

The Evolution Of Al-Azhar Street
Al-Qahira, Egypt

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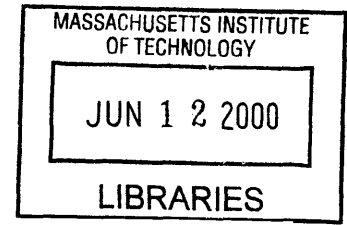
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Al-Qahira, Egypt

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ABSTRACT

The historic quarter of Cairo, al-Qahira, is going through a period intense transformation that is threatening the physical environment as well as the social and economic fabric of the city. The transformations taking place in al-Qahira are threatening the diverse cultural, social and economic makeup of the city that have existed for centuries in an attempt to satisfy the agendas of interest groups external to the existing community that want to capitalize on the city's historic features.

Al-Azhar Street and the surrounding area is at the center of the transformations taking place in Historic Cairo today. Through an analysis of the area, an urban solution will be developed that mediates between the various interest groups acting in al-Qahira today. The intention is to present a physical design that demonstrates a way of addressing the needs of the quarter's existing inhabitants as well as the needs of new interest groups to the area.

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Al-Qahira, Egypt

Abstract	3
Contents	4
Acknowledgments	5
Introduction	7
<hr/>	
1.0 Brief History of al-Qahira	9
1.1 Al-Qahira Today	14
1.2 The Changes	18
<hr/>	
2.0 Precedent Analysis	25
2.1 Bab al-Faraj Project, Syria	28
2.2 Hafsia Project, Tunis	30
2.3 Lessons Learned	32
<hr/>	
3.0 Context Analysis	34
<hr/>	
4.0 Design Criteria and Performance Standards	39
4.1 Neighborhoods of Historic Cairo	41
4.2 Merchants, Artisan Workshops and Light Industries	44
4.3 Restoration Advocates	46
4.4 Supreme Council of Antiquities and Ministry of <i>Waqf</i>	47
4.5 Ministry of Culture and Ministry of Tourism	49
4.6 Ministry of Transportation and Communications	51
4.7 Design Criteria for Urban Intervention	53
4.8 Summary	55
<hr/>	
5.0 Physical Planning	57
5.1 Analysis Drawings	58
5.2 Proposal Description	60
5.3 Proposal Drawings	62
<hr/>	
6.0 Conclusion	67
<hr/>	
7.0 References	71

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The Evolution Of Al-Azhar Street

القاهرة

Al-Qahira, Egypt

Introduction

The built environment of much of historic Cairo (al-Qahira) is in a state of crisis. Rapidly expanding urban populations and unchecked industrialization combined with inappropriate design and development practices have maimed the historic quarter, in many cases irreversibly. Old structures have given way to faceless glass and concrete buildings that have nothing in common with their surroundings. Large tracts of the historic urban fabric have been replaced or expanded upon by contemporary development that lacks the unified or coherent qualities of traditional urban environments. And, unchecked practices and modifications to al-Qahira have led to the construction of out of scale apartment structures that tower over the city, the indiscriminate importation of building materials that are alien to the region, and the implementation of urban forms that are designed purely on pragmatic criteria

Yet, while areas of the city are going through unchecked transformations, other areas of historic Cairo are being fossilized or locked in time in an attempt to safeguard their character or traditional nature. This fossilization is usually at the cost of these area's vitality and livability. As a result, parts of the old city have been rendered obsolete for the majority of users. Political forces fueled by the economic lure of tourism are promoting the gentrification of al-Qahira in an attempt to capitalize on the lure of the "exotic city." In both cases, the net result has been an urban environment plagued with contradictions between architectural type, urban forms and user requirements.

The historic core of Cairo contains the worlds greatest concentration of Islamic monuments and is second only to Rome in absolute numbers of monuments. With more than 450 listed monuments in an area less than four square kilometers, al-Qahira is registered on the UNESCO World Heritage list along with cites such as Venice and Prague.¹ Historic Cairo is an important cultural destination whose character reflects a long history, and hence whose future should be given careful consideration. On the other hand, al-Qahira is one of the most densely populated urban centers in the world, complete with the urban pressures of a mega-city, including housing shortages, infrastructure inadequacies, and real-estate development pressures.

In the past three years, the historic core of Cairo has been the focus of much development in Egypt. The recent economic boom combined with the economic incentives of tourism and real estate development, threaten to gentrify al-Qahira and break down the diverse social, cultural and economic fabric of the historic city. For the first time in centuries, large amounts of capital will be invested in al-Qahira that could potentially offer the opportunity for betterment in the historic quarter or dismantle the physical as well as the social-economic fabric of the city. Al-Qahira has become the next frontier of several interest groups in Egypt, from the UNESCO to the Ministry of Tourism who want to safeguard the cities historic character, to the residents and shop owners in the area who want to maintain the cities vitality. Hence, in order to safeguard the city's vitality, planning policies and formal interventions must cater to the sometimes-polar agendas acting in the city.

This thesis, a design proposal for the future of al-Azhar Street, will investigate policies, design criteria as well as physical interventions that address the needs of the various constituents acting in the city. The future of al-Azhar Street is central to the evolution of al-Qahira because of its strategic location within the city and because of the area's dependence on the right of way for most access and transportation needs. Through a design proposal for the future of al-Azhar Street, I hope to identify and address issues of tension and compatibility between the city's various interest groups.

Notes:

¹ Chabert, Laurence. *International Effort Needed To Save Islamic Cairo*.

* Arabic Script taken from: Saad El-Din, Morsi ed. *Cairo: The Site And The History*

Unless otherwise noted, graphics are by the author.

1.1 Brief History of al-Qahira

The historic core of Cairo was built on the foundations of several cities. From a tribal garrison town to a major metropolis, Cairo's urban legacy reflects the markings of the consecutive occupying forces, al-Askar by the Abbasids in 641, al-Qatai by the Tulunids in 864, al-Qahira by the Fatimids in 969, the Citadel by the Ayyubids in 1171, and Isma'ilyah, or downtown Cairo, by Khedive Ismail in 1865. The area of Cairo has been enlarging as consecutive rulers built their palatial compounds to the north of their predecessors' city. Thus, by the late nineteenth-century, Cairo was the product of five royal cities organized along two north south axes. Those axes are today's al-Mu'izz Street and the Khelij canal, what is today's Port Said Street. Located on a narrow plateau between the Nile river's flood plain and the Mukattam Hills, Cairo grew as a linear city out of consecutive urban centers constructed north of each other.

Key to the understanding of al-Qahira's urban character was the shift from Fatimid to Ayyubids rule during the Middle Ages. This shift marked more than a dynastic change as it brought about a social, ideological and economic revolution that transformed al-Qahira from the palatial complex of the Fatimids, of which only portions of The Great Mosque or al-Azhar mosque still remain, into a thriving metropolis¹ that developed into one of the largest trading centers in the world. The rise in power of the Ayyubids and then the development of the feudal Mamluk system marked the end of the Shiite Fatimid rule in Egypt and reestablished ties with Baghdad and the Sunni Abbasid ruler. It was during this era that most of the present day Historic Monuments of Cairo were built.

During the three centuries of Ayyubid rule, al-Qahira experienced great stability and prosperity brought about by social and economic conditions in the region. First, Cairo was a critical trade link between the East and the West, making the city very wealthy. Second there was a prolonged period of peace in the region as Cairo was rarely threatened by the Crusaders entrenched on the coast of the Fertile Crescent or the more serious Mongol invaders from the Eastern steppes. And finally, the geographic location endowed with water from the Nile and agriculture from the delta. Thus, during this period of the feudal Mamluk political system, each consecutive Mamluk tried to out do their predecessor, and consequently al-Qahira was transformed from a garden palatial city, occupied only by the ruling elite, into a trading metropolis with streets lined with grand palaces, mausoleums, madrassas and hospitals.

The most rapid transformation of al-Qahira took place during the reign of the Bahri Mamluks. Most construction of this period occurred along the qasabah, al Mu'izz Street, the main axis of al-Qahira running north south from Bab al-Futuh to Bab Zuwayla. Construction during this period included the mausoleum-madrassa-hospital complex of Sultan al-Mansur Qalawun (1284-85) and the madrassa of Sultan al-Nasir Mohammad ibn Qalawun (1295-1303). The city grew further over the ruins of previous cities located between bab-Zuwaylah, the Citadel, and the Mosque of Ibn Tulun, the tomb of Sitt Nafisha to the south and the Muqattam hill during the third reign of al-Nasir Mamluks.

One ideological change that occurred after the dynastic shift from the Fatimids to the Ayyubids, was the construction of civic complexes, both religious and secular, with private funds.² The building of mosques, madrassas, hospitals and so forth, was no longer solely a state sponsored endeavor, but also a private one. With the wealth they accrued, the Mamluks built monuments throughout al-Qahira, including religious and civic structures, for reasons of religious piety, economic security (by endowing the property under the *waqf* system and making their descendants beneficiaries of the endowment), and self-glorification.

Because the Mamluk slaves were socially segregated from the rest of Cairo's urban society, the homes, madrassas, hospitals and mausoleums they built were instrumental in reminding the Caireans of their presence, power and wealth. Through the construction of majestic buildings in heavily populated urban areas, the Mamluks were able to assert their presence in the city, both through the facilities offered in the complexes and through the monumentality of the architecture. Unlike castles built in Europe or Citadels built in North Africa or the Levant, the obvious display of architecture within the existing urban structure was adopted. The monumentality of their street facades, the placing of elements into the street, such as mausoleum structures or portals, and the subversion of street geometry's, developed as a reoccurring means of asserting their presence by imposing on the street. By placing large elements on the street or encroaching into the right of way, the structures were highly visible to passing pedestrians. It was this legacy the Mamluks left behind that endowed historic Cairo with an unprecedented number of monuments.

Mu'izz Street, the main commercial artery or qasabah of al-Qahira, became the location of choice for the construction of the Mamluk's grand construction projects. Hence, to achieve an urban presence, the public facade of Mamluk buildings became instrumental in projecting a presence. It's interesting to note that in the late 14th and early 15th century, the traveler Maqrizi journeyed through Cairo, the commercial activity along the qasabah, were the Mamluks chose to build, was unprecedented, with several markets containing more than 1200 shops.

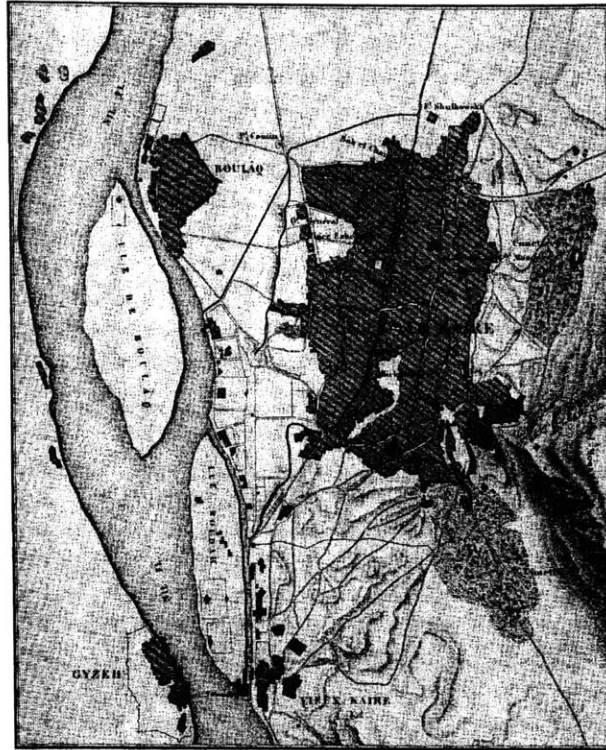


Fig 1. Built Area of al-Qahira, 1800. (Coste, Pl. LXVI.)

One of the last great construction projects undertaken by a Mamluk in al-Qahira was a large addition to the al-Azhar mosque. In 1880, Abd al-Rahman Katkhuda, one of the last of the Mamluks, considerably enlarged the mosque by adding four bays to the structure which stand behind the Fatimid *mihrab*. The addition served as a sanctuary for the gathering of protesting *ulama* or clergy.³

With the Ottoman occupation of Egypt in 1517, al-Qahira was reduced to an outpost within a large empire. The city's economic prosperity that fueled the Mamluk's building campaign was siphoned to Istanbul for 400 years. Very little of the physical nature al-Qahira changed during this period. It was not until the twentieth-century that potential for large-scale transformations would begin to develop in the city again.

It's important to note that, unlike the medieval cites of Europe in the mid-nineteenth-century, such as Paris or Vienna, very little has changed in al-Qahira. Haussmannization took a different form in Egypt despite Khedive Ismail's desire to transform Cairo into a modern city for the opening of the Suez Canal in 1869. As Ismail intended to elevate or modernize Cairo before the inauguration of the Suez Canal, the short time he allowed himself did not permit the transformation of the medieval or historic city as originally planned. What he did succeed in doing was camouflaging the western edge of al-Qahira with a vast new quarter to the west and extending the newer business center of the Azbakiyah. This new facade or stage set was intended to leave a favorable impression on the European visitors. The irony was that while Ismail did his best to create a European city for himself and his country, the European visitors wanted to be hosted in the exotic historic city!⁴ A recurring phenomena today.

For the most part, Haussmannization in the Mediterranean took two forms, the influence of colonial powers on the cities, and the interventions that were self prescribed as in Egypt. In the late nineteenth century, in a first attempt to modernize, colonial powers brought armies of engineers into the medinas and medieval cities to tear into the historic fabrics. However, in contrast, more enlightened colonial powers chose a strategy of coexistence where new quarters were constructed adjacent to the medieval cities. For example, in Fez, a program of separation was instituted where cultures and environments were separated. The

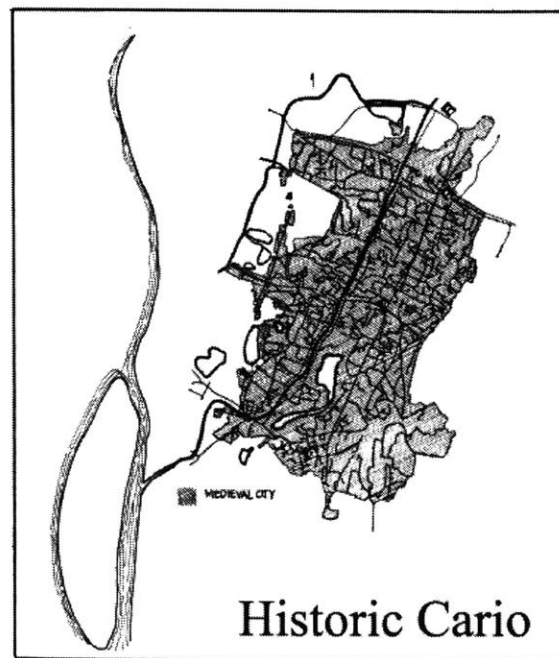


Fig 2. Historic Cairo. (Abu Lughod)

medinas were maintained for the indigenous population with the adjacent districts for colonists on the other side.

Hence, Isma'ilyah, the nineteenth century portion of the city, developed as a parallel settlement adjacent to the then existing city core, covering almost the entire western length of al-Qahira. The new borough contained the amenities of a modern city including public gardens, an opera house, and a fire brigade. The Khedive offered land in his new city without charge to anyone willing to build a dwelling surrounded by a garden, worth at least 2,000 Egyptian Pounds within eighteen months. By the end of Ismail's reign there were only two-hundred structures built in the new quarter including the Abdin Palace, Ismail's seat of government.

Despite developments to the west of the historic city, the most dramatic transformations in al-Qahira since the Middle Ages, have been the construction of Muskie Street, completed in 1922, and the construction of al-Azhar Street completed in the 1931. Both arteries were cut east-west through the center of al-Qahira, dividing the old city in two, changing the primary circulation movement from a north-south pedestrian route along al-Mu'izz Street, to an east-west vehicular axis. The construction of the two streets was part of an urban transportation proposal first proposed in the late nineteenth century in an effort to extend the transportation network of Greater Cairo into the old city.

The construction of al-Azhar Street was begun in 1897 during the Haussmannization of Cairo, when the Cairo Tramway Company began laying tracks through the medieval quarter of Cairo. The first of such interventions occurred with the filling in of the ancient Khaliq canal bed, which ran north-south through the western portion of the city, into a wide right-of-way with a new tramline running its entire length. By 1900, the canal that carried sailboats from the Nile was transformed into a noisy roadway today known as Port Said Street. The mass transportation system was further expanded into the old city in 1931 with the cutting of Shari' al-Azhar (al-Azhar Street) and Shari' al-Jaysh. In a span of thirty years, through large-scale urban interventions, the old or historic

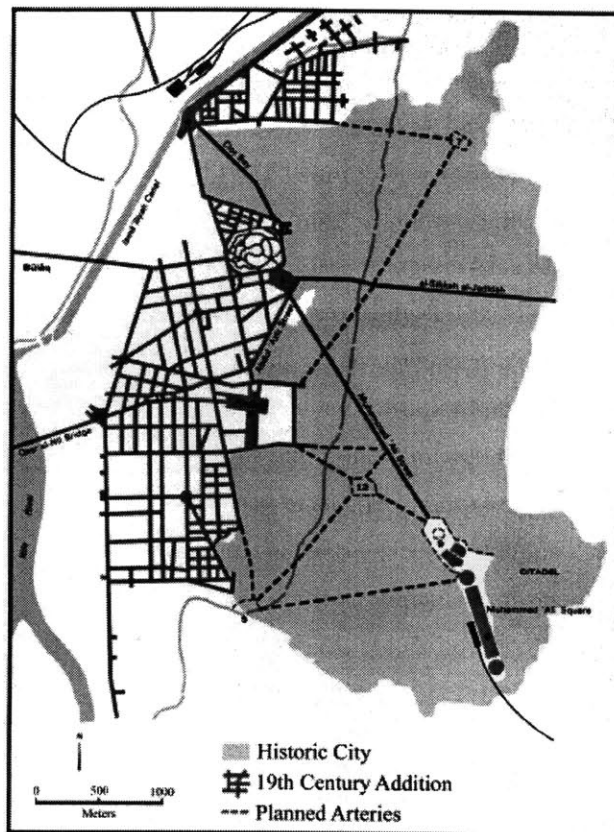


Fig. 3. 19th Century Additions to Cairo added by Isma'il. (Abu Lughod)

quarter of Cairo was linked to Greater Cairo's mass transportation network.

