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To the Graduate Council:

I am submitting herewith a thesis written by Sumaya El-Attar entitled "Islamic institute." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Architecture, with a major in Architecture.

George Dodds, Major Professor

We have read this thesis and recommend its acceptance:

Adam Drisin, Christina Betanzos

Accepted for the Council:


Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

To the Graduate Council:

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George Dods, Major Professor



We have read this thesis
And recommend its acceptance

Cheryl Piant

Accepted for the Council:



Interim Vice Provost and
Dean of The Graduate School

Islamic Institute

A Thesis
Presented for the
Master of Architecture
Degree
The University of Tennessee, Knoxville

Sumaya El-Attar
August 2001

Saying what unites us is a way of joining in the fight against fundamentalism and other threats to peace among people and nations...today we know culture, and cultures, to be the great protagonist of history.

We are one world: that is both our opportunity and our challenge."

Christina Narbona
Secretary of State
For Environment
And Housing
Spain

Dedicated to
My parents,
Sanabel El-Hakeem
and
Dr. Mohamed El-Attar

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ABSTRACT

Architecture renews and affirms culture. This thesis investigation involves conceiving an architecture that celebrates the juxtaposition and congruencies of two different cultures, the American culture and the Islamic culture. This simultaneous expression via architecture must directly reify the traditions of each culture.

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LIST OF TERMS

ISLAMIC AND ORIENTAL TERMS

Caravanserai – fortified hostel

Diwan-iam – public audience hall

Durka – the square, depressed central space under a clerestory in the reception hall of a medieval Cairo house.

Hadith- traditions, sayings and accounts of the Prophet

Hamam – public bath

Haram – an area set apart

Hosh – inner court of an Egyptian house

Faradis – a walled garden

Iwan – an open vaulted hall or portal, a paradise symbol

Khutba – Friday prayer spoken from the minbar

Madrasa – theological college or law school

Maqsura – screened enclosure generally of wood in the center of the quibla wall

Mashrabiya – screens made up of small pieces of Egyptian turned wood.

Maydan – open square or plaza

Mihrab - prayer niche located on the quibla wall whose sole function is to indicate the direction of mecca

Minaret – tower from which the call to prayer is made. The term as well as the form may have been derived from a lighthouse.

Minbar – a seat or pulpit, first used in Medina by Huhammad himself, which came to be installed to the right of the Mihrab in all Friday mosques for the reading of the Khutba.

Muqarnas – stalactite sections which form a vault, niche or frieze

Pishtaḡ – a lofty screen framing an arch, or a portal

Quibla – direction of prayer

Riwaḡs – portico or cloister arranged around a courtyard

Sabil – a public fountain

Sahn – interior courtyard of a mosque

Ziyada – the outer enclosure of a mosque, probably an Abbasid innovation which reappears in certain of the imperial Ottoman foundations.

(Hoag 405)

ENGLISH ARCHITECTURAL TERMS

Arcuate – form of structure based on the arch

Battered – inward sloping

Chevron – v-shaped

Corbel – a bracket, projecting stone, or series of projecting stones

Drum – a circular wall supporting a dome

Foil – a leaf shaped curve

Exedra – a semi-circular recess, niche or apse

Hypostyle hall – hall of columns

Impost – a block of stone usually with angled sides placed on top of a column under the capital

Labrequin arch – an arch with a soffit lined with pendants or murqarnas

Loggia – an open gallery or balcony

Lozenge – diamond-shaped pattern

Oculus – circular window or opening

Pendentive – a curved triangular section which fits a dome to a square bay

Pier – square sectioned column or solid masonry support

Soffit – the underside of an arch

Spandrel – the triangular space formed by the springing of the arches

Squinch – a triangular arch or niche placed diagonally or in corners in order to fit a dome or polygon to a square bay

Trabeate – form of structure based on the column and beam

Voussouirs – wedge-shaped stones which lock together to form an arch
(Yeomans 229)

CHAPTER I: CULTURAL DIVERSITY

INTRODUCTION: BRINGING CULTURES TOGETHER THROUGH ARCHITECTURE

T.S. Eliot writes "It is only by an overlapping and sharing of interests, by participation and mutual appreciation, that the cohesion necessary for culture can be obtained" (96). Differences and commonalities affect the whole society and keep culture dynamic.

