over taking the control over Egyptian territory. The Mamluk Sultanate fell and the Ottomans took control over Egypt transforming it from one of the most important cultural capitals in the world and one of the most important destinations of scholars to just another province of their large Empire. Cairo lost most of its importance as science, art and cultural capital and fell into a long political conflict between Ottomans and Mamluks who dug deep inside the skeleton of the society.
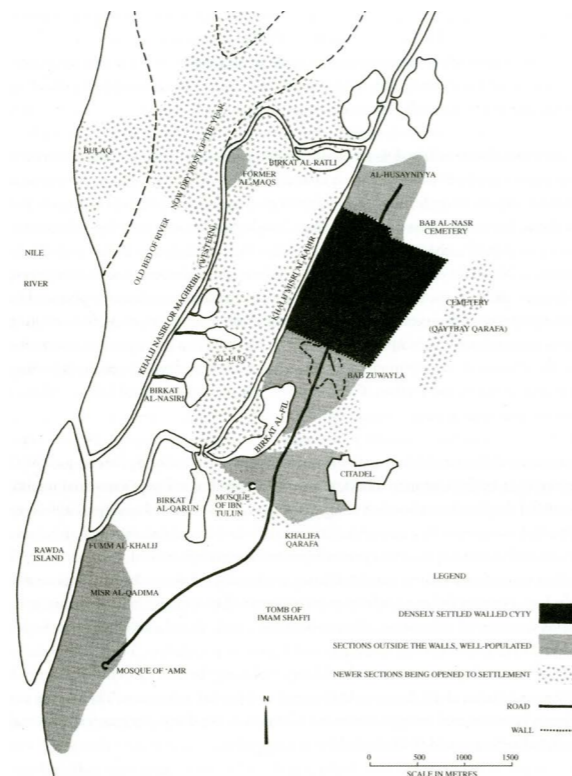

Fig. 11: Urban expansions in Mamluk Dynasty

20 Mamluks are slaves brought in Egypt from Europe whom the royal Ayyubid family used them as soldiers in their armies and they started occupying high rank position in the army until they took control over the country and started their own dynasty
21 Philip Jodido (2004), Cairo : Revitalising a Historic Metropolis, Aga Khan Trust for Culture
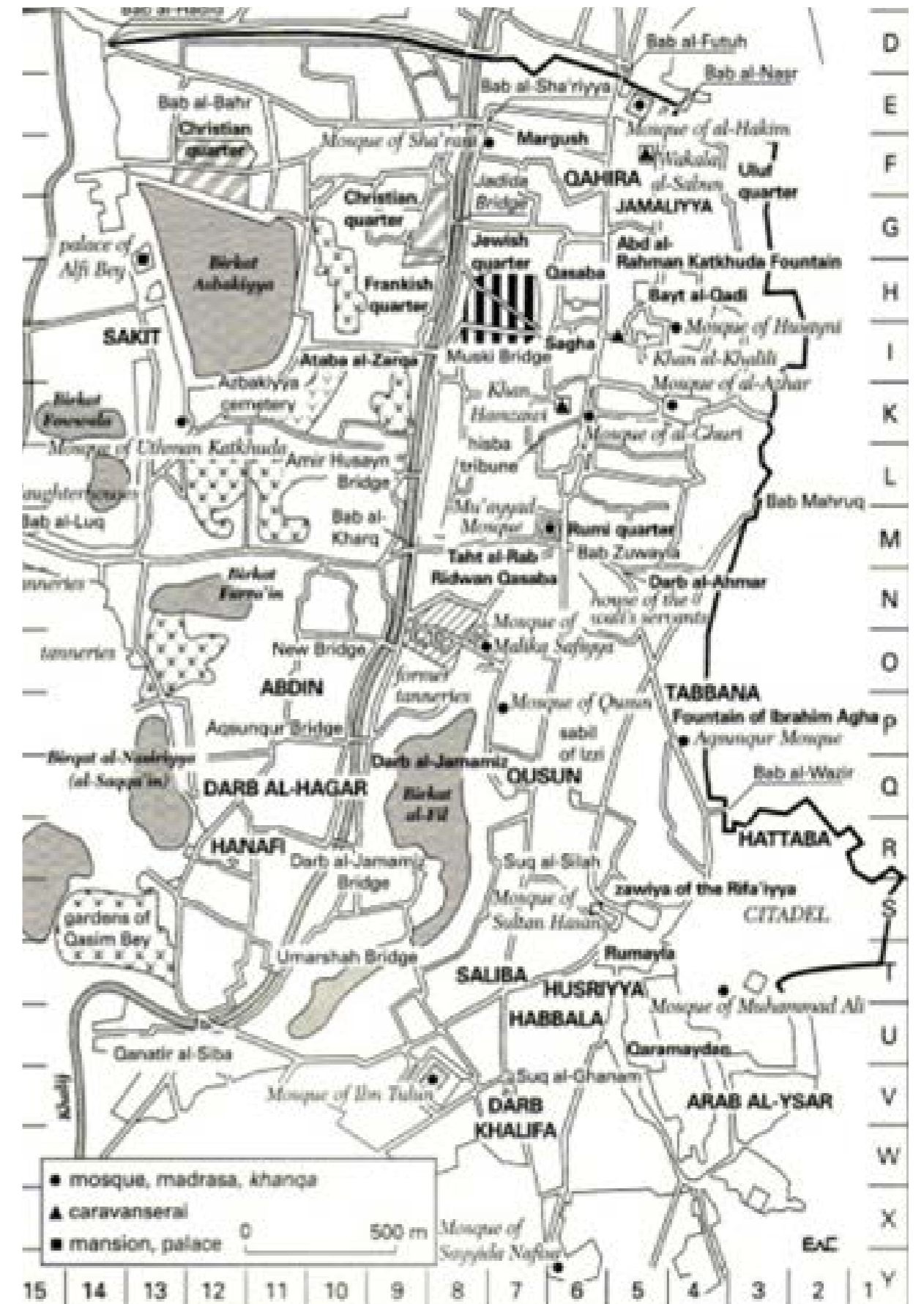
Fig. 12: Map of Cairo in the Ottoman period

1.3.2 Modernization of Cairo (1798 A.D. − 1952 A.D.)

The French campaign which came to Egypt in 1798 A.D. under the command of Napoleon Bonaparte is considered as one of the biggest and first step of the fall of the Ottoman Empire in Egypt. The invasion ended into a big failure after three years. However, during their campaign, French did the first attempt of drawing maps of Cairo, which they called Le Caire, brought from Al-Qahira, the name was later transformed to Cairo by British. These maps are the only maps that are archived, and could be found as a proof of the urban situation of Cairo in the late 18th and early 19th century, before any attempt of modernizing the city. In 1801 A.D. the Ottoman Empire sent troops to Egypt to re-occupy the country under the command of Sarechesme Halil Agha whom second commander was Mohamed Ali Pasha[22] . Mohamed Ali used his loyal Albanian troops to work with both sides, gaining power and prestige for himself, he allied with Egyptian Arab leader Umar Makram and the Sheikh of Al-Azhar University[23] . During the infighting between the Ottomans and Mamluks between 1801 A.D. and 1805 A.D., Muhammad Ali carefully acted to gain the support of the general public. In 1805 A.D. he became Wali, and self-declared Khedive of Egypt and Sudan with the Ottoman's temporary approval.[24].
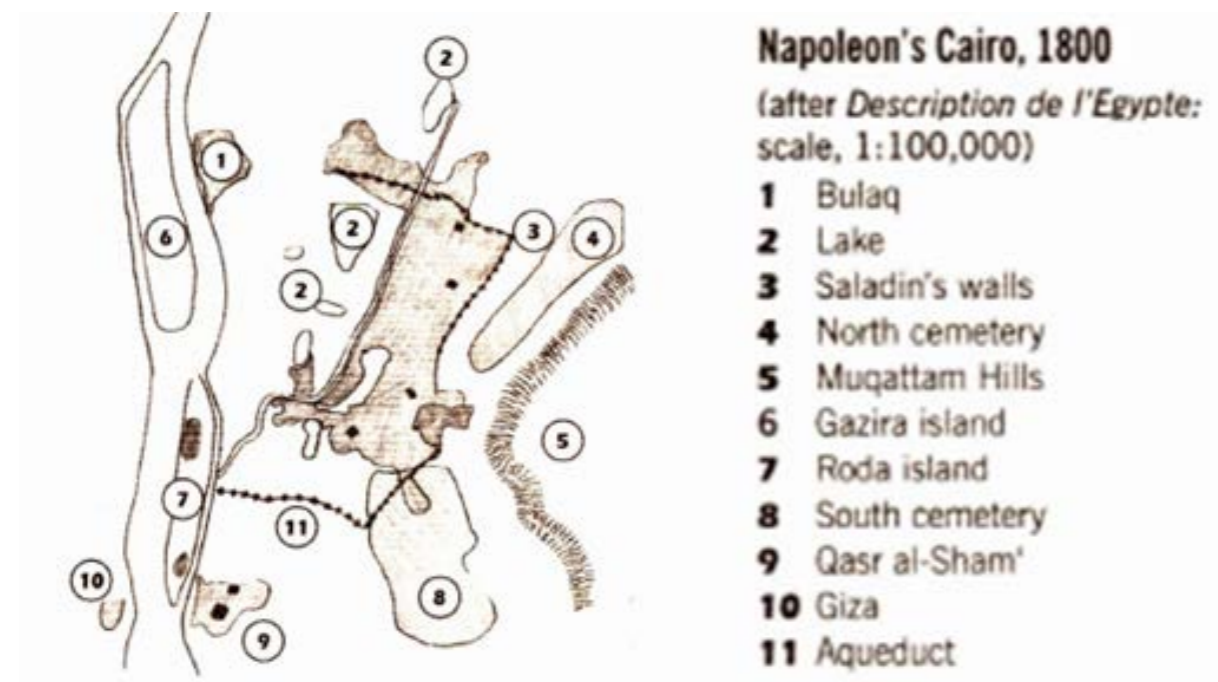

Fig. 13: Map showing the different neighborhoods in Cairo after the *Description De L'Egypte*

22 (1769 A.D. − 1849 A.D.) Pasha and viceroy of Egypt (1805−48), founder of the dynasty that ruled Egypt from the beginning of the 19th century to the middle of the 20th. He encouraged the emergence of the modern Egyptian state.
23   A university in Cairo, Egypt. Founded in 970 or 972 by the Fatimids as a center of Islamic learning, its students studied the Qur'an and Islamic law in detail, along with logic, grammar, rhetoric, and how to calculate the lunar phases of the moon. By bringing together the study of a number of subjects in the same place it was one of the first universities in the world and the only one to survive as a modern university including secular subjects in the curriculum. It is today the chief center of Arabic literature and Islamic learning in the world. It is the oldest degree-granting university in Egypt. In 1961 additional non-religious subjects were added to its curriculum.
24 Helen Anne B. Rivlin (Jan 22, 2008), Muhammad Ali, 2008 [Online] Available, http://www.britannica.com/EBchecked/topic/396343/Muhammad-Ali
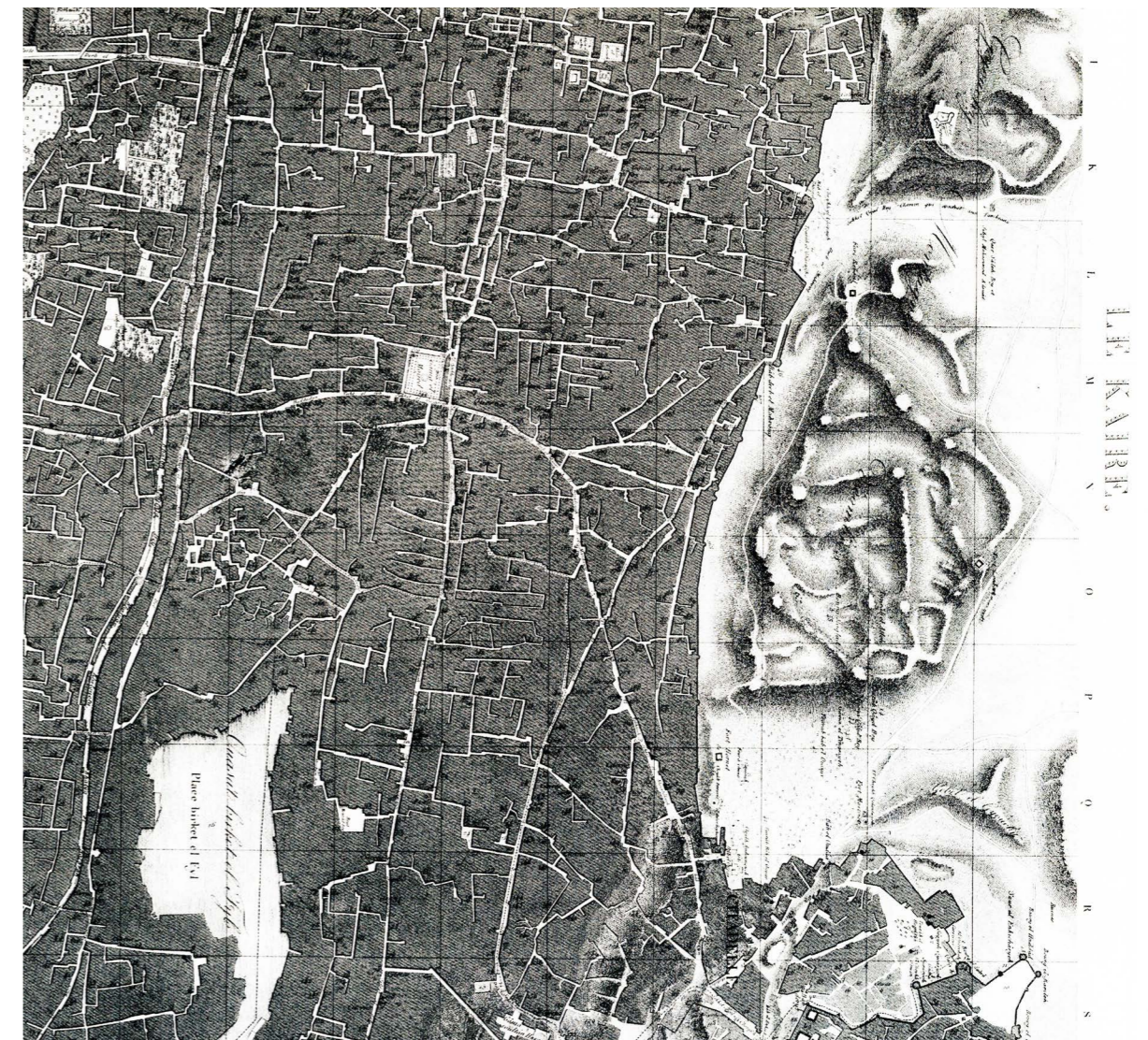
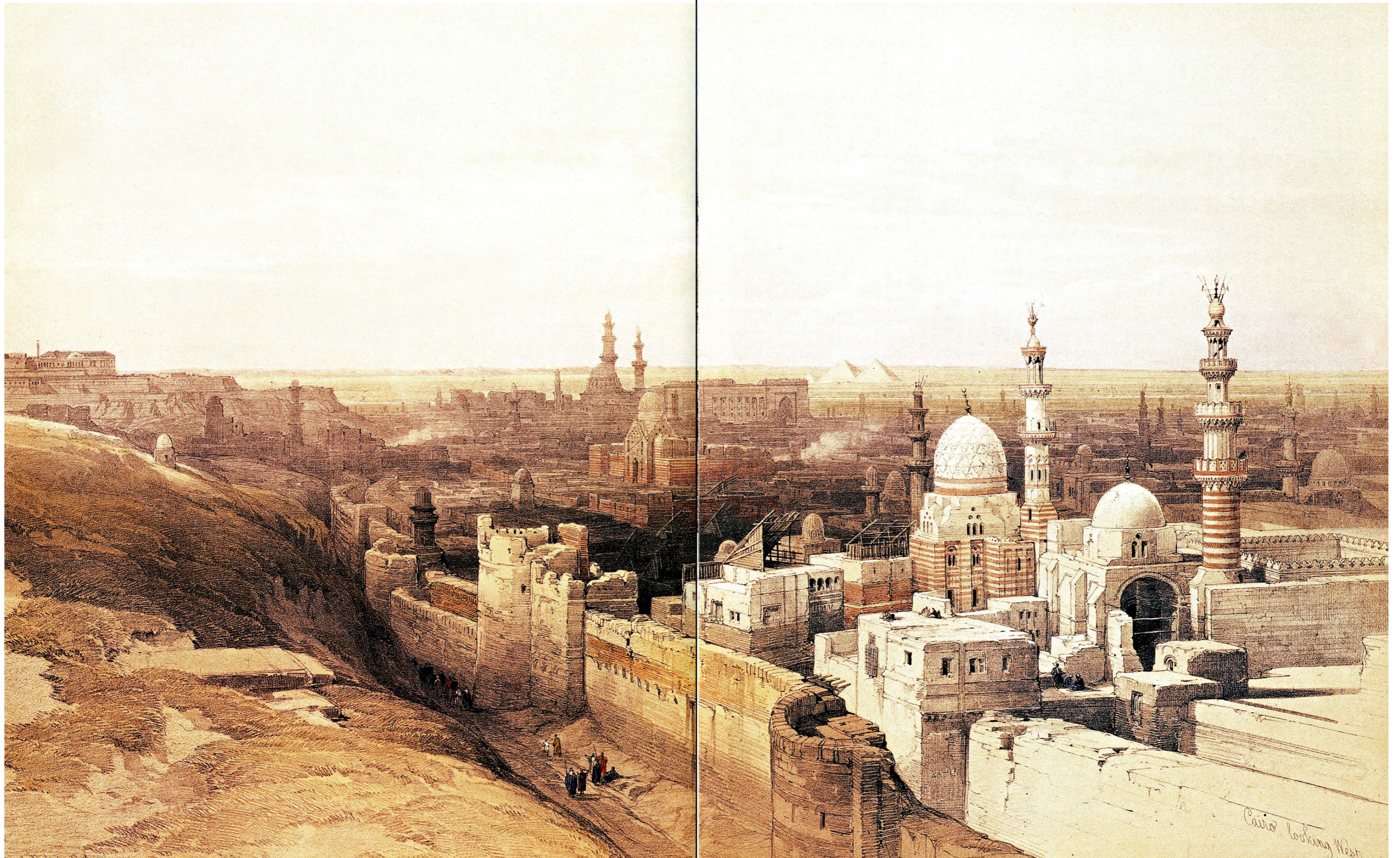Fig. 14: Map of Napoleon's Cairo after the *Description De L'Egypte*

Fig. 15: A picture of Cairo showing the skyline of the city before any attempt of modernization

1.3.2.1 Mohamed Ali Pasha and the first attempts of modernization

In the period of Mohamed Ali Egypt witnessed its first days of being modernized where he started the first urban expanding outside the borders of Old Cairo. He formed an agency in the city of Alexandria, under the name of Maglis tanzim Al-Mahrusa, or Commissione di Ornato, which was borrowed from the Italian commissions set up in early 19th century, the name was to be changed later by British to Commission of Ornament. This commission was responsible for modernizing the cities of Cairo and Alexandria. Nevertheless, it was obvious that Mohamed Ali always was modifying the suggestions and advices of this commission, to fit with the Egyptian society and needs. The most significant touch that Mohamed Ali left in the urban development in Cairo was, first, the improvement and straightening the streets of Old Cairo, followed by the relocation of cemeteries, the cutting of new streets through the old fabric, and the creation of monumental plaza and some regular divisions. Second, the restoration of the houses and resorts along the ponds, which were burnt during the riots against the French. Followed by filling the ponds and leveling its lands, which became the opportunities for his successors to start and found the new modern Cairo. He Mohamed Ali sent lots of scholars to Europe and brought the press technology to Egypt. Scholars who went to continue their education in Europe came back bringing with them a new experiences which the country never new about for almost one millennium.

After the death of Mohamed Ali, The planning history of modern Cairo appears to have followed rather paradoxical or unexpected paths, at least when compared to that of other cities of the periphery. These developments took place during three distinct political situations:The reign of Khedive Ismail[25](1863-79), The British Colony (1882-1922), and the so-called 'Liberal Age' (1922-52). The great works carried out from 1868 onwards, partly modeled after the Parisian example, represent a first major shift in the development of the city.

Mohamed Ali's successors started the new dynasty, where Egypt became unofficially independent from the Ottoman Empire, Nevertheless it took its complete independency in the last 15 30 years of Mohamed Ali's Family dynasty to become a kingdom. During this dynasty Cairo doubled its area and expanded rapidly where several districts were founded and gained new architectural identity.[26]
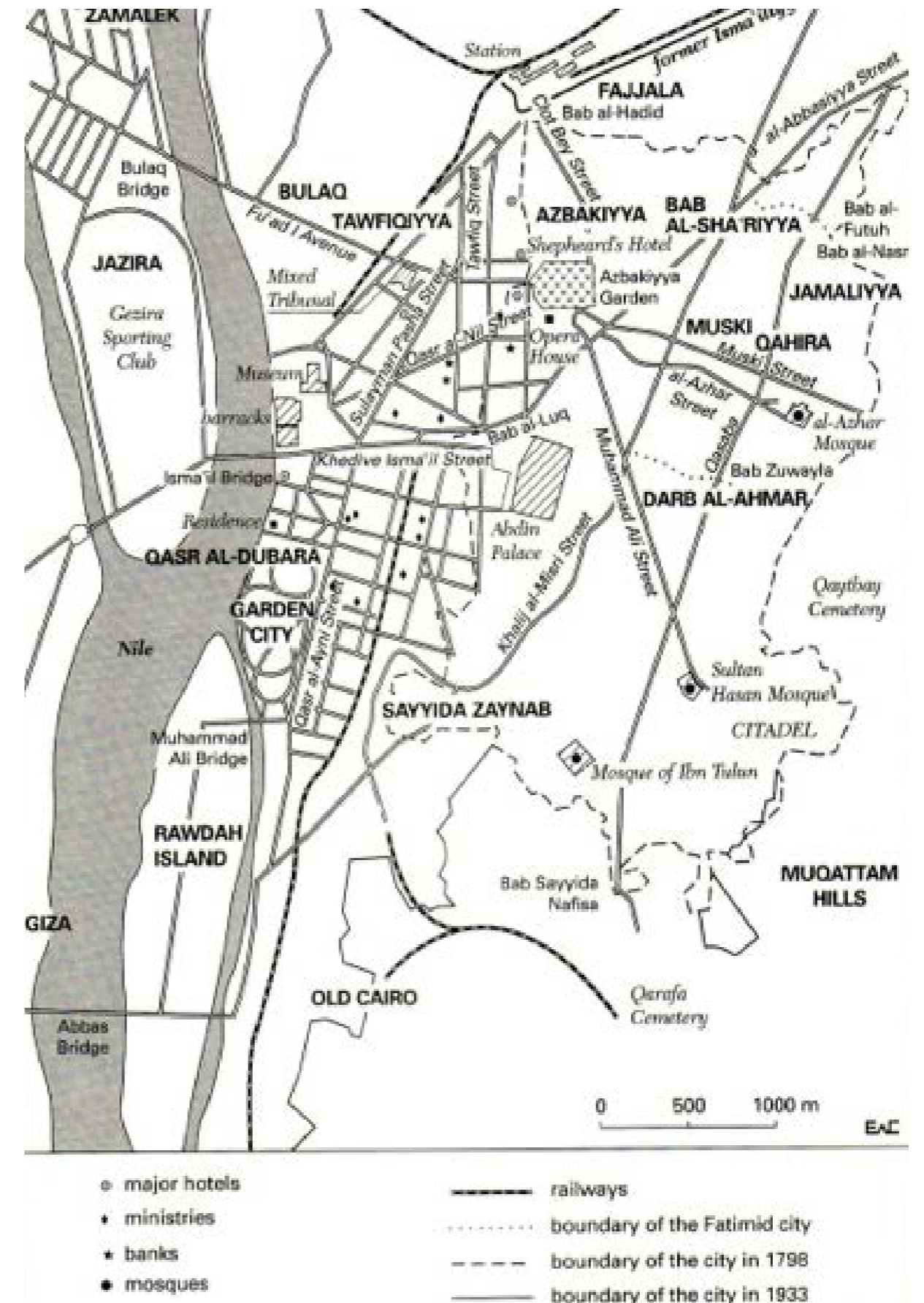
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25 The Khedive of Egypt and Sudan from 1863 to 1879, when he was removed at the behest of the United Kingdom.
26 Mercedes Volait (2003), Urbanism : Imported Or Exported?, Wiley-Academy, West Sussex

Fig. 16: Map showing transformations happened in Cairo During Mohamed Ali and Khedive Ismail periods

1.3.2.2   Khedival Cairo

The major changes that happened in the layout of Cairo took place in the period of Khedive Ismail, where he assigned the responsibilities of drawing new urban layout of Cairo to his talented chef engineer Ali Mubarak[27], who was strongly influenced by Hausmann's re-planning of Paris after his visit there. Architecture was strongly influenced by French architecture in the 19th century where most of the Egyptian scholars were sent to Paris to continue education. Khedive Ismail was famous for his obsession about the beauty of Paris, and his will of transforming Egypt to become a part of Europe. During his reign, in less than a decade, new quarters, gardens and promenades were created at the edge of the old city, streets were cut through the old urban fabric. These improvements vast more significant than anything implemented in any other capital at the time. In other words, after his visit to Paris, and after he saw the work of Haussman there, He intended to Haussmanize Cairo.

Ismail's first attempt of modernizing Cairo, was by founding Al-Azbakiyya and Ismailiyya quarters. The first was a new urban design, done by a French planner, Jean-Antoine Cordier Bey (1810-73). It was built in the area of the old Azbakiyya Lake[28], which was transformed
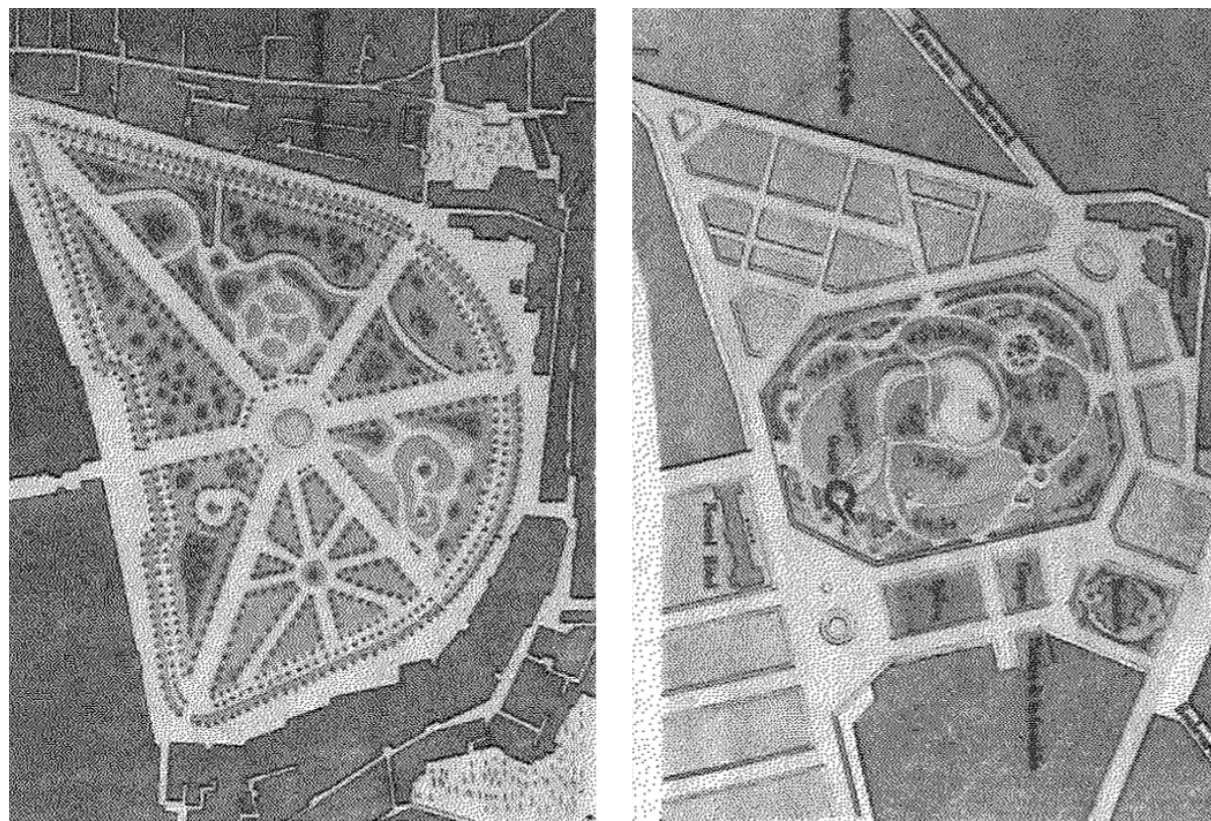

Fig. 17: Al-Azbakiyya before and after Khedive Ismail's intervention

27 An Egyptian public works and education minister during the second half of the nineteenth century. He is often considered one of the most influential and talented of Egypt's 19th century reformers.
28 One of the ponds created at the east of Old Cairo after the shift of the Nile's border. It was very famous by the luxurious houses around it. It hosted the residences of the Elite people of Cairo. It was filled and levelled and transformed into a big park in the period of Mohamed Ali Pasha.

into a park during the reign of Mohamed Ali. Particularly, in 1848. The quarter consisted of a smaller garden with octagonal shape, designed in the center (Al-Azbakiyya Garden), bordered from north by attached residential buildings, holding commercial archades, from south and west by ministries, grand hotels and entertainment facilities, and from east by the old city.[29]

Ismailiyya quarter, known nowadays as Wust Al-Balad, or Downtown, was founded to the east of Azbakiyya quarter, reaching the Nile's eastern bank. The quarter was planned with a network of streets made up of orthogonal grid, attached to a star-shaped pattern, both centered on a circular square. The quarter was divided inti blocks (2000 to 5000 m2 each), which were occupied by large town houses surrounded by gardens.

Followed by that. Khedive Ismail gave the responsibilities of planning two other quarters, Bab Al-Luq and Shaykh Rihan quarters, in 1871, to Piere Louis Grand (1839-1918), a French engineer, under the supervision of Cairo's Ornato Council. These quarters were founded to the south of Al-Azbakiyya quarter.

Bab Al-Luq was centered on a large esplanade at the intersection of two diagonal roads. The pattern was denser than that of Ismailiyya quarter, as it was divided into blocks (400 to 3000 m2 each). On the other hand, Shaykh Rihan quarter was a simple orthogonal grid, denser than that of Bab Al-Luq, divided into blocks (50 to 300 m2 each). These two quarters unlike Azbakiyya and Ismailiyya, were founded a top old suburbs, thus construction required some demolitions.

It's clear, there was an obvious hierarchy emerges from the totality of these suburban creations. The gradation from Azbakiyya to Shaykh Rihan quarters is increasing in the sense of functional specialization (from mixed use to pure residential), in the sense of the planning decisions (from a monumental ordering to a simple gridded pattern), as well as, in the sense of urban fabric density.

Khedive Ismail also gave attention to creating public and private green space, the same as the ones he saw in Paris. He had demanded to see the plans of Parisian gardens, to get the inspiration for his interventions. In addition to Al-Azbakiyya Garden, he created an enormous botanical park over 60 hectares of land of the Island of Al-Gazira, known nowadays as Al-Zamalek. This park contained a big variety of plantation species, artificial rivers, service kiosks, a zoo of African animals, an aquarium, and a series of shaded promenades, some leading to the Pyramids. He also created numerous private gardens on his properties, including that of the Giza palace, on the west bank of the Nile, nowadays, the site of the zoo.

The last intervention that Khedive Ismail proposed was cutting 5 main streets across the fabric of all the old quarters, such an intervention which required a lot of demolition. When

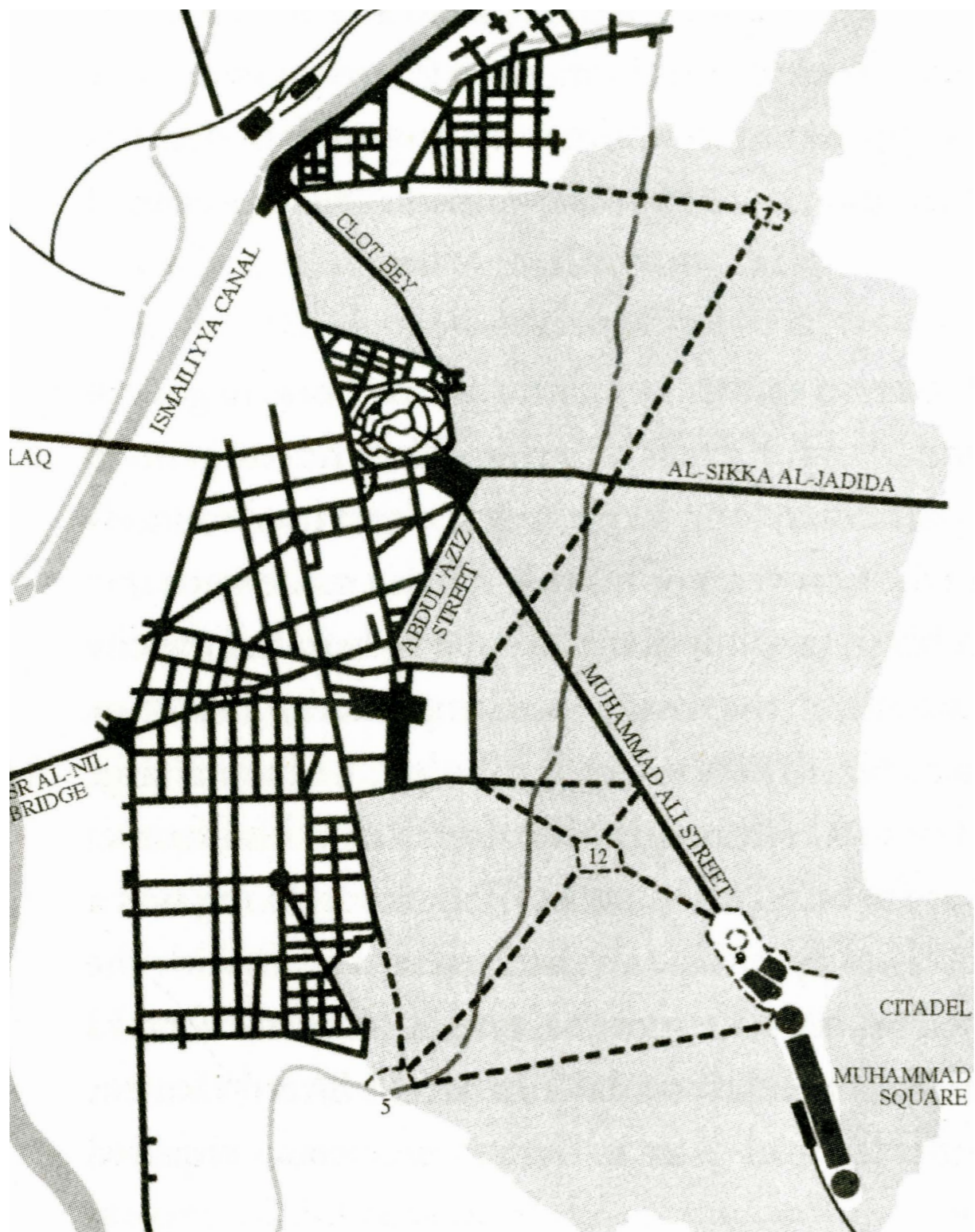29 Mercedes Volait (2003), Urbanism : Imported Or Exported?, Wiley-Academy, West Sussex

Fig. 18: Map showing all interventions done in Khedive Ismail's period

Horeau[30] came to Egypt during the celebrations of the opening of Suez Canal, Ismail took the advantage to review the new plans with him. The plans faced sharp opposition from his side, due to the necessity of demolitions. According to Horeau:

Of all the ideas I expressed in Cairo, this was the one where I encountered the most adversaries, and certainty the most potent ones. What I was told, you want to Haussmanize Cairo? … Is it not vandalism to wish to make into a European city the oriental city par excellence?