Nevertheless, despite the construction of Muskie and al-Azhar Streets, al-Qahira still reflects its historic past. Due to the number, size and longevity of the structures built by consecutive Mamluks, the urban fabric has not changed much since the fifteenth-century, with the exception of the two east-west thoroughfares. Since the structures of the Mamluks were mostly built of stone, and maintained through institutions such as the *waqf*, the urban fabric of al-Qahira has been held in place for centuries by their presence. The enduring mosques and madrassa(s), wikalat and stables, of the city have forced consecutive occupants of the city to maintain the street alignments that had developed under the Mamluks.

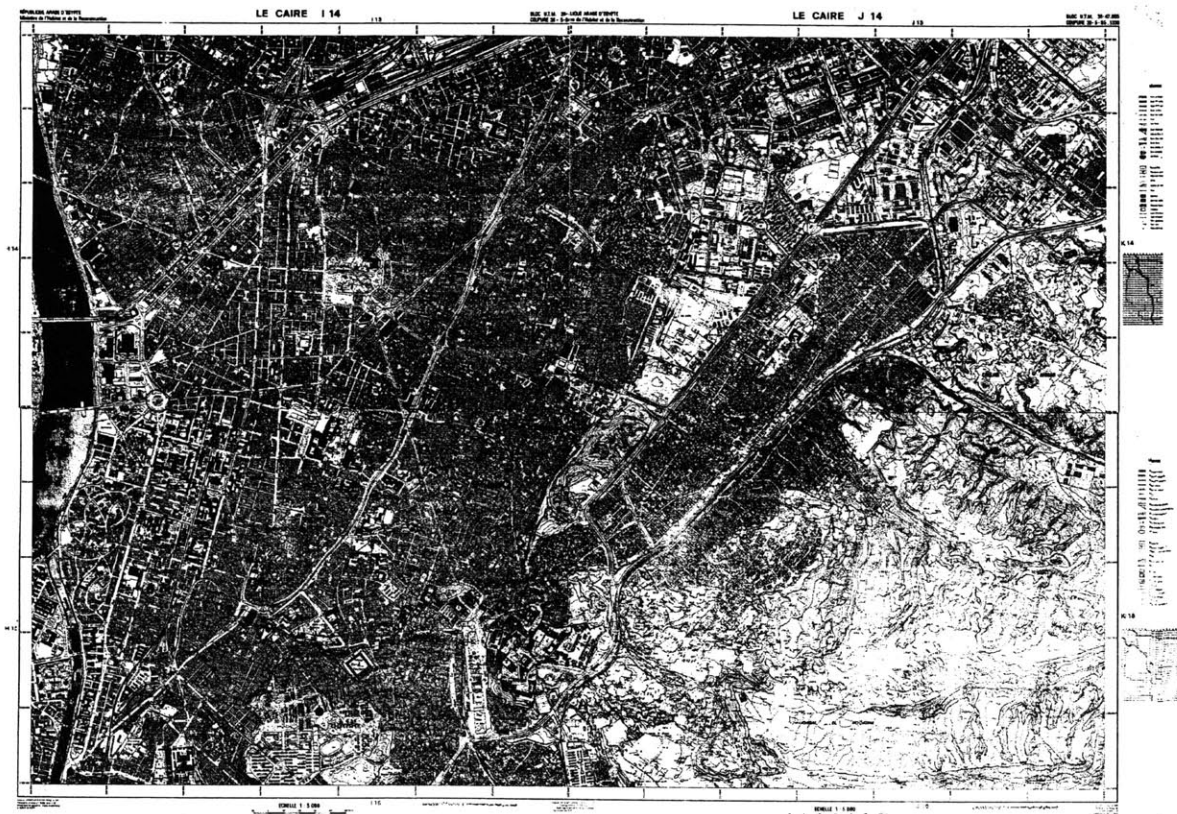


Fig 4. Greater Cairo - 1941. (Map distributed by the Ministry of Survey, ARE)

1.2 Al-Qahira Today

For the past 400 years, very few large-scale urban interventions have been undertaken in al-Qahira, with the exceptions of the construction of Muskie and al-Azhar Streets. Until very recently, the historic core of Cairo was considered an archaic and backward quarter of the city, affording little development funds or infrastructure upgrades from public or private institutions. Even though street alignments and building facades look very much the way they did four or five centuries ago, the historic core of Cairo has maintained a diverse social and economic mix of inhabitants and industries. This is in spite of typical gentrification trends that traditionally occur in monument rich urban centers. In the near future, al-Qahira will undergo a period of intense transformation.

Despite the antiquated appearance of the built environment, the historic quarter of Cairo is host to a thriving economy of manufacturing, trade and retail, a spiritual and intellectual community at the al-Azhar University, and a strong residential community that live and work in the area. Thus, the historic core of Cairo functions

as a truly modern metropolis where people from varied social and economic backgrounds live and operate. In his notes on metropolitan form, Kevin Lynch wrote that, density, diffusion, diversity, and dynamism were among the criteria of metropolitan legibility.⁵ The historic core of Cairo has been able to maintain these characteristics due to the enforcement of certain policies and the existence of various institutions within the community.

In contrast with other medieval cities such as Prague, the old city of Vienna, or the old quarter of Istanbul, that have been stripped of their vitality and transformed into quaint residential quarters for the rich or into outdoor museums for tourists, the historic core of Cairo has maintained a diverse social and economic base. Unlike the urban cores of North America that were depopulated during the flight to the suburbs and which became ghettos for the poor, the old city of Cairo is still the commercial and intellectual center of Greater Cairo. From wealthy merchants, to modest

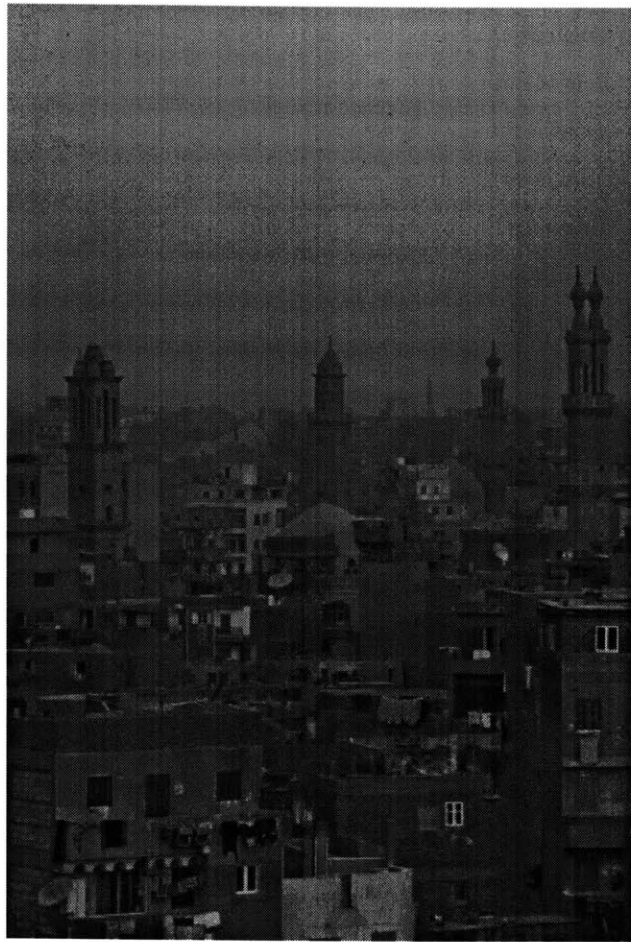


Fig 5. Cairo Today - Image taken from the Darassa Hill, 1999.

carpenters and from the students of the al-Azhar University to the tourists that come to the area, historic Cairo is still a socially diverse, economically varied place for a large number of Caireans.

Several institutions and political factors have maintained historic Cairo's economic vitality and social diversity until today. These policies and institutions have preserved the delicate social and economic fabric of the city making historic Cairo a truly living city, a quality worth maintaining. The close-knit quality of the city's social and economic fabric is a principal reason for the area's vulnerability to transformations developing in the future that could alienate the area's current inhabitants from the environment. Today, since the wealth and power promoting change in al-Qahira are external to the historic city, the local community with its meager resources and political clout, have been held responsible for the deterioration of the areas monuments. Hence, most ministries and international organizations acting in the area have adopted a policy of relocating the areas inhabitants in an attempt to conserve the heritage of Cairo's historic core.

The first policy that has maintained the diverse nature of the area are the rent control laws that were instituted in the 1960's as part of President Abdel Nasser's socialist reforms. Cheap rent in the area has allowed people of modest means to afford to remain in the historic core of Cairo. For those inhabitants who occupy rent-controlled dwellings, rent payments can be as low as 5£E (less than \$1.50) per month. As a result, despite the extremely high demand for real-estate in medieval Cairo, a working class population has maintained residence in the city.

As leases that fall under the rent control laws are inheritable through bloodlines, families have maintained residences within the old city for several generations and have become deeply established in the community. Various *haras* or neighborhoods have been able to maintain strong identities as they have been occupied by consecutive family members for generations. For example, in the Darb al-Ahmar quarter, neighborhoods have become identified as "the area of the carpenters" or "the area of the leather manufacturers," contributing to the character of the city. So while real-estate values for properties that become available for development are very high, many areas within the city have been able to maintain their character.

Furthermore, the presence of the al-Azhar University has maintained an intellectual and cultural presence within Historic Cairo, contributing to the social fabric of the community. Since its founding by the Fatimids in the tenth century, the al-Azhar Mosque and University have been a symbols of Muslim orthodoxy, a focus of social and intellectual configurations, and an asylum where refugees flock, and where those that are destitute received help.⁶ Students, religious scholars, and pilgrims come to the al-Azhar for leaning as well as spiritual enlightenment.

The al-Azhar University has been known for its teaching of Muslim theology for centuries. This legacy was begun

soon after its founding in the tenth century by Mu'izz, with its teaching of Shi'a theology. The institution was temporarily closed with Salah al-Din's overthrow of the Fatimids, and the abolition of Shi'a teaching in Egypt. The al-Azhar was reopened for teaching by Sultan al-Zahir Baybars who promoted Shafi' teaching in Egypt. Sultan Hassan, later added the Hanafi rite to the University, at which time all four rites were represented at the al-Azhar.⁷

While many madrassas and hospital were built by the Mamluks, their decline after the Ottoman conquest in 1517 raised the status of the al-Azhar to the primary institution of learning in Egypt, up until the founding of Cairo University at the beginning of the Twentieth-century. Today, the al-Azhar University is a modern institution, where topics from theology to medicine, and from math to history are taught. From the students who attend, to the clergy and professors that teach at the University, the al-Azhar is a source of intellectual enlightenment in the community.

Several cultural events in the community are sponsored by the University, including plays and poetry readings. The al-Azhar University has helped maintain the social fabric of the area by providing civic amenities for the community. The al-Azhar University Hospital is the only modern health care facility in the community, serving the historic core of Cairo as well as the communities to the west of the city.

The third institution that has maintained the economic and social fabric of the community is the Ministry of the *waqf* or Pious Holdings. *Waqf* agreements were originally contracted between beneficiary institutions, such as a mosque or madrasa, and the guardian or benefactor of a property. In a *waqf* endowment, the benefactor would relinquish his title of a property to a religious foundation but continue to receive profits during his lifetime. Furthermore, the benefactor could bequeath the revenues of the property to his descendants under the notion that once the family line ended, the wealth would be disbursed to a charitable purpose.⁸

The most typical *waqf* holdings or properties are urban commercial establishments, followed by tenements and industrial use structures, such as workshops and warehouses.⁹ Currently, the Ministry of *Waqf*, founded in 1860's as part of the political and economic reforms that were ensuing in Egypt at the time, is the largest landowner in the historic core of Cairo, holding the titles of 95% of the registered monument of the historic city. As a result, occupants of *waqf* properties have been sheltered from market forces that would have otherwise forced them out. Moreover, as *waqf* deeds can not be sold but are transferable along bloodlines, families generally stay in these properties for generations. Hence, similar to the rent control policies, the *waqf* foundation has been a key institution in maintaining the socio-economic mix or balance in medieval Cairo.

This set of circumstances acting in historic Cairo has preserved the municipal nature of the community and has maintained the diverse social and economic fabric of the historic city. However, the rapid transformations develop-

ing in al-Qahira (and in Cairo at large), including the transformation of al-Azhar Street, threaten to upset the balance that has been maintained in the city for centuries as the livelihood of the city would be negatively affected if access to transportation were reduced. Al-Azhar Street is one of the most important modern amenities of the community functioning as the life artery to the area.

According to a social survey conducted by the Aga Khan Cultural Service - Egypt, as part of the *Aslam Mosque - Neighborhood Conservation Project*, the results of the survey were surprising and defied commonly accepted stereotypes of the area. While the Darb al-Ahmar is often characterized as a slum where incidents of crime and drug related activities are high, the survey demonstrated that the adult population is overwhelmingly employed in productive activities and that the crime rate in the area is negligible.¹⁰

Moreover, more than sixty-percent of the Darb al-Ahmar population have lived in the community for more than thirty years and almost twenty-percent of the population have resided in the area from more than fifty years. Furthermore, most residents of the community indicated that their residence in the neighborhood was found to be the result of choice, not necessity. Most inhabitants cited that the Darb al-Ahmar neighborhood was safe and that proximity to other family members and the local mosques was reason to stay in the community. When asked of the positive aspects of the area, residents cited the high density of people and activities, the proximity of services and a general sense of security.¹¹

1.3 The Changes

New interests in the area threaten to dismantle the social and economic fabric of the historic Cairo and place the interests of tourism over the interests of the existing inhabitants of the city. One of the fuels as well as indicators of the rapid changes developing in Cairo is the amount of capitol being allocated for projects in the historic core. Much of the investment in the area is being promoted by economic incentives for both public sector organizations, such as the Ministry of Tourism and the Ministry of Culture, and private groups, such as the Osman Ahmed Osman group and other investment organizations that hope to capitalize on the areas historic qualities.

Since Ismail Pasha's new borough of Cairo, Isma'ilyah, turned its back on the medieval city, al-Qahira received little attention from government agencies until very recently. Until the past few years, most restoration funds were directed towards Pharaonic antiquities, the structures of historic Cairo were barely notices. However, new market polices of President Hosni Mubarak and his business-driven prime minister, Kamal Ganzouri, have targeted tourism as one of the key growth sectors of Egypt's economy.

“We think we have a treasure in Cairo. We think that the treasure can generate income...”
(Mayor of Cairo, Abdel Rehim Shehata, 1999).

As a result, several public and private projects are currently underway in the historic city including; the digging of al-Azhar Tunnel from Opera Square to the Salah Salem ring road; the building of the Aga Khan Park on the Darassa land fill; the large scale restoration campaign of the hundreds of mosques, madrassas or schools, sabils or public water fountains, wikalat or caravansaries, and residences in the area; and the relocation of the al-Azhar University to Nasr City.

As these projects develop - mostly autonomously a lack of comprehensive planning as well as a lack of vision between the various parties involved has become evident. This lack of cooperation and inclusion of agendas is leading to years of delay as well as an imbalance in the economic viability and social justice between the various interest groups including the existing inhabitants of historic Cairo. The lack of coordination and cooperation is compounded by the multitude of the various parties and their conflicting agendas influencing change in the area.

Of these projects, the most radical transformation in the area and influential to the future of al-Azhar Street, is the construction of the al-Azhar Tunnels. When complete, the four-carriage way tunnels will accommodate the vehicular traffic that currently travels on al-Azhar Street, which runs from the eastern boundary to the western rampart of Al-Qahira. The al-Azhar right-of-way which was cut through the center of al-Qahira in 1931, during the Haussmannization of Cairo, was part of an urban transportation upgrade that was first proposed in the late nineteenth-century in an effort to extend the mass transportation network of Greater Cairo.

The process of linking al-Qahira to Greater Cairo began in 1897 when the Cairo Tramway Company began laying tracks through the medieval quarter of Cairo. The first of these interventions occurred with the conversion of the ancient Khalij canal bed, which ran north-south through the western half of the city, into a wide right-of-way with a new tramline running its entire length. By 1900, the canal that had carried sail-boats was transformed into a noisy roadway. Cairo's transportation system was further expanded into the old city in 1931 with the cutting of Sh ri' al-Azhar (al-Azhar Street) and Sh ri' al-Jaysh. Thus in a span of thirty years, through large scale urban interventions, the historic core of Cairo had been linked to Greater Cairo's mass-transit network, an occurrence that may be reversed with the implementation of the al-Azhar tunnel, if current proposals are implemented.

On 6 April 1998, in an attempt to cope with the city's growing transportation requirements, a Franco-Egyptian joint venture was commissioned by the Ministry of Transportation and Communication to build two underground vehicular tunnels from the eastern to the western sides of al-Qahira, relieving the route currently traversed on al-Azhar Street of any through traffic. In an attempt to streamline traffic through one of Cairo's most traversed arteries, this new route will travel under al-Qahira, freeing the area of vehicles and surface congestion.