The culture of America influences and absorbs a multitude of cultures, including the growing and prevalent Islamic culture. While the Islamic culture does contribute to the diversity of the American culture, the traditional immigrants remain relatively contained and resistant to the influence of the Western culture. However, the progeny of these immigrants are in the middle of a 'tug of war' between the lures of the diversity present in the Western culture of America and the tradition and unity of thought in the Islamic culture. The cultural diversity of America is the result of different unifying ideas and culture. As with many different cultures in America, the culture of Islam is often diluted, thus loses its traditional values.

The preservation of heritage is important to the traditional Muslims while diversity and choice is important to the Western culture of America. This paradox is central to the definition of Islamic culture in America. For this reason, the vehicle for the thesis exploration is an Islamic Institute. The goal of the institute is to preserve and represent the Islamic identity and contributes to the diversity of the Western culture by educating people who are interested in learning about the

history, customs, and culture of Islam. It will be a place of exhibition for Islamic art and artifacts, as well as a refuge for Muslim immigrants and the American born children of Muslim immigrants.

The Islamic Institute, located within a dynamic Western culture, will contribute to the synergy both peoples will experience when visiting. Differences and similarities will be celebrated by unifying both cultures through an overlapping of mutual interest using event and architecture. Events of music, art, drama, and poetry will attract people and architecture collects the people. Elucidating and celebrating the reciprocity and similarities between the culture, customs and architecture of both Islam and America is vital to meeting the needs of both cultures within the public and private realm of the Islamic Institute.

The juxtaposition of the diversity and commonalties between the Islamic and American cultures will be expressed in the design of the Institute. Via education, a common ground between the cultures can be found, as well as a positive, knowledge- based celebration of differences. Some of the major categories to consider between the Islamic and American cultures include the social structure, customs, religious practices, and design/architecture.

Social Structure

Family is important to both cultures; however, the quality and dynamics of the family structure is different within each culture. The American needs to feel independent. Usually, the family of the Western American culture revolves around the nuclear family; the extended family is often secondary in importance.

Opportunities of work and school are valued more than remaining in close proximity to the extended family. The elderly tend to live by themselves or in a home for senior citizens unless the matriarch of the household is willing to care for an aging parent. In most nuclear families both parents work, and place the children in school or daycare, leaving only the evenings for family interaction. In many cases there is only a single parent raising the children, which is the manifestation of breakdown in the traditional family structure.

The extended families of the traditional and agrarian (*baladi*) Islamic culture still live within a villa or in close proximity to one other. The group is valued more than the individual and work arrangements in the home are sex-segregated. In many cases, the grandparents live on the ground floor, and the parents and their children live on the levels above. The elderly remain in the family home and are cared for by the family. In most cases, the mother remains at home while children go to school. Andrea B. Rugh says, "The family archetype permeates upward and outward even into the larger, more embracing institutions of the society, personalizing them in a way that is rarely found in the West" (Rugh 44). Unlike the democracy of the American household, there is no affinity between roles within the family structure of the Islamic culture (45). The authoritarian leader is the father figure, and everyone respects his place and his word in the hierarchy.

The similarity of both cultures is that they are dynamic and changing as a result of their contemporary societies. The role of women is slowly changing in

the Islamic culture because more women are ambitious for education and professionalism. As in America, an increase in both parents is changing the family structure of Islamic cultures as has happened with America. Islamic nations tend to be third world countries; so many people are becoming ambitious about their education and are leaving home to attend universities. For this reason the nuclear family is threatening the traditional Islamic family structure as it has in the American household.

Customs

Customs are the conventional methods common to many people within a particular culture. The American culture has a diversity of customs; however, the conventional practice of living in this culture revolves around time and image. Americans are very time conscious about every aspect of their lives. Within a month, buildings are constructed to accommodate the suburbanite's immediate need for snacks, beer, and gas. Technology and the fast-paced way of living have facilitated the growth of mass-production of fast-food restaurants and generic malls with the latest trendy fashions that shape and reveal. In this material society, items such as clothes, cars, and houses are used by people to express and differentiate themselves and categorize each other.

The Islamic way of life is a little more unhurried. The fast food restaurant is not part of the custom. The day is started early with prayer but there are frequent breaks in the middle of the day. Men linger in cafes on the street. Food takes longer to prepare and most meals are eaten at home with family.