After Horeau's statement, lots of Ismail's original plans for the old city started to change. Nubar Pasha, the Armenian foreign minister of the Khedive, who was famous for his love of Cairo, right down to its ruins, stepped up with the voice of the opposition to the Khedival plans. He suggested a huge project of restoration and preservation of old Cairo's monuments. After long political struggle between opposers and supporters of the Khedive's original plans, a compromise solution was reached. The new plans were to cut two long streets starting at Azbakiyya, one of the ending at Misr railway station (Mohamed Ali street), and the other (Clot bey) ending at the citadel, the seat of Khedival power at the time.

Mohamed Ali Street was to be completely straight according to the original plans, nevertheless, it had to turn at midway to prevent the demolition of one of the properties of the Coptic patriarchate. It had to turn as well at the end to spare one of the most ancient mosques of Old Cairo.[31]

Fig. 19: Map showing Ismailiyya quarter

30 Hector Horeau (born in Versailles in 1801, died in Paris in 1872) was a French visionary architect, he is known for his projects great iron and glass halls, one for the halls of Paris in 1845.
31 Mercedes Volait (2003), Urbanism : Imported Or Exported?, Wiley-Academy, West Sussex

1.3.2.3 Cairo in the Colonial Period (1882-1922)

In 1882 A.D. in the period of khedive Tawfiq, the British army successfully occupied Egypt, where it became a British colony (1882-1922). British didn't leave a conceivable touch on the shape of the urban fabric in Cairo during the Colonial period, as they were more concerned about improving the infrastructure of the irrigating system to improve agriculture. As well as improving the streets network in the old existing fabric of the city. According to the statistics done by authorities, the average percentage of the street's area to the total area of each quarter was 25%, reaching to 11% in some denser quarters. Although the tanzim council dictates that it should be 30% at least in each single quarter of the city. The project of the British authorities was to widen and straighten the streets in the old city. More than 230 hectares were to be expropriated. It was very seen that British authorities weren't concerned about planning new quarters, as much as they were concerned about intervening in existing neighborhood. Nevertheless, there existence as the ruler of the country encouraged lots of private investors to invest in Egypt, as they saw it is a politically stable market.

Garden Cities

Most of the urban expansions happened in the colonial period were done by individuals and private investors, without any control from the authorities. Many new neighborhoods were established during this period by private corporations, such as Garden City suburb by Charles Bacos through his Nile Land and Agricultural Co. in 1906, Qubbah Gardens in 1908, Heliopolis by Edouard Empain in 1909-10, and Ma'adi residence gardens in 1906.

Qubbah Gardens

Qubbah Gardens were established north-east from the downtown. Due to the low price of the land in this area, planning and building regulations were somehow different than those of Garden City. It expressed generosity in open space. Portion of the estate was reserved for commercial and industrial buildings. The building regulations dictated maximum built area of 1/3 to ½ of the plot's total area, while the building had to step back 6 m from the street.

Garden City suburb

Garden City suburb was established south-west to Ismailiyya quarter over 28 hectares, touching the eastern bank of the Nile. Designed by Joseph Lamba, featuring the systematic curving of the road network, the area was classically divided into 272 building plots, without center or community facilities. The plots were to be sold to individual owners whom were responsible for the construction of their own houses. The local regulations of the neighborhood dictated that each building had to be maximum 2/3 of the total area of the lot, with 18 m maximum height, minimum 2 m reassess from the street, and that fences should not be plain.
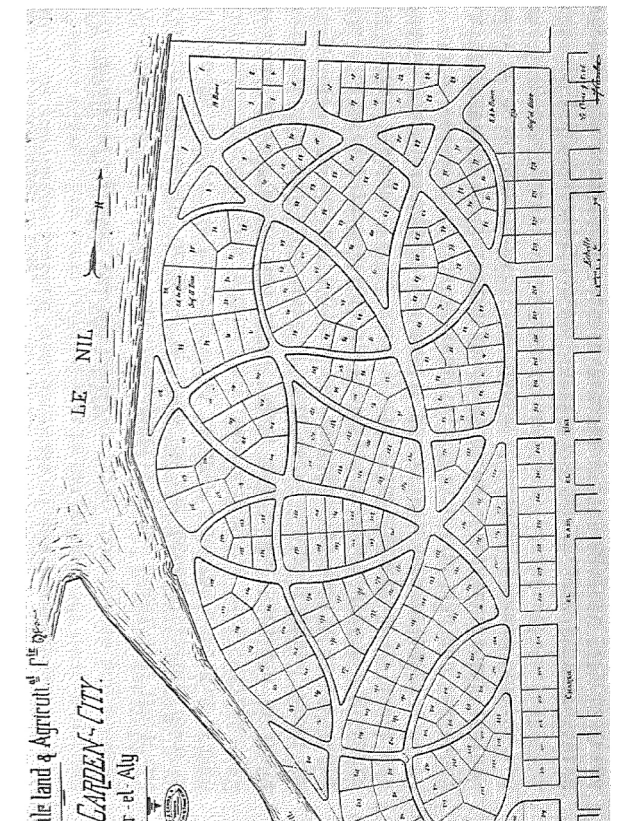

Fig. 20: Initial subdivision of Garden City in May 9th 1906

Heliopolis

Heliopolis was established at the eastern desert of Cairo on 240 hectares of land. It contained dense tenements of two to three-story apartment buildings, with balcony access, arranged in parallel rows. The neighborhoods plan was far from Garden City's ideals of Howard and. Greenery played an essential role, the neighborhood is regarded as denser than other neighborhoods advocated by British movement, as it was regarded closer to the grand designs in the Beaux-Arts.
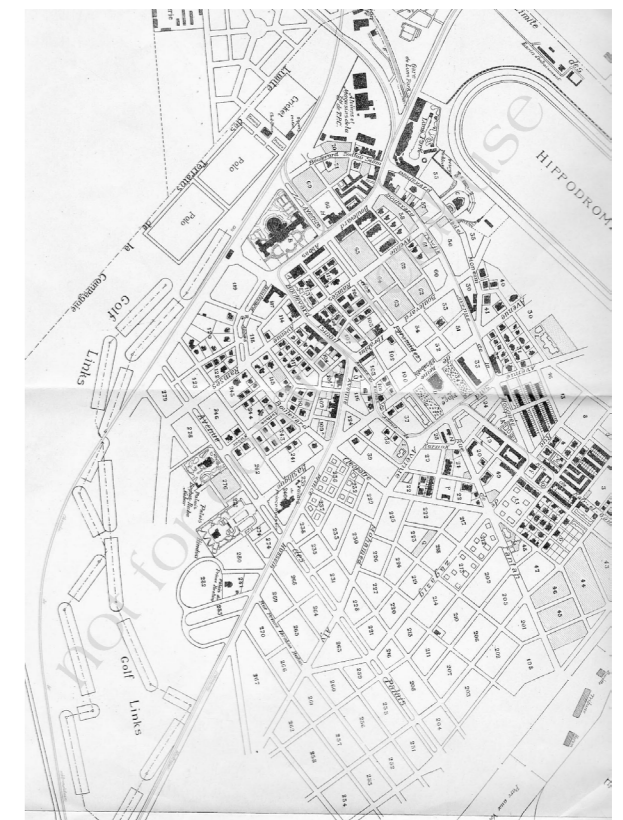

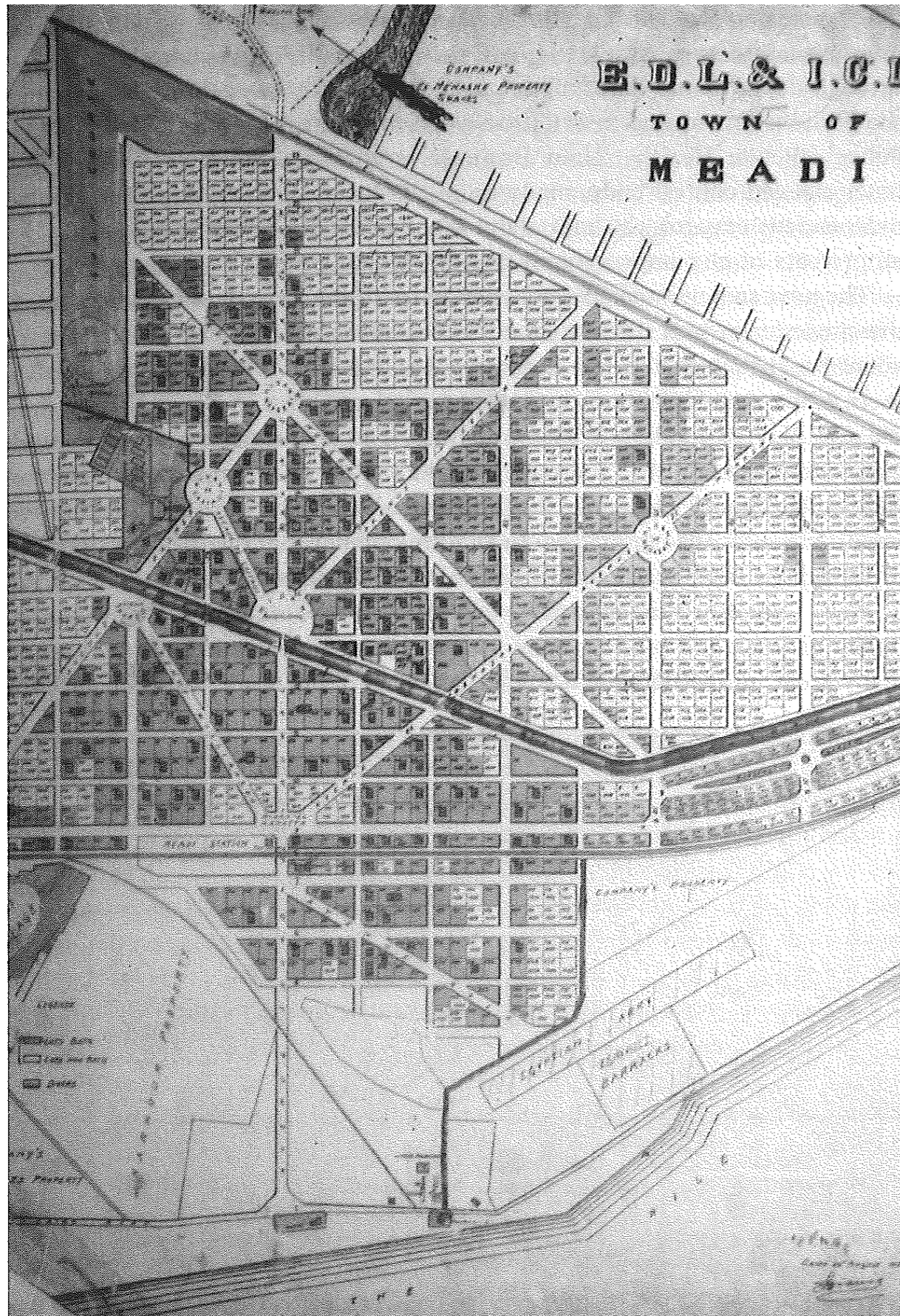Fig. 21: Map showing the division of Heliopolis

Fig. 22: Map of Ma'adi suburb

Ma'adi suburb

Ma'adi suburb was established at the south of Cairo, on a desert-like plateau overlooking the Nile. It is considered as the neighborhood which had the greatest influence of the British concepts of garden cities in Cairo. The plan was developed using a pattern which divides the area into 1000 m2 lots, to obtain maximum density of 10 houses per hectare. As all the garden cities at that time, plots were to be sold to individual owners. Regulations dictated that buildings should exceed 15 m of height. Property borders were marked by hedges rather than masonry or iron fencing. To protect the suburb from desert sand, a massive planting program was begun in parallel to construction, so all streets would be eventually tree-lined. The main standard of choosing the species of the trees was their capacity to provide shade as on duration and color of their blossoming. The project rapidly attracted the members of small British colony in Cairo, they often bought four adjacent plots to increase the size of their gardens. They made the project into success, and a sort of long-term British district within Cairo. Hence Ma'adi is to provide the closest example of British planning principles.

In summary, during Colonial period, public interventions were limited on remodeling of existing quarters, while private projects played the biggest role of the urban development and expansion of Cairo in this period.[32]

32   Mercedes Volait (2003), Urbanism : Imported Or Exported?, Wiley-Academy, West Sussex

1.3.2.4 Cairo in the Liberal Age (1922-1952)

In 1922 A.D., three years after the revolution of 1919 and the political movement of Sa'd Zaghlul Pasha, Egypt got its independence and became a Kingdom, with elected governments and parliament. This political change did obvious effect on the urban development of Cairo, and the policies that were held by authorities. Unlike the British authorities in the Colonial period, the Egyptian government were much more involved in the urban planning and development of the city. They worked in three main axes, they had plans of remodeling the old urban fabric, they took over controlling regulations and maintenance of the new suburbs created in Colonial period, and they took the responsibility of planning of completely new residential districts, mainly on the west side of the Nile.

Remodeling

The change was first reflected in 1923, starting with the project of cutting new roads across the old quarters, such as Al-Azhar Street and Al-Gaysh Street, which were completed on 1929. As well as widening the major thoroughfare, Khalig street (Gulf street). They also stood responsible for the restoration of many historical mosques, including Ibn Tulun mosque which was completely restored between 1925-26.

Controlling

The government was looking forward to plan the evolution of the city and control its expansion. They created a public planning body, Al-Tanzim Higher Advisory Council, in 1929 A.D., which was to control and lead the activities of the municipal affairs. The first actions were to be taken with the new formed council, were towards Heliopolis. Though Heliopolis was still considered as the most remarkable and important enterprise in the modern town development to be undertaken in Egypt. Nevertheless, its initial regulations were seen outdated by authorities. The movement of change was specifically directed to the inadequate provision of public gardens and open spaces, over-concentration of buildings in many areas, irregular heights of blocks, and defective zoning. After two years of negotiations, in 1931 A.D., agreements were finally reached for the new regulations, where the most important of them was setting 48% of the total area of the district to be given up for roads, parks and playgrounds.

Expanding

As Al-Tanzim Higher Advisory Council was taking actions towards controlling regulations and maintenance of existing neighborhoods, it also gave attention to the planning of new residential zones. The biggest and most important of them was the residential district created on the western bank of the Nile, over 680 hectares of land, called Al-Muhandesin nowadays. As well as the creation of new working-class housing, the most important of them was Imababa district, which was established to the north of Al-Muhandesin over 140 hectares of land.

Al-Awkaf City

Al- Awkaf city was established on the western bank of the Nile. The plans were originally done by Mahmoud Ryad, an Egyptian engineer trained in England. He submitted the plan in the year 1930 to authorities, which approved it by 1932. The plan of Ryad was mainly organizing the area around a vast central park and surrounded by a park belt. Due to political instability in the government during this period, the project was delayed. Not until after 1936, when Mustafa Al-Nahhas Pasha became the prime minister, the project was brought back to life, with new plans done by Mohamed Sabri Mahbub, and Egyptian engineer trained in England as well. This new plan was not so different than that of Ryad, as it bored the mark of modern British urban planning. This was reflected in the semi-circular streets, large parkways and U-shaped quadrangles of houses around a central park.
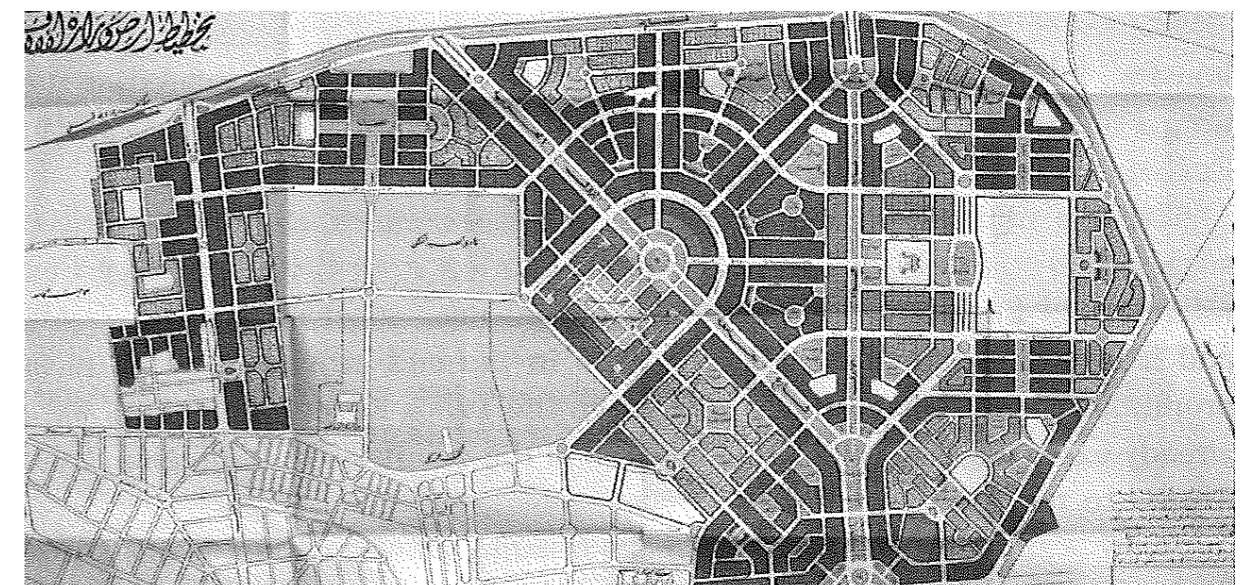

Fig. 23: Ryad's plan of Al-Awkaf

Imbaba

Imbaba housing was erected between 1947-50, on the western bank of the Nile, to the north of Al-Muhandesin, on 140 hectares of land to host 1100 units. The original project was actually something completely different. Al-Tanzim Higher Advisory Council decided a decade earlier to remodel some of the slum areas of Cairo, especially Bulaq area. To do so, they decided to demolish all existing buildings except mosques and churches. They decided to relocate all the inhabitants of Bulaq, who were mainly workers in different workshops, especially the workshops of the railway station. The plan was to establish new working-class housing district to relocate these inhabitants, one of these new districts is Imbaba. Nevertheless, during the period of political instability, the project of remodeling Bulaq was archived, leaving the new districts to be erected as planned.

The plans were designed by Ali Al-Meligi Mass'ud, an Egyptian engineer trained in England. The project adopted the model of the back-to-back two-story row housing. The project was of a very dense pattern, as much as 140 residents per acre rather than 100, the standard maximum, called for in England by Dudley report.

We can summarize from the above that the movement of modernizing Cairo was always held by locals, whether they were rulers, investors, or professionals. Although this movement was referencing from European experiences of Planning and architecture, especially from France and England.[33]

1.3.3 Cairo in the Contemporary Times and the Loss of the Identity (1952-Present)

Cairo have witnessed big political changes through its whole history, nevertheless, one of the biggest and most effective one was in 1952 when the army cooped against the king, with the support of majority of Egyptian people, the army was successful in removing the King. The last British soldier to leave Egypt was in 1954. In the same year Egypt became a republic for the first time in its history and Gamal Abdel Nasser[34] declared himself a president after long struggle with Mohamed Naguib (the elected President of the Revolutionary Command Council). Egypt has faced a huge political change that had the biggest effect on Cairo's urban expanding and its architectural identity. Since after the revolution of 1952 A.D. Abdel Nasser started converting the country to become a socialist country, and he held all the power to himself and all his army close colleague's hands. Cairo became the only economic, political and cultural center in the country which led to massive amounts of domestic immigrants to move to Cairo from all the rural areas in the country. In the last 50 years Cairo multiplied its population almost 9 times, while the population in 1950 A.D. 2.4 million inhabitants it grew to become 20.5 million inhabitants in 2014 A.D. Due to the huge amounts of out comers, the government started to meet their needs of accommodation. They started building social housing in a very economical way with flat facades and concrete buildings conquering the agricultural lands, which led to losing the architectural identity of the city which was kept for more than one thousand years.

In 1956 A.D. an expansion into the east and west deserts was planned. Nasr City (Madinet Nasr) neighborhood project was launched to be constructed in the eastern desert of Cairo in 1958 A.D., followed by further urban expansions in Heliopolis, Ain Shams and to south Maadi and Helwan. Nasr City neighborhood started with strict control for the construction regulations and heights of the buildings. Although the government didn't invade all the areas of this neighborhood with their social housing, owners who have no any architectural awareness found the governmental housing as an example for them to construct their own buildings.

Cairo put its first step to the west bank of the Nile river in the 60th expanding the city to the area of Dokki, Mit Akaba and Al-Haram, this was the first merge between Cairo and Giza governorates to form the Greater Cairo region. However in 1967 A.D., Arab Israeli war[35] started and subsequent events had the crucial effect of freezing formal types of developments in the city by government. However, although urban plans where archived temporarily for the moment, the continuous need of residential buildings led to the vast

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33 Mercedes Volait (2003), Urbanism : Imported Or Exported?, Wiley-Academy, West Sussex

34 (1918 A.D. – 1970 A.D.) The president of Egypt (1956–70) who became a controversial leader of the Arab world, creating the short-lived United Arab Republic (1958–61)
35 A war fought by the coalition of Arab states led by Egypt and Syria against Israel from October 6 to 25, 1973. Ended by peace negotiation from the Egyptian side and continue of the conflict from the Syrian side.

increase of the informal ways of expansion, by breaking heights limits and construction regulations such as what happened in Nasr City, Al-Haram and even Old Cairo itself. Also by squatting governmental land in desert, slums started appearing in Cairo for the first time. In early 70th lots of slum areas appeared such as Matareya (which was once full of farms and villas of aristocrats), Ain-Shams, Bulak, and Al-Warrak Island appeared. Eventually due to housing shortage, the illegal sector became so large that the government turned a blind eye to much of its activity.

After the death of Abdel Nasser in 1970, Mohamed Anwar Al-Sadat[36] became the president of Egypt. He had completely different policies than Abdel Nasser as he was a Capitalist, after the 1973 war, Sadat freed the economy and announced the open door policies. As a result Cairo experienced massive urbanization, at the west of the city, 6th of October city was established in 1979 A.D. with some residential and some industrial zones, to the north east of Cairo 10th of Ramadan city was established in 1977 A.D. with some residential and some industrial zones. Mainly the residential zones were constructed as social housing but lately in 6th of October city, some luxurious residential compounds were built.

After the death of Mohamed Anwar Al-Sadat in 1981, Mohamed Hosni Mubarak[37] became the president of the country, he did not have certain political believes, corruption was growing and the only policy was benefiting close businessmen and getting benefits from them, which led to a new route for the urban growth of Cairo. The need of planning new settlements or building new neighborhoods was according to the will of the businessmen close to the regime and their benefit, New Cairo which is the biggest urban growth happened in the history of Cairo was established according to a presidential decree in 2000 A.D. being divided into 5 settlements, only 1st and 2nd settlements were decided to be constructed as social housing for poor families, nevertheless it met a big failure due to the lack of services and facilities and it only achieved less than half the population expected for these settlement, most of them are occupied by workers of construction working in neighboring areas. 3rd and 4th settlements were sold as empty lots to individual buyers and private investors and was built as semi-luxurious housing or administrative buildings. 5th settlement which has an area almost as big as the eastern half of Cairo was only built as high luxurious residential compounds with golf courses and giant villas importing and mixing different architectural styles from west in each single building. As it stands, 5th settlement is regarded as one of the biggest contributors of the loss of the architectural identity of Cairo and stood as a witness on how big is the gap between rich and poor in the Greater Cairo region.
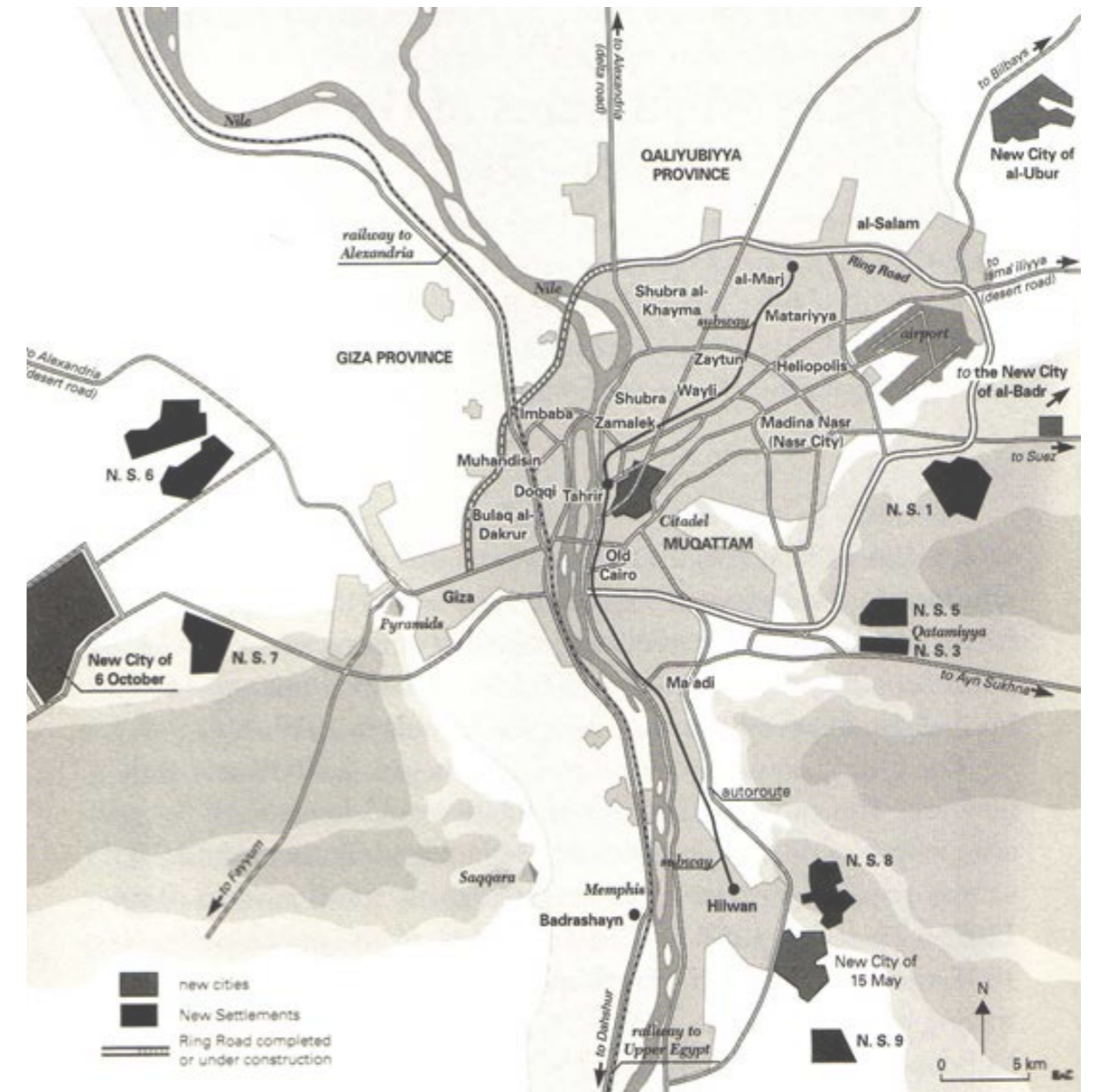
36 (1918 A.D. – 1981 A.D.) Egyptian army officer and politician who was president of Egypt from 1970 until his assassination in 1981. He initiated serious peace negotiations with Israel.
37 (1928 A.D. – Still alive) Egyptian military officer and politician who served as president of Egypt from October 1981 until February 2011, when popular unrest forced him to step down.

Fig. 25: Greater Cairo (1991) (after Berthet and Belliot)

Discussion and Conclusion:

Since the beginning of time, the Egyptian capital was an amalgam of diverse cultures (and nationalities). Multi-layered and multi-faceted identities are the reality of Cairo throughout its entire history. Relating to any of Cairo identities is accepted: "Islamic Cairo", "Modern Cairo", "Old Cairo", "Contemporary Cairo", etc- as cultural conceptions not as geographical locations. Any reference to one category of Cairenes urban identities should always be framed/specified within the context of the subject matter at hand. From its naissance, Cairo was built where there were already subcultures presenting the subgroups of the Egyptian capital (Madinet Masr). While the historical part of the capital amalgamation of history, nationalities, and therefore, cultures, fall beyond the scope of this research, yet, it is worth reminding. Cairo's particular urban identity is indeed a true fallacy. However, with the highly politicized cityscape of modern and contemporary Cairo, it has reached a perplexed state that made her face major political, economic, social and cultural challenges. This has resulted in a lack of identity at all.

The socio-urban topography of contemporary Cairo can be summarized in the following description of each district-category, based on location, dominant activities, type of residents, and status[38]:

• The Historical Districts: User groups: the troops of the "balady" locals and workers in the nearby downtown. Naturally deteriorated due to age, lack of maintenance and urban governance. Most of the historic buildings currently suffer from collapse-threats that might lead to their total loss.

• The Nineteenth Century Districts: User groups: low-middle class. Mostly governmental employers and some tradesmen.

• Turn of the Century Districts: Each was dedicated to a user group, ethnicity, or nationality. Either in villas with gardens, or apartment buildings, all districts were elegantly designed with different European. With the social mobility that accompanied the nationalization and centralization, the user groups, the land uses, and the urban fabrics have changed dramatically. Many of the old buildings are destroyed to accommodate high-rise ones. Densities have exploded. Most of these districts have repelled their original residences and their current social structure cannot be categorized.

• Twentieth Century (Modern) Districts: Built on the new town-planning schemes, models of modernism are dominant in grid-iron urban fabrics and high-rise buildings, and newly

building types. Home for the newly centralized governmental institutions, with modern architecture. Included modern activities required by the emerging user groups, clubs, shopping centres, parks, schools, day-care centres, etc.

• New Urban Settlements and Gated Compounds: Divided into two categories; satellite cities and attached cities, and gated compounds. After 1973's victory, a decision to decentralize the economy and industry was intended to protect the city from the overpopulation as well as to protect the left agricultural plots of the city from the crawling of urbanism. Linked with ring-roads and/or highways. Built on planned infra structure and services, to house low-income residents of the big city, as well as newly-weds. Mostly designed as workers cities for the low-middle and low income. A second type of urban settlements (gated compounds) was started in the nineties, after the original districts of the city became repellent. Including all types of luxurious aspirations of entertainments. Buildings are with very low density and highest percentages of areas are left for greenery and public spaces. Types of users of this type are mainly the business men and the newly crème of society.

• Informal Areas: Capitalized over the past three decades, scattered within and outside the city peripherals, covering more than 50% of Cairo's face, are considered as the instant solution for the homeless. They house very high densities, reaching 90% building densities, up to five floors. Mostly deprived of infra structures and services, as well as public spaces. The user groups of those settlements are the socially marginalized and the least-income inhabitants of the big city.

38 Safey Eldeen, H. 2015. I Am My City: Rethinking Cairo As a City Contented. Proceedings of REALCORP 2015 Conference: Plan Together, Right Now, Overall. Ghent, Belgium, May 2015.

CHAPTER 2
UNDERSTANDING THE ARCHITECTURE OF CAIRO

In the previous chapter, the history of the urban development of Cairo was reviewed. We can obviously conceive that it could be divided into three main periods, the medieval period (647 A.D. – 1798 A.D.), the modernization period (1798 A.D. – 1952 A.D.) and the contemporary period (1952 A.D. till now). In this chapter, light will be shed on the architectural identity of each of the previously mentioned eras, with an attempt to understand the philosophy behind its various architectural styles.

2.1 Medieval period (647 A.D. – 1798 A.D.)

This period started with the birth of the city of Al-Fustat under the command of Amr Ibn Al-A'as in 647 A.D., and ended with the arrival of the French campaign under the command of Napoleon Bonaparte in 1798 A.D. The period witnessed many different political trends that gave different architectural identities. However, mostly associated with the term "Islamic Architecture".

Many of the remaining buildings of the medieval period in Cairo are religious buildings, yet there are some other remaining examples. However, there are many other building types, as follows:

1. Mosques: A place that requires a space in which people can gather for prayers while facing the direction of Qibla (Mecca). First mosque to be built was the courtyard of the prophet's house in Medina; that was a "community center". It had no architectural refinements except a shaded area at one end. Later on, mosques were required to accommodate larger amount of people for Friday prayers and for other educational and domestic needs. As a result, mosques became grander and different, and each mosque became the center of its neighborhood.

2. Madrasa: A school of law and theology where scholars were to be trained for administrative functions. It was first introduced by Salah Al-Din to suppress Fatimid Shi'ism. Madrasa can be divided into two types.
- The cruciform madrasa, consists of four great vaulted iwans. Dormitories for teachers and cells for students were hidden in the corners between iwans, behind courtyards and facades. It tend to rise vertically in a number of stories, as opposed to mosques which required flat large space for multitude of people in the same level.
- Qa'a form, is modified from cruciform madrasa, where the east and west iwans were shrunk, central courtyard was reduced and covered by wooden roof with a central cupola, and the building extended vertically. This type of madrasa appeared due to the lack of urban spaces left in the city.[39]

39 Williams, Caroline. 2008. Islamic Monuments in Cairo. The American University in Cairo Press, Cairo, New York

3. Khanqah: A residence for sufis. Its plan consists of a central court with lateral surrounding rooms.

4. Mausoleum: A domed chamber containing one or more tombs, wither freestanding or a part of a larger complex.

5. Wikala: A place for travelling merchants built around a courtyard, with stables and warehouses in the ground level and living accommodations above.

6. Sabil-Kuttab: Two-story (or more)buildings with a public water dispensary at the ground level, and a Quranic school for boys (mostly prphans) above. Enormous underground cisterns stored and provided water.

7. House: Houses were usually for extended families, required privacy, security, coolness, and minimum of exterior ostentation.

8. Fortifications: It includes walls, gates, towers and citadels.

In the following few pages, a quick review of the features and advancements in each medieval era will help typify its architectural precedents, and hence The Cairene architectural identity of the time.[40]

2.1.1   Early Islamic Period – Umayyad, Abbasid, and Ikhshidy Dynasties (661 A.D. – 969 A.D.)

The architecture and the architectural decoration of the Muslim world in Al-Fustat during the first three centuries of its existence are the result of the encounter of the new Muslim faith and state with the ancient traditions of the place. New constructions had to be meaningful to the Arabs from Arabia as well as to the old settled population of the area and to reflect the needs and aspirations of the former and the competencies of the natives. Initially this art depended entirely on the technology and craftsmanship available locally. Craftsmen drafted by powerful patrons, artisans established on their own in new areas of employment.