At a cost of \$120 million, the tunnel is a mixed blessing. According to the Ministry of Transportation, for those passing through the al-Qahira, movement will be streamlined by the underground motor ways. However, once the tunnels are opened, current proposals for al-Azhar Street will eliminate all vehicular access to historic Cairo, limiting the city's inhabitants' to vehicular access including public transportation and service vehicles. The route provided by the tunnel will eliminate access for those needing to stop along what is currently al-Azhar Street. Hence, while the tunnel is expected to alleviate traffic congestion for Greater Cairo, issues of accessibility within the old city need to be addressed.

A second rationale for the proposed tunnel is to pedestrianize the entire Azhar region in an effort to restore the area to its pre-1931 state, an incentive promoted by international agencies such as UNESCO. Given Egypt's interest in developing tourism, pedestrianizing the monument-rich area around the al-Azhar Mosque is viewed by the Ministry of Tourism and Ministry of Economics as a means of promoting the city as a tourist venue. These objectives are at the cost of cutting off the existing community from road access. As a result of the al-Azhar tunnel project, hundreds of small businesses, micro-industries and thousands of homes will be rendered inaccessible by car let alone by truck or bus.

“[The tunnel] project, is based on a study by the United Nations Development Program, will reclaim and renovate historic monuments of the Fatimid period, relocate polluting and noisy workshops, rehouse families living in the medieval buildings, and construct a tunnel underneath the old walled city to divert the heavy traffic that now bisects it.¹²”

The motive fueling the depressing of the motorway is in the interest of transforming al-Qahira into a pedestrian oriented, sanitized tourist destination - free of vehicles and the unsightly roadway and eventually, the shops and workshops along the artery. As tourism is one of Egypt's most important and fastest growing industries, the intentions to sanitize and "beautify" the historic core of Cairo are intensifying. Hence, like several proposals for the Boston Central Artery Project, almost three-quarters of a century later, this artery is being buried in an attempt to reconstruct the pre-1931 condition. As Anthony Shadid, a writer for the *Associated Press*, wrote,

Planners openly acknowledge that tourism is a main priority, particularly in their plan for medieval Cairo, a neighborhood with more than 300 monuments and 300,000 people...¹³

This controversial transportation project has many facets. The officially stated objective of the al-Azhar tunnels is to streamline the traffic that currently travels on al-Azhar Street through, historic Cairo and to remove the east-west transportation corridor that was cut through the medieval city in 1931 to link the Nile basin and the Eastern Desert. As part of a larger modernization project in Greater Cairo, which included a sewage network and electrical upgrades for the city, the tunnel project will catalyze a change in activities in this area that could negatively effect the city.

The historic core of Cairo contains more than 630 workshops, from copper smelting to aluminum welding to vegetable vending¹⁴, as well as being home to more than 320,000 people and 30,000 squatters, all of whom will have no vehicular access once the traffic is depressed. The community of people that depend on the al-Azhar surface road will not only lose vehicular access to their retail outlets and workshops, but will also be under threat of eviction from their homes due to increasing land values and the appropriation of historic monuments by the Supreme Council of Antiquity. As compensation for their losses, those evicted were given shops and homes on Cairo's outskirts, a far from equitable exchange. Even though the Transportation Minister, Suleiman Metwalli, stated that people would be fairly compensated for their homes or shops¹⁵, given economic realities in Egypt, it is highly unlikely.

While some argue that it is imperative to rid al-Qahira of all vehicular traffic in order to preserve the city physical character, others recognize the need to maintain vehicular accessibility in the area in order to sustain the city's socio-economic balance. At the core of the debate is the realization that the stores, coffee shops and people are the "very fabric" of the community and are part of its antiquities. Removing them would destroy a neighborhood, the argument that al-Qahira has been at the center of Cairo's commercial activity for centuries.¹⁶

Despite opposition, construction of the al-Azhar Tunnel began in September 1998 under presidential decree, and is expected to be completed by the middle of 2001. The two tunnels will link the Sa'lah Salem ring road, with Opera

Square in down town Cairo. The first two lanes of the 2.6 kilometer tunnel are scheduled to open by July 2000, with the following two lanes scheduled to open twelve months after. Once the tunnel is completed, the land made available is to be pedestrianized.¹⁷

It is important to note that no proposal for the land that will be made available by the decommissioning of al-Azhar Street has been approved. Even though the tunneling was started, several government ministries are involved in the decision making on the surface, including the Ministry of Housing, Ministry of Culture, the Ministry *Waqf* (pious holdings), and the Supreme Council of Antiquity, each with their own agenda and ego. So while the tunnels will be open for traffic within two years, developments on the surface may take longer to materialize.

In addition to the construction of the al-Azhar tunnels, the second major transformation in the area is the construction of the Aga Khan Park. At a cost of twenty-five million dollars, and with a size of over 30 hectares (75 acres), this new park is not only intended as open space for the adjacent community, but rather as a major regional amenity and destination for all of Cairo. Funded by the Aga Khan Trust for Culture as part of the Cairo al-Darb al-Ahmar District Conservation and Urban Revitalization project, this new park will be a catalyst for major changes in the area, shifting real-estate values in the area.

Designed by Sasaki Associates Inc., the Aga Khan Park is located at the eastern end of al-Azhar Street and runs south along the Ayyubid wall or eastern rampart of historic Cairo to the Citadel. The park is bound to the east by the Salah Salem ring road and the City of the Dead and to the south by the Citadel. The project is located on the Darassa Hill, one of Cairo's historic dumps that had been in use since the 9th century. Since the Fatimids, Caireans have been dumping and burning garbage out of the eastern wall. The site was cleared less than a decade ago, in order to construct three, newly completed, municipal water storage tanks, each tank with a diameter of 80m and a depth of 11m.



Fig 6. One of Two Tunnels under al-Qahira, winter 2000.

This new park will be Cairo's largest designed green space featuring a promenade on top of the restored city wall, an amusement park, a five star restaurant, tree lined avenues, and an outdoor amphitheater.

Moreover, because of the site's elevation, the park will provide an ideal vantage point to look out over the entire city. The transformation of Darassa Hill from an active city dump to a lush city park will have wide spread land value implications and promote new activities in the area.

The entire western boundary of the Aga Khan Park is bordered by the al-Darb al-Ahmar community, the community to the south of al-Azhar Street. This district suffers from inadequate infrastructure and community services, a poor and un-maintained building stock and moderate to low family incomes. As a result, the Aga Khan Park will represent another powerful attraction and catalyst for private investment in the area. Unless development in the area is held in-check and channeled through the proper planning boards, speculative pressures may soon lead to uncontrolled development in the area,¹⁸ not only leading to the demise of the area's existing community but to the destruction of the area's physical character.

In addition to the Park, the Aga Khan Cultural Services-Egypt is developing a detailed plan for the rehabilitation of a neighborhood within the al-Darb al-Ahmar community - a district occupying a strategic position in the historic city. The plan is intended to exemplify a method for assessing existing social and physical conditions and recommend methods for appropriate interventions.¹⁹ It's important to note that these interventions are being devised to improve the standard of living for the existing community, not to provide alternative uses for the existing structures. One of the underlying principals of this project is to help maintain the existing inhabitants within historic Cairo.

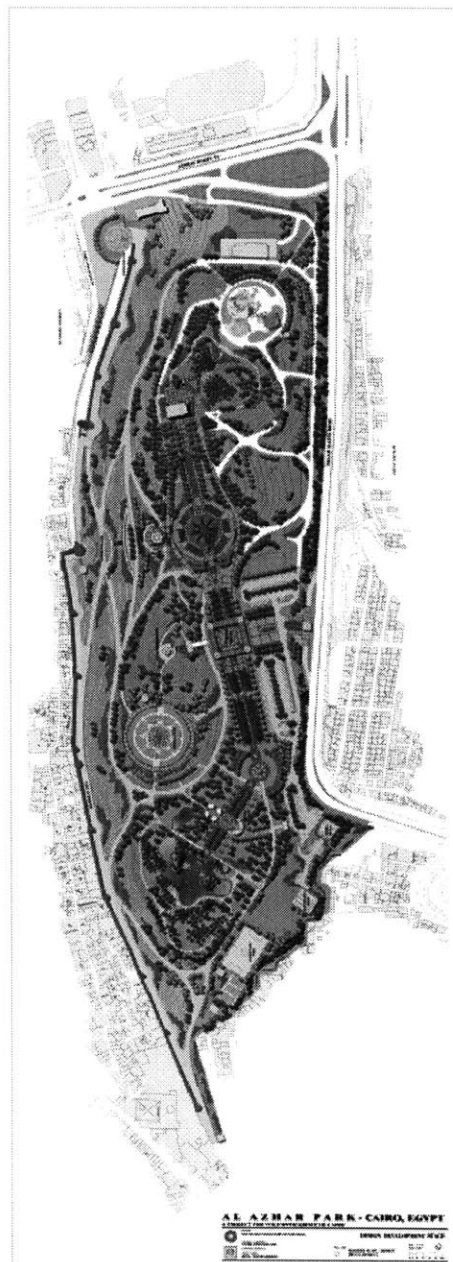


Fig 7. Aga Khan Park Design.
(Sasaki Associates Inc.)

The sample area for this pilot initiative includes some 125 structures in the vicinity of the Aslam al-Silahdar Mosque. While most of the structures are inhabited, the majority of the structures are in poor condition with substandard sanitary facilities and in some cases, structural damage as a result of the 1992 earthquake. The objective of the

project is to aid residents in the rehabilitation of existing housing stock. This objective is achieved through technical assistance and, in some cases, the sourcing of funds.

The third major transformation taking place in the al-Azhar area, is the relocation of the al-Azhar University teaching facilities to a new campus on the outskirts of Cairo. While the Universities plans have not been fully disclosed, several changes on the campus have already begun. First, the university has moved its administrative functions from the al-Azhar Campus to its new campus in Medinat-Nasr. The nineteenth-century structure that housed administration offices is slated to become a museum of the history of Cairo. Second, the demolition of several classroom and lecture hall structures at the rear of the campus began in 1999.

While no plans for the future of the campus have been officially disclosed, several private organizations have attempted to gain development rights of portions of the site, in particular, the area adjacent to the Aga Khan Park. Furthermore, the al-Azhar University has stated that parts of the campus may be maintained as a research clinic for visiting scholars, though, nothing official has been disclosed. Several structures on the site including three neo-Mamluk buildings built around the turn of the century, will need to be reused once teaching functions move to the new campus.

It is important to note that the al-Azhar institution is an autonomous organization in Egypt's political arena with spiritual leadership, legislative clout as well as economic power. Out of all the ministries and agencies of the Egyptian Government, the al-Azhar has historically maintained a unique status that has insulated it from the pressures or forces acting in the area such as the Ministry of Tourism, the Supreme Council of Antiquity or the Ministry of Economic development. While the university complex will undergo changes in the near future, the transformations do not necessarily have to be aligned with the agenda of the government agencies acting in the area.

While the burring of the al-Azhar roadway is at the center of my investigation, other projects, such as the Aga Khan Park, the al-Darb al-Ahmar revitalization project, and the relocation of the al-Azhar University are key to the understanding of the overall physical context of the area. Furthermore, through the research done by the Aga Khan Trust for culture and several NGO's working in the area, a better understanding of the social and economic factors will be developed. Note that several international agencies are currently working on development in the Dar al-Ahmar district, however, given the fast track nature of the al-Azhar tunnel project and the uncertainty of what will happen with the right of way, little attention has been given to the al-Azhar Street transformation.

Notes:

- ¹ Abu-Lughod, Janet. *Cairo: 1001 Years of The City Victorious*. P 31
- ² Abu-Lughod, Janet. *Cairo: 1001 Years of The City Victorious*. P 31
- ³ Berque, Jacques. *Imperialism & Revolution*. P 77
- ⁴ J. L. Abu-Lughod, *Cairo: 1001 Years of the City Victorious*. P 112
- ⁵ Lynch, Kevin. *City Sense and City Design*. P 65-67
- ⁶ Berque, Jacques. *Imperialism & Revolution*. P 77
- ⁷ Behrens-Abouseif, Doris. *Islamic Architecture in Cairo*. P 62
- ⁸ Abu-Lughod, Janet. *Cairo: 1001 Years of The City Victorious*. P 77
- ⁹ Abu-Lughod, Janet. *Cairo: 1001 Years of The City Victorious*. P 77
- ¹⁰ Aga Khan Cultural Services - Cairo, Egypt. *Cairo's al-Darb al-Ahmar District*. P. 10
- ¹¹ Aga Khan Cultural Services - Cairo, Egypt. *Cairo's al-Darb al-Ahmar District*. P. 11-12
- ¹² Leach, Susan Llewelyn. *Refitting The Lively Jumble Of Cairo's Medieval Quarters Project Aims To Revers Decades Of Neglect And Restore Crumbling Monuments*.
- ¹³ Shadid, Anthony. *Egypt picks monuments, and money, over the masses Homes and bazaar being raised to restore nation's glory and draw tourists*.
- ¹⁴ Shadid, Anthony. *Thousands Face Eviction in Egypt*.
- ¹⁵ Agence France-Presse. *Tunnel to be Built to Help Preserve Islamic Cairo*.
- ¹⁶ Shadid, Anthony. *Egypt picks monuments, and money, over the masses Homes and bazaars being raised to restore nation's glory and draw tourists*.
- ¹⁷ Shahine, Gihan. *Tunneling Under The Fatimids*.
- ¹⁸ Aga Khan Cultural Services - Cairo, Egypt. *Cairo's al-Darb al-Ahmar District*.
- ¹⁹ Aga Khan Cultural Services - Egypt. *Conservation Planning In The Aslam Mosque Neighborhood*. P 4

Unless otherwise noted, graphs are by the author.

2.0 Precedent Analysis

The construction of al-Azhar Street can be explained in light of similar urban transformations of its time. In the nineteenth and early twentieth centuries, in cities around the world, the transformation of old city centers were greatly influenced by Baron Georges Eugène Haussmann's planning strategies, that became the model of urban surgery for cities anxious to meet the needs of modern traffic.¹ From nineteenth-century examples in Europe, such as the construction of the grand boulevards in Paris or the construction of the Corso Vittorio Emanuele in Rome, to streets that were cut through cities through out the Islamic world, Haussmann's influence affected the development of cities in the region well into the mid twentieth century. Al-Azhar Street is an example of a *continuous linear right of way* that was cut through historic Cairo to link new settlements of the city with the eastern desert and provide for access into the old city.

Its important to note that this major circulation corridor is distinct when compared to the network of streets that make up the rest of historic Cairo. In contrast to the narrow alleyways and streets that makeup the rest of the historic Cairo, the scale and alignment al-Azhar Street is very different from the surrounding road network as it is several times wider than traditional streets in the city and accommodates higher traffic volumes and larger vehicles. Al-Azhar Street was cut through the web like fabric of the medieval city to provide adequate access for the modern transportation needs of a growing city.

In the 1930's, al-Azhar Street was considered a transportation improvement for greater Cairo as well as the adjacent community. While one can regret the loss of the structures removed during the construction of al-Azhar Street, this modern amenity has linked al-Qahira to the rest of the city, even though it was originally conceived as a thoroughfare. As Janet Abu-Lughod wrote, an important measure of distance in a city is that of time, effort, and expense required to travel from point to point; anything that reduced these "costs" shrinks the city. From this point of view, with the construction of a large scale mass transportation network, Cairo shriveled to less than one-third its original size between 1896 and 1931.² Al-Azhar Street was a major part of Greater Cairo's new transportation network, linking the new quarter of Ism ' l yah with the City of the dead, and the eastern desert beyond.

Al-Qahira was not the only city of the Islamic world to undergo similar transformations. In Turkey, Mithat Pasha developed a plan for Ottoman Sofia in the 1860's. The plan was based on five radial streets within the city that linked Sofia with Istanbul, Kjustendil, Belgrade, Lom, and Ruse as well as widened two streets that intersected at the center of the town. More recent examples include, Reza Shah's Iran in the 1930's with his attempt to modernize major cities in Persia by driving a network of wide straight roads through the center of the old cities and articulating mosques and shrines by separating them out from the urban fabric.³ These cities included, Tehran, Isfahan, Mashhad and Yazd. Similarly, André Gutton's plan for Aleppo of 1954 that called for very large motor ways to be constructed

through the middle of the old city to link the sea to the desert, and in the 1950's, the medina in Kuwait was almost completely destroyed by the introduction of wide streets into the urban fabric, as was the medina of Beirut and Fez during this same period of modernization. Thus, the construction of al-Azhar street in the 1930's was not unique to Cairo.

While there are many precedents of historic cities that had been transformed by Haussmann's planning strategies, there are very few examples of the de-Haussmannization of urban environments. Given that an opportunity to transform the al-Azhar right of way will be made possible, precedents and planning strategies that demonstrate the re-linking or re-weaving of city elements should be considered. What are the methods of mediating an urban divide? Once the al-Azhar tunnels are opened and through traffic is diverted underground, al-Azhar Street is at the risk of being quickly cannibalized and absorbed by development as the value of the land is worth enough to overcome any impediments for re-use in a city where land has a premium price and reuses are continually ongoing. The right of way could also be reconstructed



Fig 8. Mahhad, Iran - Detail showing straight avenues and roundabouts cut through the urban fabric. (Spiro Kostof)

to its pre-1931 state in an attempt to recreate the historic urban fabric of the city. Can and should the redevelopment of al-Azhar Street be made in such a way as to preserve the memory of the right of way, and the function of the transpiration link, while accommodating the development pressures and inherent qualities of the urban fabric?