The customs are tied into the culture and the religion of Islam. Because of Islamic law, Muslim men and women tend to dress in clothes that shroud the body. After they marry many *baladi* women sometimes cover themselves in black *abiyas*. Festive, colorful clothing may be worn on special occasions, such as weddings and similar celebrations but usually the clothing is modest (*figures 1.1-1.3*). There is a difference in the dress code of the lower class and the middle class. The lower class tends to adhere to the traditional way of dress “because it is customary”, while the middle class “chooses Islamic dress from motives that are more self-consciously pious” (Rugh 160)

Islam is a way of life and like clothing, religion influences the way food is prepared and eaten. “Eat what pleases you; wear what pleases other people” is an Islamic proverb that summarizes human nature (Rugh 1).

From culture to culture human nature remains the same. Like the American culture there is a desire for Muslims to be accepted within Islamic societies. The appearances of a virtuous ideal are important in the Islamic culture and people will go to a great extent to hide any “moral” imperfections.

Spiritual practices

Rituals of religion in the American culture are diverse and private. The primary religion is Christianity. On Sunday, there are no calls for prayer over a loud speaker, and most people dress semi-formally for this social event which lasts no more than two hours one to two days a week. Within the church



Figure 1.1: Customary way of dressing in the Islamic culture.
Source: Joey Bowers

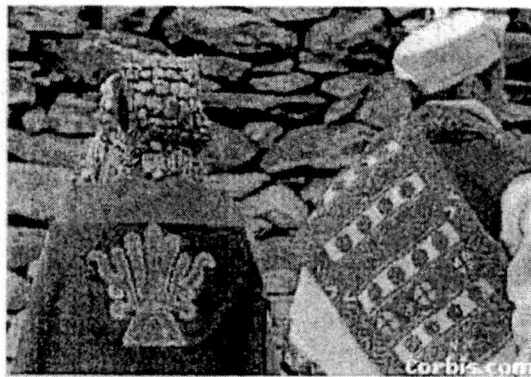


Figure 1.2: Traditional Islamic wedding garments.
Source: Internet



Figure 1.3: Islamic wedding with characteristics from Western weddings.
Source: Author



Figure 1.4: Traditional western wedding
Source: Author

environment, there is iconography on the windows, walls, and furniture. This gathering provides a sense of belonging people of the community.

In the Islamic culture the individual fulfills the ritual of prayer five times a day. Friday is the Sabbath day that Muslims congregate in a simple fashion and pray with the women segregated from the men. However, there are restrictions for prayer placed on the individual. Certain rituals, such as *wahdoua* (cleansing) must precede every time of prayer with few exceptions, and everyone must face *Quibla* (northeast direction). There are no graven images surrounding the worship space of Islam because the focus is on the spirit of God.

Rituals are generally important to all cultures. The Islamic and Western cultures both have rituals that are specific to their own culture. Some that overlap such as weddings, holidays, and celebrations.

Design

Cultures use space uniquely from one another. The spatial and architectural needs of American culture are different from the Islamic culture. Americans use open spaces rather than the compartmentalized spaces of the Islamic culture. As with the idolatry in religion, the American city represents an ideal (Baudrillard 56). Spaces in and around buildings are large and open. In new cities materiality becomes homogeneous. Baudrillard says, "The glass facades merely reflect the environment, sending back its own image. This makes them much more formidable than any wall of stone." The spatial quality of the American home and office tend to be commodious which allows for the

desired personal space and flexibility. Homes in the United States have gained the nickname "McMansion" because of their size and the mass-produced quality of construction that has become a part of suburbia and the current trend of America (N.P.R.).

The Islamic people do not use as much space as the American culture. Every function has its own space. The spatial qualities of traditional Islamic architecture tend to be centralized and focus on the enclosed interior space rather than the facade. Some streets, such as Khan-al-Khalili even have an interior quality (figures 1.5 – 1.8). Traditionally, walls, arcades, and vaults defined interior spaces. Screens called mushribya were used on the windows in the past for two reasons: to cool the interior, and simultaneously allowing women to look outside without being seen.

Conclusion

The adjustment of the Muslim minority group into the dominant American culture involves an entire way of life. The difference between the two groups has the potential to be isolating for the Muslim group. "One of man's most critical needs is for principles for designing spaces that will maintain a healthy interaction rate, a proper amount of involvement, and a continuing sense of ethnic identification" (Hall 157).