The most famous remaining buildings belonging to this era were Amr Ibn el Ass and Ahmed Ibn Tulun mosques. Amr Ibn El Ass mosque had no special features. It was merely inspired by the house of the prophet: Basic model of mosque architecture. A place for gathering performing rituals, discussion and negotiation of religion, life and community issues, It had both a religious and a social function. While walls were of mud and brick construction, roofing was with palm tree trunks. Columns were later brought in from earlier temples and churches, Qible-Riwaq aisles are more than all other mosque isles. Courtyard was the large area with arcades on rectangular piers. The mosque was later developed and renovated. As for the Mosque of Ibn Tulun. Its inspiration came from Samarra, near Baghdad, the ninth-century capital of the Abbasids. It has brickwork piers, pointed arches, and a magnificent coating of carved stucco ornamentation. The brick piers were imitated later in the Fatimid Mosque of al-Hakim, and the pointed arch and carved stucco later became important features of Cairo architecture.[41]
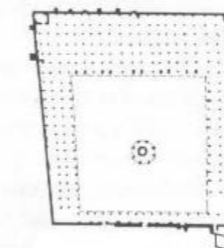
Fig. 26: Amr Ibn Al-A'ss mosque

Fig. 27: Sketch for Ibn Tulun mosque

40 Williams, Caroline. 2008. Islamic Monuments in Cairo. The American University in Cairo Press, Cairo, New York

41 Williams, Caroline. 2008. Islamic Monuments in Cairo. The American University in Cairo Press, Cairo, New York
Doris Behrens-Abouseif (1996), Islamic Architecture in Cairo : An Introduction, The American University in Cairo Press, Cairo.
Philip Jodido (2004), Cairo : Revitalising a Historic Metropolis, Aga Khan Trust for Culture

As for the architecture of the residential buildings we can easily realize that it was a reflection of the society of the city itself, Al-Fustat city was described as the main metropolis of the capital at the time. Houses rose up for 4 stories, it was described by Khusraw that it rose up till fourteen stories high during Fatimid period before it was burnt. Residences had sewage system, roof gardens, water wheels and wells. Mashrabiyya[42] was one of the most prominent elements that were used in the residential architecture in Al-Fustat that contained ornamental work done on wood with small repetitive openings to allow sight to the people living inside. Abbasids had an advanced sewage system based on water wheels wells. The houses were designed on the "majlis" plan type. Public baths (hamams) were also introduced in Egypt. Hospital (Bimaristan) and the Nilometer were also developed.

This period also left us with some public buildings, such as, Hammam Amr, Bimaristan, and Nilometer which is the oldest building which is remaining in its original state, yet the pointed roof of the building was added later in the Ottoman period.

The architectural features of the Abbasids/Tulunids reflected direct influences by the building culture of the country of origin of the rulers; such as Ibn Tulun mosque's stucco decorations/floral arabesques[43], geometric patterns, the floral Kufic Calligraphy[44], brick constructions, etc. Hence, architecture in the early Islamic period had an obvious image of Islamic architecture, yet it didn't have a taste of its own, it was a result of mixture between the new religious beliefs and the local heritage and old techniques, which was not yet mature as we can see later on.[45]

Fig. 31: Sketch showing the common facades of the Cairene residential buildings in Al-Fustat

Fig. 28: Picture showing the Mashrabiyya on the facade of one of the Cairene houses.

Fig. 29: Picture showing interior view of Mashrabiyya at the house of Zaynab Khatoun in Cairo.

Fig. 30: Cufik decorative inscription of the frase (No God But Allah)

42 Mashrabiya is a type of projecting bay window, enclosed with carved wood latticework located on the second story or higher of a building.
43 The arabesque is a form of artistic decoration consisting of "surface decorations based on rhythmic linear patterns of scrolling and interlacing foliage, tendrils" or plain lines
44 Earliest extant Islamic style of handwritten alphabet that was used by early Muslims to record the Quran
45 Doris Behrens-Abouseif (1996), Islamic Architecture in Cairo : An Introduction, The American University in Cairo Press, Cairo.
Philip Jodido (2004), Cairo : Revitalising a Historic Metropolis, Aga Khan Trust for Culture
Antoniou, Jim (2002), Historic Cairo : A Walk through the Islamic City, The American University in Cairo Press, Cairo.
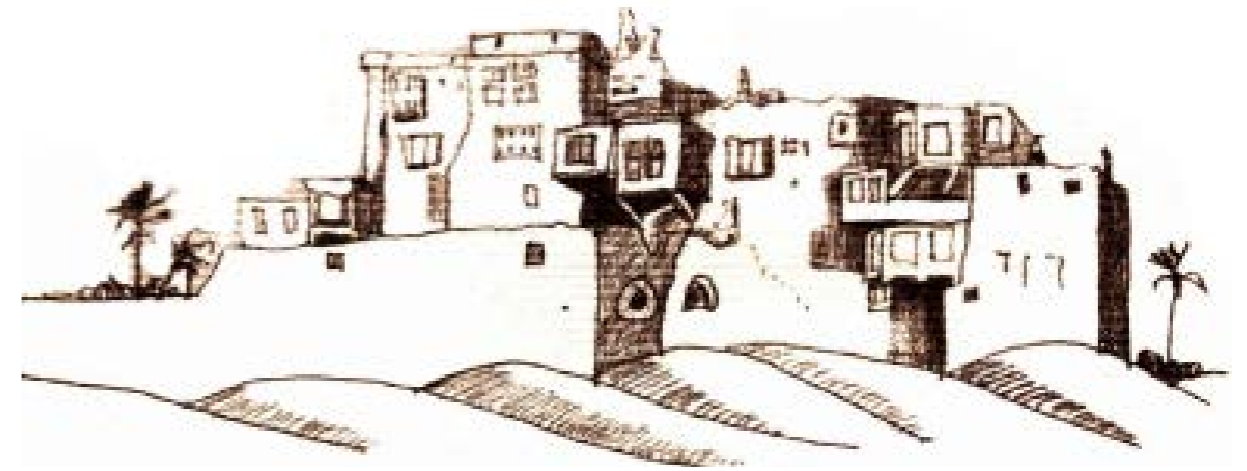
2.1.2 Fatimid Architecture in Cairo (969 A.D. – 1171 A.D.)

After their conquest to Egypt in 969, Fatimids started a huge program of building; they founded the princely city of Al-Qahira with its luxurious palaces and enormous mosques. Most of the architecture of the Fatimids revealed their religious beliefs; starting with the names they gave to their mosques "Al-Azhar", Al-Hakim – Al-Anwar", "Al-AKmar, all referring to the members of the house of the prophet. Through all their decorative elements that accentuated on the concept; Religious authority was the right of the Imams (descendants of the prophet) actions had hidden dimensions; Prophet: receiver of the message, and Aly: Explains the message. Buildings during the Fatimid period can be divided into three groups, religious, secular and defensive.[46]
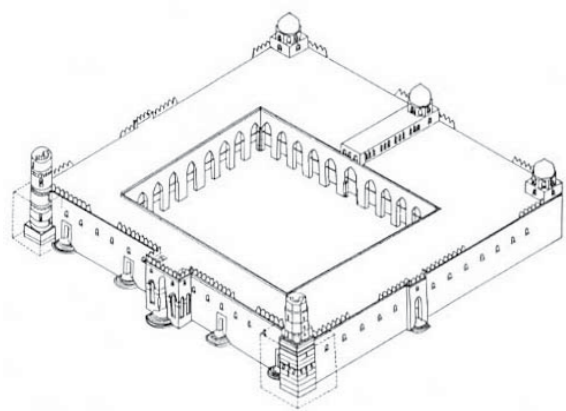
Fig. 32: Al-Hakim mosque (example of religious buildings)
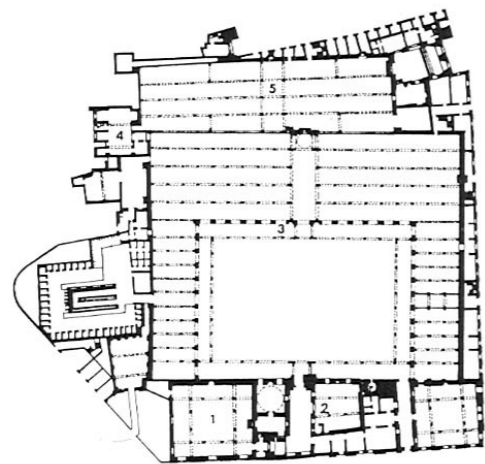
Fig. 33: Al-Azhar mosque (example of religious buildings)

Fig. 34: Bab Zuwayla
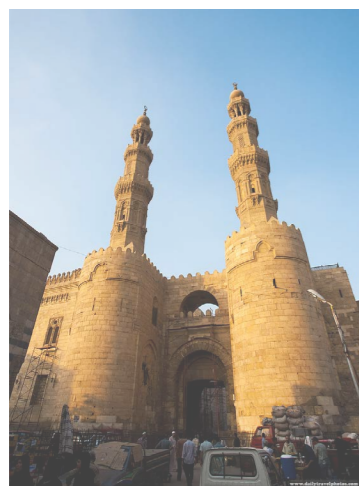
Fig. 35: Bab Al-Futuh

Fig. 36: Bab Al-Nasr

Examples of Defensive buildings

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46 Williams, Caroline. 2008. Islamic Monuments in Cairo. The American University in Cairo Press, Cairo, New York

The typical plan of the Fatimid mosque was usually based on prayer halls divided into aisles, surrounding a large courtyard from three sides, having axes aligned to the direction of Qibla, yet in later times they introduced using double grids in order to align the prayer halls to Qibla direction while respecting the direction of the street's façade, such technique can be only found in Islamic architecture of Cairo. In the Fatimid mosque, Qibla riwaq has an elevated ceiling that ends by a dome on squinches, with clearstory windows and two domes on the end piers. Timber roof was used, mabkhara (minaret) with pyloric additions, stucco windows, introduction of majaz[47]. Religious buildings also included Mashhad Al-Juyushi, Mashhad Rouqya; Abataba Al-Ikhshidy Al-Saba' Banat Khadra Al-Sharifa. Secular buildings of this period were mainly composed of series of palaces built within the walls of the princely city of Al-Qahira, none of them remained, yet they were described by historians for their glory, luxury, gardens and fountains. Nevertheless, there are some remaining mausoleums; unlike the other buildings they were so simple with minimal decorations, usually square plan with openings at one, two or three sides. Built with bricks or stones or mixed together, with a dome in the middle.[48]
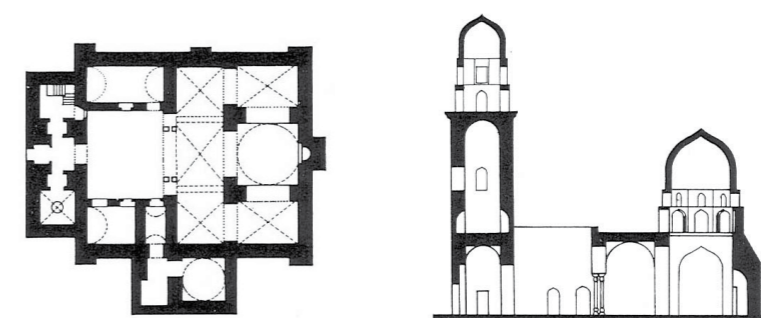

Fig. 37: Plan and section of Mashhad Al-Juyushi (Creswell)

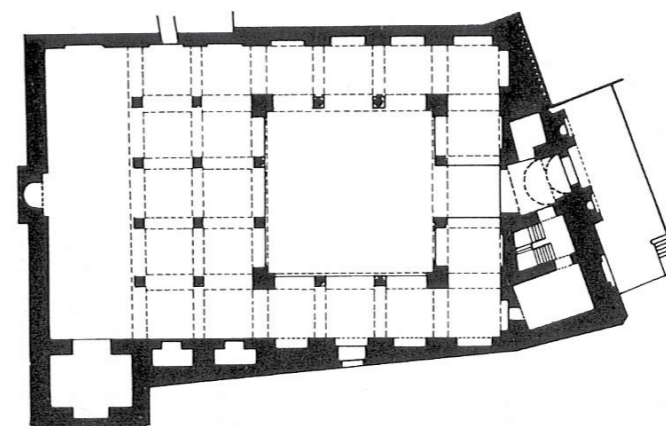Fig. 38: Photo of Mashhad Al-Juyushi

Fig. 39: Plan of Al-Aqmar mosque (Creswell)

Fig. 40: Photo of Al-Aqmar mosque

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47 Street alignment vs. qibla orientation in Al-Aqmar mosque.
48 Williams, Caroline. 2008. Islamic Monuments in Cairo. The American University in Cairo Press, Cairo, New York
Doris Behrens-Abouseif (1996), Islamic Architecture in Cairo : An Introduction, The American University in Cairo Press, Cairo.

Residential buildings included the Eastern and Western palaces, creating a trend of luxurious living: "the houses of Cairo are built with so much care and luxury, built with precious stones with cast and bricks. All the houses are detached, So that the trees of one do not encroach on the walls of the other. The result is that everyone can demolish and rebuild his house without that the neighbor was to suffer" . Cairo in the XI century by the traveller Persian Nasir Khusraw. Qahira: Mansions and gardens.[49]

The third group of buildings that Fatimids contributed within the fabric of Cairo is the defensive buildings. It mainly consisted of the walls surrounding the princely city with eight gates, two on each side. The walls were originally built of bricks, nevertheless, years later; they were reinforced and built again in large stone bricks by Badr Al-Din Al-Jamaly. It was only slightly larger than the original one. The architecture of these walls was more concerned with effectiveness rather than beauty. Many of the Pharaohic temples were destroyed in order to use its stones in the construction; we can find the ancient Egyptian inscriptions on parts of these walls. The walls were built in three levels where the lowest one was just made with solid façade; the second one consists of vaulted halls, with slim opening for archers and larger openings towards the city. The third level was an open corridor, interrupted with towers for protection reasons.[50]

Defensive brick walls were first introduced by Gawhar Al-Sakilly, followed by stonewalls of Badr El-Jamaly. City gates had special symbolism; transition form outer less sacred to inner more sacred. Spaces between gate towers were either cross vaults or domes emphasizing the Byzantine Influence that the Fatimids have experienced before coming to Egypt. Semi circular arches, crenellations construction methods, using shields as signs, reviling their superstitious beliefs (the existence of rams head) are all argued to be multiple hybrid Influences; of Cairene Architecture at the time. Stucco decorations, woodcarving, brick and Stone construction, introduction of the hanging mosque as an urban solution, city as castrum Romanum design and street alignment are the most striking precedents of Fatmid Architecture in Cairo.[51]

It is argued that Fatimid architecture differs from Umayyad and Abbasid in its grandiose and keeping attention to details. Architecture in Fatimid dynasty had a big influence from architecture of North African territory, the home of their religious leader; nevertheless, the techniques they borrowed were highly developed and evoluted. It is evident that buildings of the Fatimid dynasty are famous for their architectural decorations, although themes and styles may differ considerably from one mosque to another. In Al-Azhar for an example, its vegetal decorations done by stucco panels on the walls were to cover the whole surface, while we find decorations of Al-Hakim mosque, mix of vegetal and geometric style, and are made of stone in mostly horizontal and rarer vertical panels just to emphasize the

49 Ettinghausen, Richard (2001), ISLAMIC ART AND ARCHITECTURE 650-1250, Yale University Press, New Haven, CT.
50 Williams, Caroline. 2008. Islamic Monuments in Cairo. The American University in Cairo Press, Cairo, New York
Doris Behrens-Abouseif (1996), Islamic Architecture in Cairo : An Introduction, The American University in Cairo Press, Cairo.
51 Doris Behrens-Abouseif (1996), Islamic Architecture in Cairo : An Introduction, The American University in Cairo Press, Cairo.

openings and the minarets.

We can conclude that Fatimid architecture was more concerned with glory and beauty, yet their city represented elite people of Cairo who took the rule of Egypt during this period, unlike Umayyad and Abbasid periods. Yet their princely city was to be the core of the medieval metropolis of Cairo later on.[52]
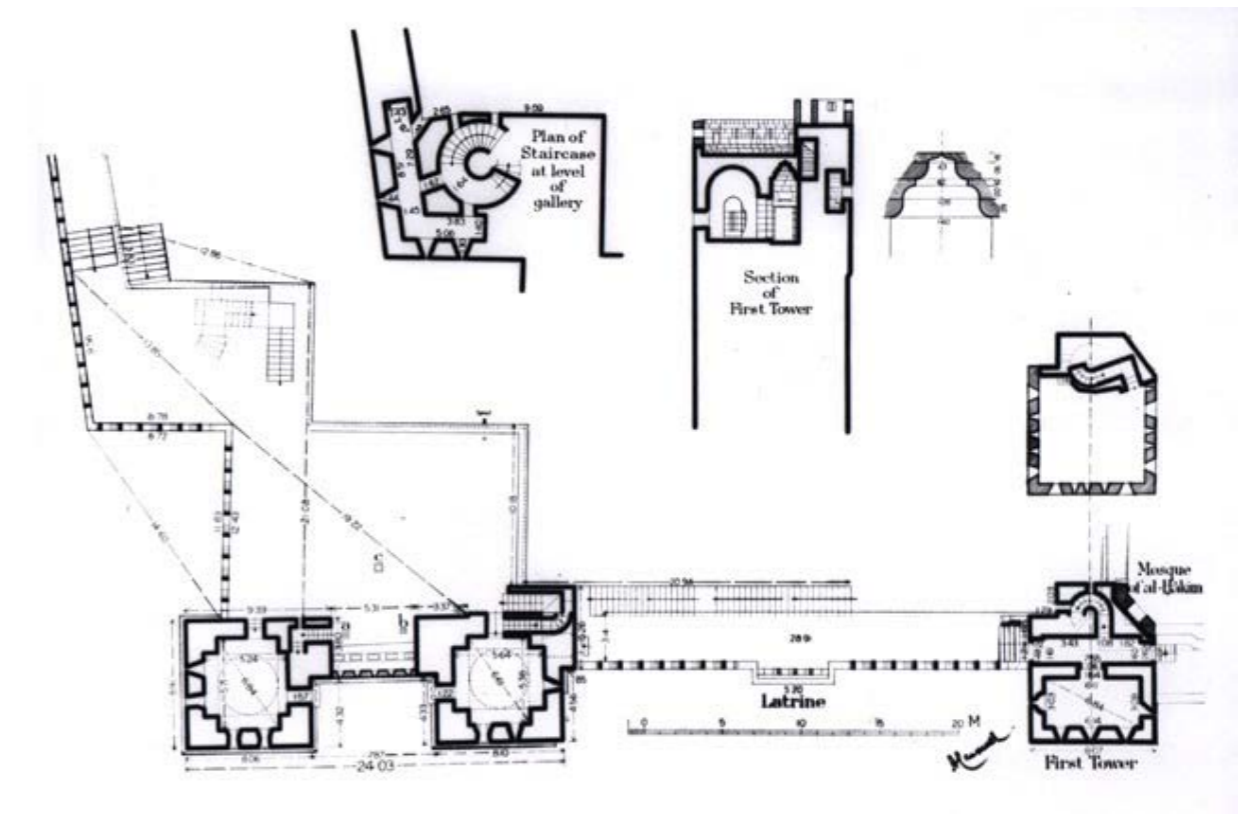

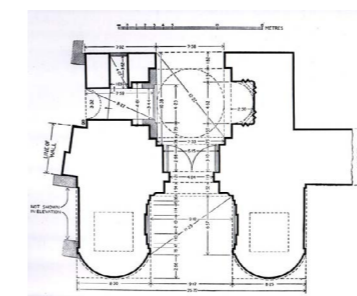Fig. 41: Plan of Bab Al-Nasr amd parts of the surrounding wall of Badr Al-Jamali (Creswell)

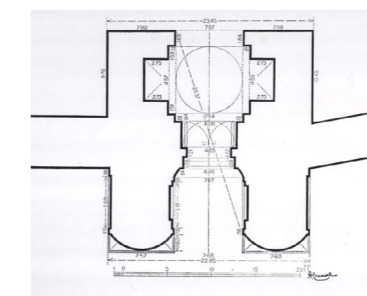Fig. 42: Plan of Bab Zuwayla (Creswell)
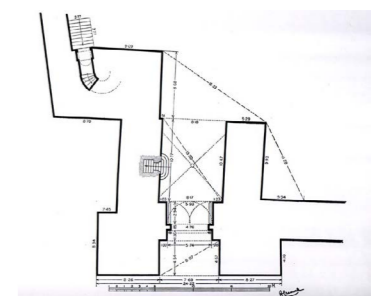
Fig. 43: Plan of Bab Al-Futuh (Creswell)

Fig. 44: Plan of Bab Al-Nasr (Creswell)

52 AlSayyad, Nezar (2011), Cairo : histories of a city, The Belknap Press of Harvard University Press, Cambridge, Massachusetts, and London, England.

2.1.3 Ayyubid Dynasty (1171 A.D. – 1250 A.D.)

With the Ayyubids in Egypt, a shift back to orthodox Islam (sunni) over heterodoxy (shi'i) took place. Sunni teachings then were taught in Ala zhar mosque, which was founded mainly as a shi's center. A commemoration of great theologists was achieved through mausoleums. During the Ayyubid era, the introduction of Sufism was accompanied by the introduction of the khaneqah. The religious and educational important advancements of the time was seen in the iwan school for teaching both the life sciences and the theology. The iwan school type shows influence of Persian architecture (ashur, Parter palace, Kteseiphone, 6th century). Residential buildings were the same as earlier Fustat and Tulunid houses. Defensive architecture was another advancement of the ayyubids, due to the military nature of the era Salah El-din walls, gated, two fortresses (Qal'at al-jabbal an –mountain fortress hosted the rulers, commanders and other key persons in the state. While Qal'at al-bahr (sea=nile river fortress) for other military divisions. T-shaped from samara ibn Okhaidar. Hence, the individual building shape transformed into complexes for more than one function (mosques/madrassa/mausoleum/sabil/student dorms/khaneqah and sufi cells all in one complex) general features development in mosques plan, form and construction of minaret and dome.[53]
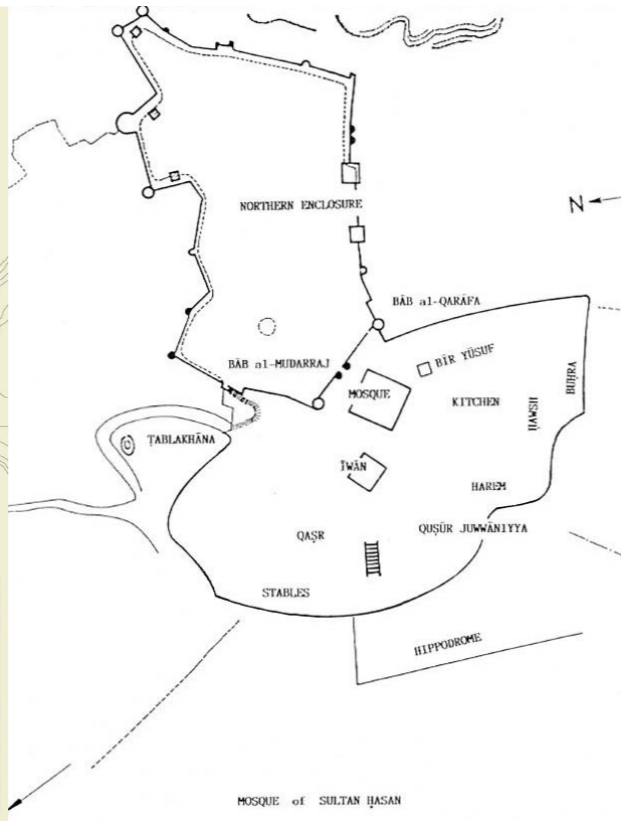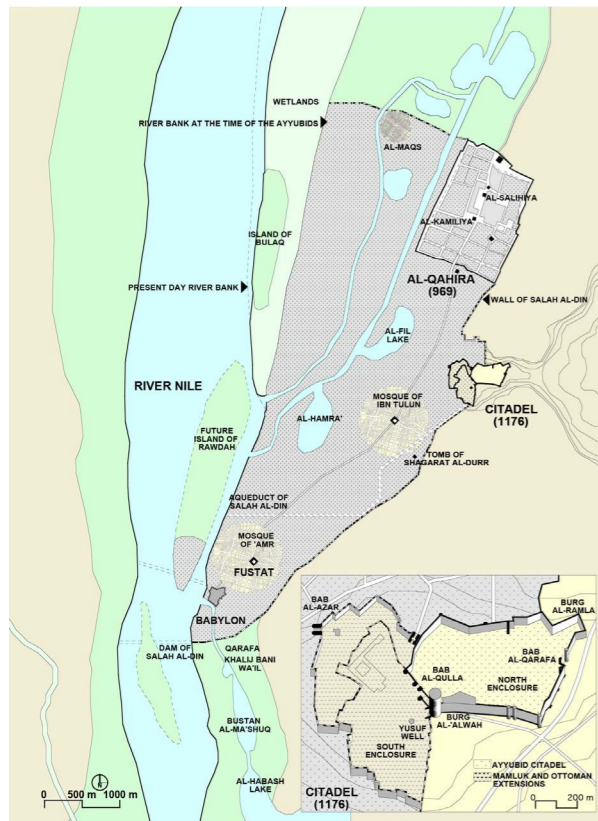

Fig. 45: Map of Cairo during Ayyubid period showing the location and a diagram of The Mountain Citadel

Fig. 46: The Citadel in the Mamluk period (after Casanova).

53 Williams, Caroline. 2008. Islamic Monuments in Cairo. The American University in Cairo Press, Cairo, New York

As builders, the Ayyubids were a transitional dynasty. While they continued Fatimid styles (the use of stucco, keel arches, stalactites), they also brought in new influences from Syria: marble for decoration, the madrasa, the khanqah, and the mausoleum. The Ayyubids introduced a more flowing script; the "Naskhi" style, which partially replaced the angular Kufic script in calligraphic ornamentation. They also used the keel arch with ribbing on the tops of minarets, which gave them an outline like an incense pot, hence the name mabkhara.[54]

Political circumstances had its influence on architecture in Ayyubid Dynasty rather than social ones, as Salah Al-Din's religious beliefs differs from the Fatimid's, we can find the influence of this on types of buildings he focused his efforts on, as he introduces the madrasa for the first time in Cairo so the Sunni branch of Islam would be taught to people instead of Shi'a. It was the first time for Cairo to witness a multiuse buildings, such as mosques that have a sector of madrasa and student residences in the higher floor, also mosques that are attached in the same complex with mausoleum.[55]
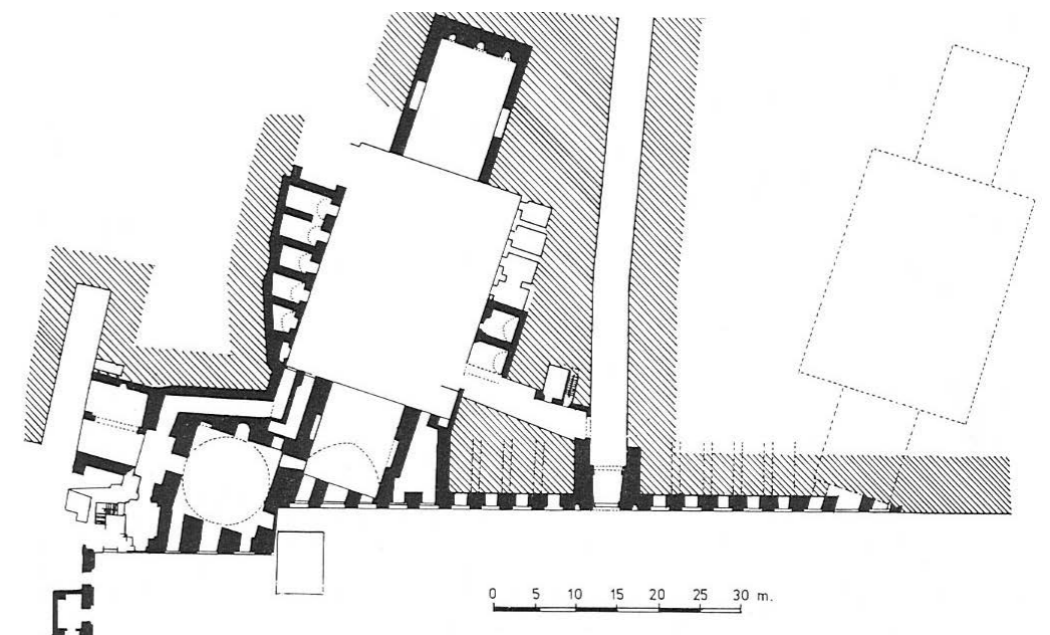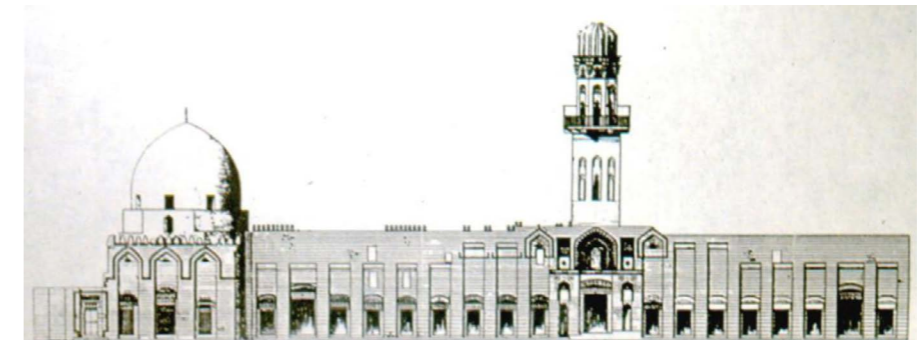

Fig. 47: The madrasa of al-Salih Najm al-Din Ayyub (Creswell).

54 Williams, Caroline. 2008. Islamic Monuments in Cairo. The American University in Cairo Press, Cairo, New York
55 Philip Jodido (2004), Cairo : Revitalising a Historic Metropolis, Aga Khan Trust for Culture

Also Salah Al-Din took the control on Egypt during the peak time of the war with Crusaders, so we can see how he gave priority and importance to defensive buildings, as he decided to merge both Al-Qahira and the abandoned Al-Fustat into one metropolis and belting it with one defensive wall, which he didn't have the time to finish before he leaves to fulfill his conquest against Crusaders at Jerusalem. The Citadel stands as the most glorious and important monument this Dynasty left us nowadays. The Citadel was built on a higher ground over the hills of Muqattam for military reasons, as it was meant to host the ruling family as their residence as well.

Some of the architectural features that distinguish architecture of Ayyubid Dynasty include using iron grills in the outer part of the windows for protection, which evolved in the terms of decoration by time, wood work in the interior was used more widely, they emphasized the entrances of their buildings with different forms of decorations above the gateways, also this feature changes appear in the inscriptions used for interior decorations on stucco and wood, ad Ayyubids used a different kind of calligraphy art called Naskhi or Cursive instead the Kufi inscription that Fatimids used in their decorations.[56]

Fig. 48: Naskhi inscriptions

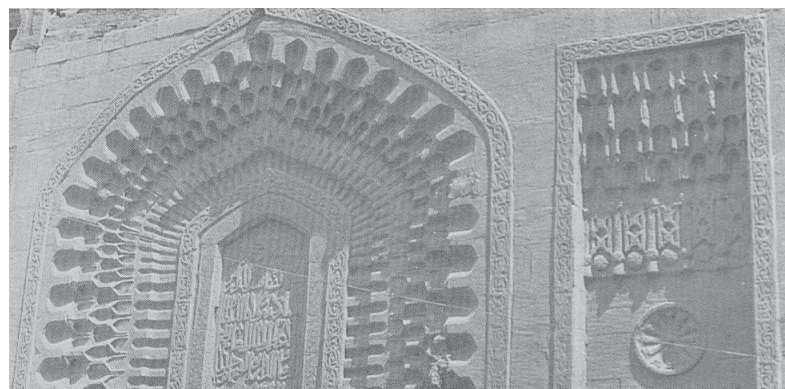Fig. 49: Ayyubid interior wooden decorations

Fig. 50: Niche above the entrance at the madrasa of al-Salih Najm al-Din Ayyub.

Fig. 51: Iron grill at the ground floor of a residential buildings

56 Williams, Caroline. 2008. Islamic Monuments in Cairo. The American University in Cairo Press, Cairo, New York

2.1.4 Mamluk Dynasty (1250 A.D. – 1517 A.D.)

It is because of the Mamluks that there are some that identify medieval architecture in Cairo as "Islamic Archietcture". From which are: love of splendor, wooden ceilings, muqqarnas, decorated minerates, stone carved domes (geometric/floral/both together) Tiraz bands, marble incrustations, wood and stone carvings, ablaq masonry, interlocking polychromed- marble, q'a plan, cruciform plan, wooden ceilings over iwans were used instead of vaults, use of colors, specially golden geometric and arabesque in decorated surfaces.   The Mamluk Dynasty is usually divided in history books into two periods, Bahri Mamluk and Burji Mamluk periods, yet in our discussion, it will be divided into early, middle, and late Mamluk periods, as follows:[57]

Early Mamluk (1250 A.D. – 1350 A.D.)

The beginning of the Mamluk period was a glorious time for Cairo architecture and urban wise, as Cairo became a huge metropolis which was one of the biggest and the most beautiful of the world at the time, also architecture of Mamluks reached a different level in understanding the volumes and in the decorations and the materials used for construction. This was an era of experimentation, with many innovations. It was during this period that the cruciform madrasa was developed. The domes, in brick and plaster, were usually ribbed and followed a pointed arch curve as opposed to the keel arch curve of the Fatimids. The result resembles a jelly mold. Other innovations were the monumental doorway with stalactite decorations, which became a characteristic feature of Mamluk architecture, the development of the minaret from a square to a more slender shape with octagonal and round stories, approaching what has become the typical Cairo minaret, the gradual replacement of carved stucco with colored marble and mosaics, the decoration of arches and entranceways with thin panels of marble, cut in jigsaw shapes and set into the stone, and the common use of ablaq masonry, alternating courses of colored stone, often red and white. It can be argued that the architectural identity in the early Mamluk period was more about "statement of power and wealth". Messages were delivered through the grandeur and through borrowing or imitating elements of earlier older architecture of significance. Baybars mosques is a valid example for that. In Qalaoun complex, one finds Gothic influences, recessed double walls, Qibla riwaq imitating the great mosque of Damascus with its basilica style central nave, two side aisles and clearstory windrows. Dome of the Rock Rotonda precedents were also imitated in the mausoleum/Khaneqah. We can also argue about more features and influences from the crusaders, Persians, Andalucians, Moorish stucco decorations and many more.