There are four options that should be considered when addressing the future of al-Azhar Street. The right of way could be maintained as an additional or alternative circulation corridor through the historic core of the city as is being done with Boston with the surface roads of the Central Artery Project; the right of way could be completely infilled erasing the physical divide within the urban fabric as is being done in Berlin with the pulling down of the Berlin Wall; or the right of way could be transformed into a new urban feature or function, such as a linear park or green belt as has been done with the hundreds of "rails to trails" projects around the United States. The fourth option would be one of the several possible combinations or permutations of the three above options.

When considering the future of al-Azhar Street, two examples of post Haussmann-urban transformation in the region

provide useful design strategies for al-Qahira. These are the Bab al-Faraj project in Aleppo and the Hafsia project in Tunisia. The two projects were chosen as they were large scale urban transformations of historic urban cores in the Islamic world. The Bab al-Faraj project demonstrated transportation strategies applicable to the future of al-Azhar Street, while the Hafsia project provided insight into urban fabric re-weaving or reconnecting.

2.1 Bab al-Faraj, Syria

The Bab al-Faraj project in Aleppo, Syria is an example of urban in-fill in a historic context, while maintaining vehicular access into the historic city. As in the al-Azhar area of the 1930's, large portions of the old medina were destroyed in the 1950's and 1960's as part of a master plan proposal for the development of the area. Several large motor ways were proposed that cut through the medina to facilitate access into the old city and establish a link "from the sea to the desert." While the plans, the first designed in 1954 and the second in 1969, were never fully realized, one of the proposed axes was cut into the old city as far as the Citadel, and the other axes ended at the southern gate of Bab Qinnasreen. The northern most of the new roads was linked perpendicularly with the old nineteenth century moat, thus enclosing the Bab al-Faraj area by highways. Because of these roadways, the entire area was slated for large-scale redevelopment and several structures were destroyed in the late 1970's. (See Diagrams).



Fig 9. Bab al-Faraj Project, Aleppo, Syria. Left; Earlier proposals cut large highways through the old city of Aleppo, the Bab al-Faraj area in the north west corner was slated to be demolished. Right; Existing conditions showing elements of the proposed plan that were executed. (Bianca, Stefano)

After several development proposals for the area were rejected, a UNESCO proposal was adopted in 1983. The UNESCO plan had several foci, one of which was the diversion of traffic around the old city core to shift development pressures outside the historic city limits. To provide access into the middle of the medina, transit loops that provided access to specific pockets in the old city were developed. By instituting new one-way routes in closed loops, through traffic was forced to bypass the old city while mass transportation traffic was able to enter and exit the city on dedicated routes. The aim was not just to restrict private traffic through the old city, but was to improve

public transit on uncongested direct routes within the city.⁴

The Bab al-Faraj project offers a way of thinking about traffic mediation within an old city context. The strategic principles driving the design were to maintain public transit connections in the old quarter of the city, while stopping all through traffic through the medina. This goal was achieved by replacing through traffic connections with traffic “loops” or “pockets,” allowing for local traffic access to the city core. This strategy accommodated the inhabitants of the area by accommodating the transportation needs of vehicular access while stopping all through traffic through the historic city.

Similar traffic mediation could take place in al-Qahira along al-Azhar Street once the al-Azhar Tunnels are open for traffic. As through traffic will be accommodated by the new tunnels, “traffic loops” along al-Azhar Street can provide for transportation needs of the inhabitants of al-Qahira. The appeal of traffic loops is that they allow for circulation in to and out of the city while restricting through traffic. Ultimately, restricting through traffic along al-Azhar Street would allow for more pedestrian crossings, between the northern and southern portions of al-Qahira.

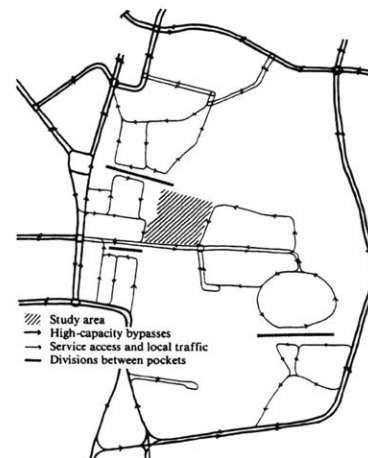
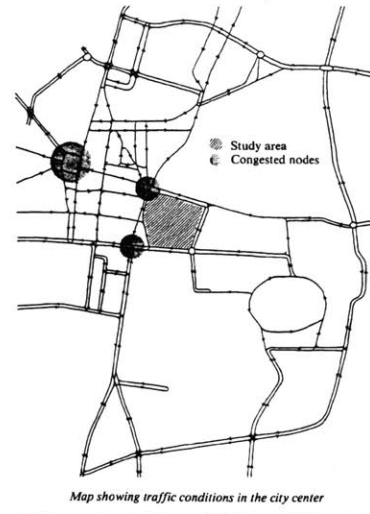


Fig 10. Traffic Proposals. Top: Existing traffic conditions in city center. Bottom: Suggested traffic patterns show traffic circulating around the old city with traffic loops or pockets allowing for service access and local traffic circulation only. (Bianca, Stefano)

2.2 Hafsia, Tunis

The second large-scale urban transformation project looked at was the *Hafsia* project in Tunis. The Hafsia project is an example of an urban development project that was proposed to in-fill a physical divide within the urban fabric of the old medina. The Hafsia project was developed by the *Association for Safeguarding the Medina (ASM) of Tunis* in conjunction with UNESCO. According to the project heads, the plan, “attempts to weave the urban fabric into a new whole.”⁵

Since the tenth-century, the Hafsia neighborhood was the Jewish Quarter of Tunis. Under the French protectorate, the Jews began to leave the overpopulated area for more western sectors of the city that developed around the old urban core, the Hafsia quarter was left with only the poorest inhabitants remaining. The area deteriorated as large numbers of rural migrants moved into the urban core, replacing the Jewish population. The final demise of the city came in the 1930’s when the area was declared unsanitary resulting in the demolition of most of the quarter. Between the 1930’s and early 1970’s only half the vacated land was rebuilt, leaving a 13 hectare (roughly, 130,000 m² or 32.1 acres) site in the middle of the old city available for development.

Implementation of the proposed project was begun in the 1980’s and is an example of an in-fill project that is sensitive to the old medina in scale and character while addressing the needs of the contemporary inhabitants. The guidelines set by the redevelopment agency were, the improvement of housing stock, the programming of civic facilities such as schools and communal spaces,

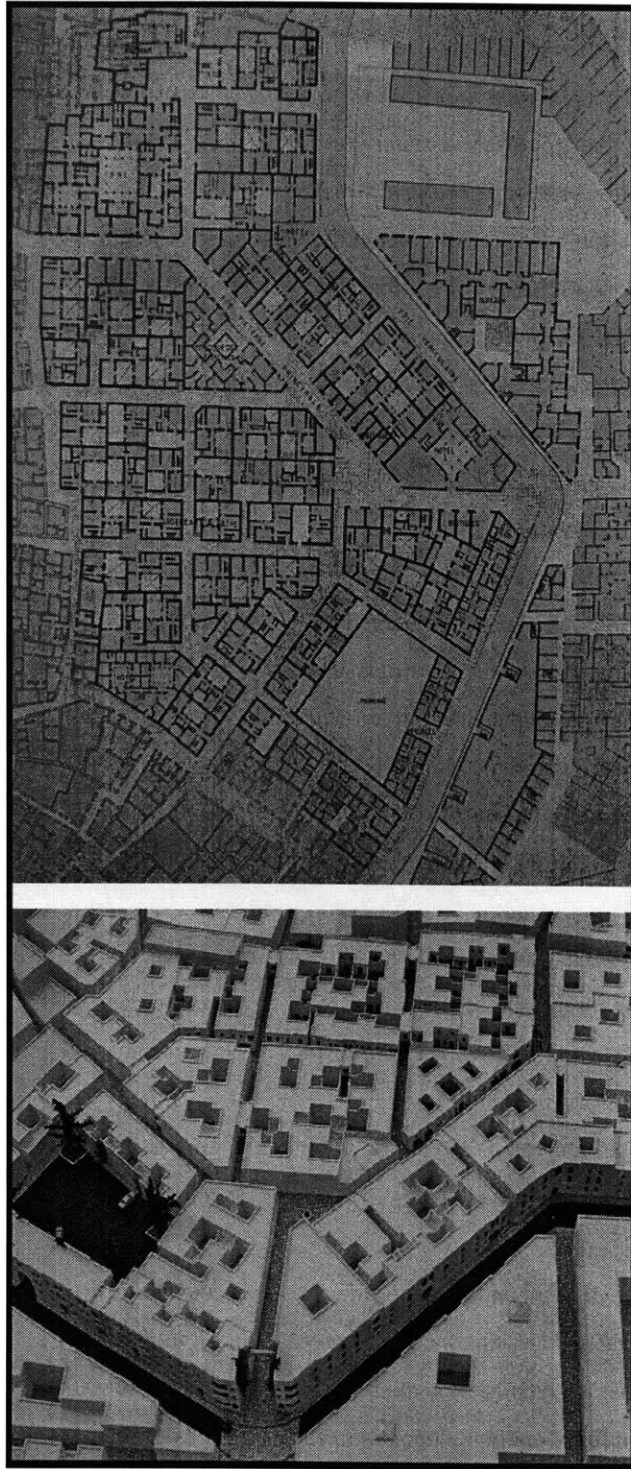


Fig 11. Hafsia, Tunisia. Integration of the new with the old is achieved through a linking street network and a respect for the size of traditional blocks. (Mimar, 1985)

the maintenance of infrastructure, the restructuring of commercial spaces and the provision of public or semi-public spaces to inject an urban character.⁶ The Hafsia project was designed as a link for the entire neighborhood, filling in a divide between two portions of the old city.

Through a separation between pedestrian and vehicular traffic and the filling up of empty spaces to ensure urban continuity between the new areas the new development was linked to the older fabric of the medina. (*See plan*) The connection to the older fabric of the medina was further maintained by restricting new construction heights, and maintaining an architectural language suited to the area.

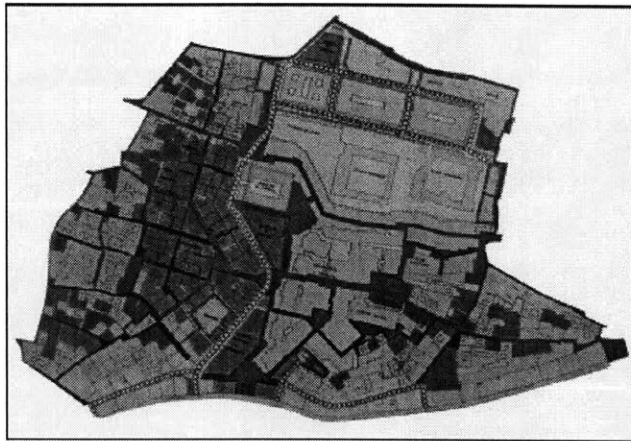


Fig 12. Overall plan of the Hafsia Quarter. (Mimar, 1985)

2.3 Lessons Learned

When looking at the evolution of the al-Azhar, the Hafsia project was chosen as an appropriate precedent because it addressed the issue of open space in-fill and vehicular traffic circulation, as well as introducing affordable housing in the old city. By linking the project to the old city fabric by way of continuity of new and existing roads, the urban scale of the old city was maintained in the new development, creating a seamless urban experience between the old and new portions of the quarter. Moreover, one of the important features of this project was the vehicular traffic circulation routes. The traffic calming technique of weaving or curving the main vehicular artery that runs north-south through the quarter, helped link the new and the old portions of the city by breaking the visual appearance of the motorway. By slowing traffic down and breaking the visual divide the road creates within the city, the vehicle artery became less of a barrier between the two halves of the city.

In contrast to development projects in many historic city cores that foster the gentrification of the area by introducing market value or high-end real estate, the Hafsia project focused on enhancing the real estate opportunities of the existing community. Through the introduction of low income housing into the old city, the preservation of existing communities was facilitated. Thus, the program of buildings constructed helped maintain the social and economic fabric of the medina.

The Hafsia project in Tunis and the Bab al-Faraj project in Aleppo offer several objectives and criteria that should be considered when looking at the evolution of al-Azhar Street. From methods of addressing vehicular traffic and circulation, to strategies of urban in-fill, both projects offer lessons that should be considered for the future of al-Azhar Street. The Bab al-Faraj project offers practical insight in to mediating vehicular circulation and access within the old city core, and the Hafsia project addressed both the urban quality of the built environment, as well as the socio-economic requirements of the community through formal planning strategies.

Notes:

¹ Kostof, Spiro. *The City Assembled*. P 266

² Abu-Lughod, Janet. *Cairo: 1001 Years, The City Victorious*. P 132

³ Kostof, Spiro. *The City Assembled*. P 275

⁴ *The Aga Kahn Program for Islamic Architecture. Continuity and Change: Designing in Islamic Cultures 4*. P 25

⁵ *The "Hafsia", Tunis. Mimar 17*: July-Sept 1985: P 64

⁶ *Mimar*. No 17, Jul-Sept 1985. P 64

Unless otherwise noted, graphics are by the author.

3.0 Context Analysis

When considering the future of al-Azhar Street, an understanding of al-Qahira's built environment must be developed. Like other monument cities in the Islamic world, such as Istanbul, Isfahan, Delhi and Samarqand, much of the historic urban fabric of al-Qahira has been held in place for centuries by the historic structures that punctuate the city. These buildings have acted as unavoidable focal points or nodes within the city for centuries. Al-Qahira has more architectural monuments than any other city in the Islamic world and may be second only to Rome in the number and variety of architectural monuments still standing.¹ Thus, historic Cairo's urban character must be considered when evaluating the future of al-Azhar Street.

The historic core of Cairo developed differently from other Mediterranean counterparts as well as differently from other cities in the Islamic world for reasons that are attributed to the city's long history, geographic setting, and even social makeup. As Oleg Grabar wrote, the difference between Cairo and other "monument cities" in the Islamic world is that in all other cities, the monuments, what ever they be - castles, palaces, mosques or cathedrals, were symbols or expressions of imperial dynasties and power, built by individual rulers. Thus, the monuments of these

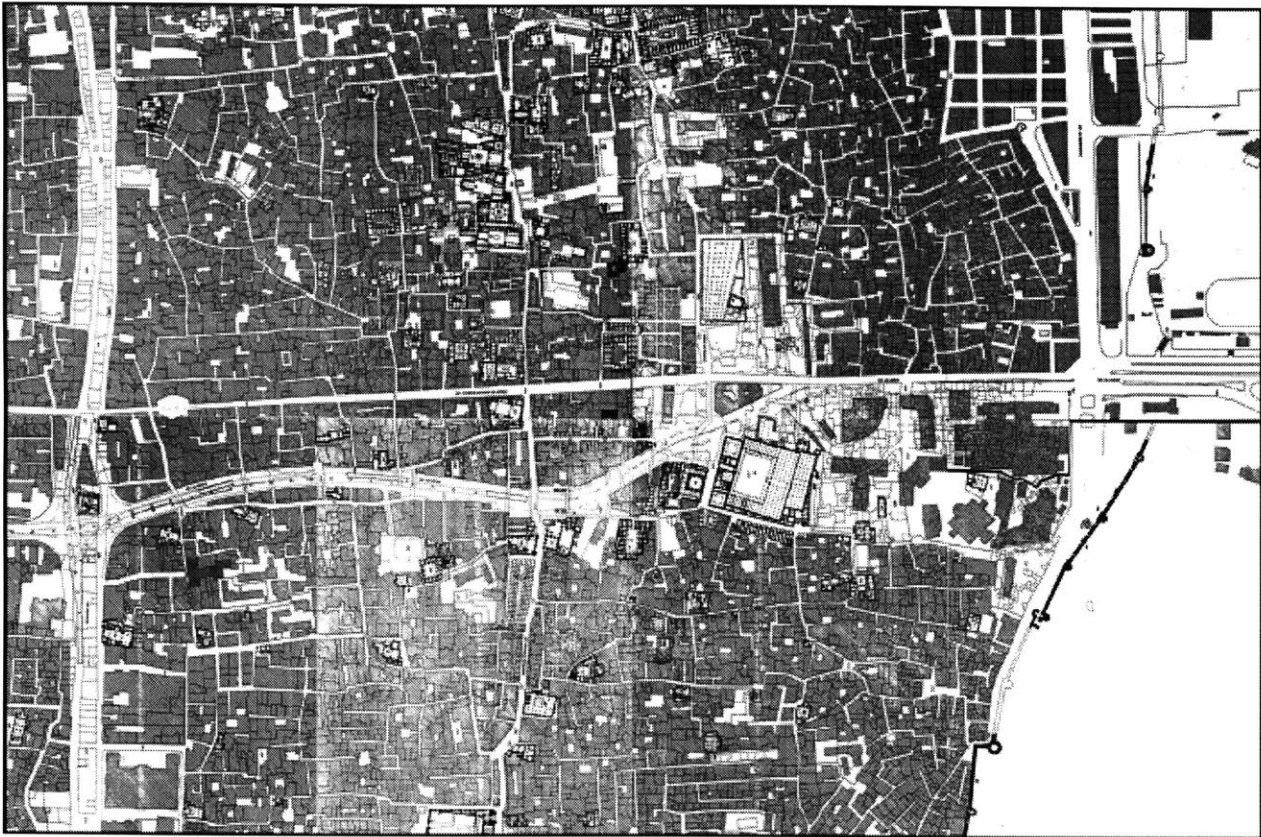


Fig 13. Nolle plan of the al-Azhar area, Cairo, Egypt. The plan shows the concentration of registered monuments in the area. (Drawing produced by Nicholas Warner for the American Research Center in Egypt)

cities were usually set apart from the urban context as object buildings that were intended to be highly visible and prominent within the city. In Istanbul, the great mosques were built on top of hills, or in Isfahan and Samarqand, the great mosques were adjacent to large squares and were detached from the rest of the city fabric.