The concept of the Islamic Institute represents a symbol of bringing together the traditional and the contemporary, Islamic and American culture respectively. This Institute will represent the Islamic culture in a Western society

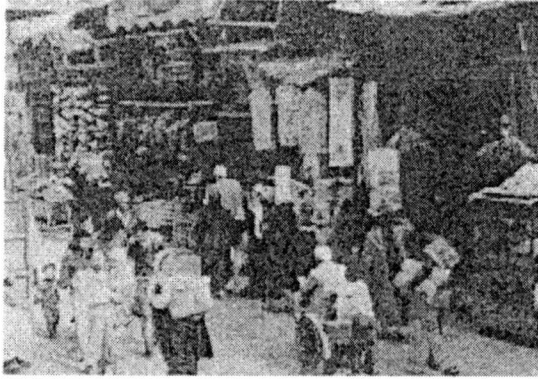


Figure 1.5: Street scene in traditional Islamic communities .

Source: Internet



Figure 1.6: Malls in America

Source: Internet

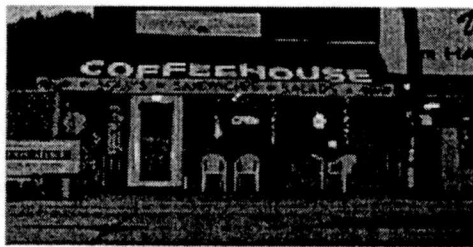


Figure 1.7: Coffee house in Portland.
Source: Internet

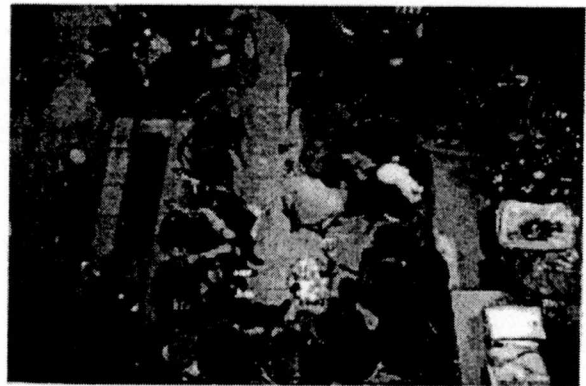


Figure 1.8: Cafe in Khan-al-Khalili

Source: Author

through its architecture by reinterpreting Islamic space, forms, texture, pattern, light, movement, and landscape in a contemporary architectural language. While the Islamic Institute will reflect the essence of the origins of Islamic architecture, it will also reverberate the transformation of Islam through history, place, and time.

The internal and external aspects of Islam and the Western culture will be formally manifested in the architecture of the Islamic Institute. Both of these qualities define the two fundamental roles of the Institute, which are to respond to different cultures by providing a place of retreat and reflection and informing one culture of the other.

CHAPTER II: THE PROGRAM - THE NATIONAL ISLAMIC INSTITUTE

GOALS OF THESIS: ARCHITECTURAL ISSUES TO BE INVESTIGATED

Programmatically, the Islamic Institute will provide spaces for activities that will involve a diversity of people. For example, Arabic, courses will be offered to anyone who is interested in expanding their knowledge of Semitic languages. Cooking, art, literature, dance, history, and music lessons will be offered to people of all backgrounds and ages. The following are other major programmatic elements that will contribute to the unity of the Institute.

Primary Goals/ Issues

- a. Cultivate an understanding of the Islamic World that would lead to cultural reciprocity.
- b. An investigation of the issues, which connect and distinguish Islamic and American cultures, will be researched so that the Islamic Institute can serve both cultures as well as mediate in development of Islamic-Western relations.
- c. Thresholds inherent to the site need to be considered to establish urban links and connections.
- d. Exploration of traditional and modern precedents of Islamic architecture will be critical so that a logical design evolution can continue with the design of the Islamic Institute.
- e. Islamic gardens will be used to spatially connect the Institute to the urban landscape.

- f. The continuation of the historical transformation of Islamic space, forms, texture, pattern, light, movement, and landscape in a contemporary architectural language will be explored.