57 Williams, Caroline. 2008. Islamic Monuments in Cairo. The American University in Cairo Press, Cairo, New York
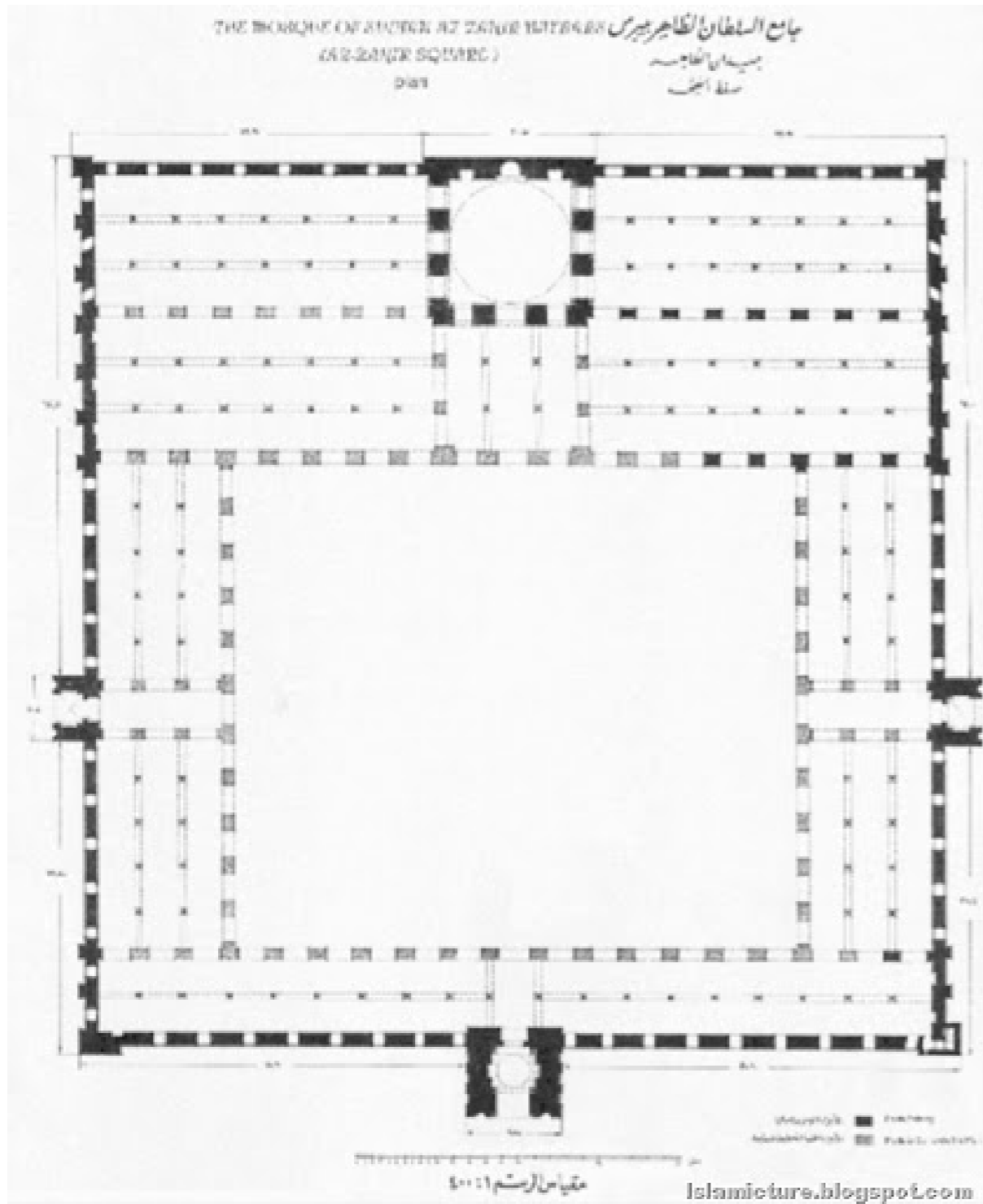
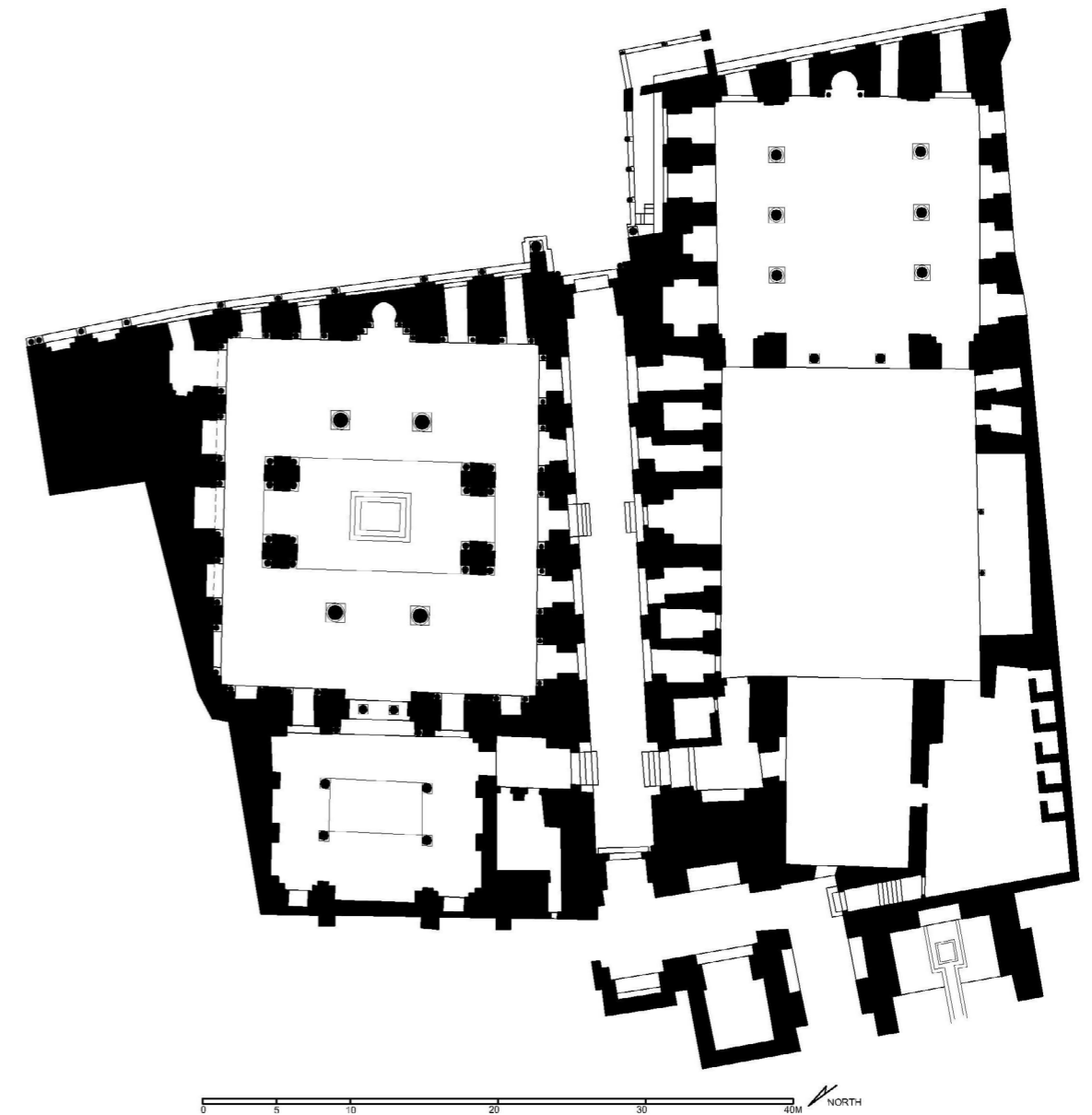Fig. 52: Plan of the mosque of Sultan Al Zaher Baybars

Fig. 53: Plan of Qalaoun complex (Creswell)

In the reign of Sultan al-Nasir Muhammad who was an architecture enthusiast, many new neighborhoods were built with a new point of view of urban planning and architecture. Sharia Saliba Street, as well as the long street called Al-Darb Al-Ahmar, were initiated and developed, and these new routes brought forth new urban considerations. Buildings were planned with vistas in mind, such as how the exterior would be best viewed. Cardinal orientation, the site on the street, and the arrangement of its components also became important. For example, could the mausoleum have both a visible placement and be on the qibla side of the building?[58]

58. Williams, Caroline. 2008. Islamic Monuments in Cairo. The American University in Cairo Press, Cairo, New York
AlSayyad, Nezar (2011), Cairo : histories of a city, The Belknap Press of Harvard University Press, Cambridge, Massachusetts, and London, England

Middle Mamluk (1350 A.D. – 1430 A.D.)

During this period, which spans the end of the Bahri and the beginning of the Burji Mamluk periods, the Burji style continued on with the Bahri precedents. The use of stone for the domes of major structures became widespread. The stone dome began to receive its first somewhat tentative decoration, as in the zigzag lines on the domes of Barqouq's desert mausoleum. The sabil–kuttab became part of the larger mosque complex. This period produced a masterpiece of Mamluk art, the Madrasa of Sultan Hasan.[59]
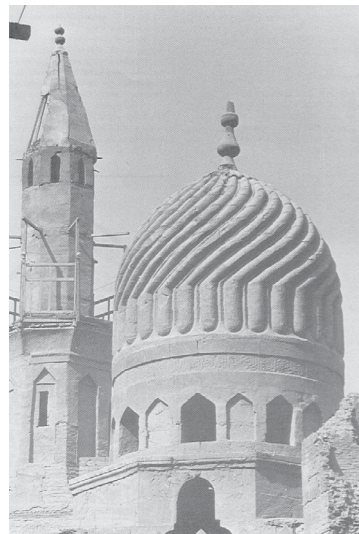
Fig. 54: The stone dome of Amir Aytimish al-Bajasi
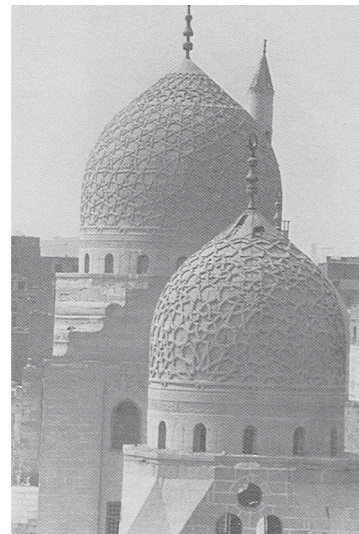
Fig. 55: The domes at the religious-funerary complex of Sultan Barsbay.

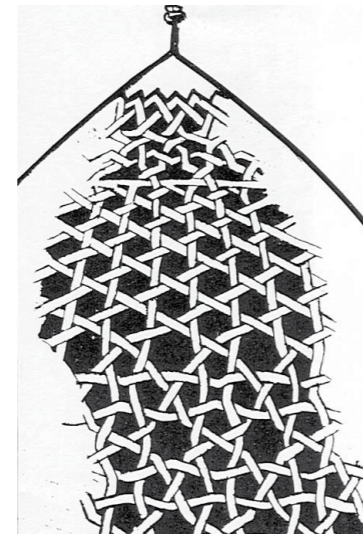
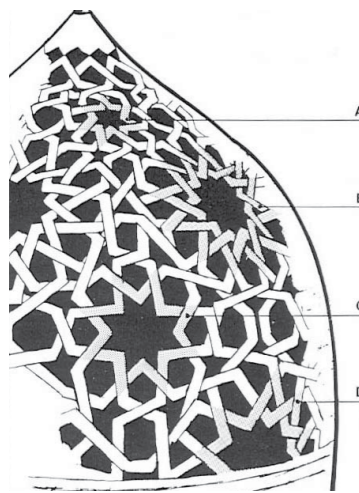Fig. 56: The domes at the religious-funerary complex of Sultan Barsbay.

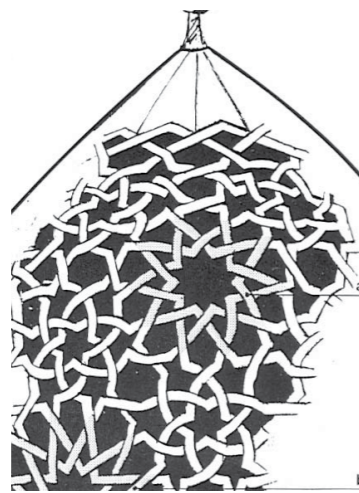Fig. 57: A 7 pointed Star. B 12 pointed Star. C 8 pointed Star. D12 pointed Star.
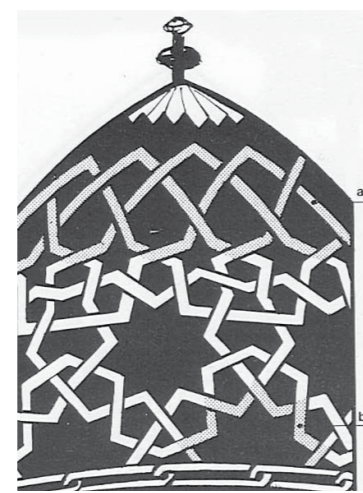

Fig. 58: A 10 pointed Star. B 12 pointed Star.

Fig. 59: A 16 pointed Star. B 10 pointed Star

59 Williams, Caroline. 2008. Islamic Monuments in Cairo. The American University in Cairo Press, Cairo, New York

Late Mamluk (1430 A.D. – 1517 A.D.)

Urban and architectural mutualism continued. When city builders such as 'Amr, Ibn Tulun, and the Fatimids built mosques, they had a lot of free land at their disposal. By the time the Mamluks came to power, Cairo was built up, and new buildings often had to be squeezed into irregular spaces between existing structures and streets. Fatimid mosques are almost uniformly rectangular, but later, Burji Mamluk buildings within the town are almost as uniformly irregular in ground plan, although considerable thought and effort was often given to making the building look regular in shape. The search for rectangularity, even on irregular lots, became something of an obsession. The result was a number of jewel-like pieces, such as the beautiful Mosque of Qijmas Al-Ishaqi near Bab Zuwayla, which is built on an irregular wedge of ground but still appears rectangular to the casual observer on the outside. The reign of Sultan Jaqmaq initiated a change of style. The economic instability of the period and Jaqmaq's own personal piety led to a diminution of the monument's size, as well as of its decorative richness. Marble panels gave way to stone carving in high and low relief. This is especially noticeable in mihrabs. The period, however, ends with a flourish in the constructions of Sultan's Qaytbay and Al-Ghuri. The crafts of decoration in marble and stone reached their peak. The delicate arabesques on the dome of Qaytbay's mausoleum are the finest example of this art. Other crafts, such as wood inlay and joining and metal sheathing, are also noteworthy.

Fig. 60: Wikalat Al-Ghouri

Mausoleum structure also changed; dome square bases are transformed to octagonal "neck', then transformation through squinches to muqquarnas, a belief that domes over the mausoleum represents the celestial globe. The sabil-kutab also appeared as an independent building type and remained attached in some cases remained attached (in the corner) to a school or a khaneqah; provided with water basins for horses, camels, donkeys, etc. The Walls of sabil are always rendered differently than the rest of the building walls; colored marble, Tiling, Change of opening sizes, protrusion of kutab balcony, use of wood, hanging wood cornice on the utmost upper edge, geometrical coloured marble flooring, wood ceilings engraved and inlaid with gold, stone or marble seal infront of the sabil window, carried on stone or marble cantilevers, iron rods and decorated grills and covered by golden copper plates, or alabaster.

It can be argued that late Mamluk architecture in Cairo reveal an authentic identity; refined proportions, homogeneous styles, consolidation rather than daring innovations. During this era, a true leap in plan and layout took place. Especially on the vacant urban developments outside of the original city boarders. During this era, we can also observe the advancement in stone carvings, and marble works on facades undisturbed by new or foreign ideas. The cruciform school plan was much refined, with the center court covered by a wooden decorated ceiling with a central "shokhsheikha". Glass industry, wooden inlay with copper and silver stone masonry. Use of Ablaq became a dominant feature. Residential buildings included houses and palaces, such as Alin Aq, palace Al Nasir Mohamed Ibn Qalaoon palace, Qouson palace, Moheb El deen Qa'a, Taz palace Bisthak palace, Shaker Ibn El,Ghannam Qa'a and many others, who adopted the q'aa plan type.[60]

The end of this period saw a transition to Turkish styles, notably in the shapes of domes, which became flatter. There was a switch to less-contrasting stone for ablaq masonry: a combination of white and soft yellow replaced the earlier red and white. There was also some experimenting with minarets, returning to the early Mamluk square style, with two or more finials on top, as seen in the minarets of the Mosque of Sultan al-Ghuri.[61]

Fig. 61: Minaret of Al-Azhar mosque added by Sultan Al-Ghouri

60 Doris Behrens-Abouseif (1996), Islamic Architecture in Cairo : An Introduction, The American University in Cairo Press, Cairo.
61 Williams, Caroline. 2008. Islamic Monuments in Cairo. The American University in Cairo Press, Cairo, New York

Fig. 62: Interior of the mosque of Sultan Al-Ghouri

2.1.5 Ottoman Period (1517 A.D. – 1798 A.D.)

When Ottoman Empire ruled Egypt, The role of Cairo politically has been reduced enormously, hence urban development and architecture itself didn't play a big role in the society neither it was getting strong influences and having its own Cairene taste s before. Nevertheless, we can still see monuments of the period standing till now yet carrying the Turkish taste of architecture, sometimes mixed with some features of the Mamluk period. The late Turkish mosque is a variation on the congregational mosque plan. Two types predominate, the metropolitan Turkish, in which the sanctuary arcade is enclosed and covered by a large dome while the lateral arcades around the courtyard are reduced to a simple portico such as the mosque of Malika Safiyya, and the indigenous square or rectangular in shape such as the mosque of Mahmud Pasha, with four central pillars suggesting a courtyard covered by a roof. Many mosques also show creative combinations of both Ottoman and Mamluk features. They also tend to be modest in size and decoration since the revenue from Egypt was sent to Istanbul and Ottoman patrons did not have the wealth of earlier Mamluk patrons. The Turkish minaret is pencil-shaped, thin and tapered at the top. Many mosques had centralized plan, smaller domes surrounding smaller domes around a courtyard lined with portico covered with domes too. Khaneqah became Tikeya; a courtyard (with a fountain) and four arched galleries all around with covered porticos as well, covered again with small domes and with a sabil attached. Marble works during the Ottoman period in Egypt were typically imported, specially the use of white marble (sometimes compensated by the use of alabaster). Cairene Ottoman Islamization of Byzantine architecture occurred slowly, with the introduction of the use of concrete and bricks, Iznik tiling techniques, domes more round and squat. Residetial houses became more luxurious, and had a prototype of majas-courtyard-takhtaboush-salamlek-haramlek-hammam on different layouts according to location and size of land plots.[62]

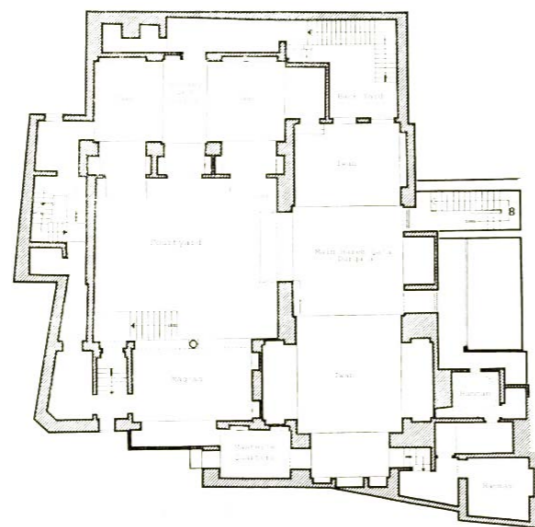Fig. 62: Pencil shaped Ottoman minaret

Fig. 63: First floor plan of the house of Zanab Khatoun

62 Lara Iskander , Manzil Zeinab Khatoun in Cairo, Egypt [Online] Available, http://www.touregypt.net/featurestories/manzil.htm

The medival architecture in Cairo precedents have entirely changed in the building culture of the city and the entire country. Starting with the usage of word "manara" in the beginning instead of "me'thana" firstly appeared in Egypt. Adopting the foreign influences within the local building traditions such a s the Fatimid minarets that looked like Syrian church towers. Development of wall design started from high thick walls with no openings, fortress-like exteriors to colored masonry with squinches and with a variety of soli-to void ratios, and with varied use of openings and the stone decorations with muqqarnass. Balconies, portals, openings and squinches since the Fatimids are witnessed in the Aqmar and Al-Saleh Talae' mosques. Colored ablaq on the facades, inspired by the Syrian architecture. Ortlas started as openings in walls, then decreasedin number, but not in qibla riwaq (Ayyubid), then became only one in Mamluk time. Mamluk openings are famous with the trefoil arches that ends with ahalf a dome. The placement of a window on top of the mosque with portal medallions have started with the Fatimids. Building corner treatments, arabesque geometric patters, illustrations and sculpture; font and calligraphy, marble cladding, mosaic and marble tiles are some of many vocabulary of medieval architecture in Cairo.

On the architecture identity: Mutual influences of Islamic and western medieval architecture is regarded as a feature of early globalization of culture and architecture; a natural consequence of trade, crusades, etc. together with the saturated building culture since the ancient Egyptian, passing by the Greco roman and then Coptic architecture, altogether have resulted in the advancement of architectural identity of Cairo along the eras. Despite the fact that many architectural precedents were not originated in Cairo, however, they are argued to be "Egyptianized" and "Caironized". These successive Islamic eras introduced several architectural forms that carried their original belongings; all forms were quickly Egyptianized, reaching the epic with the late mamluk architecture. In the later medieval eras, both rural and desert local identities were developed, while the formal architecture identity line started to drift away from its origins. As a result of the Europian Renaissance and the industrial revolution afterwards, the French occupation, then Mohamed Aly's ambitions that were accompanied by existence of western delegations.
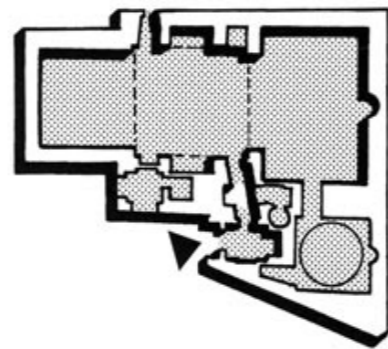
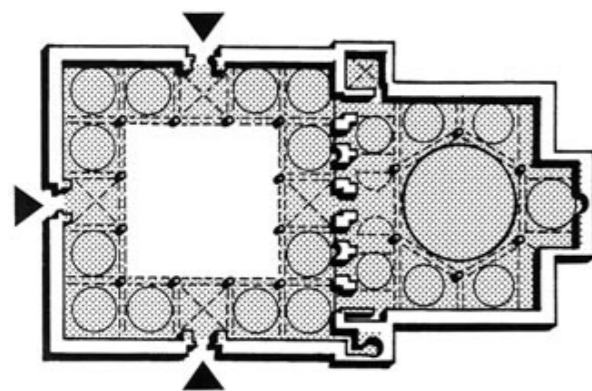## 2.1.6 Evolution of Islamic Architectural elemants
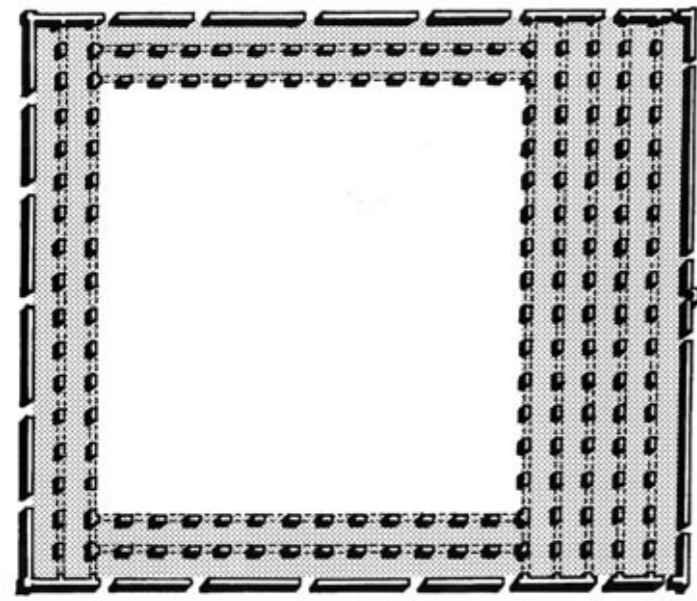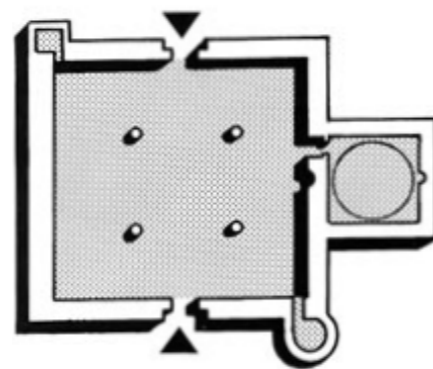
Congregational mosque
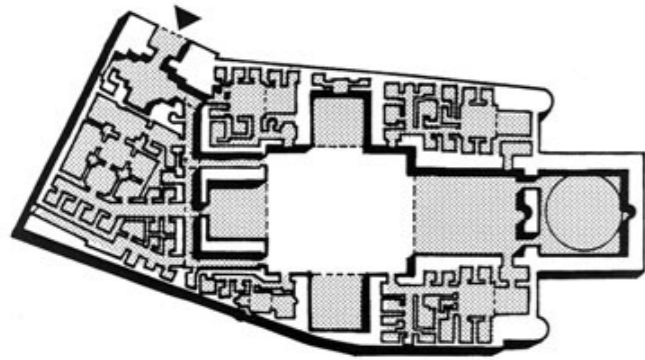
Cruciform madrasa (Early Mamluk)

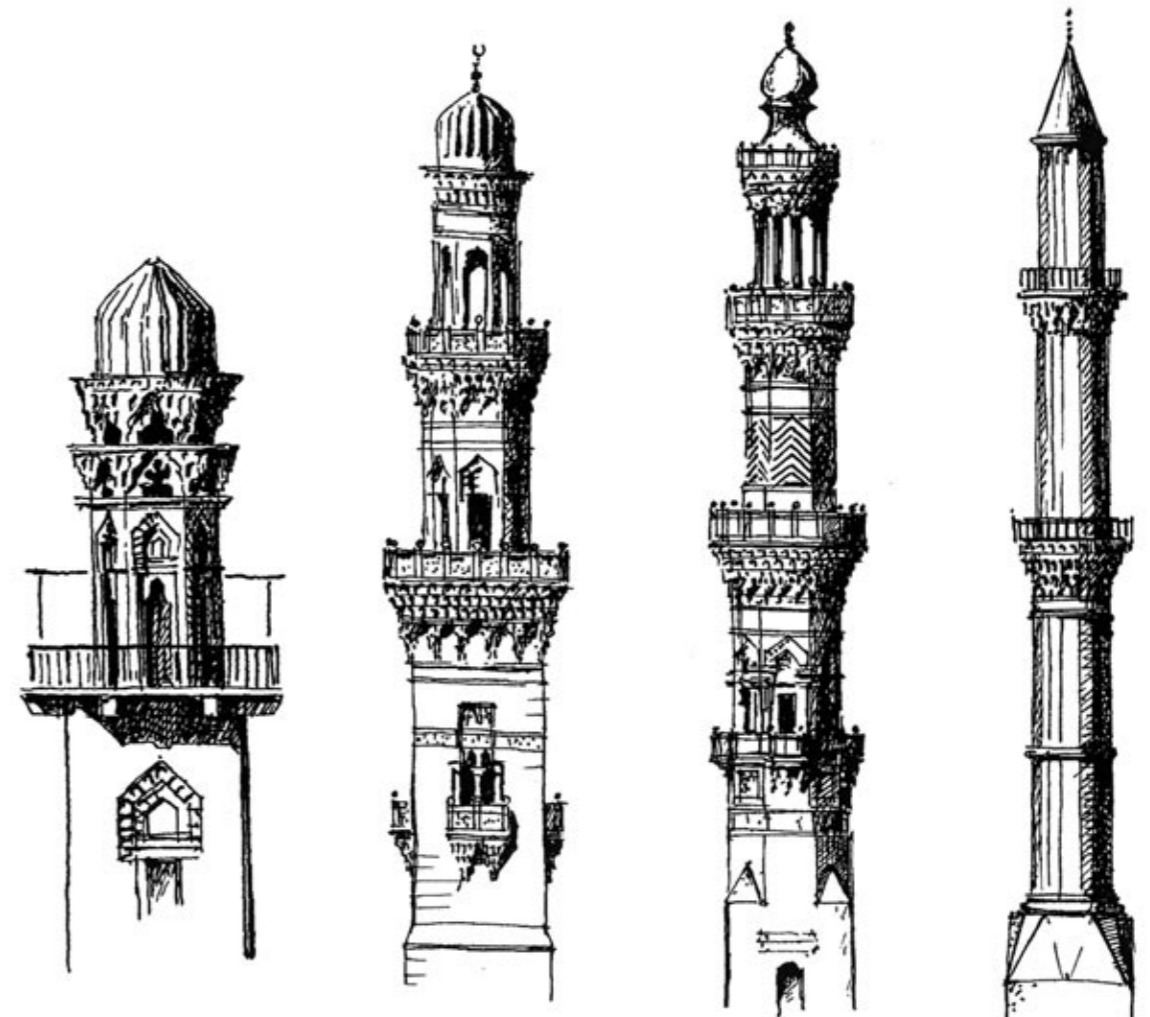Cairene qa'a madrasa (Late Mamluk)

Domed sanctuary (Ottoman)

Enclosed interior (Mamluk–Ottoman mix)
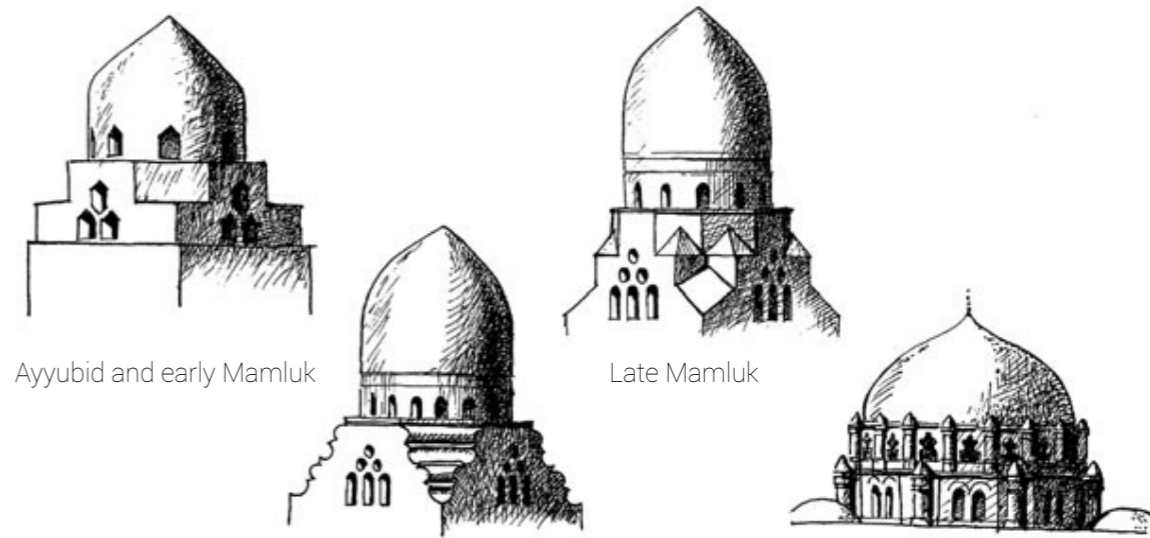
Fig. 64: Types of plans

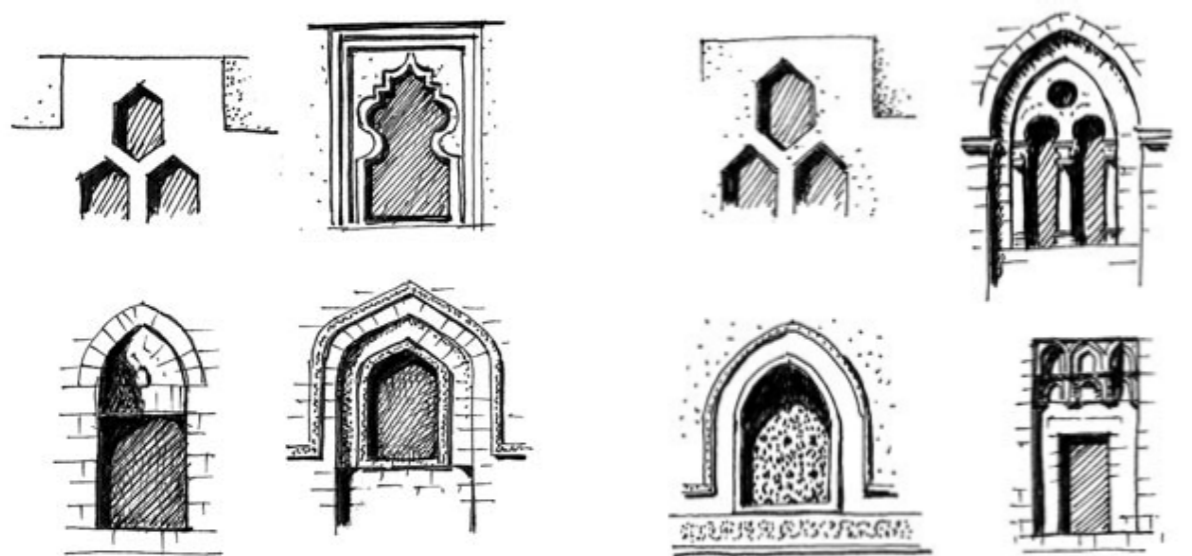Ayyubid and early Mamluk   Middle Mamluk   Late Mamluk   Ottoman

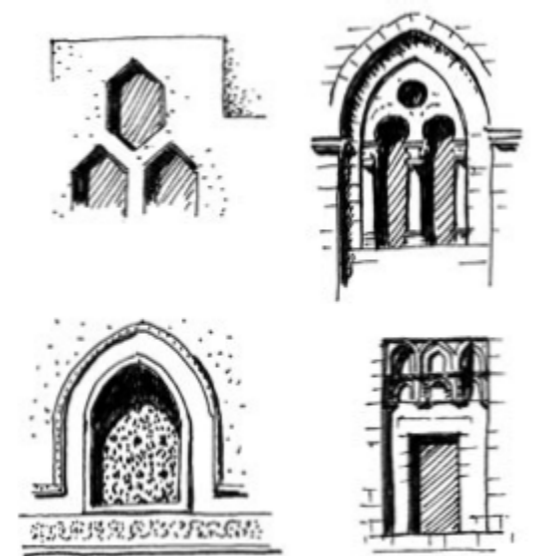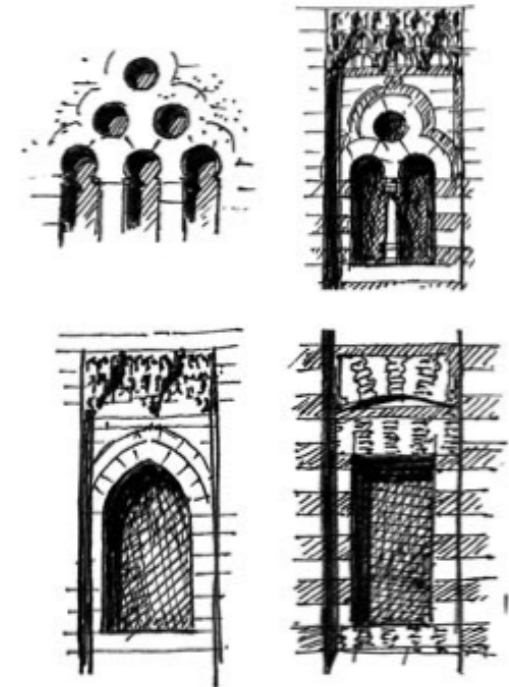Ayyubid and early Mamluk   Late Mamluk