In Cairo, the majority of the monuments standing today within the city were built by Mamluk slaves who were indentured, to a khalif or sultan who in turn resided in the Citadel. Unlike the Ottomans, the Safavids, the Mughals, and the Timurids, the Mamluks, the patrons of the majority of existing monuments of historic Cairo, were no dynastic rulers but a slave class that remained part of the power structure in Egypt for almost nine centuries. They remained a military cast in society, each generation recruiting from abroad.²

As a result, in contrast to cities such as Fez, Marrakesh, Tlemcen, Mosul, Baghdad, Konya, Bursa, Isfahan or Yazd, Cairo exhibits a different relationship between the urban fabric and the monuments within the city. The difference between Cairo and these cities is the continuity of building activity within the city over the course of several centuries, from approximately 1000 AD through 1800 AD.³ For nearly nine centuries, a major building campaign in al-Qahira was undertaken by the Mamluks that was fostered by a set of unique circumstances that promoted building within the city (in contrast to remote palatial compounds).

The circumstances surrounding this phenomenon included, wealth distribution during the Mamluk period, a continuous source of wealth brought about by trade through the city, an ecological setting that provided a stable source of resources for the development and growth of the city, the absence of destructive invasions similar to those that plagued western Asia until the 16th century, a mix of religious and ethnic communities that made Cairo an intellectual center in the region, and the presence of classical monuments, especially ancient Egyptian, that entered the realm of myths in Mamluk times.⁴ No other city in the Islamic world was provided with as many operative factors that made building in Cairo a consistent means of patronage as during the Mamluk period.⁵

Because the Mamluks were slaves or indentured servants hired by the ruling class operating in a feudal political structure, they could not directly pass wealth accumulated from their fief onto family members after their term of service to the Khalif or Sultan was over. As slaves, their wealth belonged to the Khalif or Sultan. The only way to will or bequeath their wealth accumulated during their post was to put it into *waqf* trusts or pious endowments. These trust funds usually came in the form of endowments for the maintenance of structures such as mosques, madrassas, mausoleums, hospitals and sabiel-kuttabs. Family members were hired as custodians of these trust funds and as a result became benefactors of their patrons wealth. Hence, structures were usually endowed, they were maintained and not added to or rebuilt, and hence remained part of the urban fabric long after their patron deceased.

Moreover, the durability of the construction materials available helped maintain the character of Cairo's built environment. Most structures in Cairo were built of stone found in quarries around al-Qahira and from stone taken from ancient monuments located around the city. It is very common to find stones with hieroglyphics symbols in the walls of Mamluk structures, or Corinthian columns supporting a dome. Hence the building materials available in the construction of most structures contributed to their longevity.

Another reason for Cairo's unique urban character was the conservatism of architectural typologies used by the architects and builders of the Mamluks. During the nine centuries of Mamluk presence, Cairean architecture developed quite consistently, perfecting similar typological forms. From the spatial composition of the domes, vaults, iwans, porticoes and courts, to the surface decorations of the muqarnas, large bands of calligraphy and geocentric patterning on the walls and ceiling of the spaces, and from methods of resolving geometric spatial configurations to the use of similar construction techniques, the Mamluk monuments of Cairo reiterate the same themes over and over again. Domes and minarets of the mosques, mausoleums and madrassas, to the gates of the city to the portals of their homes, similar formal responses or themes were incorporated over and over under the Mamluks. As a result, there is an unparalleled homogeneity in the urban fabric and architectural forms of historic Cairo that contribute to the city's urban character.



Fig 14. Al-Qahira's historic corridor along al-Mu'izz Street.

This character unique to historic Cairo is not stylistic, aesthetic or typological, but organizational. In al-Qahira, the monuments create a system of urban relays that punctuate the city. While the domes, iwans, and minarets may no longer serve their function, their presence is still important as markers within the city. What still operates today in historic Cairo is what Oleg Grabar calls, *The Rhythmic Power of Monuments*, that serve as "visual relays" from one part of the city to another.⁶ Within al-Qahira there is a web or network of visual signs that orders movement through the labyrinth of streets and alleyways.

This urban organization is most apparent or obvious along al-Mu'izz Street where the towers, minarets and domes that line the street visually mark this north-south vector within the city. Also along the circulation paths defined in the Muski area by the number of *wikalas* and *sabils* still standing. Among cities in the Islamic world, only Cairo has

the sheer number and density of monuments that can order and organize the city for its inhabitants. Since we understand the environment by moving through it, moving along historic corridor helps us understand historic environments. To know the world of our forebearers, we must see it as they had, an objective that can be achieved by maintaining the physical corridor along which they moved.⁷

As the most dominant route for pedestrians, al-Mu'izz Street - al-Qahira's historic casbah - is defined by the monuments that line the street. This continuity has been broken by the urban divide created al-Azhar Street, abruptly halting the rhythm of monuments that mark the street. As a result, a key consideration that needs to be addressed in the future of al-Azhar Street is the intersection with al-Mu'izz Street.

Hence, the reconnecting of the north and south portions of al-Qahira is an important design consideration for the future of al-Azhar Street. Both, the intersection of al-Azhar Street and al-Mu'izz Street and the open space between the al-Hussein Mosque to the north of al-Azhar Street, and the al-Azhar and Muhammad Abu-al-Dahab Mosques to the south of al-Azhar Street offer opportunities to re-link or connect the city in an attempt to mediate the urban divide currently created by al-Azhar Street. However, as Lynch wrote, strict preservation or reconstruction is the most pessimistic approach to urban reconstruction. In this approach, time is considered a regrettable, but inevitable dissolution.⁸ Furthermore, strict reconstruction denies the legitimacy of contemporary design practices.

So while the functions that took place in the historic structures of Cairo may no longer be relevant, they serve as organizing elements within the city and should be preserved, as it was under these conditions the complex alignments of streets and allies developed. Given these qualities, the city contains the urban features that are unique to Cairo and that must be considered. The question posed is, should the future of al-Azhar Street demonstrate a respect for the cities past history? Or, should a pragmatic solution that simply provides access for today's community be adopted?

The perception of a city is developed by how we move through the city as were we move to within the city. A walk along al-Azhar Street is very different than a walk along one of the parallel narrow roads. And a twelfth-century structure, no matter how accurately restored, does not appear the same when viewed from a passing car as it did coming into view from a distant walk.⁹

Notes:

- ¹ Grabar, Oleg. *The Meaning of History in Cairo*. P 2
- ² Abu-Lughod, Janet. *Cairo: 1001 Years, Of The City Victorious*. P 31
- ³ Grabar, Oleg. *The Meaning of History in Cairo*. P 2
- ⁴ Grabar, Oleg. *The Meaning of History in Cairo*. P 2-4
- ⁵ Grabar, Oleg. *The Meaning of History in Cairo*. P 4
- ⁶ Grabar, Oleg. *The Meaning of History in Cairo*. P 12
- ⁷ Abdelhalim, Abdelhalim I. *Transformations in Architecture and Urbanism* P. 44
- ⁸ Lynch, Kevin. *What Time Is This Place*. P 35
- ⁹ Grabar, Oleg. *The Meaning of History in Cairo*. P 44

Figure 13 - Prepared by Nicholas Warner, in cooperation with the Supreme Council of Antiquities, for the Egyptian Antiquities Project of the American Research Center in Egypt. Mapping in Historic Cairo Project, Submission November 1997, under USAID Grant No. 263 0000 G 00 3089 00.

Unless otherwise noted, graphics are by the author.

4.0 Design Criteria and Performance Standards

Al-Qahira is going through a period of intense transformation with very little consensus of the future of the city. As discussed earlier, major changes are happening simultaneously with no overall objective or vision of a future. The obstacle of success for any one project is in the free-for-all developments taking place in historic Cairo. In the mid-1990's, by presidential decree, an independent commission was set up to oversee and manage the future of Historic Cairo and coordinate between the interest groups acting in the community.

However, the commission has received little or no support, authority or funding from the Egyptian Parliament due to the conflict of agenda's between the various interest groups in the area. Any successful plan for the area hinges on the various ministries and agencies involved being able to cooperate in repairing the infrastructure failing in the old city, including the fixing of the infrastructure, the collection of garbage and the development of policies and design strategies that take all the constituents into account - a huge undertaking.

Thus, several interest groups are acting independently in a piecemeal fashion. The fuel as well as the indicator of the changes in this area is the amount of capitol being allocated for projects in historic Cairo. Much of the investment in the area is being promoted by economic incentives of public sector organizations, such as the Ministry of Tourism and the Ministry of Economics, and private investment groups, such as the Osman Ahmed Osman Group, and other investment organizations that want to capitalize on the areas historic qualities.

Other agencies and organizations acting in the historic Cairo are further complicating the coordination between the various interest groups acting in al-Qahira. From the al-Azhar University, a major land owner in the area, to NGO's such as UNESCO, the Arab Fund for Social Development (AFESD), the USAID-funded American Research Center in Egypt (ARCE) and the Aga Khan Trust for Culture working on restoration projects in the city, to government agencies such as the Supreme Council of Antiquities, the Ministry of *Waqf*, the Ministry of Housing, the Ministry of Transportation, and the Ministry of Planning, each with their agenda, coordination has been nearly impossible.

Thus, interest groups have been acting independently of each other. The large scale public and private projects currently underway in historic Cairo include, the digging of al-Azhar Tunnel from Opera Square to the Salah Salem ring road, the building of the Aga Khan Park on the Derassa land fill, the large scale restoration campaign of mosques, sabils (public water fountains), wikalat (caravansaries), and residences in the area, and the relocation of the al-Azhar University.

As these projects develop, mostly autonomously, a lack of comprehensive planning as well as a lack of an agreed upon vision between the various parties involved, has become evident. The lack of cooperation and inclusion of

agendas between the various parties is leading to years of delay as well as an imbalance in the economic viability and social justice between the various interest groups including the existing inhabitants, threatening to dismantle the social fabric of the city. The lack of coordination and cooperation is compounded by the multitude of the various parties and their conflicting agendas influencing change in the area.

At the center of the evolution of al-Qahira is the future of al-Azhar Street. This major thoroughfare of historic Cairo was cut through the city in 1931, and serves as the primary public transportation route and service vehicle access of the region and road linkage to Greater Cairo. Any Change to the al-Azhar Street right of way will have great repercussions on the area. From a pragmatic point of view, the removal of the street or pedestrianization of the right of way will affect circulation and access to and within the city core. From a socio-economic point of view, modifications to al-Azhar Street will affect the relationship between the northern and southern portions of the city which have developed very differently since al-Azhar Street was cut through the city.

Consequently, in developing a plan for the al-Azhar Street, the interests of the various interest groups must be identified in order to develop a set of criteria upon which a formal design can be evaluated. These are described as follows.

4.1 Neighborhoods of Historic Cairo

According to official estimates, historic Cairo is home to more than 310,000 residents and 30,000 squatters. The area is bound to the north, east and south by remnants of the Ayyubid wall and the to the west by Port Said Street, built over the Khalij Canal in the late nineteenth century. Historic Cairo was split by al-Azhar Street in 1931 that currently divides the city along an east-west axis between the northern neighborhoods of al-Gamaleyah and Khan al-Khalili and southern neighborhood of Darb al-Ahmar.

North of al-Azhar Street, the al-Gamaleyah and Khan al-Khalili neighborhoods are bound by the Fatimid rampart marked by Bab al-Futuh and Bab al-Nasr to the north, by al-Mansuriya Street to the east, by al-Azhar Street to the south, and by Port Said Street to the west. This sector of the historic city has approximately 150,000 inhabitants and is one of the most densely populated areas of greater Cairo with an average density that exceeds three persons per room. According to a UNESCO report, the al-Gamaleyah quarter alone is home to 74,550 people in an area of .97km².¹

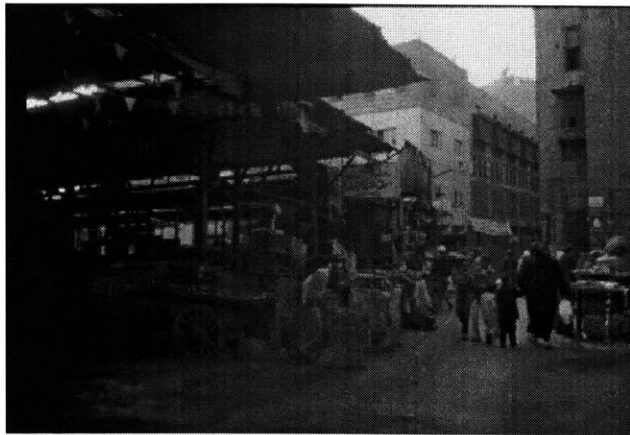


Fig 15. Neighborhood marketplace.

Much of this areas character still reflects its medieval past, with examples of highly ornate solid masonry facades and street patterns that still maintain their historic alignments, that for the most part developed during Mamluk times. Because this area has maintained its historic character, it has been designated as “historically valuable” by international organizations such as UNESCO, The World Heritage Fund and the Arab Fund for Culture. Domestic government agencies, such as the Ministry of Tourism and local developers would like to capitalize on the area’s character. As a result, this area of Cairo is receiving much interest by government agencies and potential developers.

Conversely, the current state of the built environment does not cater to the needs of the area’s inhabitants. The unmaintained housing stock, combined with poor infrastructure, including lack of sewage, vehicular accessibility, and refuse pick up have contributed to the poor quality of life for the area’s inhabitants. As a result, the al-Gamaleyah district has been rendered a slum in Cairo.

The Khan al-Khalili area along al-Azhar and parallel Muski Streets, is one of the largest commercial districts in Cairo with more than one-thousand retail outlets and workshops.² Other than along Muski Street, which was cut through the city in the 1920’s, there are very few residential dwellings in this area, most structures are characterized

as having ground floor retail with workshops and storage above. This area along al-Azhar Street has developed as the bazaar district for both Egyptian and foreign clients and is where the gold, silver and spice trades traditionally occurred. The commercial activity in this area has greatly influenced real estate values in this area. A three story structure, roughly 400m², on the corner of Mu'izz and Muski Streets is currently for sale for more than E£34-million³ (\$10-million) reflecting of the areas economic health.

Its important to note that since the construction of al-Azhar Street, Khan al-Khalili and Muski areas, have retained their commercial vitality. One of the contributing factors to their economic prosperity has been their accessibility, both for themselves and for their clients. Currently, most of the raw materials and the stocking of goods comes to this district in the evenings on pickup-truck size vehicles along al-Azhar and Muski Street. Furthermore, client accessibility is facilitated by the two streets as their straight forward access into the city is easier to navigate than the labyrinth like streets of the area.

The Darb al-Ahmar neighborhood to the south of al-Gamaleyah and Khan al-Khalili, is bound to the north by al-Azhar Street, to the east by the recently excavated Ayyubid wall, that includes several gates dating back to the Fatimid and Ayyubid periods, and the Darassa hill beyond (the site of the new Aga Khan Park), to the south by Bab Zuwayla, and to the west by Port Said Street. Since the construction of al-Azhar Street, this area of historic Cairo has developed into a more residential and manufacturing district and is home to approximately 150,000 inhabitants and a large number of squatters. The built environment of this area is made up of two-to-three story turn-of-the-century, housing units generally built on smaller plots of land, scattered amongst post-World War II, four and five story buildings, mostly built on larger square plots of land. Although many of the structures in this area deviate from traditional building types in favor of western-influenced designs, the urban fabric of the neighborhood is intact, characterized by irregular streets, which zigzag into innumerable dead ends.

Most commercial activity in the Darb al-Ahmar neighborhood takes place in ground floor spaces or in buildings dedicated solely for commercial use, such as metal working, leather and carpentry workshops. Most squatters in the area have inhabited abandoned buildings along the eastern rampart of the city that, before the construction of the Aga Khan Park, bordered the Derassa refuse landfill. Furthermore, several structures along the wall had been condemned after the 1992 earthquake, the area along the wall was developed with marginal buildings due to its proximity to the old dump, and have since been occupied by squatters.

For the residents and businesses of the northern and southern sides of al-Azhar Street, this route serves as the primary vehicular road and public transportation access for the community. Most streets are too narrow to accommodate more than one vehicle at a time and do not have the turning space to accommodate vehicle maneuvers. For pedestri-

ans, al-Azhar Street servers as the primary access to the Sadat Station, the main hub of Cairo's underground metro system. Ahmed Mahir Street, which runs along the southern border of the Darb al-Ahmar district, provides a secondary access route for the southern portion of the city. Many of the industries in the Darb al-Ahmar neighborhood rely on this rout for the bringing of raw materials and the distribution of goods.

4.2 Merchants, Artisan Workshops and Light Industries

The historic Quarter of Cairo is one of the economic centers and concentrations of employment opportunities for Greater Cairo, both in the formal and informal sectors of the economy. Merchants, large and small scale manufacturing industries and retail outlets are interwoven throughout the neighborhoods of the historic city providing both employment and goods and services to the community.