Secondary Goals/Issues

- a. The design of a place of commonality for people of all ages and cultures will be implemented.
- b. Programmatic relationships of large gathering spaces to smaller semi-private spaces will be investigated.
- c. Without compromising traditions an identity for the Islamic Institute in a Western society will be established.

Major Programmatic Elements

▪ ***Gallery Space – (7000 sq. ft.)***

This will be one of the primary interior public spaces for temporary and permanent exhibitions from all over the world. There will be offices for the curators, a small gift shop, an information center, workshop, and storage located in this area.

| | |
|--------------------|------------------|
| curator offices | 2 @ 200 sq. ft. |
| gift shop | 1 @ 900 sq. ft. |
| information center | 1 @ 50 sq. ft. |
| entry vestibule | 1 @ 150 sq. ft. |
| restrooms | 2 @ 300 sq. ft. |
| exhibit space | 1 @ 5000 sq. ft. |

storage 1 @ 200 sq. ft.

- **Reception Hall – (514 sq. ft)** - This space should be visually inviting and should connect the entire facility. Visitors to the Institute should be able to clearly discern where all of the building facilities are located.

entry vestibule 1 @ 200 sq. ft.

reception desk 1 @ 50 sq. ft.

elevators 3 @ 64 sq. ft.

restrooms 4 @ 200 sq. ft.

- **Performance Hall - (17,600sq.ft)** This primary public space will seat 400 people for concerts and various performances.

performance Hall 1 @ 5000 sq. ft.

lobby 1000 sq. ft.

ticket office 1 @ 80 sq. ft.

projector rooms 1 @ 180 sq. ft.

concession stands 2 @ 200 sq. ft.

concession waiting 2 @ 150 sq. ft.

bathrooms 2 @ 350 sq. ft.

storage 1 @ 200 sq. ft.

- **Library – (3500 sq. ft.)** The library is another primary public space that will act as a resource and information center, which provides information of current interest and research.

| | |
|------------------|-----------------|
| Stacks | 1000 sq. ft. |
| reading room | 500 sq. ft. |
| librarian desk | 100 sq. ft. |
| librarian office | 300 sq. ft. |
| bathrooms | 2 @ 250 sq. ft. |

- **Classrooms– (2000 sq. ft.)** for courses in the Arabic language, kosher cooking, traditional dance, and music lessons will be offered for the general public.

classrooms

- **Children’s Workshop – (1350 sq. ft.)** This space will be adjacent to the library and will provide activities for children of all ages and cultures.

| | |
|----------------|-------------|
| Workshop space | 600 sq. ft. |
| Storage | 200 sq. ft. |
| Bathrooms | 350 sq. ft. |

- **Cafeteria – (5000 sq. ft.)** A centrally located cafeteria for employees and visitors will be designed with access to an exterior courtyard. A kitchen will

be located within the cafeteria for food preparation for the public and lodging guests. Restrooms will also be located adjacent to the cafeteria for accessibility for the elderly and children.

| | |
|------------------|------------------|
| entrance | 1 @ 100 sq. ft. |
| seating Area | 1 @ 3500 sq. ft. |
| kitchen | 1 @ 1200 sq. ft. |
| pantry | 1 @ 150 sq. ft. |
| cold Storage | 1 @ 150 sq. ft. |
| dry Storage | 1 @ 150 sq. ft. |
| public restrooms | 1 @ 200 sq. ft. |
| waste | 1 @ 100 sq. ft. |

- **Conference Center – (2300 sq. ft.)** An assembly hall, large conference rooms and smaller meeting rooms will be used by various organizations. Islamic conferences will also be held at the Islamic Institute to encourage Moslems and others from all over the world to participate. These conferences will attract enough people to stimulate the economy of the host culture.

| | |
|-----------------|------------------|
| Assembly hall | 1 @ 1500 sq. ft. |
| conference room | 1 @ 500 sq.ft. |
| Meeting rooms | 4 @ 300 sq. ft. |

- **Islamic Gardens - (2500 sq. ft.)** Using contemporary Islamic gardens and courtyards will engage the landscape of the Institute to the surrounding context and connect the host culture to the culture of the Institute. These gardens will define exterior public gathering spaces and interior spaces of meditation and solitude. Since a garden reflects harmony, this exterior space will physically connect the Institute to its context and will reflect the transformation of the traditional Islamic garden into a contemporary society. This can be done by using the element of water as continuity in space and time. It will be a space that everyone will utilize for traditional festivals during Islamic holidays such as Ramadan.