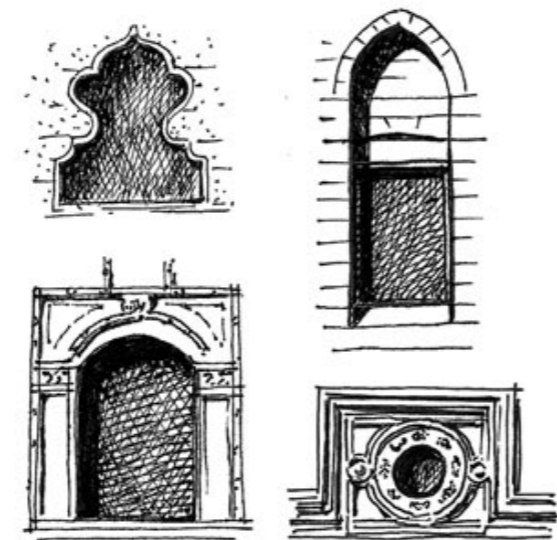Middle Mamluk   Ottoman

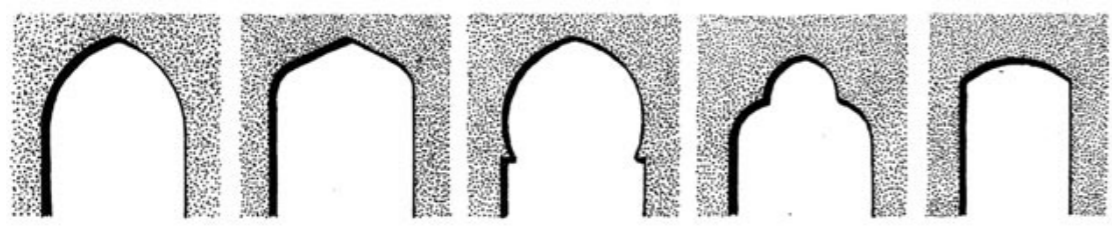Fig. 65: Types of minarets and external dome supports

Fatimid and Ayyubid
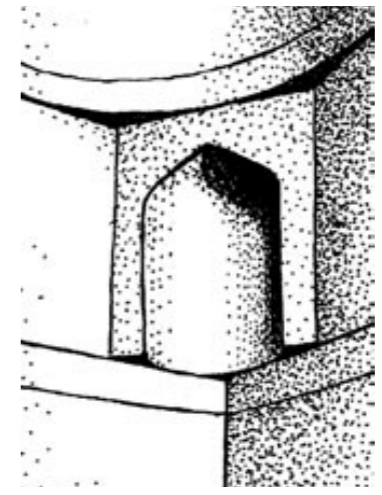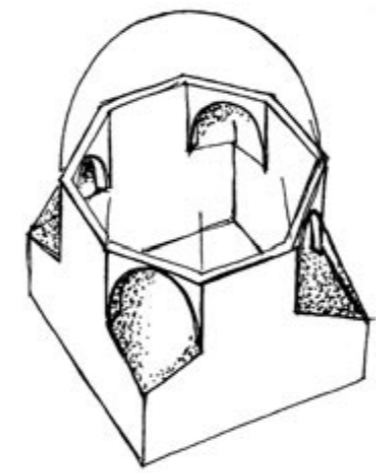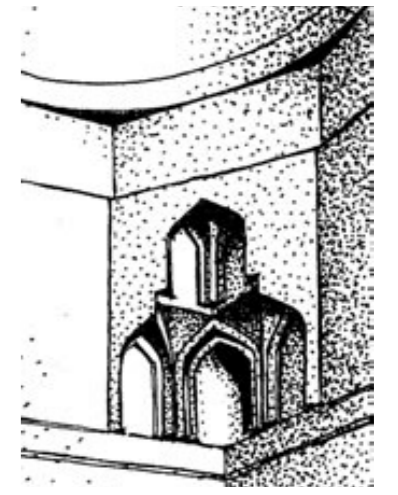
Early Mamluk

Late Mamluk

Ottoman

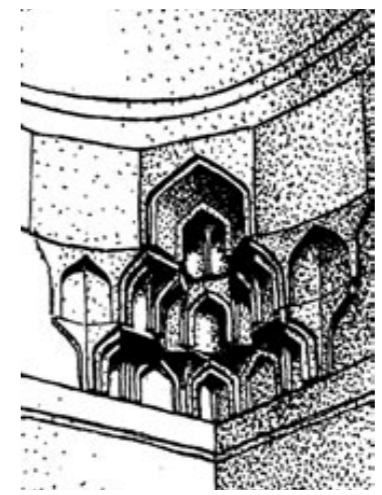Pointed

Keel

Horseshoe

Trilobed

Segmental
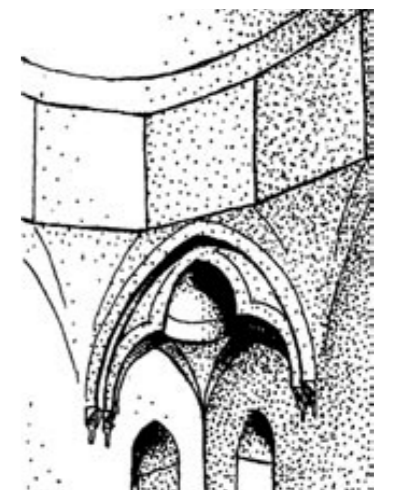
Fig. 66: Types of arches and windows
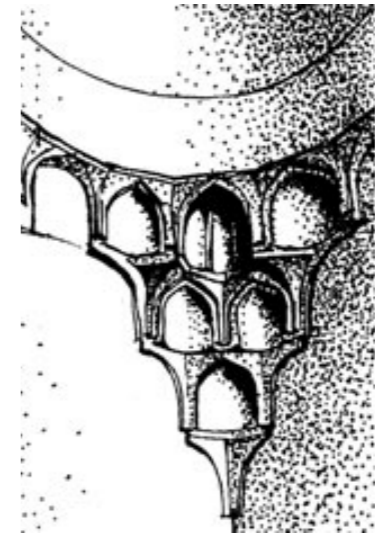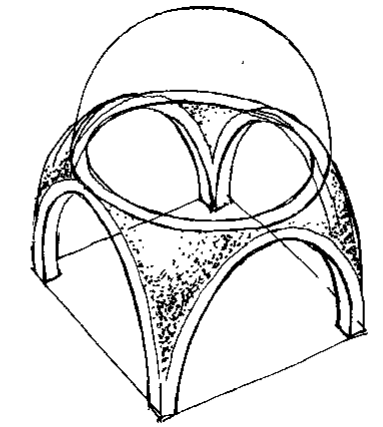
Squinch-based

Simple

One-over-three

Multi-tiered

Window

Pendentive-based

Early Mamluk
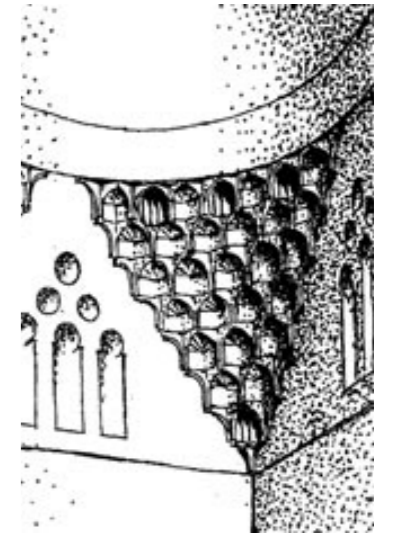
Late Mamluk

Fig. 67: Types of internal dome supports

2.2 Modernization Period (1798 A.D. – 1952 A.D.)

By the arrival of Napoleon Bonaparte on the head of the French Campaign to Egypt in 1798 A.D., the power of the Ottoman Empire over Egypt had come to end. As mentioned in the earlier chapter, after French left Egypt, and after the long conflict over power, Mohamed Ali became the Pacha of Egypt in 1805 A.D., and with him came the first thoughts of modernizing Cairo, and transforming it from a medieval city to a city that competes the beauty of European cities. Mohamed Ali's touches of modernization were clearly obvious in how he dealt with the urban fabric of the city, yet the architecture he used was a bit old fashioned and mostly copied from Turkish architecture.[63]

khedive Ismail's ambition to westernize Egypt with a French reflection. Afterwards Egypt was home for Greeks, Italians, before it was under the English occupation in 1882, where it brought Belgium, French, Swiss, German and American business and tradesmen. Until the mid twentieth century, and despite the fact that the Egyptian architectural identity was numerously sub-categorized according to the factors previously mentioned, yet, it was the climax of those various identities. There was then the rural architectural identity, the desert architectural identity, and the urban identity with its multi faceted features and signatures. At that time, a new school of architecture has evolved, pioneered by the two great Egyptian architects; Hassan Fathy and Ramsis Wissa Wassef. Their call was to revive the local Egyptian identity against the imported and the hybrid.

Fig. 68: New Gourna Village Luxor by Hassan Fathy
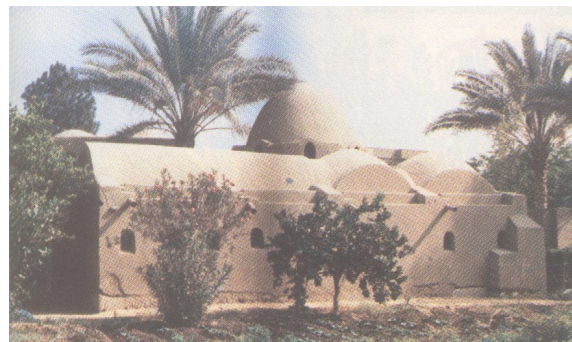
Fig. 69: Museum of the artist Habib Georgy by Ramsis Wissa Wassef

63 Mercedes Volait (2003), Urbanism : Imported Or Exported?, Wiley-Academy, West Sussex

Khedival Opera House at Azbakiyya

Soliman Pasha square at Downtown (Ismailiyya Quarter)
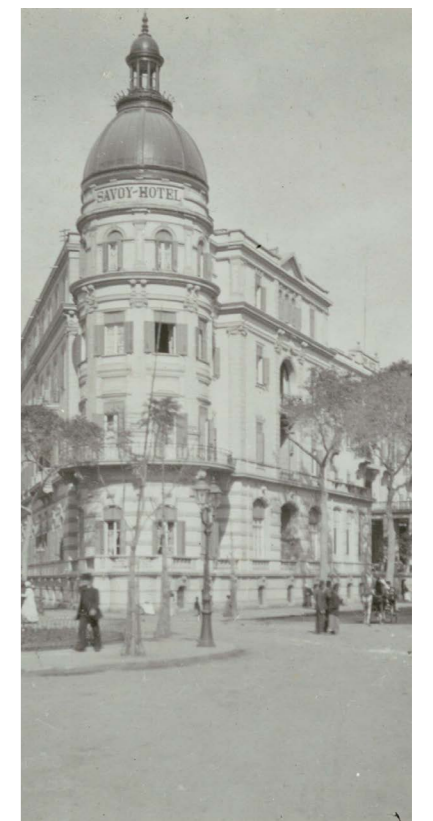
Savoy Hotel

Fig. 70: Arhitecture in the modern era

Accompanying the political and economic upheavals was a social turmoil after the 1952 revolution and its accompanying nationalization and centralization 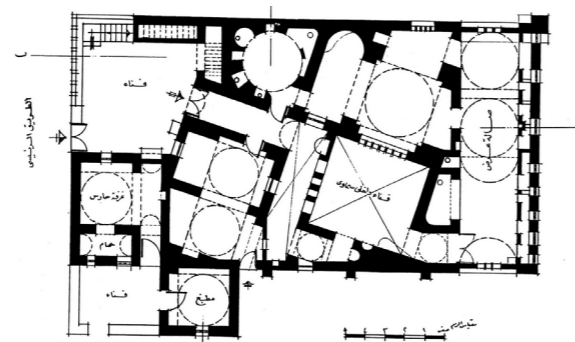processes, and passing by a series of wars 1967-1973. Then came the open door policies in 1974, with all its accompanying political, economic and social chaos. Several factors have lead to a deterioration of the Egyptian architectural identity(ies). From which are: Growth and over-densification, disbelief and mistrust in the local material, interference of building contractors and the marginalization of the role of the architect, ignoring any local development, the appearance of nouveau rich societal sector after the wealth in the oil countries, and the influence of the hybrid image brought in to the Egyptian house through the television.

Several economical shifts since the eighties of the twentieth century have helped the private sector to take the lead in the building and real estate projects that have added ready-made images of elite gated compounds to the peripherals of the capital and greater cities. The hybrid images also covered the commercial and business centers. The identity given to such projects reflect the current societal search for identity, with an eye on the "global icon". And with some entourage here and there; linking some of them distantly to postmodernism. Post modernism as referred to here comprise trials of historical revivalism, eclecticism, and critical regionalism. In fact, a closer look on the modern and contemporary architectural identity confirms that we have passed through the same path of world architecture.[64]

Fig. 71: Katameya hills, example of the architecture used nowadays for the elite gated compounds and the image of luxury and beautiful architecture for the Cairene society nowadays

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64 Mercedes Volait (2003), Urbanism : Imported Or Exported?, Wiley-Academy, West Sussex

CHAPTER 3
CAIRO IN THE TWENTEETH CENTURY AND THE LOSS OF THE ARCHITECTURAL IDENTITY

The term "identity" is used to refer to the meeting point of suture, between on the one hand the discourses and practices which attempt to speak to us or hail us into place as the social subjects of particular discourses. Cultural identity, accordingly, is a matter of "becoming" as well as of "being". It belongs to the future as much as to the past. It is not something which already exist, transcending place, time, history and culture. Cultural identities come from somewhere, have histories. However, like everything that is historical, they undergo constant transformation.[65]

Since its foundation in 969AD, Cairo has never been entirely expressive of one culture. Perhaps some dominant culture, now or then has reigned, and then was subjected to change with the changes of its influences/dictates. From its naissance, Cairo was built where there were already subcultures presenting the subgroups of the Egyptian capital (Madinet Masr). While the historical part of the Capital amalgamation of history, nationalities, and therefore, cultures, fall beyond the scope of this paper, yet, it is worth reminding. As previously mentioned in the introduction, that Cairo has been the baby of various foreign parents (Fatimids, Ayubids, Mamluks, Ottomans, the French occupation, Albanian Mohamed Aly and his ancestors; Khedive Ismail on top, and the British occupation), each of which had his own maternity concepts and deeds. Hence, Cairo was already born as an amalgam of diverse cultures (and nationalities) waiting for direction and/or molding.[66]

3.1 The Epilogue of the Twentieth Century Cairo

The primary education has been already shifted from "kottab" system to schooling, high schooling and specialized educational institutions were already introduced. Mohamed Aly has sent delegations to European universities started with a number of 28 students in all fields and were counted as 1848 students in the days of Khedive Ismail. European architects and engineers were already brought for the new urban projects. Real estate banks were already established to support and urban investments (Own-Heliopolis oasis, Maadi, Qubba gardens and others). Hence, the turn of the nineteenth century witnessed paradigmatic changes in the fields of education, industrialization, agriculture, transportation (Suez Canal, train and metro), tourism, sports and entertainment (Zamalek included the horse race arena, gardens, Gezira and Ahly clubs). The twentieth century turning points of cultural changes are regarded as:[67]

1. WWI, 1919 Revolution, WWII, 1952 Revolution
2. 1950's and 1960's Centralization and Nationalization, 1967 War, 1973 War, and the

65 Kostof, S., 1993. The City Shaped: Urban Patterns and Meanings through History. Bulfinch.
66 RAYMOND Andre, 2001, Cairo: City of History. American University in Cairo Press, Cairo
67 Abdel-Hadi & Elazhary, 2009. Centripetal Gated Communities in Egypt; in Tolba et al. (editors) Environment, Health and Sustainable Development, Hogrefe and Huber.

Open-door policy 1974

3. 1980's and 1990's Privatization, The reign of Globalization and the Turn of the Millennium.

World War I was not a remarkable turning point in itself, but it was an alert for the Egyptian national figures to revolt against the British occupation. Accordingly, the 1919 people revolution promoted for philosophy of "Egyptian-ism" as prolongation of either the ancient Egyptian civilization or the Islamic civilization. The literal contribution to this paradigm by the national elites was their support of the local economy, protecting the local market. An aspect that resulted in an era of prosperity to the extent that the local bourse was globally categorized the second. The urbanization of Cairo can be summarized in:[68]

• Separation between minor groups and foreign delegations from one side and locals from the other side, and internal segregation between the two parties according to the socio-economic standardization.

• Attraction of the CDB for business and entertainment.

• Variation in identity appeared in each district's dominant activities, building types, built up and population densities, urban fabric, architecture and overall image.

• The introduction of "the international style" in the 1930's was consciously intended to be the "architecture of globalization".

• This period was termed: La belle epoch (1850-1950).

After the 1952 revolution, a centralization and nationalization process for the entire paradigm has resulted in a social mobility within the previously mentioned subgroups. Foreigners, minor groups, and the elite-rich Egyptians have vanished. Meanwhile, a rise happened in the educated middle class because of the new education policies, and the foundation of syndicates. Urban wise, an imposition of residences for the newly emerged social groups stamped the supreme districts of the previous phase. Farmers who owned the newly distributed agricultural lands immigrated to reside in the big city, causing another social imbalance in the cosmopolitan. Industrial centralization resulted in an increase of internal immigrants to Cairo from all around the country to Helwan, Shoubra El Kheima, Giza, Imbaba, Abo Za'bal, El Hawamdeya, Manial Shiha, El Badrashin, and other industrial nuclei around the city peripherals. Centralization of education has caused another type of immigrants to three basic universities with a percentage on 74% of entire Egyptian university students. The slums that have been initiated during WWII on a minor scale spread at this point of time wherever there was no urban control and this was the beginning of the urban mix inside the one district.

With the open-door policy, a sudden and abrupt change has caused a switch in the socio-economic positions of the Cairo amalgam; the new free lancers craftsmanship and workers and peasants versus the governmental employers and educated Cairenes of the sixties. The prices of lands have doubled, real estates have targeted a newly emerged high income category (neauveau rich). Cairo then witnessed a phenomenon of internal

68 Giraud, Michel. (1994). Silhouette Urbaine: L'exemple du Caire. Institut d'Amenagement et d'Urbanisme de la region d'Ile-de France.

immigration from districts of Azbakiyya, Kasr El Nil, Mosky, Abdin, Sayeda Zeinab, Darb Ahmar, Baulak, Rod El Farag, Old Giza, Waily, etc, to Zeiton, El Khalifa El Ma'moun, Nasr City, Haddaek El Qubba, Pyramids, Nozha, Maadi, Agouza, Imbaba, Dokky, etc. (from 19th century districts to 20th century ones). Rivalry between socio-economic classes was extreme, and the result was an instant heterogeneous city. The urbanization of Cairo of this period can be summarized in:[69]

• The old notion of cultural homogenization the "melting pot" that has ever blended diverse cultures has been largely supplanted by advocacy of pluralism "the fruit salad".

• This period was termed: The urban decline (1950's-1970's)

When the socio-economic reform regime was initiated in 1981, and passing through privatization, the urban face of Cairo has changed and its peripheral has swelled because of the developmental projects of infra structure, roads and transportation, sewage and drainage, and a greedy reign of the local private sector and global investment resulting in a crux of deterioration in all fields. In the districts, an over-population has accompanied the economic inflation and has swept the remainder of any urban identity. Sharing the houses between more than one family became a common feature in many old exhausted districts. Moreover, new types of shelter were introduced; rooftops, boats, tin, cloth and leftover-material structures, kiosks, and even the pavements of streets. As for the squatters, they increased in number and in volume, crawling on the city surface, linking between one another and imposing themselves on the loose ends of the districts. Leading to a climax of Cairo's urban and architectural enigma (2000+).

On the urban level, several studies in this domain have attempted to analyze the factors that have lead to these dramatic changes of Cairo urbanism. Conclusions of such studies revealed that the urban growth of Cairo is regarded as changeable, not developmental, representing the inability of locals of performing their original activities previously planned. The effects are political, economic, social, managerial, or urban-physical, or a bunch of all the preceding. The explanation can be summarized in the following points:

• The political variables dictate their influences on all aspects of urban life; allowing the emergence of new activities and uses that did not exist previously, demanding a new type of urban-cultural form to represent it.

• The economic variables form the base that enables the new ideologies to become tangible, guaranteeing the protection of change/development and supporting the newly evoked features.

• The social variables change the people's self-concepts of living in a certain place, and with certain life forms.

• Finally, the administrative variables —presented in laws, legislations and standards, the auditorial bodies that guarantee the accuracy or divergence of such laws and legislations. As for the features of change, they are either formal or conceptual. The formal change is

69 Giraud, Michel. (1994). Silhouette Urbaine: L'exemple du Caire. Institut d'Amenagement et d'Urbanisme de la region d'Ile-de France.

represented in the change in the urban fabric on the master plan, and the change in the visual features. As for the conceptual and ideological changes, they are represented in the change of land use, densities, capacity, and efficiency of services and infra structures, transportation, or the change in human behavior from the everyday and face-to-face interactions, leading to a total behavioral morphosis.[70]

3.2 Modern Cairo's Architectural Shifts

It is hypothesized that the beginning of the urban change in Cairo goes back to the late forties of the twentieth century due to two external factors, which are the increase of the fluency of foreigners to Egypt, and WWII. Cairo remained attractive until the mid century with the break of the 1952 revolution. The epoch before the revolution is considered as the corner stone for the Cairene urban change, either its dimensional growth on the map, or its demographic-socio-economic change.

Therefore, a factor of the Cairene urban growth is preliminary due to the raise in number of foreigners in Egypt, attracted by the investment opportunities in the Capital and the big cities, until then, the concept of centralization was not applied. In addition to the change in number of internal immigrants from rurals to work in the newly provoked opportunities. However, the number of Cairene residents did not indicate an over population. The increase in number of inhabitants was evenly distributed along the geographical map of Cairo, with respect to distribution of natural resources and the location of industries.

After WWII, the after-effects have resulted in an inflation in the land values and building costs as well as the wages of craftsmanship. Internal immigration then, constituted the first housing conundrum for the middle and low classes. The poor districts went from pathetic to miserable. For the first time in Egypt, cemeteries hosted living inhabitants and acted as housing areas. The number of Cairene inhabitants doubled in only ten years (1939-1949).

The metro project that has started in 1905 to link the capital downtown with the new suburb of Heliopolis has expanded to reach and link most of the city's districts. The increase in using motor private and transportation vehicles and the introduction of the bus as public transportation in 1935 in the newly paved urban roads have resulted in the expansion and maturity of the suburbs (Heliopolis 1905, Maadi and Hadaek El Qubba 1908, Dokki 1922). New urban suburbs were planned on modern aspects of urban design: Al Awkaf city, Mokkattam, New Helwan, and Nasr City. The older districts have also swelled and increased in number of their inhabitants. Each district was significant for its urban character and identity, reflecting its user groups' cultural and socioeconomic features and sometimes nationalities or ethnicities.

70 RAAFAT Samir, W. Maadi, 1995, 1904-1962: Society and History in A Cairo Suburb. Harpocrates Publications, Cairo

Cairene urban status was then described as spontaneous or "improvised" or "ad-hoc". As a result, an unexpected deficiency occurred in the entire number and classification for all inhabitants' social classes. This deficiency was met by a large speedy construction movement all over Cairo like nowhere else in the world, even those deteriorated or destroyed as a result of WWII. On the other hand, a quick deterioration has spanned along the original old districts of the city because of over population, and lack of maintenance and renewal projects.

The 1952 revolution quickly laid hands on several private projects (nationalization), as means for the country's independence from long colonization. Centralization process was the government's fundamental regime has resulted in an unpredictable enlargement of the city master plan. The results of this regime is basically witnessed in the socioeconomic change of the Cairenes. The claim of eradication of the socioeconomic buffers has resulted in an allocation of the elite, and an advancement of the middle and lower middle classes, causing unsteadiness in the demographic map of Cairo. A door was then open wide in front of the rural immigrants, poor, and youngsters and unqualified as a socioeconomic class extensively working in the capital. Their percentage has much increased, living on the margins and the peripherals of the city, composing the early urban slums and squatter settlements.

In the late sixties and early seventies after the 1967 Arab-Israeli war, the same inflation of WWII was repeated and due to alike factors. However, the results were more intense because of the centralization and the migration of the canal cities habitants during the six years of war. The new regime of the open-door policy that has started after the 1973 victory has shifted the administrative orientation towards capitalism. Coinciding with the exploration of oil in the gulf countries has resulted in a new reconstruction of the social classes and urban configuration of the city. A shift in the formulation of the middle class was witnessed. Neaveau-riche constituted a new social class, which has contributed to a new urban irrelevancy in the new districts and suburbs with their comeback from oil countries for homing upgrade. Apart, was a vast investment movement empowered by the political decision, contributing to a tremendous inflation and the emergence of new residential districts with new housing cultures.

In the eighties, the gaps between socio-economic groups have widened and the demographic structure has mingled. The housing projects could not cope with the pace of the housing need, leading to an entire urban deterioration allover the city. The squatter settlements then were estimated as an 85% of the entire housing in Cairo. Blocks of flats in place of private villas, or adjacent to villas after parts of the gardens were sold.

In the early nineties, and after the political regime shifted its economy towards the privatization, the investment sector has swept like a flood, building its own residential

compounds outside the borders of the city. Creating opportunities for the building sector to flourish and the demand of the out-side-the city new residential compounds to increase, creating a new inflation in the land prices, building costs and craftsmanship wages. From retrospection, the demand for houses for the poor classes became merely a need for shelter, which has resulted in the swelling of the older squatter settlements and the development of newer ones.

As for the transformation of the twentieth century "modern" districts to what can be described as repellent, is basically due to the urban mismanagement, the defiance of laws and legislations and the defacement of urban standards, with respect to criteria and ratios of solid to void, distribution of activities, the over-height, the denial of maintenance, deconstruction of older buildings and building new ones without any urban reference, raise in building and population densities with over pressures on the actual infra structure, lack of parking lots, disappearance of walkways, and, what we are suffering from currently: the exaggerated un-tolerable urban traffic jams, and, environmental and visual pollution and the loss of identity. As for the social structure, an undesired combination now dominates the entire urban districts of Cairo. Reflecting unease and dissatisfaction among heterogeneous user-groups. Differences in value systems and behavioral patterns seem to be the most prevailing problem. Lack of privacy, lack of sense of belonging are two negative aspects resulting of heterogeneity between individuals, and have resulted in the absence of the sense of community, solidarity and cooperation, leading to more deterioration of the built environment.

With this fragmentation and variety of urban images representing the different social groups, can one expect a unified or a collective identity to reflect in the environmental context, to verify a particular culture of place? I believe not. Consequently, if we have reached this agreement, then the answer to the research question on a Cairo particular cultural identity is indeed a true fallacy. Multi-layered and multi-faceted identities is the reality of Cairo throughout its entire history. Relating to any of Cairo identities is accepted: "Islamic Cairo", "Modern Cairo", "Old Cairo", "Contemporary Cairo", etc- as cultural conceptions not as geographical locations, without falling in the pit of generalizing an identity over the rest. Any reference to one of the identities should always be framed/specified within the context of the subject matter at hand.[71]

If we were to frame a Cairene identity through which we can indicate globalization effects on its change or loss, it would take volumes to discuss. Moreover, a comprehensiveness of historic, political, economic, and social issues would be derivatives. However, and on casual basis, I argue that the status of Cairo features a total loss of any of its previously prescribed identities. I further argue that the intact Egyptian cultural scene is piteous. For over hundreds of years, Egypt has gone through flips of its entire systems structures, and

as previously showcased, mocked.

Except for only a few architects that have been able to strike the balance and introduce what can be argued as contemporary Egyptian architectural identity, a summary of the "loss of architectural identity" factors is pointed out as follows:[72]

- Weak sense of belonging.
- Reign of the un-cultured capital.
- Tendency to follow the "western" other as icon and idol.
- Uncontrolled and unplanned growth of people and building industry.
- Centralization in Cairo and greater cities.
- Idle economy after a series of wars.
- Economic and social problems.
- Negative of the socialist regime and the nationalization process.
- The inflation of land value and the shift towards the verticality in buildings.
- Immigration from rural areas to the big cities.
- Lack or weakened building laws, rules and regulations.
- Shifting architectural education towards the western models and theories.
- Dominance of engineering and contracting over the architectural profession.
- Lack of aesthetics and beauty as values.
- Gap between architecture and art in the education and practice.
- Lack of criticism courses.
- Overall deterioration of the entire educational system.

Fig. 72: Drawing by architect Taher Saiid

71 Safey Eldeen, Heba, 2015. I Am My City: Rethinking Cairo as a Contended City. Proceedings of RealCorp20: Plan Together, Right Now, Overall: From Vision to Reality for Vibrant Cities and Regions. Ghent, Blegium May 2015

72 Giraud, Michel. (1994). Silhouette Urbaine: L'exemple du Caire. Institut d'Amenagement et d'Urbanisme de la region d'Ile-de France.

3.3 Architectural Types

Pointing out that, Egyptian architecture, due to the varied environmental regions, and due to its long cultural and civil and civilized history, is indeed unique. This clarified three main architectural types on the overall built up area of Egypt, each expressive of its environment and society.

1. **Formal Traditional Architecture:** displaying the special attention architecture representing almost 10% of entire architecture in Egypt: Presents the flashy architecture of the elite or the rulers. Offered all financial and technical potentials. Influenced by the dominant political influences, as well as the religious and the imported influences. Sometimes exemplifies its environmental and/or beliefs appropriateness if the designer was aware and conscious, this architecture is taught within schools. It is the type that clarifies the successive styles.

2. **Public- Middle Class Architecture:** existing in the majority of cities and representing around 30% of the entire architecture in Egypt: Presents the architecture of the middle class, with lots of resemblances. Offered a lot of potentials. Temporarily influenced by imported political, artistic, scientific and economic factors. Sometimes exemplifies environmental appropriateness, in case the designer was aware of the architectural heritage imperatives and its culture. This architecture is taught in schools, and influenced by reciprocates.

3. **Dominant Popular Architecture:** can be described as the Egyptian under-soil water and represents around 60% of the entire Egyptian architecture. This type includes the informal areas and presents the architecture of the simple modest potentials. Emerges from the direct place culture spread among the regions, with the local material. Also found in the old parts of the old cities, with characteristics that continued along ages. Practiced through direct acquisition between the leader builder (mo'alem) and associates and craftsmen on site, not within schools.

3.4 Cairo: The "Mental Image"

Cairo, knowing the city too well, in the words of Naguib Mahfouz[73] "like meeting your beloved in old age, then was I to tell about her wrinkles, her bad breath and worse taste, and her unfortunate habit of shouting at servants?" The city, is changing, and what it was changing through disturbed me. I felt increasingly estranged from what was becoming a harder, more impatient, less tolerant city of ugly new buildings, a place far removed from other Cairo's I had known. Crowding squeezes Cairenes out of their homes. There are precious few garden spaces, until a recent study of the city stated there were only five square inches of parkland per inhabitants, which is to say less than the area covered by the sole of one[74]. The pressure of people touches every aspect of life in Cairo. It drives the price of land as high as $500 a square foot, making millionaires out of speculators while stifling youthful dreams of independence. It overburdens public services and so litters thoroughfares with uncollected waste, but it also limits crime by cluttering getaway routes. Crowds draw in business, creating a rich and varied market that generated money to embellish the city with the facilities and monuments which sustain its sense of greatness. But this forces compromises: to relieve traffic, concrete flyovers brush past medieval walls; to provide housing, apartment buildings supplant gardens. Rather than standing live flamingos, Cairenes take themselves out to the streets. They turn sidewalks and roadways into zones of commerce and entertainment, converting them piecemeal into playgrounds and restaurants and open-air mosques. The street is where some 2 million homeless sleep, and where all the people of Cairo engage in combat with the city's millions motor vehicles and thousands of donkey carts. The crowding makes for noise and stress, pollution and social tension. Cairenes complain, yet secretly, complicitously, we are by and large addicted to living cheek by jowl with a never-ending spectacle.[75]

Combined with the dust that blows off the desert, heavy use gives the city a cosy patina of age. It burnished knobs and handrails to greasy smoothness, cracks tiles into shards, and tint wallst o a uniform dun color tht ignites into gold in the soft, slanting light of late afternoon. Sidewalks buckle under the weight of feet. Staircases in grand beauxarts buildingd sag, their marble steps eroded into slippery hollows. Advertising tattoes everysurface with Arabic's elegant squiggle. Neon spangles rooftops, mingling with antennae and the upturned domes of satellite dishes. The air itself is saturated with the things of man. Deep-frying oil and fresh mint overlie the musk of freshly slaked dust. The human urge to be noticed floods the completely sound spectrum noise, from "Allahu Akbar" blasting off every mosque megaphone to insults hurled from the other end of the

73 Nobel Prize for Literature winner.
74 RAAFAT Samir, W. Maadi, 1995, 1904-1962: Society and History in A Cairo Suburb. Harpocrates Publications, Cairo
75 Kostof, S., 1993. The City Shaped: Urban Patterns and Meanings through History. Bulfinch.

Arabic alphabet. The noonday in Cairo is a rock-concert-equivalent to ninety decibels.[76]
It is evident that the continuous social flux in contemporary Cairo has made it a fascinating example of urban change. Witnessing the struggle between politics, history, and place making since the fifties of the twentieth century has caused erasing and demolishing parts of its past. The intense city has now become a self-destructive character, culminating the question of a Cairene identity. Efforts dedicated/exerted to respond to Cairo's chaotic urban identity are numerous and various in approaches; national or individual or limited-scale sized projects are implemented. Some of them are dedicated to conservation and preservation of historical areas, or, and some are dedicated to partial development or beautification of city districts. However, something is still missing or troublesome. For what we find day after day is more law-breaking, vandalism, demolishing of historic buildings or buildings of value and an overall deterioration of the city. In addition to the reign of informality and its merging/blending with all formal city districts, Cairo today possesses a confused urban identity.