Retail outlets and Workshops in the Khan al-Khalili district cater mostly to the spice, gold and silver trade and to the selling and the manufacture of handmade goods, precious metal items, storage and the antique trade. Muskie Street has developed as the garment and cotton-fabric district of Cairo where everything from traditional to western clothing is sold. The western portion of al-Azhar Street has developed as the wholesale cotton district where printed fabrics and raw cotton and wool is sold. The three areas cater to local residents as well as to clients from Greater Cairo. Kahn al-Khalili maintained its traditional bazaar character and caters to mostly tourists and wealthier Egyptians, while on the other hand, the al-Azhar Street and Muskie areas cater to a local clientele. The economic importance of the Khan al-Khalili and Muskie areas has made them unmovable and hence, are likely not to be directly displaced by changes that are developing in the area. However, retail outlets on al-Azhar Street may be effected by changes to the street effecting their economic vitality as the distribution of goods and services may become more difficult.

The Darb al-Ahmar area, south of al-Azhar Street, has developed into a manufacturing district after the construction of al-Azhar Street, with retail that caters to the immediate communities needs, and industries that produce goods for consumption outside of the area. The industries in the area are mostly carpentry in addition to copper and aluminum metalworking and leather tanning. Darb al-Ahmar is known as the furniture district of Cairo.⁴

Shopkeepers and workshop owners in the Darb Al Ahmar area are worried about their uncertain fate. Of the approximately 630 shops in the neighborhood, more than 280, many of which are along al-Azhar Street, have been targeted to be removed or relocated.⁵ Government agencies are exercising their right to

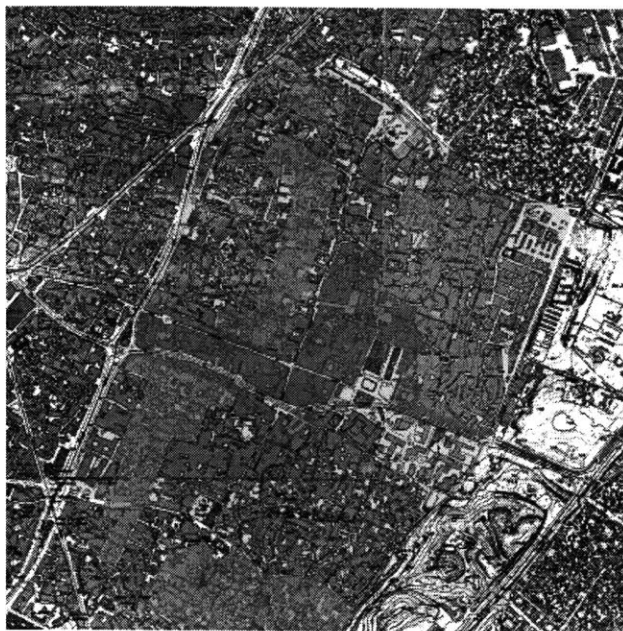


Fig 16. Commercial and retail zones of al-Qahira.

condemn buildings that were affected by the 1992 earthquake to evict tenants. The decision to remove shops and workshops from the area is part of a district wide restoration campaign focused on sanitizing and beautifying the area. Unlike the more traditional retail outlets in the Khan al-Khalili area, retail outlets in the Darb al-Ahmar district that sell consumer oriented goods have been targeted for removal. As compensation, the shop owners are to be provided with properties in new developments at the outskirts of Cairo.⁶ Furthermore, many of the leather and fabric dyeing workshops are heavily polluting the area and have also been slated to be removed. In a community where 53% of the inhabitants work and live in the same neighborhood,⁷ the removal of employment opportunities will further diminish the wealth of the community and increase demand on public transportation.

For the retailers and commuters to historic Cairo, maintaining al-Azhar Street right-of-way is important for the district's linkage to greater Cairo. Al-Azhar Street is also vital for the districts inhabitants' access to public transportation, and for the access of service vehicles into the area. The filling in or pedestrianizing of the right of way would cut off the area from the rest of Cairo.

4.3 Restoration Advocates

Several restoration projects in the al-Azhar area, under the directorship of the Ministry of Culture and the Supreme Council of Antiquity, have received much criticism from local NGO's and international organizations. These projects include the restoration of the al-Azhar mosque, the Wikalat al-Ghuri and the Hussein Mosque, the three largest monuments along al-Azhar Street. These projects have received much criticism in the way that the restorations are taking place. Specialists from agencies such as the American Research Center in Cairo and UNESCO find the work substandard as it is being done very quickly and contradict most international standards of antiquity conservation.⁸

The Ministry's insensitivity towards restorations has several sources, including the lack of professional expertise, unrealistic time schedules and the desire to reap immediate benefits on investment. In the restoration of the al-Azhar mosque, liberal amounts of concrete were used, materials such as Italian marble were introduced, and the entire complex was completed in under two years under pressure from the Ministry of Tourism. As a result, only six months after the restoration was completed, signs of stone flaking on the exterior have already begun. The issue is speed versus international standards along with the disregard for the most fundamental restoration standards.

Specialists agree the greatest threat to the monuments of old Cairo is the rising water table, and hence should be the focuses of restoration work in historic Cairo. The underground water table has risen from minus seven meters in 1993 to minus four meters today from the leaking of potable and wastewater sources. The water supply and sewage infrastructure in most of the old city has either rotted out is not working, or simply has not been extended into new areas of construction. Hence the capillary action in the porous stone that had been used for centuries in the construction of the city, is causing foundations and walls to simply deteriorate and rot. As a result, fundamental to the success of any restoration work in the area is the fixing of the infrastructure - water works electricity and garbage disposal systems.⁹

4.4 Supreme Council of Antiquities and Ministry of *Waqf*

The Monuments of historic Cairo are deteriorating at an alarming rate. From the al-Azhar Mosque to the mausoleums, madrassas, and places of the Mamluks, key buildings are under the threat of destruction. Population pressures resulting in the inhabitation of many monuments, infrastructure inadequacies, and the increasing number of industries in the area, is prompting the Supreme Council of Antiquities to relocate the areas inhabitants and transform the district in to a historical reserve or outdoor museum. The Supreme Council of Antiquities' (SCA) objective or cause of saving the world's greatest collection of mosques and minarets has been further legitimized financially by the income generated from tourism that in-turn could fund the steady restoration and maintenance of the monuments in the area.

The SCA has ownership of 5% of the registered monuments of Historic Cairo, with the other 95% in the ownership of the Ministry of *Waqf*. However, once a structure is listed as historic, the SCA becomes responsible for the maintenance and preservation of that building. According to the SCA, in al-Qahira, the total number or recorded encroachments and unauthorized activities taking place in historic monuments reached 1,510 violations in 313 monuments. These included 105 violations by government offices, 274 violations by residential encroachments, and 1,131 violations by workshop and retail owners.¹⁰ The problem is that while the Ministry of Waqf owns the majority of historic Cairo's monuments they do not have full control over their use, creating a point of conflict between the two ministries.

The SCA's proposal for historic Cairo calls for the relocation of occupants out of more than 350 registered monuments, mostly in the residential areas of al-Gamaliya, Muskie and the Darb al-Ahmar neighborhoods along Mu'izz Street, which include historic dwellings, mosques, madrassas, mausoleums and commercial spaces. Furthermore, the SCA is calling for the centralizing of restoration efforts and maintenance of the area's monuments, in effect giving the SCA jurisdiction over a large portion of the area, including the demolition of structures within three meters of a historic monument (as per the SCA's code).¹¹ It's an unlikely proposition but one that is held in place by the bureaucracy of the organization.

One of the un-addressed issues with the SCA's agenda is that Mu'izz Street is the only major north-south thoroughfare in the historic city. Simply restoring the monuments on the street without addressing circulation requirements within the city will lead to a situation were the pollution and wear from the traffic will again impact the monuments. Further, resistance to SCA's agenda is coming from the Ministry of Housing and the Ministry of *Waqf* (Pious Endowments). Both government agencies have interest in ensuring that residents remain in the area. In a country were housing is scarce, the Ministry of Housing is committed to the rent control laws in the area. The Ministry of *Waqf*, does not want to relinquish control over the area. A large portion of dwellings in the area are occupied under rental

leases that are more than three generations old. Due to rent control laws, squatter rights, and the ownership of monuments by the Ministry of *Waqf*, discussing the restoration of the monument with the rightful owner is a growing problem.

The SCA's interests in the al-Azhar area are centered in restoring the monuments of Historic Cairo to their original condition, however loosely defined. Currently, there is very little discussion on how the buildings are to be used or occupied after they are restored - other than maintaining them as museums. In the past, the SCA has simply locked restored monuments and left them to rot until restoration was needed again - ten years later. With regards to al-Azhar Street, their key intention is to reconnect the city, especially around Mu'izz Street in an attempt to recreate the city's north-south axis (what is considered the Palace Walk due to the number of Mamluk palaces along this Street). This agenda would allow tourists to walk from Bab al-Fatouh to Bab Zuaila - a route currently blocked by al-Azhar Street.



Fig 17. The majority of the registered monuments are along al-Mu'izz Street and in the Khan el-Khilili area.

4.5 Ministry of Culture and Ministry of Tourism

On 30 December 1998, the Minister of Culture, Farouk Hosni, announced the completion of his plan for Fatimid Cairo. While no formal public presentation has been made, his intentions are discussed as creating an open-air museum along al-Mu'izz Street, the heart of the historic city, sanitizing the area for tourists. The Ministry's vision calls for two pedestrian squares around the Hussein and al-Azhar mosques, an outdoor theater in front of Wikalat al-Ghuri, several green spaces, quaint "Oriental" cafés, artisan workshops, artists' studios, and several souvenir boutiques. In 1999, the Ministry of Culture has been allocated E£242,000,000 (\$72,000,000) by the parliament to begin the implementation of this plan, including the restoration of some two-hundred monuments in the area, the relocation of inhabitants in the area and the pedestrianization of al-Mu'izz Street.¹²

Around the al-Azhar Mosque, the proposal will require the demolition of several buildings in the area around the al-Hussain Mosque and in front of Wikalat al-Ghouria to open up space for the pedestrian squares and the outdoor theater, the reconfiguring of vehicular circulation to pedestrianize most of the area and the relocation of inhabitants in structures slated for demolition or designated as historic monuments.

According to Abdallah el-Attar, head of Coptic and Islamic Antiquities, workshops in the area that are "tourist friendly," such as the selling of souvenirs, will be allowed to stay. "After the plan is fully carried out, the area [will] be like a time machine... We'd take people back into past centuries," he said. He predicts the overall project will cost \$250 million, which the government is planning on raising from tourism and international aid agencies.¹³

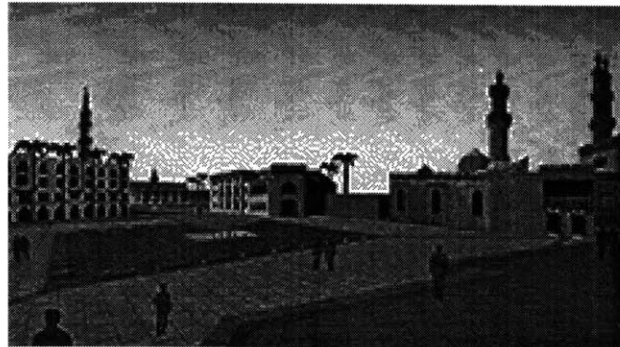


Fig 18. "The Ministry of Culture's Vision of new open squares around al-Hussein and al-Azhar Mosques is going to require the removal of a lot of buildings full of people." (Ministry of Culture's web page)

The Ministry of Culture's proposals for al-Azhar Street are still vague. One proposal developed by the ministry of culture focuses on turning the existing right-of-way, from Port Said Street to the Aga Khan Park into a pedestrian green belt. The green belt is proposed as a strategy providing access to the new park of greater Cairo. In and case, like the SCA's agenda, the Ministry of Tourism wants to ensure the al-Azhar area is sanitized of unsightly scenes, such as traffic and other conventional realities in the area. On the other had, tourist access into the middle of the city would require the right of way for tourist busses and bus parking.

While the Ministry of Tourism and the Ministry of Culture have no direct jurisdiction over the future of historic Cairo, their economic proposals for the area are seen as very favorable by Egypt's parliament. The ministry of

tourism has stated they can increase foreign revenue by capitalizing on Cairo's historic city. The Ministry of Culture has been recruited to legitimize the Ministry of Tourism's agenda. Hence, the apparent partnership between the Ministry of Tourism, the SCA and Ministry of Culture is based on the economic incentives for restoring the area. Tourism is one of Egypt's largest sources of foreign revenue, generating more than \$4 billion a annually. Because in the past, most restoration projects focused on the conservation of Pharaonic and classical monuments, historic Cairo has been targeted as a frontier for economic development.



Fig 19. Current crossing of al-Mu'izz and al-Azhar Streets. The pedestrian bridge serves as the link in the area across al-Azhar Street.

4.6 Ministry of Transportation and Communications

The 2.6-Km al-Azhar tunnels are one of the Ministry of Transportation's central solutions to Cairo's growing traffic congestion. According to Abdel-Aziz Mohamed, head to the General Traffic Authority, the tunnel will streamline traffic moving east-west from downtown Cairo to the Salah Salem ring road. In conjunction with the tunnel, the Port Said Street fly-over, a contributor to noise pollution in the area is to be dismantled. At a cost of E£407,000,000 (\$118 million) the project promises to rid historic Cairo of vehicles in favor of a vast pedestrian district.

A recent study showed that 25 million trips are made daily in Greater Cairo, fifty-percent of which are made in private cars. According to a leading planner at Ain Shams University, it is estimated that the on average, a motorist makes 2.5 trips daily, which underlines the need for a more efficient public transportation network.¹⁴ Poor traffic management and infrastructure is leading to approximately 5,000 deaths annually on the streets of Cairo.¹⁵ World Bank analysts estimate that traffic jams in Cairo are resulting in hundreds of millions of pounds in lost wages, not to mention the social costs associated with accidents, pollution, lost investment, and traffic injuries. In one of the most densely populated areas of Cairo, replacing vehicular traffic from the surface is seen as a positive effort.



Fig 20. Current vehicular circulation paths.

Thus, the transportation pressures in the historic core of Cairo are twofold, concerning the needs of Greater Cairo as well as the needs of al-Qahira. While the tunnel addresses the transportation needs of greater Cairo, it does not address the transportation needs of the community served directly by al-Azhar Street. The tunnel has no on-or-off ramps along its length, effectively bypassing the historic city and restricting the area's vehicle access and mass transportation modes. If al-Azhar Street is completely pedestrianized or in-filled, residents of the community will have no access to public transportation other than along the perimeter of the old city.

The boundaries of the historic city can be defined in terms of two main traffic corridors, Salah Salem ring-road to the east and Port Said Street to the west. According to the TCO, 36,000¹⁶ daily vehicles traverse al-Azhar Street daily, with an additional 5,000 vehicular trips that make their way into the alleys and paths of the old city of which approximately 3,000 trips are made by delivery and service vehicles. As a result, maintaining an east-west connection

between the two bordering thoroughfares is an important design criteria as travelers need to circulate between Port Said and Salah Salem Streets.

The Ministry of Transportation's interest for al-Azhar focuses on maintaining the route as an alternate vehicle right-of-way for two reasons. Even though the tunnels have no on or off ramps, two carriageways in each direction for the volumes of traffic that currently traverse al-Azhar Street. Maintaining the right of way for public transit and emergency vehicle access is another criteria for maintaining the al-Azhar right of way.



Fig 21. Al-Azhar Bridge - to be dismantled once the al-Azhar Tunnels are opened.

4.7 Design Criteria for Urban Intervention

Given the various interest groups discussed above, the aim of the al-Azhar Street transformation is to preserve the existing social and economic fabric of the community while enhancing the regions heritage and urban character. With the eminent transformation al-Azhar Street right-of-way, it is imperative that its future does not favor one interest group over another. The intention is to devise a formal solution (urban design) that addresses the needs of the regions existing as well as future constituents. Its important to note that the urban design proposal must be viewed in conjunction with policy proposals and urban management and implementation schemes for the area being devised by both governmental and non-governmental agencies.

First, the future of al-Azhar Street and surrounding area must accommodate the community's needs by maintaining and enhancing the civic amenities and services in the al-Azhar area. The civic amenities and services that must be considered in the future of al-Azhar Street are; community access to public transportation, the Darb al-Ahmar and al-Gamaleyah communities are highly dependent on al-Azhar Street for bus, taxi and micro-bus access; emergency and service vehicle access into the al-Azhar area, al-Azhar Street provides the only access for ambulances, fire trucks and large service vehicles to the core of the historic city; maintenance of the al-Azhar University medical hospital, the al-Azhar hospital is the only formal health care institution in old Cairo; enhancement of pedestrian mobility within the city, al-Azhar street can only be crossed at two places along the streets length; and provide access to the Aga Khan park from the historic core, for the areas residents and visitors.

Second, the future of al-Azhar Street and the surrounding area must accommodate the commercial entities in the region. These entities include the retail outlets along al-Azhar Street as well as the workshops and warehouses of the al-Azhar area. The commercial design criteria for the area include; the maintenance of service vehicle accessibility to the historic core, businesses throughout the area will require the access of service vehicles at certain times of the day; the maintenance of relocated business within the community, it is important that businesses hazardous to historic structures be housed in new buildings proposed as part of the al-Azhar street transformation in reconfigured existing structures.

The, the future of al-Azhar Street and the surrounding area must accommodate the growth of tourism and related industries in the area. With approximately 5 million visitors a year and as an industry of growing importance in Egypt that will fund the conservation of key structures in the historic city, tourism will become an economic benefit to the area. The design criteria for the growing tourist industry in the area include; bus and taxi accessibility to the area, as well as bus and taxi parking; identifiable tourist areas to ensure that businesses that cater to the local community do not get over run; and the inclusion of information points and visitors center for visitors.