- **Informal Prayer Rooms - (1200 sq. ft.)** will be provided for Muslims who want to pray during the required times of the day. This space will be used only for those who need to pray and will include facilities for *wadouha*, the ritual cleansing before prayer and storage for personal belongings.

Prayer rooms 2 @ 600 sq. ft.

- **Lodging - (6000 sq. ft.)** This serves scholars in residence and consists of (10) apartments.

Living room 1 @ 250 sq. ft.

Kitchen 1 @ 100 sq. ft.

bathroom 1 @ 50 sq. ft.

bedroom 1 @ 150 sq. ft.

storage 1 @ 50 sq. ft.

- **Terrace (roof garden) – (3000 sq. ft.)** This roof garden will accommodate public and private use. It will be used for wedding receptions and other occasions.

- **Administration – (1550 sq. ft.)** This space will require offices a break area, and restrooms. It will serve the support staff of the entire institute.

director 1 @ 150 sq. ft.

general manager 1 @ 150 sq. ft.

business manager 1 @ 150 sq. ft.

public relations 2 @ 300 sq. ft.

accounting 2 @ 300 sq. ft.

administrative offices 3 @ 100 sq. ft.

break area 1 @ 300 sq. ft.

reception area 1 @ 100 sq. ft.

- **Parking** – This function will serve approximately 100 cars and will include parking for visitors and staff.

- **Building Services – (9775 sq. ft.)** These areas are non-public components of the buildings program and should be located in areas away from public

spaces. The mechanical room should be considerably distanced from the performance hall because of noise levels.

| | |
|----------------------|------------------|
| security office | 1 @ 160 sq. ft. |
| custodial facility | 1 @ 390 sq.ft. |
| communications room | 1 @ 1375 sq. ft. |
| electrical room | 1 @ 1375 sq. ft. |
| mechanical room | 1 @ 5000 sq. ft. |
| storage room | 1 @ 975 sq. ft. |
| waste room | 1 @ 400 sq. ft. |
| employee locker room | 2 @ 100 sq. ft. |

- **Delivery Bay – (2800 sq. ft.)** This is a private area, and should be accessible to the street for trucks. As this will serve as the main delivery bay for the performance hall area, there should be easy access from the receiving area to other facilities within the Institute.

| | |
|-----------------------------|------------------|
| truck bays | 4 @ 750 sq. ft. |
| receiving area | 1 @ 2000 sq. ft. |
| waste receptacles | 3 @ 50 sq. ft. |
| Total Square Footage | 66,089 |

CHAPTER III: THE SITE

CADMAN PLAZA, BROOKLYN, N.Y.

Discussion

The site is located on Cadman Plaza in Brooklyn. Brooklyn is on the western tip of Long Island with the East River running between it and Manhattan. The major landmark of the Brooklyn Bridge and the extension of the subway system connect Brooklyn to Manhattan Island (Weld, 4). This historical landmark expedited the growth and change of Brooklyn because it facilitated a way for poor immigrants from the East Side of Manhattan to come into the city of Brooklyn. For this reason the melding of a diversity of cultures, religions, and languages is characteristic of Brooklyn and makes it an American city of cultural diversity; hence, Ralph Foster Weld's book called, Brooklyn is America.

Since the middle of the seventeenth century, Brooklyn has been a city with a diverse community of people inhabiting its neighborhoods (Weld, 4). One such neighborhood is Brooklyn Heights. Brooklyn Heights has a large Jewish Community among other racial strains of middle-class America (Weld, 9). The Heights is a charming established neighborhood with the Promenade located on the east edge, Atlantic Avenue on the north side, and the Brooklyn Bridge on the south. The Promenade, which overlooks the skyscrapers of downtown Manhattan, terminates the streets from the artery of Central Ave, south of Atlantic Avenue. Cadman Plaza, the civic center, is the threshold between Brooklyn Heights and the "up and coming" community of 4th Avenue. The plaza is the

largest public space that gives a sense of arrival after crossing the Brooklyn Bridge from Manhattan.