3.5 Designing in Cairo Today

The question of designing in Cairo today and developing a contemporary architecture identity is mainly concerned with the enhancement of quality of life of the residents rather that its urban form, size or area. According to Jan Gehl, life of people come first, then comes spaces, and then comes buildings, the other way around never works. This means that some values should be implanted for any planning or design of our city contented. Such values revolve around the human, such that human life of the Cairenes can continue indefinitely, humans of Cairo can flourish, Cairene multiple/various cultures can develop. This calls for a vision based on the following considerations:[77]
• A strict connection with the social dimension should be enforced, namely to the relationships among the different groups and cultures.
• These relationships are based on the idea that the welfare of the individual in the community is linked to the welfare of the system itself.
• Multiplicity and differentiation should not build invisible walls in human life. Meanwhile conflicts, individuality, isolation, and plurality should be replaced by concepts of cooperation, and participation.
The vision for a Cairene Contemorary Architectural Identity would then be argued as pivoted around the enhancement of quality of life of its humans; bringing together different people in self-sufficient settings, with variety of activities and amenities that guarantees safety, proximity, accessibility and interest for all. The solution to Cairo's urban and architectural

challenges therefore needs a humanistic design manifesto[78] that advises some strategies for achieving its urban calmness. On top of such strategies is to break down bigness. A focus on the present is to prioritise particular areas, spots or locals, rather than targeting wider geographical areas, scale of homogeneous areas, small enough to allow people to be aware of others. Telling the truth about politics and economy, and their consequences on the cultural attributes and social implications should be discussed with city dwellers Learning to listen to people would thus prioritize feelings over forms (form follows feeling) and would guarantee social inclusion, neighbourhood scale-suitability and a strengthened sense of community; and hence a strategic of people empowerment would be endowed. Fighting for environmental justice is yet another determinant component of this manifesto. Endorsement of public transportation and freeing pedestrians, together with sufficient connected public spaces are strategies that will have positive outcomes for social cohesion, lessening the behavioural gaps between Cairo subcultures, reducing environmental pollution, and helps noise alleviation. That is to say, most strategies are centred on extending the design process, and abolishing physical monopolies over values and ethics.

For the case of today's Cairo, drawing-up any values or visions for its contented future complies an emphasis on its heritage conservation. By heritage I mean both tangible and intangible for what both hold of values. On one hand, intangible heritage is defined as embracing all forms of traditional and popular culture, i.e. collective works created in a given community and based on traditions. It is transmitted from generation to another, constantly recreated by communities and groups in response to their environment, their interaction with nature and their history and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity[79]. It demarks mental and emotional values, including historical values (memorable and pride), aesthetic values and social values. On the other hand, tangible heritage is all the surviving physical traces of human achievements through time from the ancient archaeological ruins to the hydraulic lifts, from simple country cottage to vast urban zones. It is everything created by human beings as the product of human intelligence and creativity, which allows knowledge and skills to be enhanced and passed on from one person to another and from one generation to the next . It demarks usage and societal needs for life, including economic values, urban values and function values. In that sense, drawing-up Cairo's developmental objectives are to include community renewal, revitalization and continuity, education, identity, nationalism and appreciation of the past, pleasure, recreation and increased quality of life, diversity tourism, profit and economic development .

76 RAAFAT Samir, W. Maadi, 1995, 1904-1962: Society and History in A Cairo Suburb. Harpocrates Publications, Cairo
77 SAFEYELDEEN Heba. Towards a Contemporary Theory of Cairo's Urban Identity: Curricula Revisited. Proceedings of the ICERI 2013 (6th International Conference of Education, Research and Innovation. ISBN: 978-84-616-3847-5

78 Appleyard and others 1982
79 United Nations Educational, Scientific and Cultural Organization, 1972, Special committee of government experts to prepare a draft convention and a draft recommendation to Member States concerning the protection of monuments, groups of buildings and sites [Online] Available, http://whc.unesco.org/archive/1972/shc-72-conf37-recommendation3e.pdf

It is suggested that designing in Cairo today requires referring to global contemporary urban and architectural concepts, about liveable, sustainable, happy and smart architecture as follows:[80]

	Liveable referring to the people	Sustainable referring to the place	Happy referring to the social context	Smart referring to the governance system
Design Issues to be addressed	comfort, health, safety, well-being, walkability, provision of recreational facilities, accessibility, ...	environmental-responsibility, connectivity, diversity, access to employment, productivity, resilience, ...	community engagement, custodianship, living-affordability, cooperation, inclusion, ...	leadership, participation, productivity, planning, management, monitoring, ...

80

3.6 From Theory to Reality

Based on the preceding, many questions where then evoked: What project to choose for achieving the goal? Which area to choose in Cairo for the project? Why would that particular project be successful? And how should it be designed?
So the criteria for selecting the building type and its area were determined and driven by:
A place and an activity that would revive the multi-cultured Cairo, creating a place for a community renewal while revitalizing and appreciating past cultural tangible and intangible heritage. Observing Cairo map, the answer to the question was there: the Azbakiyya area, for what it holds of opportunities and inspirations.
• A central location on Cairo map (accessibility).
• A Place with history (Al Azbakiyya pond in Medieval times or little Venice in Cairo, then Al Azbakiyya garden in Modern Cairo, the socio-cultural and artistic beaker of "Paris of the East", then a pivotal transportation and trading locality in contemporary Cairo).
Hence, rejuvenating AL Azbakiyya promenading pond with its green surrounding in the midst of the crowded urban fabric, while creating a musical center almost in the same spot of the burnt Khedivial Opera house, are sought as the most
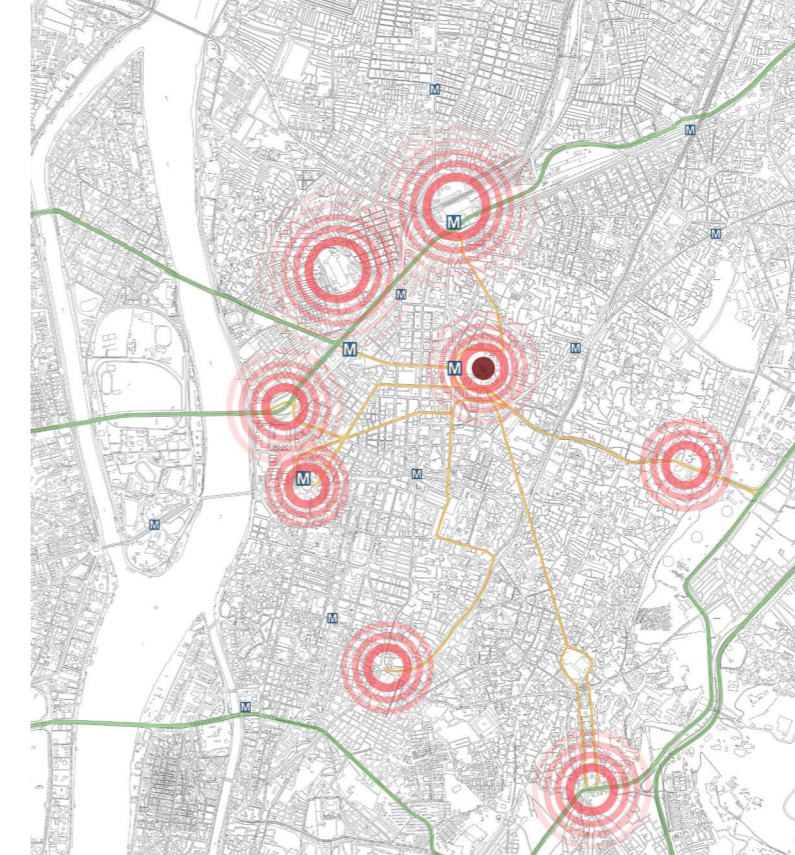

Fig. 74: Azbakiyya Pond

Fig. 75: Azbakiyya Park

Fig. 76: Azbakiyya Today

Fig. 73: Location of Azbakiyya and its relationship with main surrounding roads, transportation spots, and metro stops
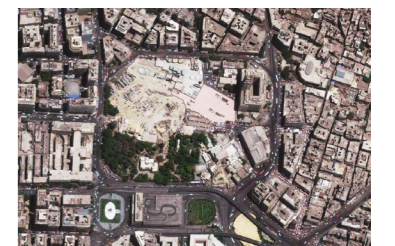
CHAPTER 4
AZBAKIYYA, THE LAKE,
THE GARDEN,
OR THE FORGOTTEN PLACE

Azbakiyya is a Cairene neighborhood located in the heart of Cairo. The area is trapped between the medieval Cairo and modern Cairo (Downtown). It is considered as one of the most crowded places in Cairo as it receives lots of daily visitors to attend some of the main administrative facilities in the capital, as well as being one of the main connective areas between eastern and western neighborhoods. Through the history in the Mamluk and Ottoman periods, it was the residence of the elite people in Cairo. After the French campaign and during the dynasty of Mohamed Ali Pasha's family, it was the center of music in Cairo, having lots of theatres which hosted some of the most famous European musical players and singer as well as some of the most famous local singers in Egypt. It hosted the royal opera house and some other important theatres, as well as lots of palaces of the royal family, and the most important and famous public garden at the time. In 1952 A.D. and the following decades, the neighborhood witnessed series of governmental negligence that ended up with the area to a very poor lever of architectural and cultural identity.

4.1   Pre-Lake

Borders of the Nile used to be so much different than what we can see today. Water used to occupy lots of the inhabited areas nowadays. Parallel to the Nile, There was an ancient canal connecting the Nile to the Red Sea, crossing from south to north. Fatimid Cairo was established to the east of this canal (Al-Khalij Al- Misri), where it was redug and aligned with the western wall of the city and creating borders to it.[81]

4.1.1 Fatimid and Ayyubid Dynasties

The Khalij had provided Cairene inhabitants with leisure and entertainment throughout its history. During summer, Khalij and number of connected ponds were flooded by the Nile, when the flood subsided water was replaced with vegetation, such nature encouraged rulers to create resorts and pleasance foundations, even before the foundation of Al-Qahira.
Until 13th century, The Nile's borders followed a course much further east than it does today, Al-Maqs (Azbakiyya nowadays), was a port back then, was used to receive goods and grains from Lower Egypt as well as imported goods from Mediterranean countries. When Salah Al-Din extended the city walls to incorporate Al-Fustat and Al-Qahira, the

81 Doris Behrens-Abouseif (1996), Islamic Architecture in Cairo : An Introduction, The American University in Cairo Press, Cairo.

northern wall was extended westwards to the Nile as far as Al-Maqs port. The area of Al-Maqs was mainly inhabited with Christian population, the area kept its identity as a Christian quarter until modern times. Maqrizi[82] also mentioned that Kurd[83] soldiers, whom were part of the military colony of Salah Al-Din, dwelt at Al-Maqs, today there is still a street called Harat Al-Akrad (Alley of Kurds).

Further south between Al-Maqs and the quarter of Al-Luq, a garden was located in the Fatimid Dynasty, known as Bustan Al-Dikka (Garden of the bench). Two canals sprang from Nile, known as Khalij Al-Dakar and Khalij Al-Hawr, were dug for the purpose of irrigating the gardens of Al-Maqs. They supplied a pond on the western side of Al-Khalij Al-Misri, which was dug specially to enhance the skyline available for the residences near Al-Maqs gardens.

The pond was originated in the Fatimid period, then it fell in negligence, its site became inhabited by squatters and the area was known as Darb Al-Lusus (Quarter of Thieves). Later Caliph Al-Amir[84] ordered the pond to be redug in the beginning of the 12th century. The pond was called Batn Al-Ba
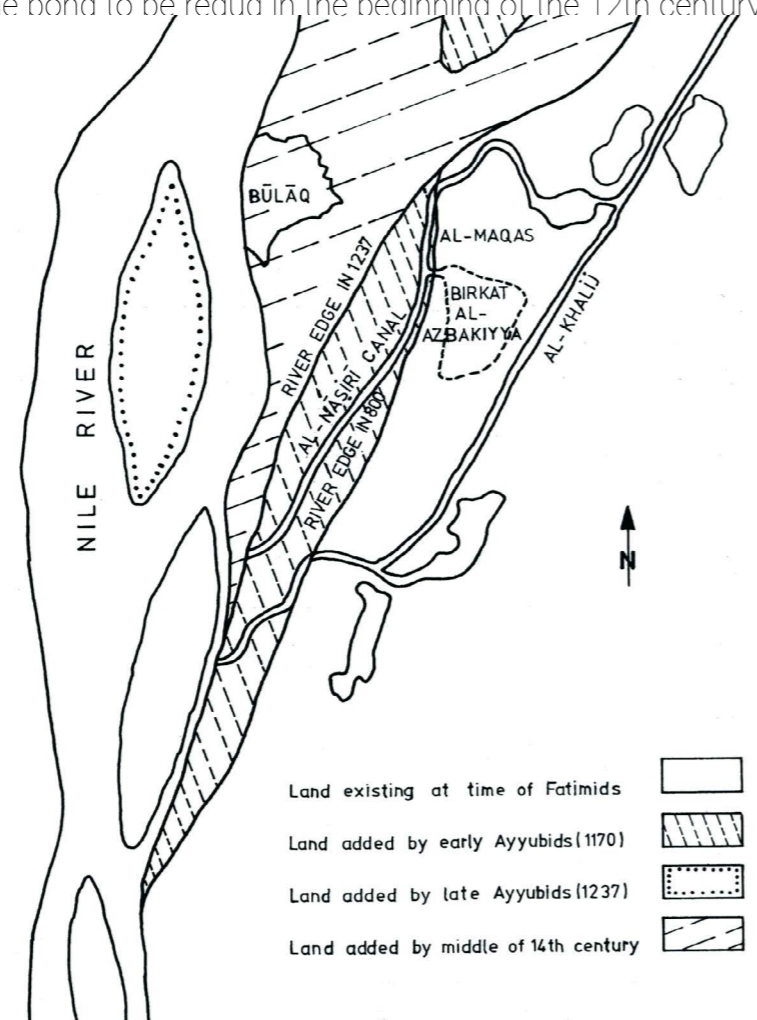

Fig. 77: The stages of the shift
of the Nile to the west

82 An Egyptian historian more commonly known as al-Maqrizi or Makrizi. Although he was a Mamluk-era historian and himself a Sunni Muslim, he is remarkable in this context for his unusually keen interest in the Ismaili Fatimid dynasty and its role in Egyptian history.
83 An ethnic Persian group in the Middle East, mostly inhabiting a contiguous area spanning adjacent parts of modern-day Iran, Iraq, Syria, and Turkey.
84 The tenth Fatimid Caliph (1101−1130), and recognized as the 20th Imam by the Mustaali Ismaili Shia sect.
85 Doris Behrens-Abouseif (1985), Azbakiyya and Its Environs From Azbak To Ismail, 1476-1879, Institut Français D'Archéologie Orientale, Cairo

4.1.2 Early Mamluk Period

In the 13th century, Nile's borders had shifted to west leaving a big area inland added to the western side of Khalij, this new land provided opportunities for great building activities. The biggest intervention of all was the digging of Nasiri Canal (Named after its founder Sultan Al-Nasir Mohamed Ibn Qalawun[86]) which was dug along the course of Khalij Al-Dakar parallel to Al-Khalij Al Misri. The main purpose of this canal was transporting grains to the Delta villages, yet, soon leisure boats started boarding its waters, reducing the traffic in the main Khalij, leaving it just for goods transporting boats.

Nasiri canal followed a course parallel to khalij further west, away from the city. It was permanently supplying Cairene ponds with water. The canal was responsible for keeping another form of urban life away from the city's center, that it attracted people to go and enjoy along its shores. Once the canal was completed, The Sultan encouraged his amirs to build along its banks. However most of the buildings erected were residential pleasance foundations. No important princely religious foundations were erected.

According to Maqrizi's description of the scene, starting in the month of July, pleasure boats join the scene throughout the flood season. Multitude of boats (described as colorful painted and adorned with colored curtains) filled the water every time the canal was opened by Caliph, Mamluk Sultan, and later Pashas. Wandering musicians plied the shores, playing for an audience engaged in a not quite orthodox style of life. Maqrizi writes that there were unveiled women, wine, and illicit behavior within the boats as well as the houses.

However, in less than one century, during the economic crisis, urbanization stopped gradually in the area, the great building activities the Sultan Al-Nasir has started had come to end. During 14th century, canal's shores has lost its importance and gained a marginal character, as the amirs preferred to build their royal and princely religious buildings close to the city's core.[87]

86 The ninth Mamluk sultan of Egypt who was inaugurated three times, from December 1293 to December 1294, from 1299 to 1309 and from 1309 till his death in 1341.
87 Doris Behrens-Abouseif (1985), Azbakiyya and Its Environs From Azbak To Ismail, 1476-1879, Institut Français D'Archéologie Orientale, Cairo
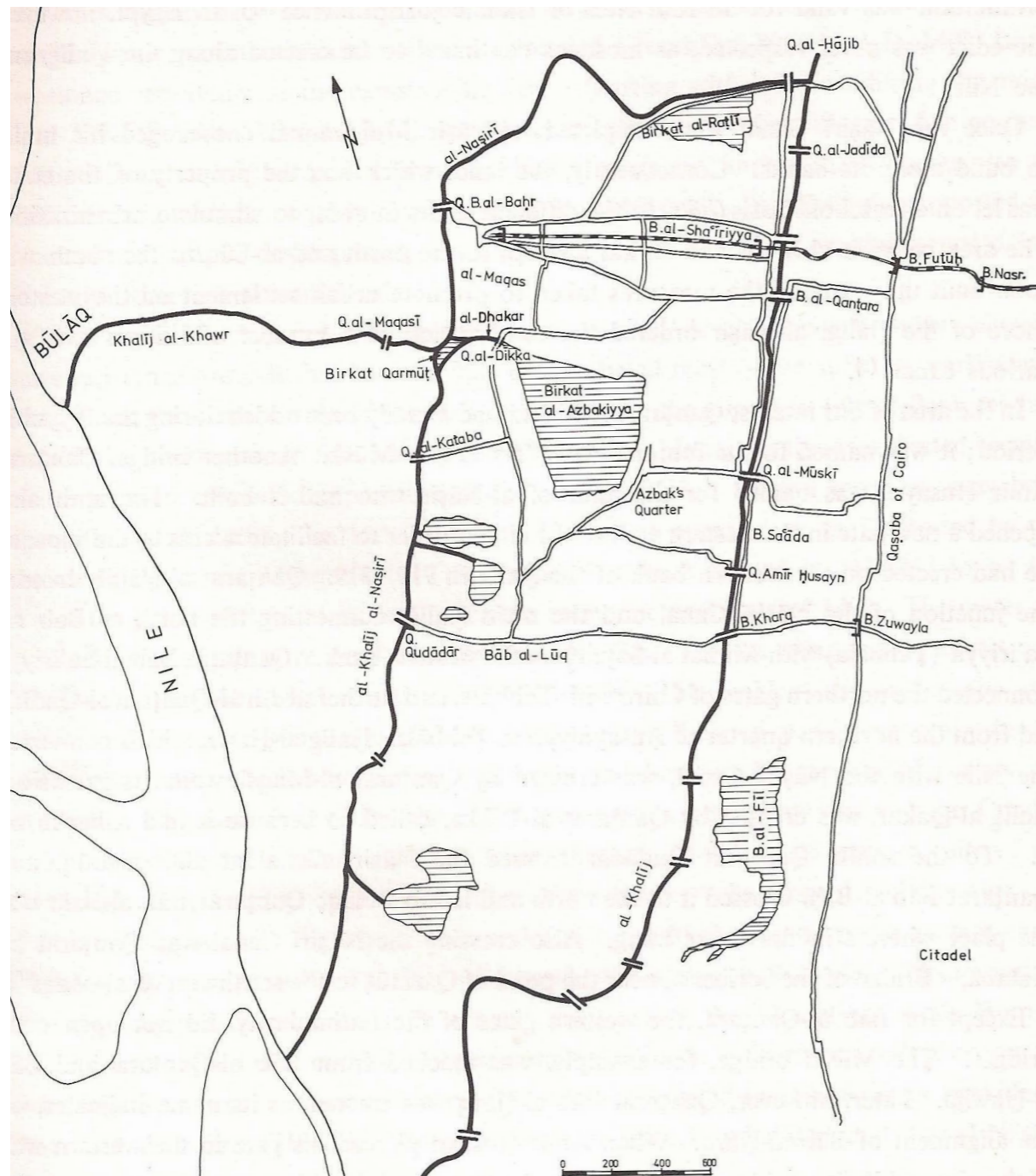
Fig. 78: The western shore of Khalij in Mamluk period (with Azbakiyya)

4.2   The Lake

Until 14th century, most of the princely residences of Cairo were concentrated within the borders of the city and the east side of Al-Khalij Al-Misri, nevertheless, in the late Mamluk period, the city was crowded with commercial buildings and activities and started losing its residential character. Aristocrats started considering building their residential buildings on the other side of Khalij. Mamluks preferred to build on the eastern side of Nasiri canal, while ottomans built on the western side

Foundations were usually held on the shores of the canal and the surrounding ponds. Many ponds were dug later to enhance the view of their houses and gardens. The ponds were described being full of boats, surrounded with palaces and beautiful houses, reflecting artificial lights over its surface as well as reflecting life going on around it.[88]

4.2.1 Late Mamluk Period (Foundation of Azbakiyya)

Zooming in from the big picture of the western side of Khalij, to the site of Azbakiyya Lake, which has not been dug yet. In this area, there was a pond called Batn Al-Baqara, which dried when the water ceased to flow into Khalij Al-Dakar. In the 15th century, this area was owned by the Commander-in-Chief of the Armies Azbak Tatakh al-Zahiry, who began digging a pond on the site of the former pond of Batn Al-Baqara, he redug part of Khalij Al-Dakar to connect Nasiri canal to the new pond to supply it with water. He restored the bridge passing Khalij Al-Dakar. He constructed a paved promenade around the pond. The pond eventually was known as Azbakiyya Lake (called after its founder).

Azbak built his own palace at the south-eastern corner of the lake. People were encouraged by this construction to build elegant houses near the lake following Azbak's example, so Azbak was encouraged himself to enlarge his project. He built a central mosque, commercial structures and dwelling.

After 8 years, by the year 1484 A.D., the project was finally completed, the lake was filled with water, and Sultan Qaytbay[89] granted the land where Azbak built his complex to him. After the completion of the project, in 1485 A.D., the celebration of opening Nasiri canal was held for the first time at Azbakiyya, it was witnessed by huge crowd and as usual fireworks.

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88 AlSayyad, Nezar (2011), Cairo : histories of a city, The Belknap Press of Harvard University Press, Cambridge, Massachusetts, and London, England
89 The eighteenth Burji Mamluk Sultan of Egypt from 872-901 A.H. (AD 1468-1496). He was Circassian by birth, and was purchased by the ninth sultan Barsbay (AD 1422 to 1438) before being freed by the eleventh Sultan Jaqmaq.

Savary[90], the French traveler described Azbakiyya Lake as follows,

An immense basin surrounded by palaces of the beys, which are embellished with various coloured lights. Many thousands of boats, to the masts of which lamps are suspended, produce and ever varying illumination. The clear and starry heavens, which are seldom obscured by mists, and the profusion of artificial lights on the waters give all the brilliancy of the day to the sweet refreshing coolness of night. Imagine, Sir, the pleasure with which the people, who have been scorched twelve hours by sun so ardent, come to breathe the cool air of these lakes: seldom are the charms of this nocturnal scene disturbed by impetuous winds; they fall at sunset and gentle airs agitate the atmosphere.

All historians agreed that Azbak's foundation brought life to this part of land after it was just a deserted land with dangerous roads. Azbakiyya became one of the most important gathering areas in Cairo besides Rumayla square near the Citadel. Many events were held at the shores of the lake. Thus Azbak's foundation had a great influence on the Cairene urban life.[91]
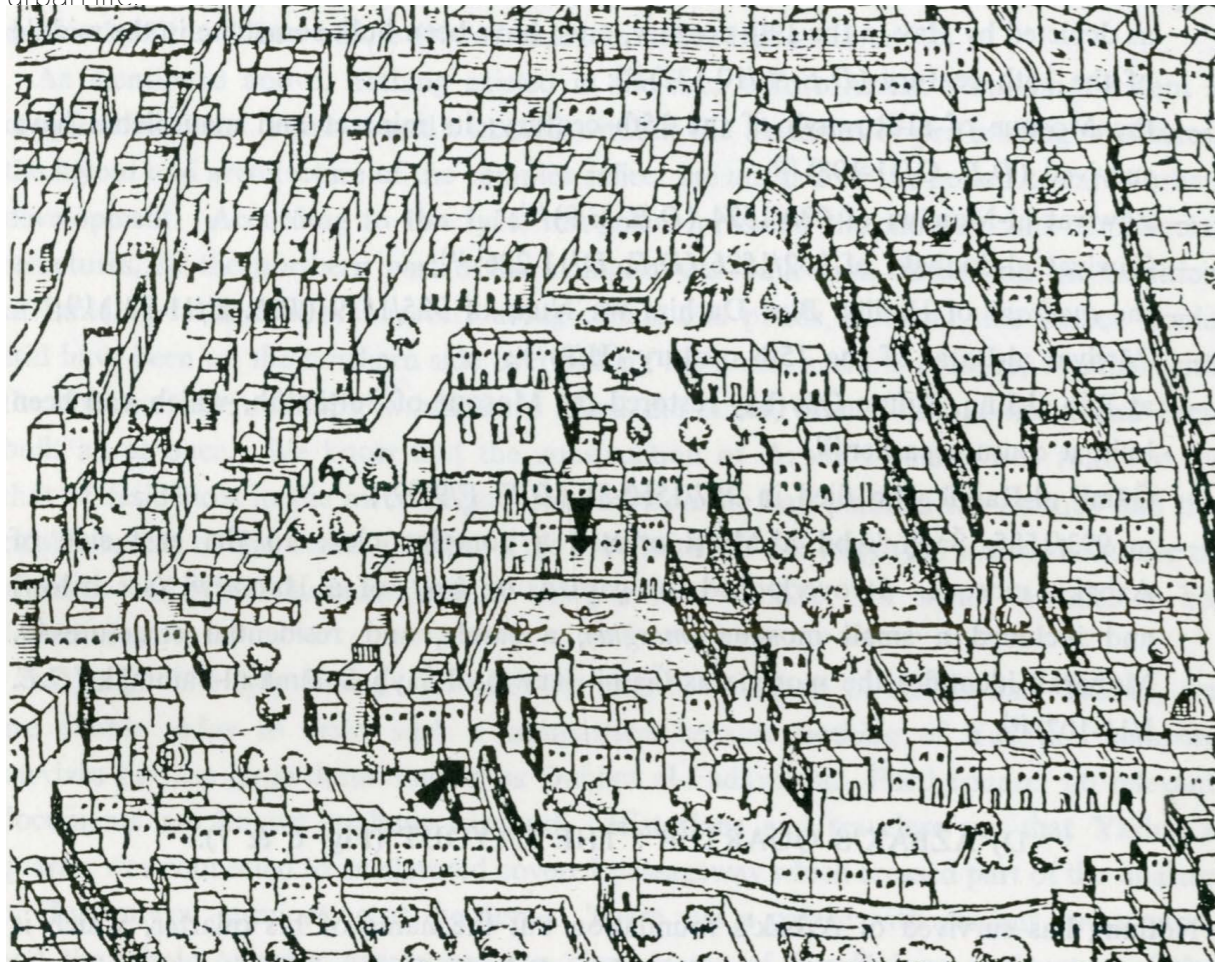

Fig. 79: View of Cairo showing Azbakiyya with swimmers and Qantarat Al-Dikka

90 François Savary de Brèves (1560–1627) was a French ambassador of the 16th and 17th centuries as well as an Orientalist.
91 Doris Behrens-Abouseif (1985), Azbakiyya and Its Environs From Azbak To Ismail, 1476-1879, Institut Français D'Archéologie Orientale, Cairo

Azbak's Quarter

Nothing has survived of Azbak's foundation nowadays but the name of his quarter, which is closely associated with the history of modern Cairo. Fortunately it is possible to redraw the layout of the quarter because the Waqfiyya (ownership document) has survived in a f...
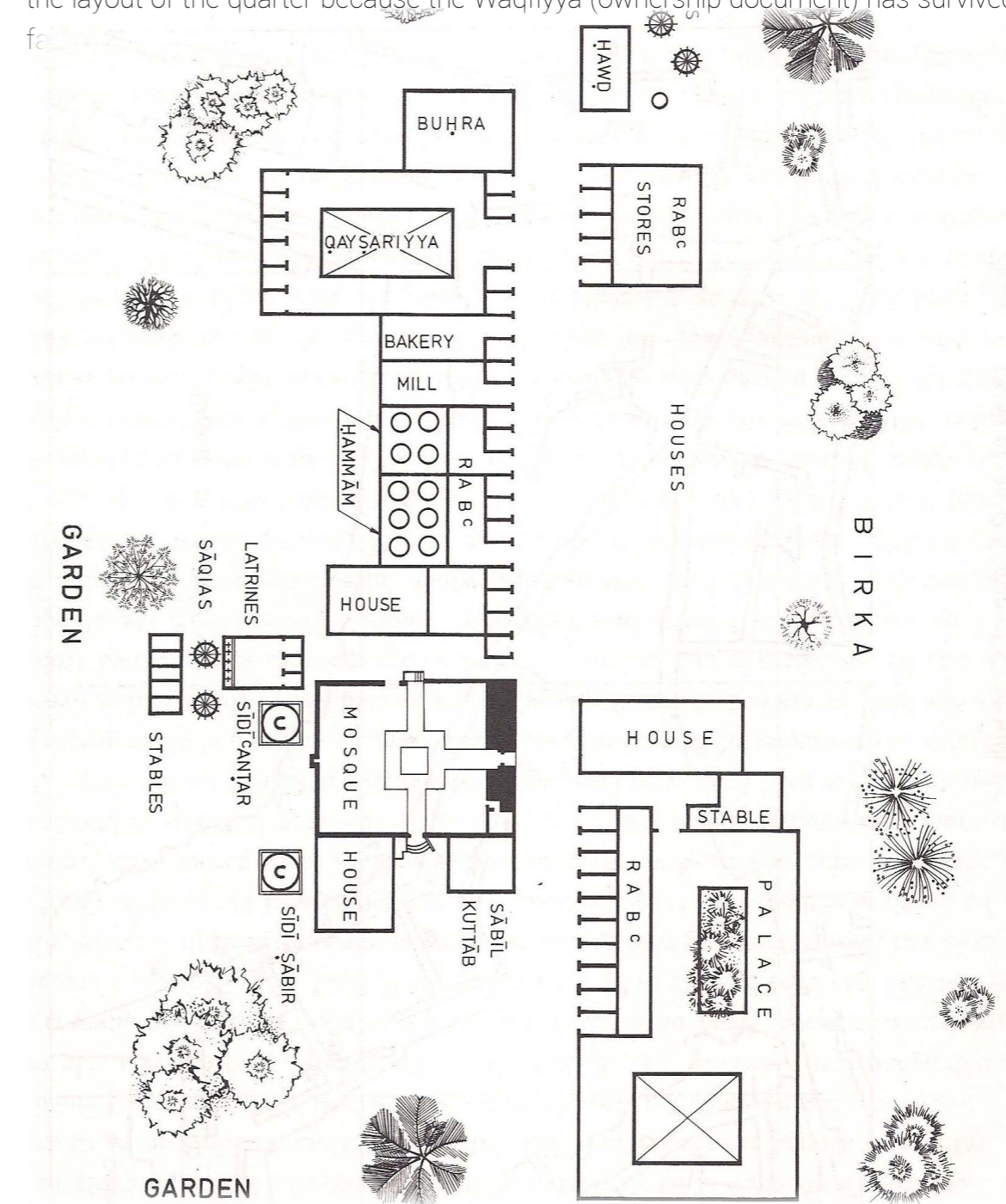

Fig. 80: Schematic reconstruction of the quarter of Azbak accoring to its waqf description

92 Doris Behrens-Abouseif (1985), Azbakiyya and Its Environs From Azbak To Ismail, 1476-1879, Institut Français D'Archéologie Orientale, Cairo

Azbakiyya After Azbak

The foundation of Azbakiyya didn't lead to immediate change in the direction of the city's expansion, south-eastern shore was the only inhabited area, the rest of the shoreline retained a marginal character, where we could find cemeteries, prostitution houses and places for selling Hashish.

No new constructions were done in the area, the city was still expanding southwards from Bab Zuwayla to the Citadel. On the other hand, cemeteries kept expanding around Azbakiyya Lake, which was a proof of the marginal character the area retained at the time. Not until the beginning of 18th century, did the area between the Khalij and the lake witnessed significant thrive of its final urbanization. Even then areas like cemeteries and the garden known as Ghayt Al-Nubi were not built up until modern times.

The areas between north-eastern shore of the lake and Al-Khalij Al-Misri started developing into the main Christian quarter of Cairo. Such area kept the name of Al-Maqs until before
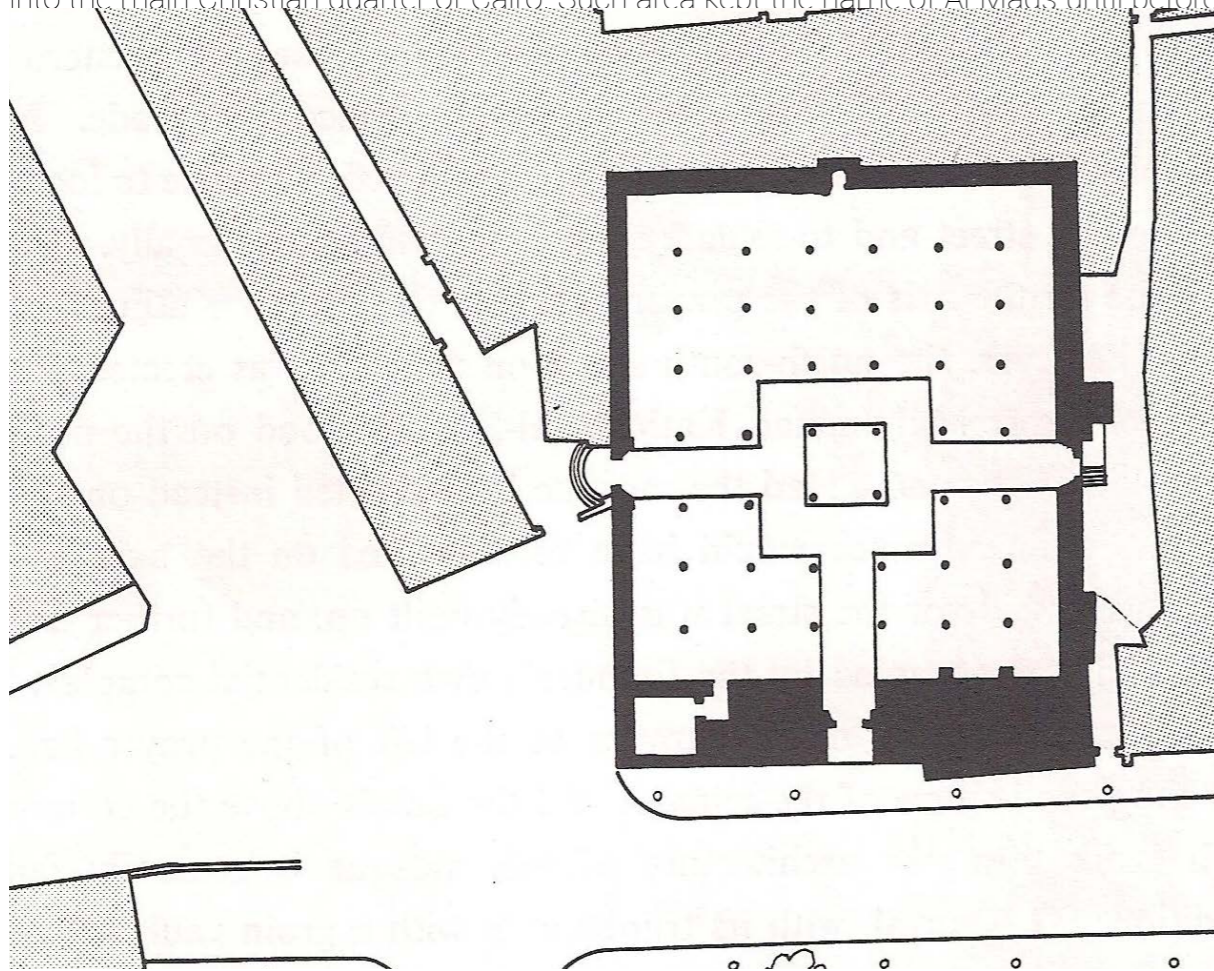

Fig. 81: Plan of the mosque of Azbak before it was pulled down in 1869

93 Doris Behrens-Abouseif (1985), Azbakiyya and Its Environs From Azbak To Ismail, 1476-1879, Institut Français D'Archéologie Orientale, Cairo

4.2.2 Ottoman Period

Shores of Azbakiyya Lake and the surrounding areas significantly developed new urban life during the ottoman period. The area was divided into many quarters, each has its own character.