Finally, character and scale of physical interventions made along al-Azhar Street in the future, must address the urban conditions of the historic city fabric. As discussed earlier, the type and number of monuments in al-Qahira make the urban environment unique among monument cities and should be addressed in the design for the future. Specific formal criteria that must be considered in the future design of al-Azhar Street are; the maintenance of historic corridors and vistas, the most important being al-Mu'izz Street; the mediation of the urban divide created by al-Azhar Street, and re-linking the north and south halves of the historic city. In addition to the physical interventions that need to be made along al-Azhar Street, an urban management strategy and policy guidelines must be developed, in order to manage between the areas past and future.

4.8 Summary

Design Criteria - manipulating the physical fabric of medieval Cairo to enhancing the social and economic fabric of the city.

Civic Amenities

- Community accesses to public transit
- Access for emergency vehicles
- Maintenance of the al-Azhar Hospital
- Pedestrian mobility within the city
- Regional Parking
- Access to the Aga Khan Park

Commercial Amenities

- Maintain vehicular access to the al-Azhar area
- Maintain service vehicle access to commercial outlets
- Maintain relocated retail outlets within the neighborhood

Tourism Amenities

- Bus Access to Khan al-Khalili
- Bus Parking
- Identifiable visitors area - means of marking tourist district
- Tourist Center - lavatories and information center

Historicism and Public Perception

- Maintenance of historic vistas where possible
- Re-linking the north and south halves of the city - through an understanding of the urban morphology in the region.
- Establishment of Urban Management policies and practices.

Notes:

- ¹ United Nations Development Program-Supreme Council of Antiquities. Rehabilitation of Historic Cairo. 1997. P13
- ² The conservation Of The Old City Of Cairo, UNESCO: London, 1980. P31
- ³ The source of information is from an add in the *Akhabar* news paper.
- ⁴ United Nations Development Program-Supreme Council of Antiquities. Rehabilitation of Historic Cairo. 1997. P24
- ⁵ Shadid, Anthony. *Egypt Picks Monuments, and Money, Over The Masses Homes and Bazaars Being Razed To Restore Nation's Glory and Draw Tourists*. The Milwaukee Journal Sentinel. 07/05/1998.
- ⁶ Schemm, Paul. *Fatimid Cairo Project Gathers Speed - Despite Criticism*. Middle East Times
- ⁷ The conservation Of The Old City Of Cairo, UNESCO: London, 1980. P37
- ⁸ Schemm, Paul. *Fatimid Cairo Project Gathers Speed - Despite Criticism*. Middle East Times
- ⁹ UNDP -SCA. *Rehabilitation of Historic Cairo - final report*: December 1997. P 78
- ¹⁰ El-Aref, Nevine. *Refurbishing The Fatimids*. Al-Ahram, no 411, 7-13 January 1999
- ¹¹ Makay, Emad. *Old Cairo Works to Save History Without Disrupting the Present*. Reuters News Services: 1998.
- ¹² El-Aref. *Refurbishing the City Victorious*. Al-Ahram Weekly. Issue 394, 10-16 September 1998.
- ¹³ Makay, Emad. *Old Cairo Works to Save History Without Disrupting the Present*. Reuters News Services: 1998.
- ¹⁴ Shahine, Gihan. *Quest For Traffic Cures*. Al-Ahram: no416, 11-17 February 1999.
- ¹⁵ Gihan Shahine, *Quest For Traffic Cures*. Al-Ahram Weekly. 11-17 February 1999, issue No. 416
- ¹⁶ United Nations Development Program-Supreme Council of Antiquities. Rehabilitation of Historic Cairo. 1997. P 24

Unless otherwise noted, graphics are by the author.

5.0 Physical Planning

The following plan for the future of al-Azhar Street should be viewed in conjunction with a series of policies, implementation strategies and urban management practices that would supplement the proposed physical design. Enhancing the physical environment without institutionalizing a system of checks and balances between the various interest groups could result in one interest group thriving in the new setting over another, upsetting the social and economic vitality that has existed in al-Qahira for centuries. Thus, while this proposal for the future of al-Azhar Street addresses physical planning issues that were derived from an analysis of the built environment as well as of the needs of the various interest groups operating in the area, it does not specially prescribe the policies that would need to be instituted to ensure the plans success (a topic for another thesis).



Fig 22. The site of the project includes much of the area cleared in 1930's during the construction of al-Azhar Street as indicated by the darkened area. (Base map prepared by Nicholas Warner for the American Research Center in Egypt)

5.1 Analysis Drawings

When developing the design strategy for the future of al-Azhar Street, the design criteria and performance standards were identified by locating points of conflict as well as points of accordance between the various constituent groups operating in the historic quarter of Cairo. These points were found through an urban analysis, as well as a social and economic survey of the al-Azhar area. Using the collected information, a series of diagrams were generated that evaluated the existing situation within the city defining the physical “design problem.” Thus, while one solution is presented in this document, the analysis process could develop other solutions for the area.

Information used in the analysis was gathered primarily from three sources. First, information on the built environment was gathered through personal research over the past two years during site visits. The second primary source was a report published by the Aga Khan Services in Egypt, *Conservation Planning In The Aslam Mosque Neighborhood* (see bibliography) which contains a thorough analysis of the social and economic fabric of the area. And third, information on the social and economic status of the area came from two UNESCO reports on Cairo, one published in 1980, the other in 1997, which included national census data. The final source of information was the *Al-Ahram Weekly*, the leading newspaper in Egypt.

As discussed earlier, the key design determinants or problems found important within the city were, the mediation of the urban divide created by al-Azhar Street and the mediation between the north-south and east-west circulation corridors within the city. Furthermore, central to the solution was the maintenance of vehicular access to the commercial and retail districts in the area while re-linking the historic pedestrian links connecting the north and south portions of the al-Qahira, most importantly along the al-Mu'izz pedestrian route. By diagramming the interests of the various constituents acting in the area, the physical design criteria were determined.

The overall physical planning objective or goal for the future of the al-Azhar Street right-of-way, was that of maintaining vehicle accessibility into the historic core while enhancing pedestrian mobility for the residents as well as visitors to the area, along al-Mu'izz Street and the open space between the al-Hussein and al-Azhar Mosques. The problem was to maintain vehicular access at the eastern and western sections of the al-Azhar right-of-way, while redefining the historic corridor as a north-south pedestrian route. The current pedestrian tunnel under al-Azhar Street is fully utilized at 2,600 pedestrians per hour (the tunnel and the metal pedestrian bridge at al-Mu'izz Street are the only two pedestrian crossings along the central portion of al-Azhar Street).¹

The second physical-planning objective was to organize the vast open space between the al-Hussein and al-Azhar Mosques. This area must address the transportation needs of visitors and tourists to the area as well as the public

transportation and service access needs of the area's residents. At the center of this space is former al-Azhar administrative building that has been donated to the municipality and is to become a museum of the history of Cairo, and thus must also be considered in the design.

Several options were considered for al-Azhar right-of-way. These options included; the digging of a vehicular tunnel under Mu'izz Street; the elimination of all vehicle traffic into the historic-core in conjunction with public transportation stops or stations at the eastern and western ends of the al-Azhar right of way; and the construction of alternate access routes into the historic core that do not cross al-Mu'izz Street.

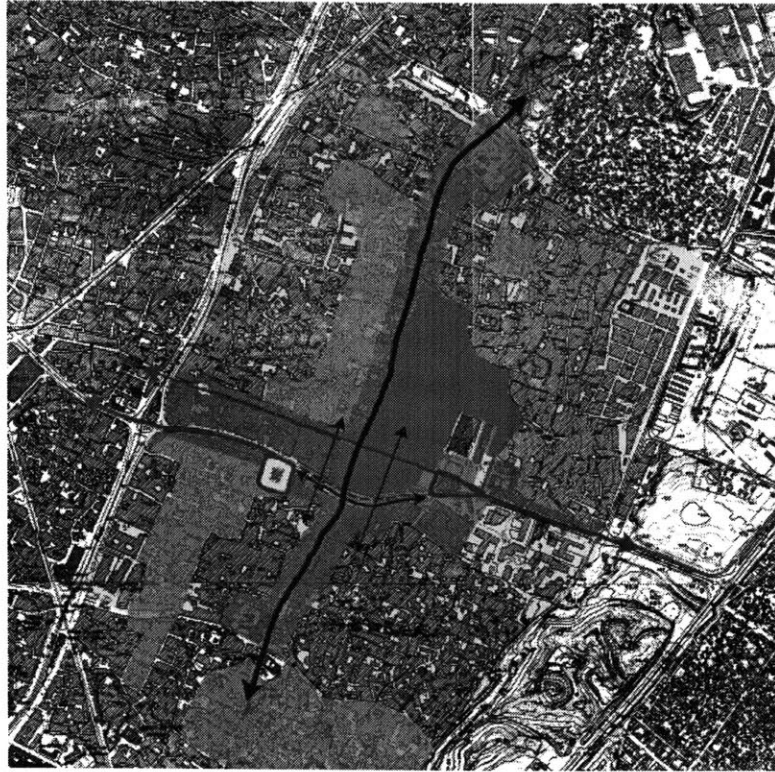


Fig 23. Circulation diagram showing the east and west vehicular traffic loops with the central pedestrian spine.

Early in the design process, the proposed vehicular tunnel under al-Mu'izz Street was favored over other design alternatives. The appeal of a new tunnel (in addition to the al-Azhar tunnels) was that the historic corridor could be freed of all vehicular crossings and left only for pedestrians. Furthermore, commercial and retail establishments would benefit from the "al-Mu'izz tunnel" as local traffic would be able to access the historic urban core at all times of the day. However, despite the appeal of the tunnel, the cost of construction, and the toll the excavation work of the tunnel may have on surrounding structures, was deemed prohibitive to the proposal.

5.2 The Proposal

An alternative design was developed that addressed the same design objectives or criteria as the proposed tunnel, those of mediating the divide created by the al-Azhar right of way and reconnecting the north and south portions of al-Mu'izz Street. The solution calls for the construction of two traffic loops or pockets along the eastern and western legs of al-Azhar Street, allowing transportation and service vehicles to enter and exit the historic quarter without crossing al-Mu'izz Street. The design accounts for a limited number of vehicles, such as public busses and emergency vehicles to cross at designated times of the day. Bollards that limit access to the central portion of al-Azhar right-of-way would be removed to allow service vehicles to cross from the east to west of quarter. Through-traffic and traffic needing to get from the eastern to western boundaries of the historic city could use the new al-Azhar tunnels.

The proposed design calls for several changes to be made along al-Azhar Street and in the surrounding area. First, to make room for the western vehicle loop or pocket, the proposal calls for the removal of two 1980's structures. Both structures violate height restrictions in the area and are out of character and scale with the surrounding urban context. The western vehicle loop or pocket is to accommodate public transportation as well as service vehicles to the area at certain times of the day, as well as serve as a loading and off-loading zone for the area. The vehicle turn-around is to be constructed behind a new structure that maintains the building continuity along Al-Azhar Street and would provide space for a bus station and additional retail in the area.

The central portion of the al-Azhar Street right-of-way that currently bisects the historic corridor is to be built up, narrowing al-Azhar Street opposite the Ghuriya Complex. These proposed buildings along al-Mu'izz Street narrow the divide created by al-Azhar Street to visually re-link or re-emphasize the historic north-south corridor. This portion of the al-Azhar right of way is to be traversed only by public transportation and emergency vehicles for most of the day. The reduced traffic in this area would allow pedestrians to move freely within the historic corridor of the city. The new structures would serve as a backdrop to the Ghuriya complex that flank either side of al-Mu'izz Street. This portion of the al-Azhar right of way will maintain its commercial nature that includes several commercial and retail outlets.

The most extensive urban intervention along the al-Azhar right-of-way is in the space between the al-Azhar and al-Hussein Mosques at the center of the historic urban core of al-Qahira. For the past decade, this area has been the site of much construction, from the sewage and water distribution network constructed in the 1990's, to the recent building of the al-Azhar Tunnels, portions of the site have been quarantined for some time. Moreover, the main public transportation hub in the historic quarter is directly in front of the al-Azhar Mosque, situated on both sides of

al-Azhar Street. The overall plan focuses on realigning the al-Azhar right of way between the two squares to redistribute the expanse of land between the two mosques and break the linearity of the al-Azhar right of way.

To accommodate tourist as well as public transportation vehicles to the east of Mu'izz Street, the area between the al-Azhar and al-Hussein Mosques is designed to accommodate public transportation as well as tourist bus, traffic loops or pockets. The area currently occupied by the al-Azhar Street and the al-Hussein Square will be reorganized to allow for open space in front of the al-Azhar Mosque, currently separated from the northern portion of the city by al-Azhar Street. In addition to the traffic loops, the physical planning of this area focuses on creating linkages and pathways between the north and south portions of the city in an attempt to mediate the divide created by al-Azhar Street.

The large expanse between the al-Azhar and al-Hussein Mosques is to be reconfigured to provide open plazas in front of both structures. Currently, al-Azhar Street passes within ten meters of the main gate of the al-Azhar Mosque, isolating it from open space and the northern quarter of the city. The formal plaza in front of the al-Azhar Mosque is intended to be used as a forecourt for the mosque during the day and a polyvalent space at night, used by residents and visitors of the community alike. The proposed structure to the east of the plaza is to be used as an outlet for the al-Azhar University, housing functions such as a book store and information center. The al-Azhar Plaza is linked north by a pedestrian way that leads to proposed commercial structures and the proposed public transportation traffic loop or pocket.

The Al-Hussein Square is to serve as a congregation space in front of the entrance of the al-Hussein Mosque and the main alley into the Khan el-Khalili bazaar, as well as a Friday prayer area under the grove of palms adjacent mosque. This plaza is intended to provide a shaded area where residents and visitors to the area can congregate. Retail and food outlets surround this plaza to the east and west, by the al-Hussein Mosque to the north and by the new Cairo Museum to the south.

5.3 Proposal Drawings

Figure-grounds generated from proposal drawings.



Fig 24. Pre -1930 Condition.



Fig 25. Post al-Azhar Street Construction Condition.



Fig 26. Proposed Condition.

Proposed Plan

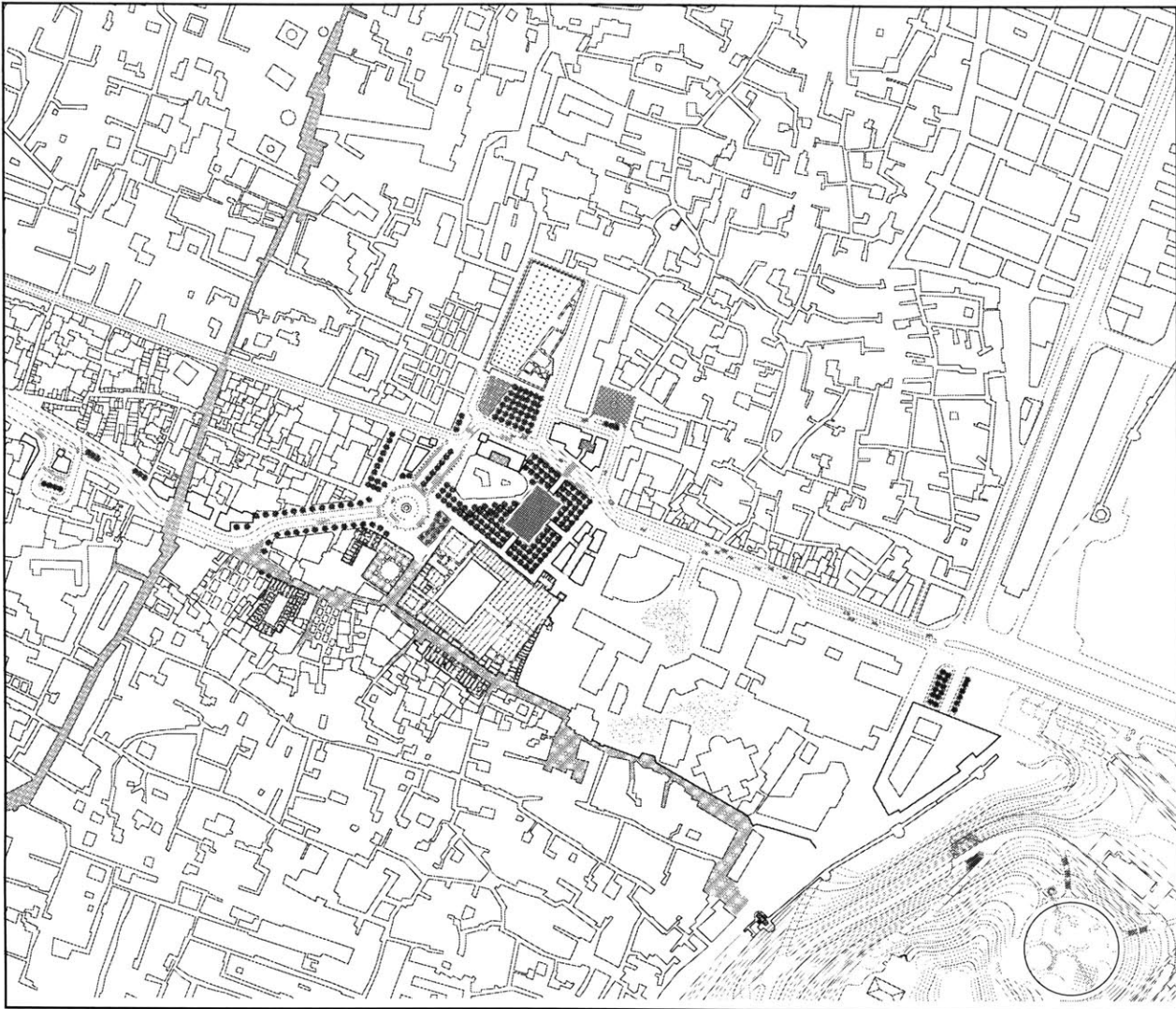


Fig 27. The above plan show the north-south pedestrian spine with the east and west transportation loops. Also indicated is the pedestrian spine behind the al-Azhar Mosque linking to the Aga Khan Park. (Image generated from proposal boards).