Coptic Quarter

The area of Al-Maqs had been a Christian village from Pre-Islamic times, and remained so after. After the expansion of city walls by Salah Al-Din, Al-Maqs came to be a part of the city. Because it had been predominantly Christian population, it gradually became the main Coptic quarter of Cairo. Mamluk's hostile policy towards Copts which were likely to prevent expansion of Christian quarters within the city's urban core, Christian population of the capital preferred to live in the suburbs, they mostly tended to move to Al-Maqs which eventually became the main Christian quarter of Cairo in the Ottoman period. However, no one could find any churches in the area of Al-Maqs until 19th century even though it was the biggest Christian quarter. That was due to the regulations which banned the construction of new churches theoretically.[94]

Fig. 82: 19th century photo of the Coptic Quarter

94 Doris Behrens-Abouseif (1985), Azbakiyya and Its Environs From Azbak To Ismail, 1476-1879, Institut Français D'Archéologie Orientale, Cairo

French Quarter

In 1533, negotiations were held between French King François I and Ottoman Sultan Sulayman the magnificent , they established the first French council in Cairo and reached a treaty allowing French merchants to come and dwell in Cairo, and practice their commercial activities. They founded the French quarter at the area between the bridge of Al-Muski at the Khalij and Al-Maqs.

The French quarter was first described by Coppin. He described the council's residence as a palace with two big halls and a courtyard with stable. One of the halls was furnished in the European style while the other one was furnished in Oriental style. He described the residential buildings as handsome houses with the presence of churches between residences in the quarter. He mentioned also the presence of French-style hostels to accommodate merchants. The French quarter was considered as the main market for goods imported from Europe at the time.[95]

Fig. 83: The Franciscan Church at the French Quarter

Fig. 83: Barber shop at the French Quarter (Coste)

Al-Ataba Al-Zarka

At the same location of Azbak's foundation, Mohamed Al-Dada Al-Sharaybi, the wealthy coffee merchant, built his famous residence that was known as Al-Ataba Al-Zarka (The blue threshold) as its pavement was blue in color. Later the son of Sharaybi managed to increase his wealth through coffee trade, so he started building a new complex for his own at the same location. He built a mosque known as Al-Jami' mosque at a distance from his residence on the eastern shore of the lake in 1732 A.D.

The complex was described by Gabarti[96] as an extra ordinary large complex with 12 independent houses, a great library and a jail. The Sharaybi palace was described to be obviously larger than that of Azbak.

After Sharaybi family, the complex passed many owners during its history, each owner was building new residences and expanding the complex along the southern shore of the lake. It was almost impossible to track the history of the evolution of Al-Ataba Al-Zarka which eventually turned into a quarter during the late Ottoman period. Eventually the complex's name was changed to Al-Ataba Al-Khadra (The green threshold) that it kept the same name until now.[97]

Coffee Houses

Coffee houses were a characteristic feature of Khalij landscape as well as the streets of Cairo in general during the Ottoman period. Coffee trades from Yemen to Europe and Istana which passes through Egypt eventually made coffee itself something essential of the lifestyle of the Cairene people. Coffee houses spread all over Cairo, they were estimated to be at least 650 coffee houses by Chelebi (1200 according to French Expedition estimate). Coffee houses were considered as home for people to consume Hashish and Opium. Coffee houses in the western outstrikts of Cairo, especially the area of Azbakiyya and Al-Maqs, help playing musicians and story tellers, this can be considered as the first step of evolution of Azbakiyya towards becoming the music center or Cairo.[98]

95 Doris Behrens-Abouseif (1985), Azbakiyya

and Its Environs From Azbak To Ismail, 1476-1879, Institut Français D'Archéologie Orientale, Cairo
96 An Egyptian-born Somali Muslim scholar and chronicler who spent most of his life in Cairo.
97 Doris Behrens-Abouseif (1985), Azbakiyya and Its Environs From Azbak To Ismail, 1476-1879, Institut Français D'Archéologie Orientale, Cairo
98 Doris Behrens-Abouseif (1985), Azbakiyya and Its Environs From Azbak To Ismail, 1476-1879, Institut Français D'Archéologie Orientale, Cairo
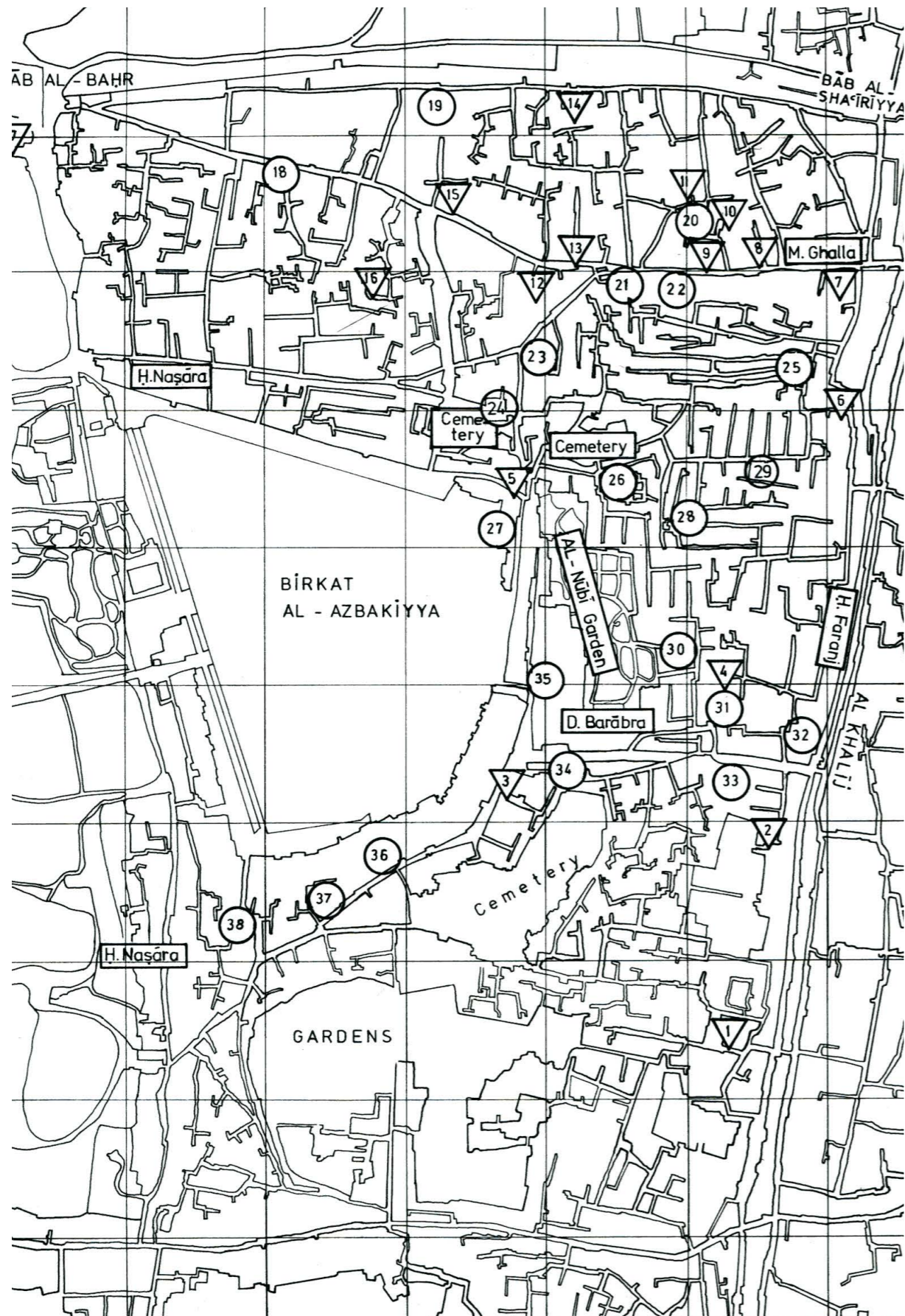
Fig. 84: Mamluk and Ottoman mosques arround Azbakiyya

4.2.3 French Expedition

When French arrived Egypt, Cairo had two public squares, Rumayla square and Azbakiyya. With Napoleon Bonaparte's presence, the central role which Azbakiyya played many years ago was firmly re-established once again. It became the main square of the city, where Bonaparte himself and his army leaders residing in it.

By the time French arrived, almost all the surrounding areas of the lake were completely urbanized except for the garden of Ghayt Al-Nubi and some cemeteries at the northern shore. During the three years of French campaign, some changes happened to the urban life of the western side of khalij. The northern shores of the lake which changed its name from Al-Maqs to Bab Al-Sha'riyya kept receiving more Copts and expanding more in area. Bonaparte chose the area of Azbak's quarter for his accommodation where he stayed in Alfi's palace. Yet in the end of the 3 years of the occupation, Azbakiyya was almost completely burnt and destroyed during the riots against the French invasion.[99]

Fig. 85: Map of Azbakiyya pond in the late 18th century (Description D'Egypte)

99 Mercedes Volait (2003), Urbanism : Imported Or Exported?, Wiley-Academy, West Sussex
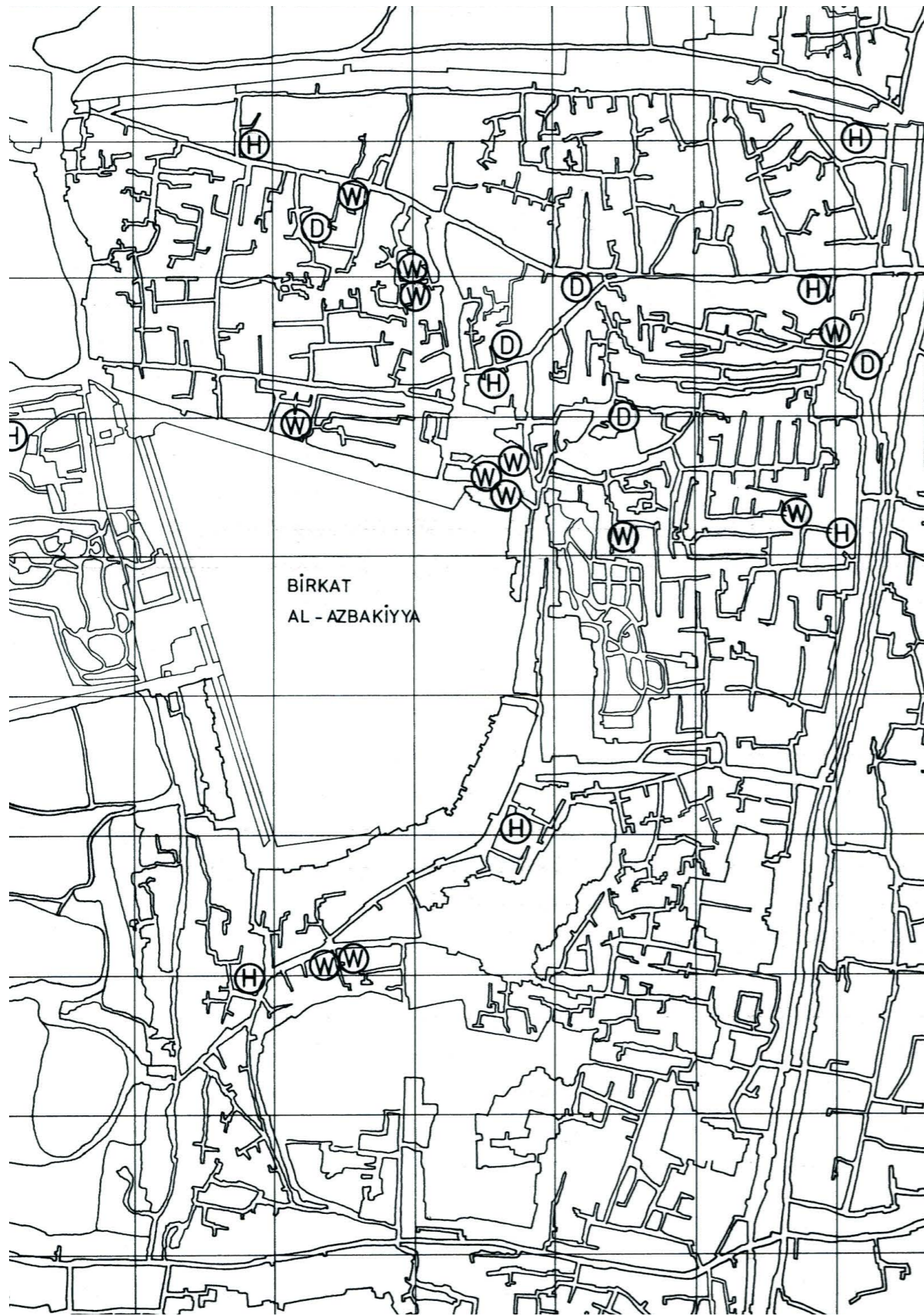
BIRKAT
AL - AZBAKIYYA

Fig. 86: Hammams *H*, dyeing workshops *D*, Weaving workshops *W*, in 18th century

Fig. 87: The northern shore of Azbakiyya Pond (Description D'Egypte), the view shows the coptic quarter

Fig. 88: Azbakiyya destroyed by the battle (Description D'Egypte)

Fig. 89: The western shore of Azbakiyya Pond (Description D'Egypte), with the palace of Alfi, Bonaparte's residence in the middle

4.3 The Garden

After the departure of French in 1801 A.D., the next Pasha sent from Istanbul to govern Egypt was Mohamed Khusraw, he also resided in Alfi's palace and began restoring the entire quarter after the damage that had occurred during the battles against the French.

He built a gate for his own palace and barracks for his soldiers at the southern side of the residence. Gabarti describes the new constructions as apartments located above stables and situated around a courtyard. On the street side there were shops for saddle-makers, tailors, and weavers. He also described the great amount of rubble that were dumped into the lake during restorations, spoiling the beautiful view.

4.3.1 Mohamed Ali's Reign

With Mohamed Ali's reign, a new era in Egyptian history began. This period, characterized by radical breaks with tradition on the cultural and economic levels, had a strong impact on Cairo and Azbakiyya in particular.

Urban expansions in Azbakiyya in particular, as it is in Cairo in general, starting from Mohamed Ali's reign, was controlled according to plans, not freely evoluting and growing like in medieval times. Mohamed Ali's most important interventions in the area of Azbakiyya were enlarging and modernizing Muski street, relocating the cemeteries along the northern shore of the lake, and transforming the lake itself into a large park.

Mohamed Ali's strategy towards Azbakiyya and Cairo in general was completely transforming the city from a medieval city, into a modern city, full of Greek, Turkish, and European architecture. He banned the construction of any new building with an oriental architectural style, mashrabiyya was completely forbidden.

Mohamed Ali took the Citadel as his residence, besides some other houses which were occupied by French at Azbakiyya, some of them were alternative houses for himself, others were granted to the members of his family. He transformed lots of the palaces in the area into hotels, others into governmental buildings.

During this period, lots of European-style hotels were erected in Cairo for the first time, especially at the area of Azbakiyya, such as Hotel du Nil, Hotel Giardino, Hotel d'Orient, Shepheard Hotel, and many others. Coffee houses were also transformed into European style, playing Italian and French music instead of traditional Egyptian music that used to be played for years.[100]

The first theatre to be built in the area of Azbakiyya was the theatre that French established

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100 Mercedes Volait (2003), Urbanism : Imported Or Exported?, Wiley-Academy, West Sussex
Doris Behrens-Abouseif (1985), Azbakiyya and Its Environs From Azbak To Ismail, 1476-1879, Institut Français D'Archéologie Orientale, Cairo

during their campaign. Mohamed Ali's encouraged European artists to come and perform at the theatre. That could be considered as a big step towards the evolution of Azbakiyya into becoming the music center of Cairo.

One more thing also is worth mentioning, is that after the French invasion, the regulations which forbid Copts from building new churches was eliminated. Thus the first church to be erected in the Coptic quarter was constructed during the reign of Mohamed Ali.

In 1837 A.D., Mohamed Ali started giving special attention to Azbakiyya, he thought that Azbakiyya square would be preferably a large park instead of a lake. He compensated the former owner and ordered the Ministry of Public Works to begin the transformation of Azbakiyya. The architect was Murtan Bey, whom Mohamed Ali had sent to study in Europe.

According to the new plan, the lake was completely filled, three paths bordered with trees crossed the middle of the perk, a big fountain for decoration was built at the intersection of the paths. A canal was dug around the park for its irrigation and was connected with a pump at Bulaq. Small bridges over the canal were built on all sides and led to the interior of the park. Tropical trees were imported and planted in the park to provide shade, they gave the skyline a completely new character.

To conclude what Mohamed Ali has done during the period of his power. One can say that it was the first step of losing the Islamic architectural identity that Azbakiyya kept for centuries. Other can say it was the first steps of transforming Cairo and Azbakiyya in particular into a modern European neighborhood, which became the home of the royal family and the center of music in Cairo for the succeeding decades.
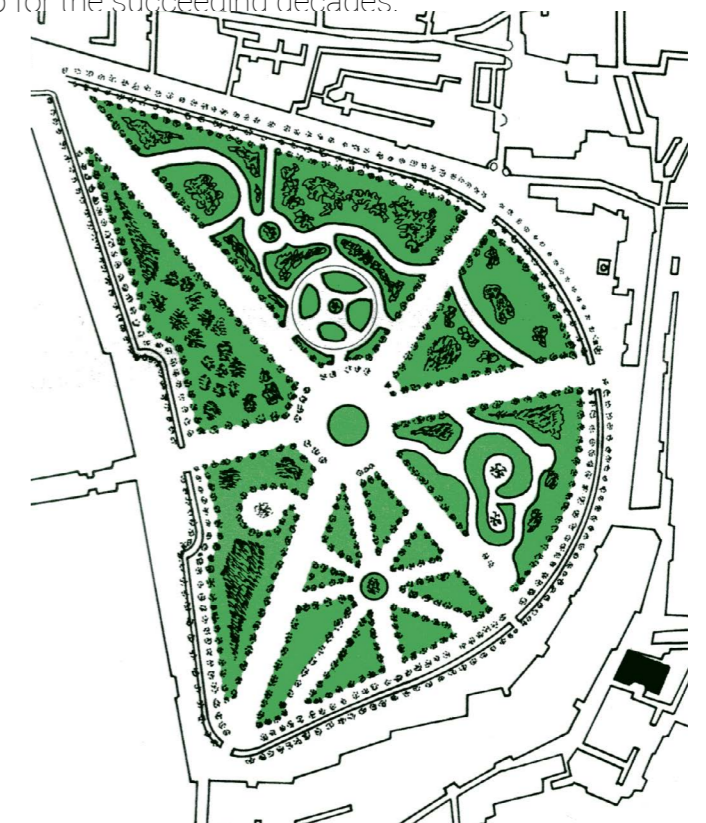

Fig. 90: Plan of Mohamed Ali's
Park that replaced the pond

4.3.2 Khedive Ismail Period

Ismail's reign brought needed changes to completely transform Azbakiyya and specially quarters inhabited by Europeans into a modern neighborhood.

Azbakiyya was the center of Ismail's Europeanization of Cairo. His changes made Azbakiyya the hub from where all new roads were planned, and the starting point of the expansion towards north and west. The transformations schemes for all Cairo and Azbakiyya in particular started with Ismail's visit to Paris in 1867 A.D., he was impressed by the urban progress achieved there. Ismail then decided to transform Cairo to a part of Europe.

Many projects were begun at once. Nasiri canal and the canal dug by Mohamed Ali were filled, and roads were added instead. Lands along the former shores were taken and subdivided for new buildings. To the east, Muski Street was modernized and elongated. Mohamed Ali Street was put in place, connecting the Citadel to Azbakiyya, and opening the view to the mosque of Sultan Hassan, arcaded buildings were to line this street. To the north, houses of Coptic quarter were demolished, owners were compensated, and new luxurious villas were built on its site. A new Opera house following the example of Teatro Alla Scala in Milan was built on the southern side of Azbakiyya. Ministerial buildings were erected on the site of the former palace of Al-Ataba Al-Khadra, and theatres were established in the same neighborhood.

To provide sufficient funds for his project, Ismail sold 8 fedans of the Azbakiyya Park. He added a grid of new buildings, and established a new octagonal shaped park. With an area of 10 fedans, the park is now much smaller that it had been under Mohamed Ali.

The design of the park followed the example of Park Monceau in Paris. It contained a grotto where waterfalls cascaded into a small pond in the middle of the park. Pathways between lawns were planted with flowers. Belvederes were built to provide a panoramic view of Cairo. There were several shops and booths, including those of photography, tobacco, toys, shooting galleries and even a Chinese pavilion.

Situated in the neighborhood of stately buildings, including theatres, the city's largest hotels, several consulates, and Cairo's stock exchange, Azbakiyya was indeed the center of life and the main public area of the Capital.[101]

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101 Doris Behrens-Abouseif (1985), Azbakiyya And Its Environs : From Azbak To Ismail, 1476-1879, Institut français d'archéologie orientale, Cairo.
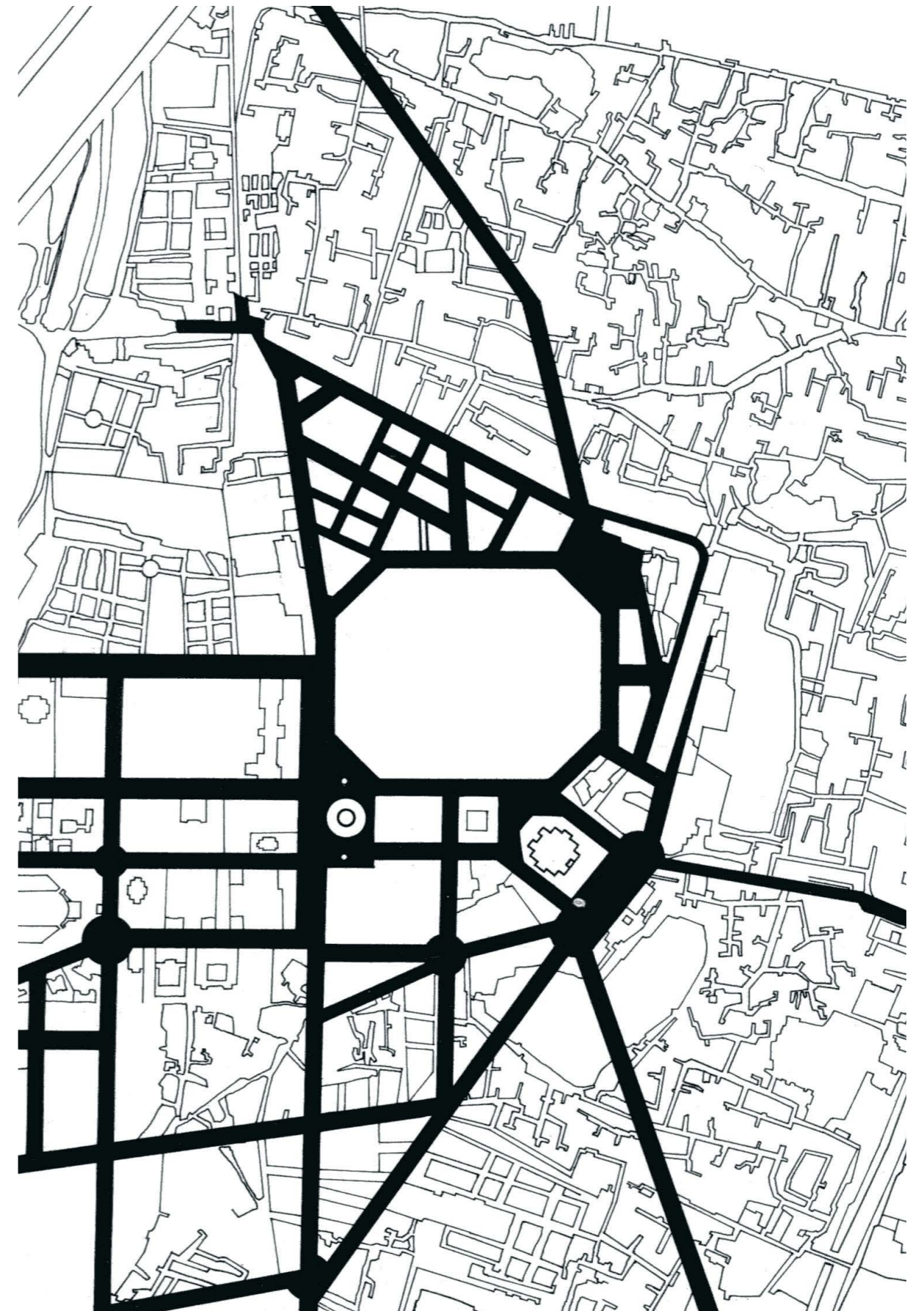
Fig. 91: Plan of Khedive Ismail's interventions in the area of the former Azbakiyya pond and the surrounding quarters
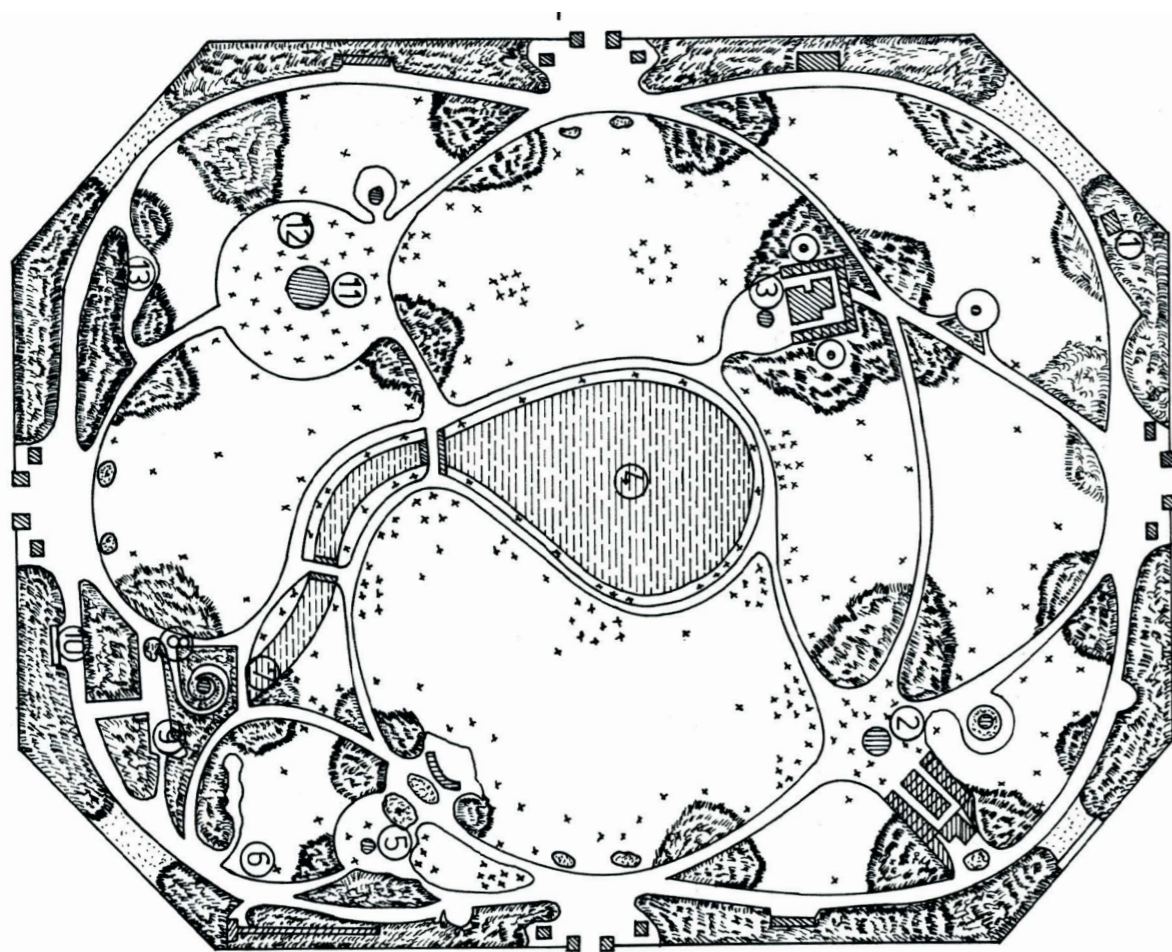
Fig. 92: Plan of Khedive Ismail's Azbakiyya Park

Fig. 93: Photo showing the view from inside Azbakiyya park

4.4 The Forgotten Place

After the Egyptian army cooped and dethroned King Farouk in 1952 A.D., Egypt became a republic and the government transformed lots of the royal family's palaces to governmental headquarters and hotels. Lots of the theatres that were standing at Azbakiyya for more than 150 years were torn down.

The eastern half of the garden was used to build ministerial governmental buildings. Big part of it was transformed to one of the most crowded bus terminals in Cairo

In 1971 A.D, in the great blaze of Cairo, lots of the historical buildings in Azbakiyya neighborhood were burnt and torn down including the Khedival Opera house after almost 1 century of its construction. Now we can find a big multi-story garage built in the same area with concrete bulky facades which completely erase the story of the opera house from the memories of Cairene people.

Lately, during the construction of the third line of Metro in Cairo, more than half of the area that was left from Azbakiyya garden was destroyed in order to dig for the construction of Metro stop.

| 18 Feddans Park | 10 Feddans Park | 5 Feddans Park | 2 Feddans Park | 2 Feddans Park |
| (1837 - 1872) | (1872 - 1952) | (1852 - 2009) | (2009 - 2012) | (2012 - present) |

Fig. 94: Shrinking and deterioration of Azbakiyya park throughout time

4.5 Reversing realities of Al-Azbakiyya

Based in the preceding, the value of Al Azabkiyya area is not confined to being a needed open/green space in the heart of Cairo that has been deteriorated over the years. Rather, its value is in its socio-urban and cultural role that it has played and still playing since from the onset of its existence seven centuries ago. With its strategic location on Cairo map, connectivity between historic and modern Cairo, accessibility by all means of transportation, adjacency with down town, and the local-whole sale market, existence of the several multi target group theaters, existence of the largest used book market in the country, existence of the arm-club, and the remaining few monumental items and rare trees. However, any attempt to develop the area should always target the awareness of both authorities and people; awareness about their tangible and intangible multi layered history that has resulted in the global identity we- Cairenes, enjoy today.

Accordingly, several developmental strategies were undergone both on the planning and the design levels. The entire studies accentuated on the urge to develop the area into an entertaining open area complex that is urgently needed in today's downtown Cairo, while at the same time emphasize the historical image of the area. The studies also emphasized the importance of attracting activities that would increase the income of the area and thus guarantees its continuous maintenance and progress. Several proposals were discussed over the last decade; all of which have shed light on the water element as an anticipated key attraction. The National association for urban harmonization has recently proposed four different approaches;

Fig. 95: First proposal, centered around creating an open, multi leveled open museum grotto.

Fig. 96: Second proposal, suggested an integrated cultural centre, with mobile libraries and reading areas.

Fig. 97: Third proposal, suggested a commenrcial plaza, with a foodcourt.

Fig. 98: Fourth proposal, suggested the revitalization of the value and history of places. Aith an emphasis on the cultural centre assoicted with the comedie francaise, the opera and the artisitc festivities.

4.6 Practical Aproach

Based on the preceding, a philosophy and vision have been reached as a guide for the design proccess, "Rejuvenation of a departed Epoch", Azbakiyya Area: Melting point of medieval and Modern Cairo, Pole of Egyptian music, art and culture. Hence, bringing back music to Azbakiyya can play a big role in its revitalisation.
Pond and garden is to reclaim its socio-urban and artistic-cultural role as a main Cairene water promenade and a regional cultural musical attraction point.
Key words to help forming a design concept would then be: A window/Gate on the historic city Cairo's new music center
This is achieved through:
• Existence of a main water element and green areas
• Minimal perception of built up masses
• Achieving privacy for music school and workshops
• Easy/direct accessibility and free/fluent circulation

In the following chapter, more highlights about how to apply this approach through a design project will be reviewed.

CHAPTER 5
HOUSE OF MUSIC

Azbakiyya is located in the heart of Cairo, where the medieval and modern architecture meet. It has a special location in the city since it is connecting different parts of Cairo, due to it's special location near the old medieval city and the Khedival city.
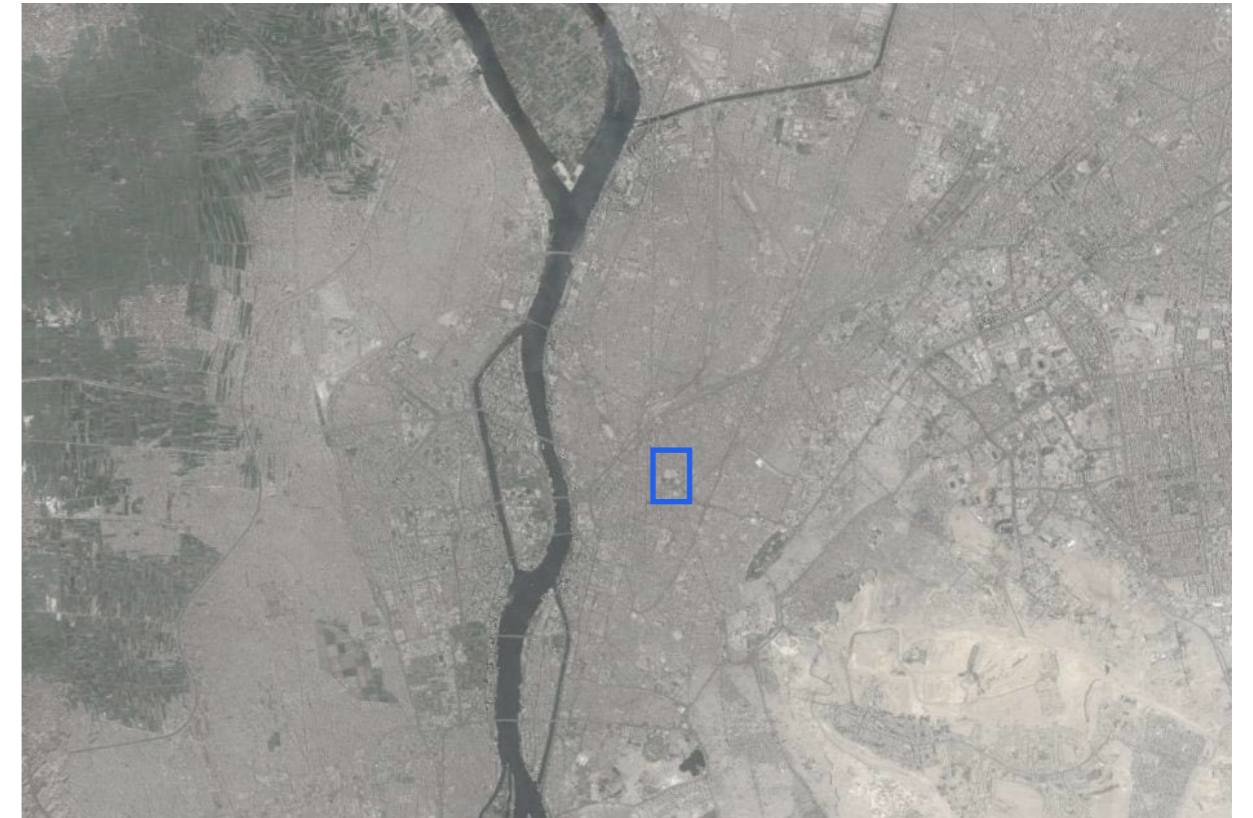
The site is located between two completely different neighborhoods, Bab Al-Sha'riyya which is a part of the medieval city and Ismailiyya (or downtown nowadays), which is a part of the Khedival extensions. It is obvious from the map the contrast between the urban pattern of both neighborhoods.

The chosen area of the project lies at the same location of the former Azbakiyya lake. The site is divided into two parts, the northern part which was planed by orders from Khedive Ismail, and it is mostly full of residential buildings, with some few historical buildings. The southern part which used to be the whole area of Khedive Ismail's Azbakiyya park, with many encrouchments and desertation of big part of the park.

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The Urban Fabric of the Site

From seeing the maps of open spaces and green spaces we fast realize how much the area is congested, even the area of the former garden has been invaded by buildings and desertation due to the digging occured during the metro construction.

As we studied before, The borders of the Nile River were not exactly as we see them nowadays, Nile's shores used to be more east than it is now, it fed some ponds and canals during the flood.

As we can see in fig. x, some of the ponds and the canals have marked their lines permanently in the urban fabric of the city, we can see than in the infrastructure and some of the residential clusters.

In fig. x, we can see the water bodies and the built metropolis used to exist in the medieval Cairo as well as the garden and the new Khedival planning in comparison with the current urban fabric of the city. We understand immediately that the main lines of the urban fabric are still existing, hence the grey area around Azbakiyya lake is a world heritage site, The lake doesn't exist anymore, nevertheless, its lines are obviously affecting the infrastructure and the planning of the area.
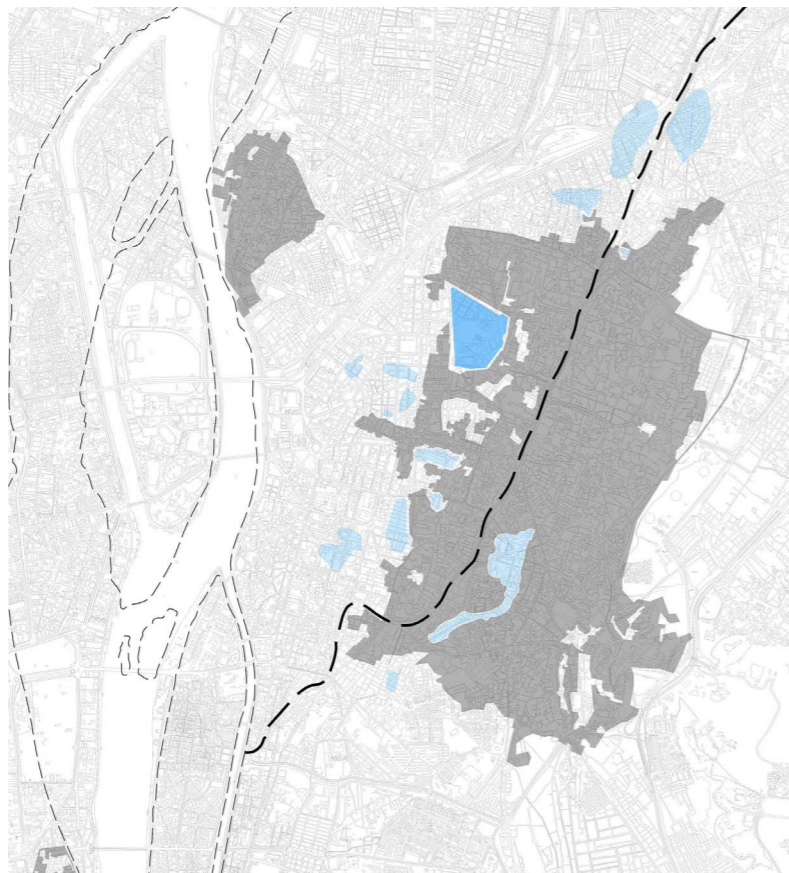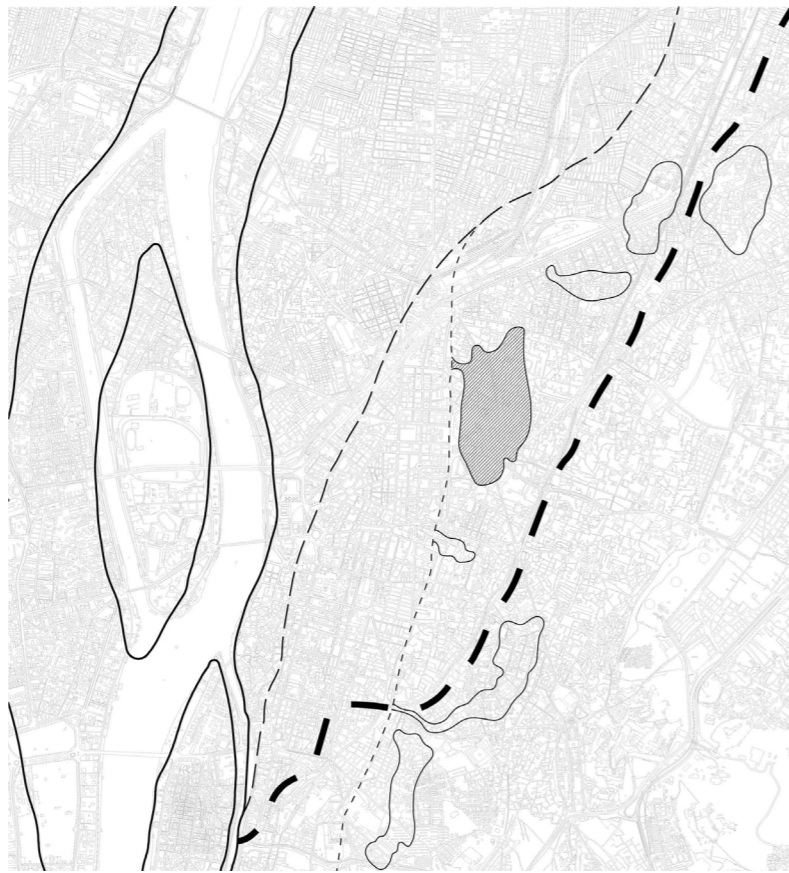
Seeing how the history is affecting the current life of the city. It makes us eager to retrieve the memories of it with the new taste that should define the guidelines for developing the new identity. As we dicussed in previous chapters, music used to have a great influence on the area as it was the center of music in Cairo. Bringing back music to the area will create the needed attraction needed to bring life back to Azbakiyya.

The Lake

Marking the borders of the former lake, we start undersrtanding what should be demolished in order to retrieve it. The area of the former lake contains some residential buildings, a non historical mosque, a theatre, some governmental buildings and some historical buildings.

As the project program consists theatres, so it will be convinient to keep and reuse the existing theatre in the site.

After keeping the historical buildings. the lines of the new lake appears as it's shown in the drawing.
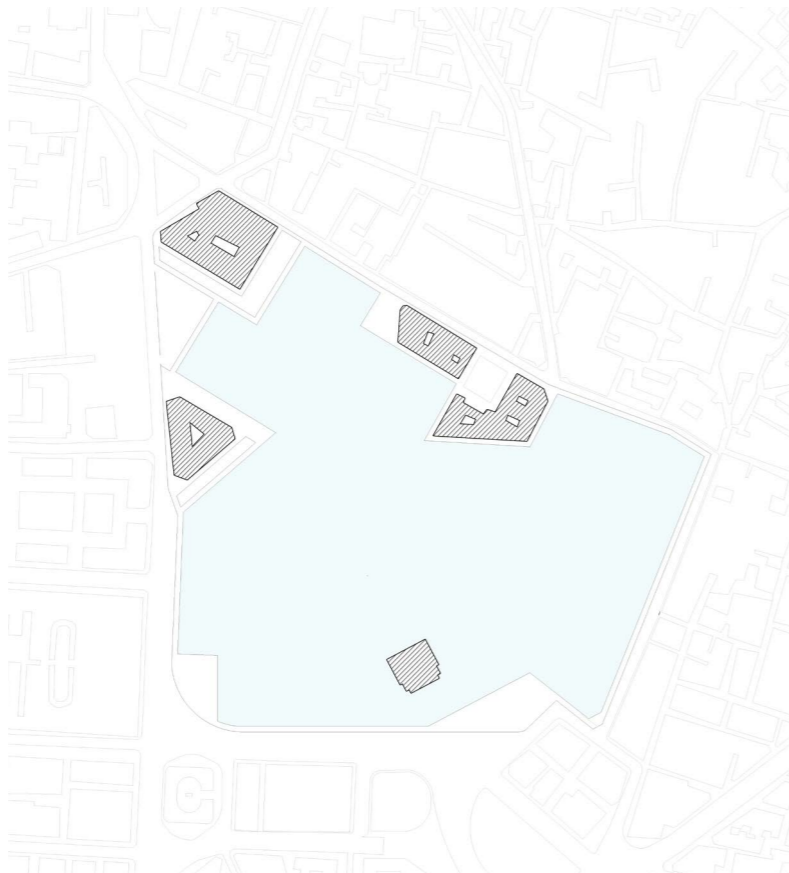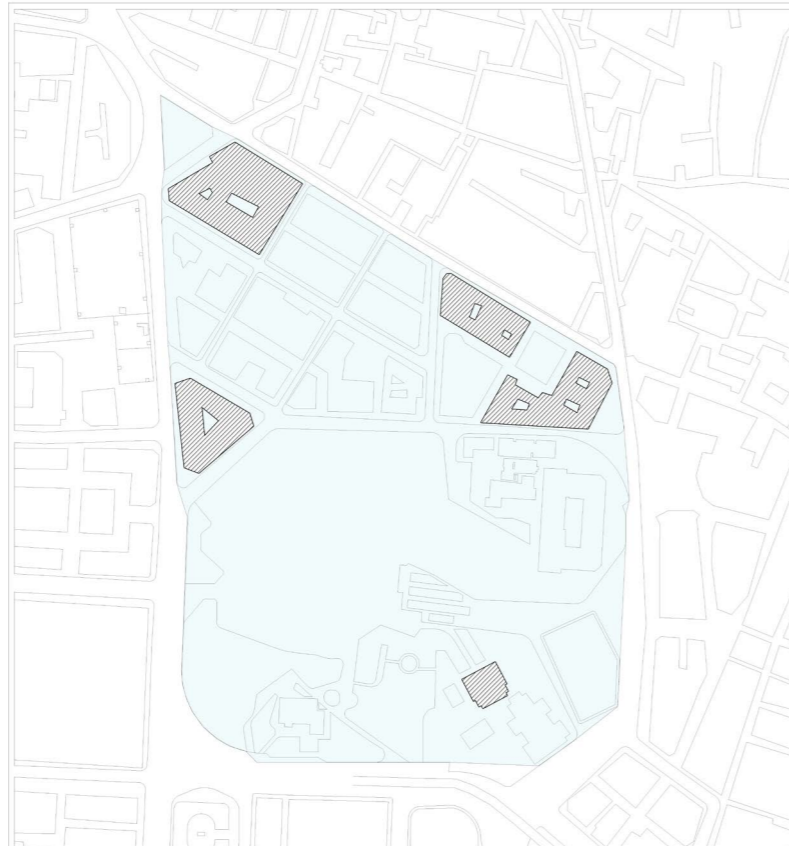
The Function

As we discussed before, music played a very important role in Azbakiyya through history. In the Ottoman period, the area was full of coffee shops with singers and tales tellers, playing their nice traditional music along the shores of the lake. The important of music was kept to the area even after the French campaign and the end of the Ottoman control over Egypt. Azbakiyya hosted many famous theaters, as well as the Royal Opera House, where one of the most famous musicians internationally and locally came to play to the Cairene audience.

It can be convenient to try to bring back music to the life of Azbakiyya, since the area fell into negligence long time ago, and keep losing it's identity and importance by time. Proposing a music park which can host many different functions that serves the activity of music.

The park will consist of Open and closed theatres, music school, music museum, place to host musical workshops, residential building for non-local guests and an intertainment area.

The Park

The concept of the park is derived from the Islamic garden, since Islamic Cairene gardens always were mixed with water, the thought of using the same concept of the Islamic garden in a contemporary way can contribute in achieving the aim of the project.

Islamic water gardens usually consist of many islands of green areas, carved in a big paved platform, connected together with small canals. Using the same concept in our project with converting the used materials. The big platform will be our lake instead of the paved one. The design of the project then consists of some islands that will host the different functions in the project, as well as the gardens that will be added or will be restored from the ruins that are existing nowadays.
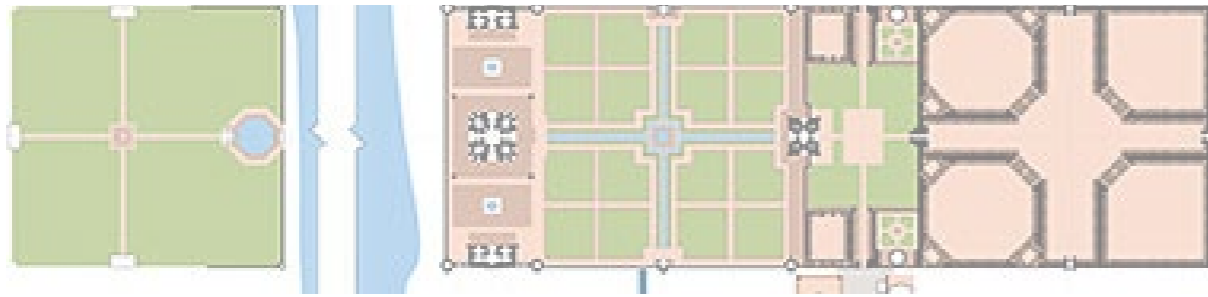
Studying the pattern of the surrounding area, and taking the lines from the existing fabric, marking down the remains of the old Azbakiyya Park, we can reach in a very formal way the main division and shapes of the islans of the project. This formal way of dividing the islands makes the project work as a window for the historical city (surrounding area) as well as it will give a harmony between the existing urban fabric the new proposed project.
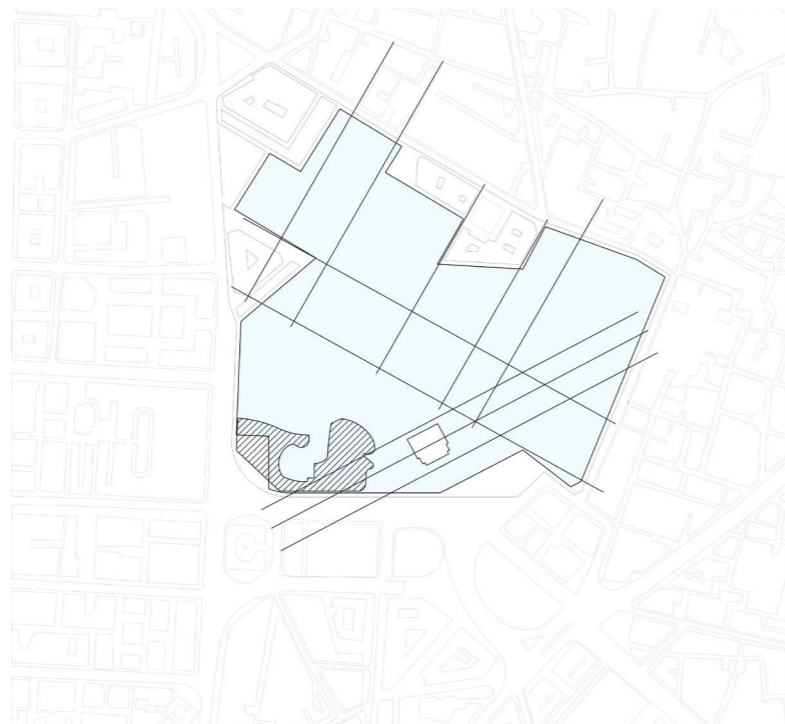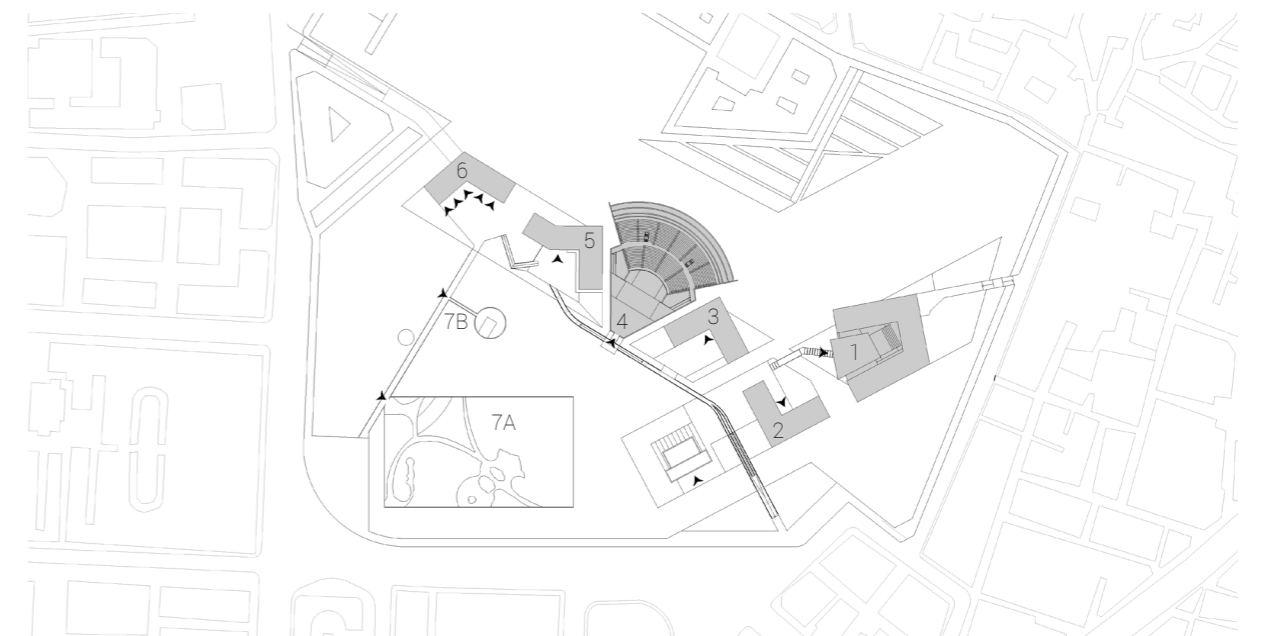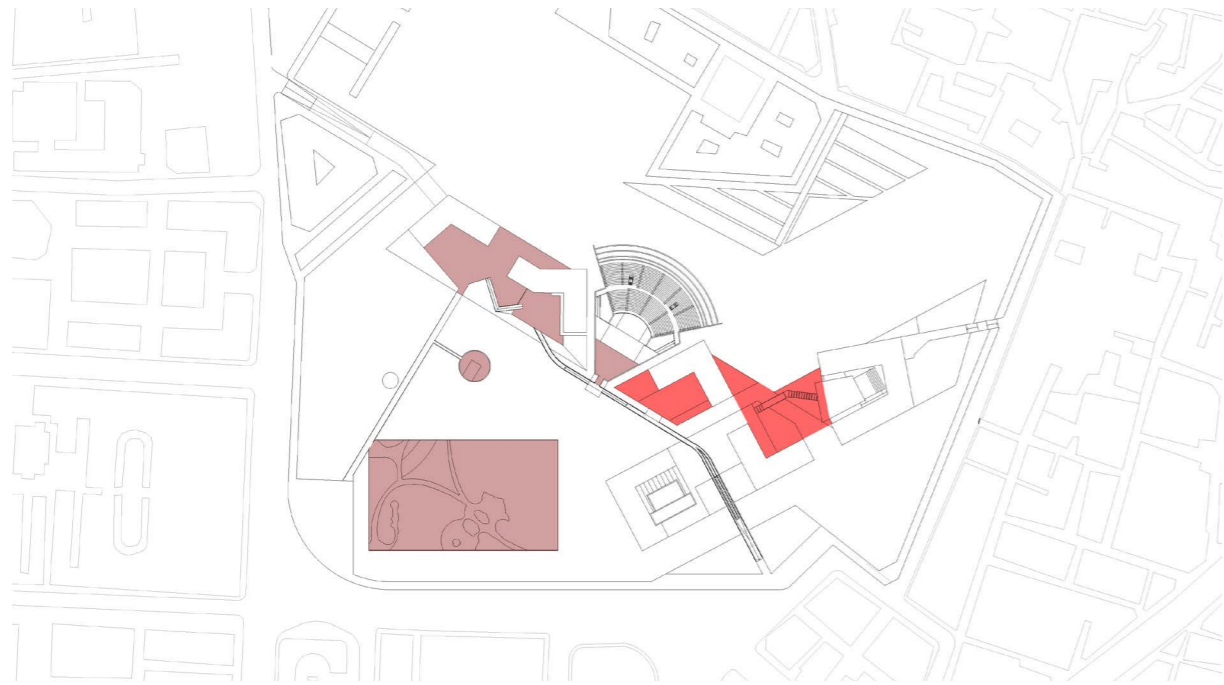
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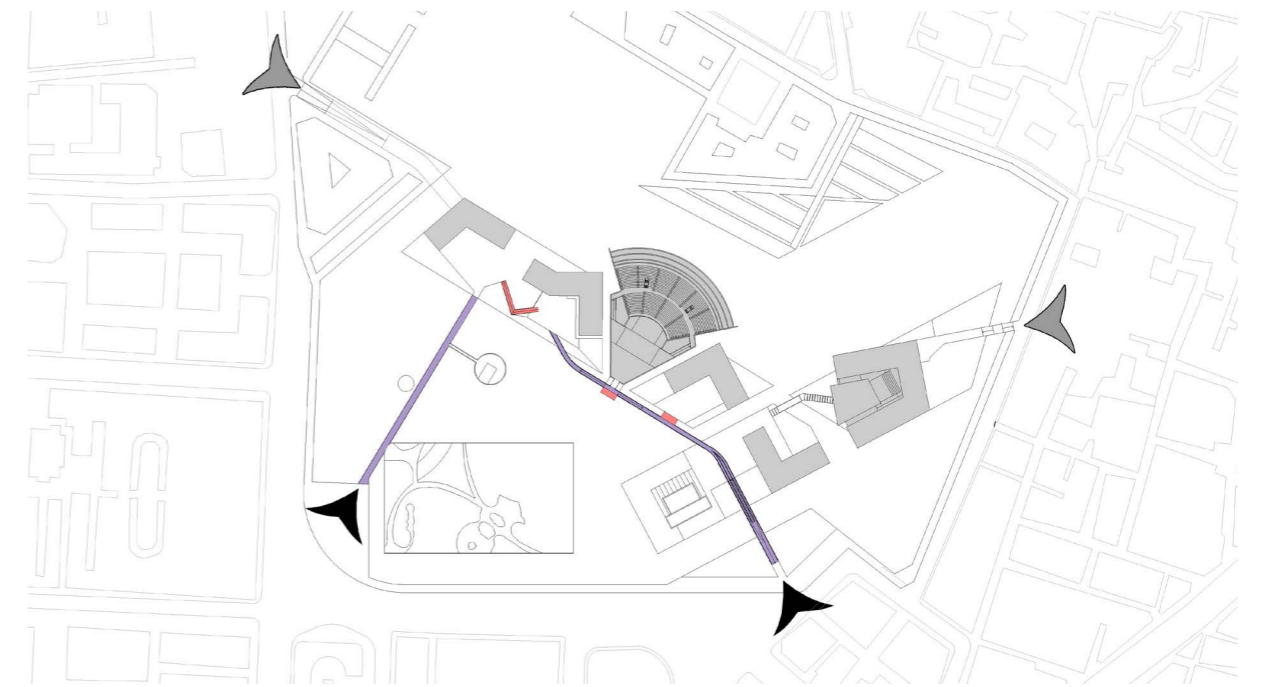
Access and circulation

 Main Pedestrian Access   *Service Access*   *Main Pedestrian Circulation*

 Vertical Connection

Building's functions

1 - Music School	*2 - Workshops Building*	*3 - Residential House*
4 - Open Theatre (Opera House)	*5 - Music Museum*	*6 - Entertainment Area*
7A - Old Garden	*7B - Water Garden*	▲ *Buildings Access*

Limited Access Open Spaces
Public Open Spaces
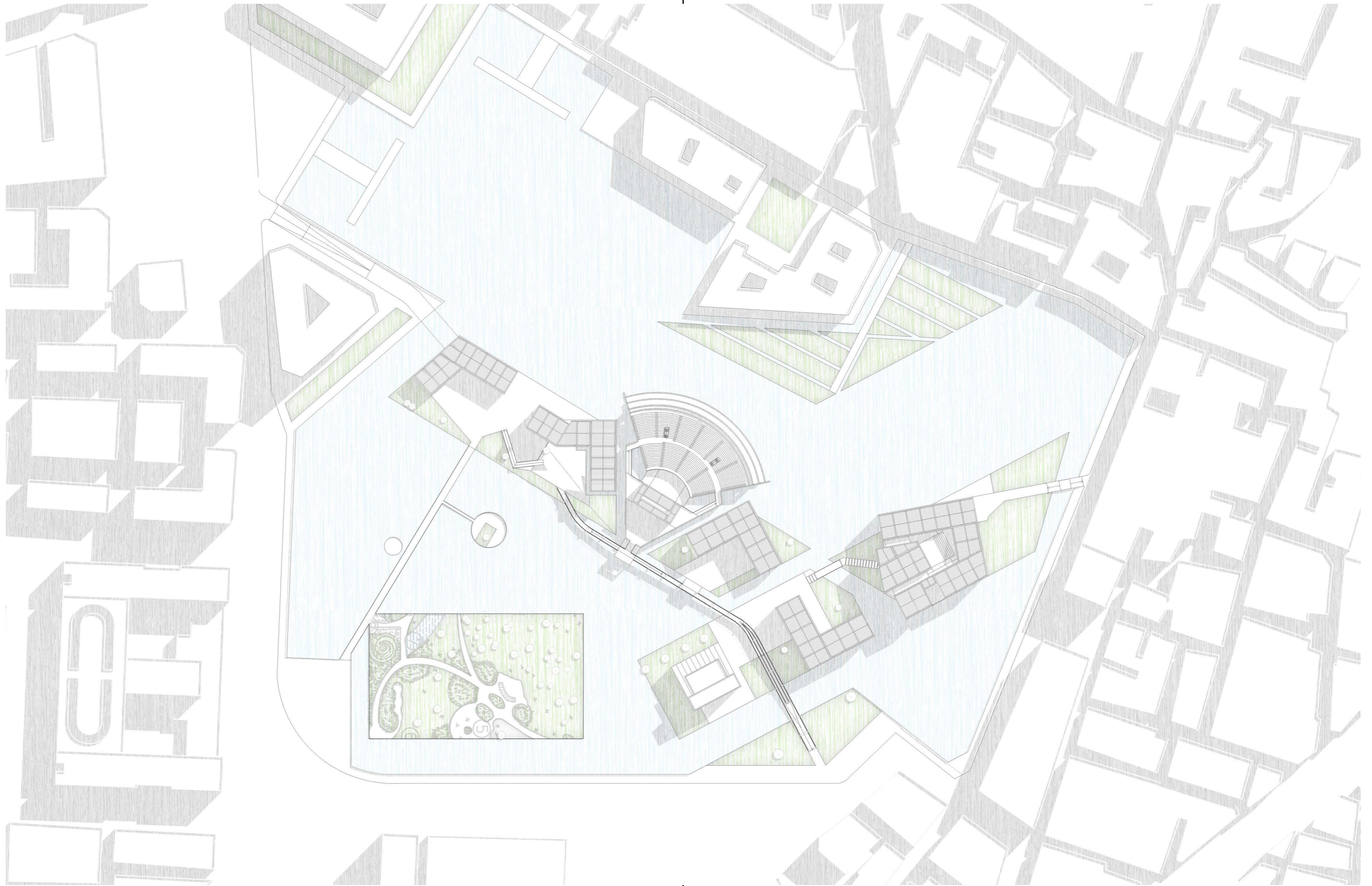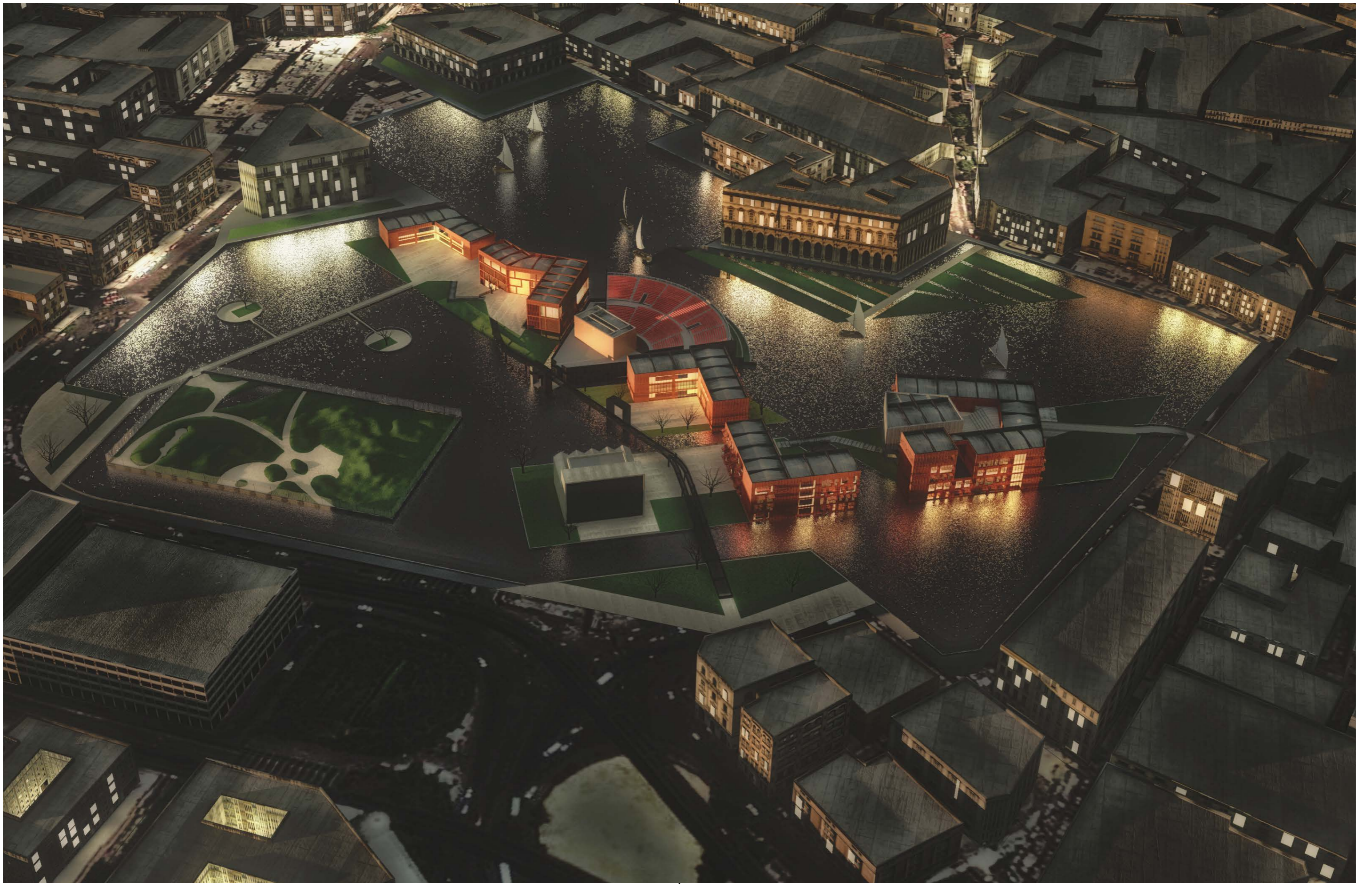
Architectural Language

The Cairene Medieval city has a unique architectural language based on its political history, social life, and climate conditions. For example the facades on the streets have all almost the same color, Mashrabiyya was really common architectural element on the facades of the Cairene houses, which gives the facades kind of ornamental detailing.

In our project, we are looking for achieving a moderate design which can transform the city to a contemporary city, yet it should have the taste of its own that represent its location and heritage.
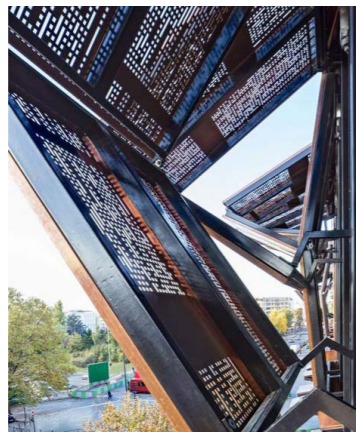
The heights of the buildings of the project are respictively lower than the buildings in the surrounding area, to keep the skyline of the old city as an existing fact with the faces of its beauty and the faces of its messiness.

The materials used in the facades are almost having the same color, to achieve the perception of the Cairene city in its new shape, yet different materials where used to give different detailing to emphasize some buildings.

Getting experiences from the past, Mashrabiyya is one of the elements that was a result of not only cultural beliefs, but also due to climate conditions. using the technique in a different more contemporary illustration can give us the advantages of it while keeping the architectural language far from copying exactly from the past.

The windows were chosen to be tall and narrow, tall to provide more fresh air, narrow to allow less direct sunlight. The windows split upwards when it opens to act like a shading system.

MUSIC SCHOOL