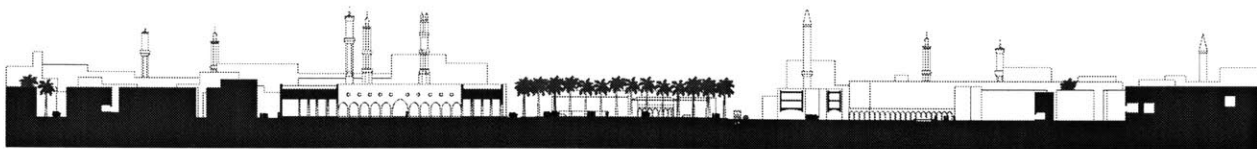


Fig 28. Site section through the al-Azhar Plaza.

Site Plan



Fig 29. Plan

Detail Plan

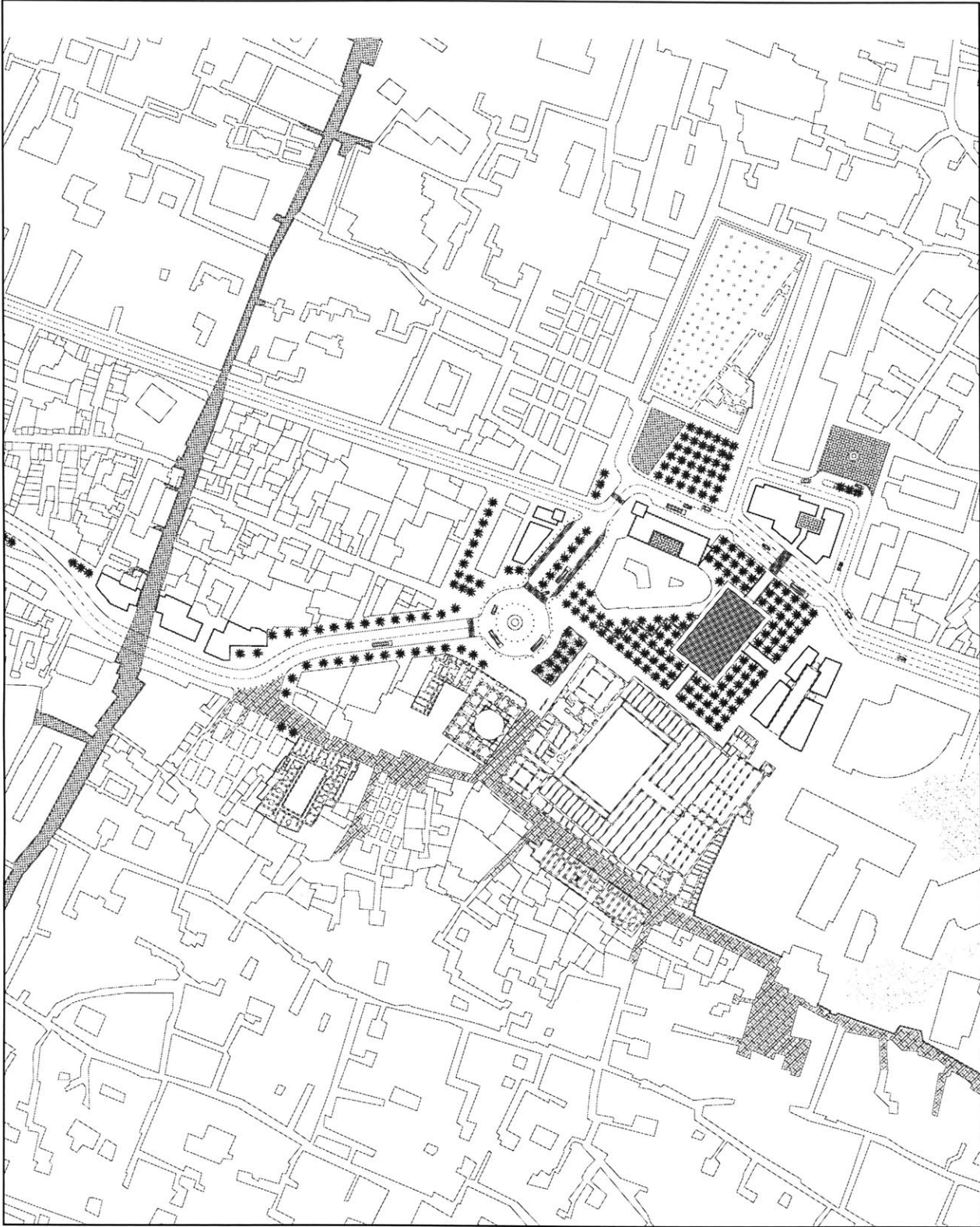
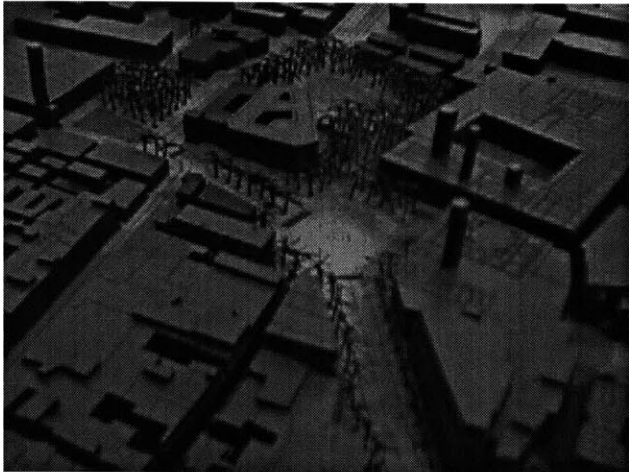
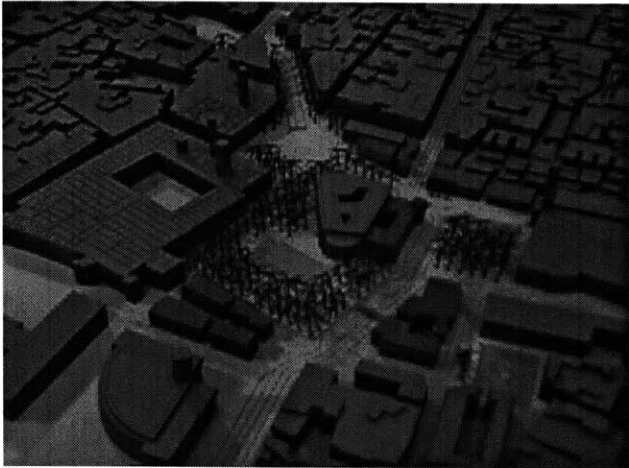


Fig 30. Detail Plan.

Model Images



Fig 31, 32 & 33. Model Images. Top: areal view showing the crossing of al-Azhar and al-Mu'izz Streets and the reconfigured site between the al-Azhar and al-Hussein Mosques. Right: birds eye views of the site looking from the east and west.



6.0 Conclusion

The transformations taking place in al-Qahira today offer the opportunity to enhance the physical environment of Cairo's historic quarter while addressing the needs and interests of the various constituents operating in the community. The future of al-Azhar Streets poses not just questions of urban design and building massing, but also the challenge of addressing the needs and prospects of the existing residents as well as future constituents to the area. The proposed physical design for the future of al-Azhar Street addresses physical planning issues of urban massing and circulation within the city, while also taking into account the needs of the various constituents of al-Qahira in an effort to enhance the social and economic fabric of the historic core.



Fig 30. Al-Qahira, 1999.

In contrast to proposals that pose in-filling the al-Azhar right-of-way in an attempt recreate the historic street alignments, or that pose completely closing the thorough fare to vehicular access and maintaining it as a pedestrian way, this analysis and solution offers as way of accommodating the various interest groups outlined earlier while enhancing the physical environment. By maintaining vehicular access into the historic city core, addressing the transportation needs of the existing residents and commercial establishments, the social and economic fabric of the city will be maintained. Second, by pedestrianizing the historic urban paths and conditions, namely along al-Mu'izz Street, the agenda's of the Ministry of Tourism and the Ministry of Culture are addressed.

The west vehicle loop or pocket allows public transportation, service and private vehicles to circulate along the western leg of al-Azhar Street. This strategy provides for vehicle access to the high concentration of manufacturing, retail and wholesale outlets in the area as well as the public transportation needs of the areas residents. Moreover, the eastern circulation loop allows public transportation as well as tourist vehicles to circulate along the eastern leg of al-Azhar Street. This circulation loop allows for an additional public transportation node in the area (currently there is only one) as well as a turn around for tourist busses, and service vehicles going the Khan el-Khalili and Muskie areas.

The circulation loops to the east and west of al-Mu'izz Street provide for vehicle access into the area while minimizing vehicle crossing through the historic core. Freeing the historic corridor from through traffic will allow for greater pedestrian mobility allowing, tourists and residents alike to circulate more freely in the area. Given that, the highest

concentration of monuments in al-Qahira is along al-Mu'izz Street, freeing the area of traffic is a means of promoting tourism in the area. If implemented correctly, it could generate capitol for the preservation of the areas historic structures as well as for the community.

Furthermore, the planning for the open space between the al-Hussein and al-Azhar Mosque addresses the needs of the community as well as visitors to the area by providing open space for various activities as well as providing for pedestrian circulation across the divide once created by al-Azhar Street. The forecourt in front of the al-Azhar Mosque will serve as a congregation space for tourists during the day and Public Square in the evening. This plaza provides an appropriate forecourt for the al-Azhar Mosque and University beyond as well as providing a place were local vendors or artisans could display their wares on pushcarts or moveable stalls.

The plaza in front of the al-Hussein Mosque provides an open space in front of the bazaar's entrance for tourists and residents alike, as well as provides a plaza for Friday prayer, which currently takes place in the public transportation rotary along al-Azhar Street. Furthermore, this site is adjacent to several cafes and restaurants that currently use the street as a venue. The al-Azhar Plaza will serve as additional area for their operations.

The third square to the west of the new Cairo Museum serves as an open space in front of the al-Dhahab Mosque. This site will serve as a plaza adjacent to existing cafes and a tourist bank, as well as a turn-around for tourist busses and taxis. As traffic will not be speeding through the area, this squares design will accommodate pedestrians as well as vehicles turning around.

Through these physical interventions, the intention is to enhance pedestrian mobility as well as maintain vehicular circulation within the historic quarter of Cairo. This design will help maintain the viability of the community's economic and commercial establishments, also allowing visitors and tourists to experience the city. Thus, the proposed changes will satisfy the needs of the existing community as well as the new constituents that will depend on tourism.

If this physical infrastructure is implanted in conjunction with policies and urban management systems that invest a portion of the capitol generated by tourism and the local economy back into the community, the economic agendas of the Ministry of Tourism, the Ministry of Economic and the existing community could be aligned. For this reason, the changes made to Al-Azhar Street will not solve the multitude of problems in al-Qahira alone. This analysis and proposal should be viewed in conjunction with others, such as the *Conservation Planning in the Aslam Mosque Neighborhood* by the Aga Khan Trust for Culture¹ which addresses neighborhood revitalization, and the *Rehabilitation of Historic Cairo* proposal by the UNDP and Supreme Council for Antiquities² which addresses the conserva-

tion of the monuments of the historic core. Its interesting to note that neither proposal addressed the evolution or future transformation of al-Azhar Street, other than alluding to the notion that modifications needed to me made.

It was not until the al-Azhar tunnel project was well underway that the future of al-Azhar Street was questioned. Today, the future of this right-of-way is bogged down in litigation and in debate over ownership and jurisdiction between the various ministries and organizations with an agenda in the area. However, what I hope to show that through a planning process that analyzes the interests of the various constituents, and a physical planning scheme that addresses those needs, most if not all interest groups could be accommodated in the area.

Notes:

- ¹ Aga Khan Trust for Culture. *Conservation Planning in the Aslam Mosque Neighborhood*, Geneva Switzerland: 1999.
- ² United Nations Development Program & Supreme Council of Antiquities. *Rehabilitation of Historic Cairo*. Technical Cooperation Office: Dec 1997.

Unless otherwise noted, graphs are by the author.

7.0 Bibliography, References

- Abu Lughd, Janit. *Cairo: 1001 Years of the City Victorious*. Princeton, New Jersey: Princeton University Press, 1971.
- Abdelhalim I. Abdelhalim, "Transformations in Architecture and Urbanism: Public Projects and Private Initiatives," Cairo: The History and The Heritage. *Aga Khan Report*.
- Aga Khan Cultural Services-Egypt*. Conservation Planning In The Aslam Mosque Neighborhood No. 2. Geneva, Switzerland: *Aga Khan Trust For Culture*, 1999.
- Ambrose, James ed. *Site Details From Architectural Graphic Standards*. USA: John Wiley & Sons, Inc., 1992.
- Antoniou, Jim. *Historic Cairo: A Walk Through the Islamic City*. Cairo, Egypt: American University in Cairo Press, 1998.
- Antoniou, Jim, Stephano Bianca, Sherif El-Hakim, Ronald Lewcock, and Michael Welbank. *The Conservation Of The Old City Of Cairo*. London: UNESCO, 1980.
- Aronson, Shlomo. *Making Peace With The Land: Designing Israel's Landscape*. Washington, DC: Spacemaker Press, 1998.
- Bianca, Stefano, "Designing Compatibility Between New Projects And The Local Urban Tradition," in *Designing In Islamic Cultures 4*. Cambridge, Massachusetts: MIT, 1984.
- Berque, Jacques. *Egypt Imperialism & Revolution*. Translated by Jean Stewart. New York: Praeger Publishers, 1972.
- El-Aref, Nevine, "Refurbishing The City Victorious," *Al-Ahram Weekly, Cairo, Egypt*. Issue 394, Date: 10-16 September, 1998.
- El-Aref, Nevine, "Refurbishing the Fatimids," *Al-Ahram Weekly, Cairo, Egypt*. Issue 411, Date 7-13 January 1999.
- Grabar, Oleg, "Cairo: The Meaning Of History," Cairo: The History and The Heritage. *Aga Khan Report*.
- Jacobs, Allan B. *Great Streets*. Cambridge, Massachusetts: MIT Press, 1993.
- Kiley, Dan. *The Complete Works of America's Master Landscape Architect*. Boston: A Bulfinch Press Book, 1999.
- Kostof, Spiro. *The City Assembled: The Elements of Urban Form Through History*. Boston, Massachusetts: Little Brown., 1992.
- Lynch, Kevin. *City Sense and City Design*. Edited by Tridib Banerjee and Michael Southworth. Cambridge, Massachusetts: The MIT Press, 1996.
- Lynch, Kevin. *Good City Form*. Cambridge, Massachusetts: MIT Press, 1981.
- Lynch, Kevin. *What Time Is This Place*. Cambridge, Massachusetts: MIT Press, 1972.
- Mekay, Emad, "Old Cairo works to save History without disrupting the present," Reuters News Services: 1998.

Mubarak reviews Fatimid Cairo Development Plan, Approves 2 Tunnels for Azhar Street. *The Egyptian State Information Services*, 18 March 1998. Web publication. [Http://www.sis.gov.eg/online/html/o180398.htm](http://www.sis.gov.eg/online/html/o180398.htm)

Morris, A. E. J. *History of Urban Form*. London, UK: George Godwin Ltd., 1972.

"Past Glory, New Life," *Al-Ahram Weekly, Cairo, Egypt*. Issue 420, Date 11-17 March 1999.

Saad El-Din, Morsi ed. *Cairo: The Site And The History*. Baton Rouge, Louisiana: Louisiana State Press, 1988.

Schemm, Paul, "Fatimid Cairo Project Gathers Speed – Despite Criticism," *Middle East Times – Web publication*. [Http://metimes.com/issues99-7/commu/fatimid_cairo_project.htm](http://metimes.com/issues99-7/commu/fatimid_cairo_project.htm)

Shadid, Anthony, "Egypt Picks Monuments, and Money over the masses Homes and bazaars being razed to restore nation's glory and draw Tourists," *The Milwaukee Journal Sentinel*, 07/05/1998. Pg. 8.

Shadid, Anthony, "Thousands Face Eviction in Egypt," AP-Online. *Associated Press* 06/30/1998.

Shahine, Gihan, "Tunneling Under The Fatimids," *Al-Ahram Weekly, Cairo, Egypt*. Issue 406, Date 3-9 December 1998.

Shahine, Gihan, "Quest for Traffic Cures," *Al-Ahram Weekly, Cairo, Egypt*. Issue 416, Date 11-17 February 1999.

Shahine, Gihan, "Getting to grips with gridlock," *Al-Ahram Weekly, Cairo, Egypt*. Issue 412, Date 14-20 January 1998.

Sitte, Camillo. *The Birth of Modern City Planning*. New York, NY: Rizzoli International Publications, Inc., 1986.

Devon County Council Engineering and Planning, *Traffic Calming Guidelines*. Great Britain: Devon County Council, 1991.

United Nations Development Program - Supreme Council for Antiquities. *Final Report: Rehabilitation of Historic Cairo*. Technical Cooperation Office, December 1997.

Vatikiotis, P. J. *The History of Modern Egypt from Muhammad Ali to Mubarak*. Baltimore, Maryland; The Johns Hopkins University Press, 1991.

Unless otherwise noted, graphics are by the author.