The plaza is busy during the business hours of the week and moderately used on the weekend. However, the surrounding neighborhood of Brooklyn Heights draws locals, tourists, and many people from Manhattan. The Islamic Institute will be located in Cadman Plaza on the corner of Tillary and Cadman East. It will be beneficial in revitalizing this area during the weekdays and weekends. The Institute will attract a diversity of people from all ages and backgrounds not only because of the events and activities it will offer but because its architecture will represent the unity of the community of international Brooklyn (*figures 2.1-2.28*).

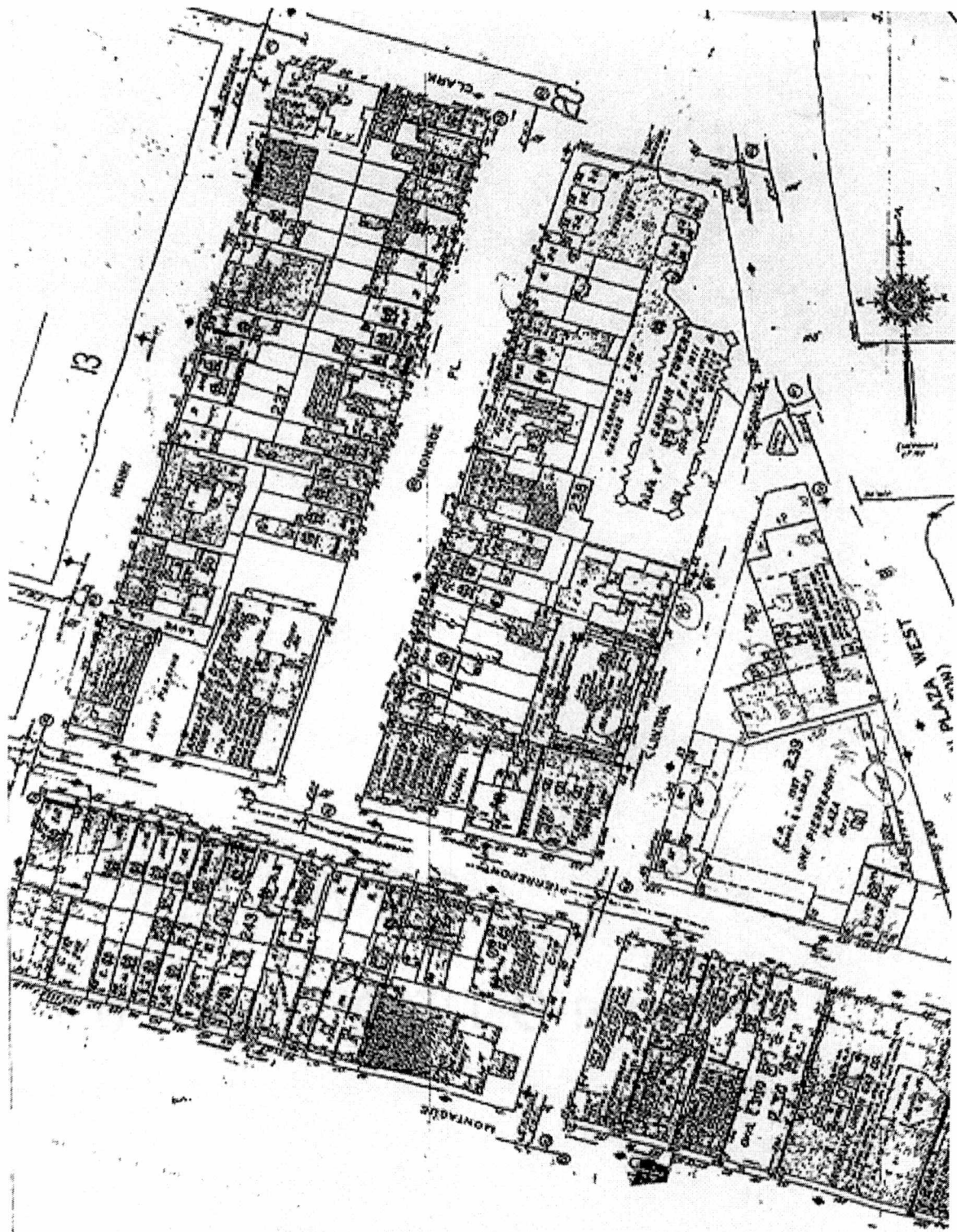


Figure 2.1: Sanborn Map East
Source: City of Brooklyn, N.Y.

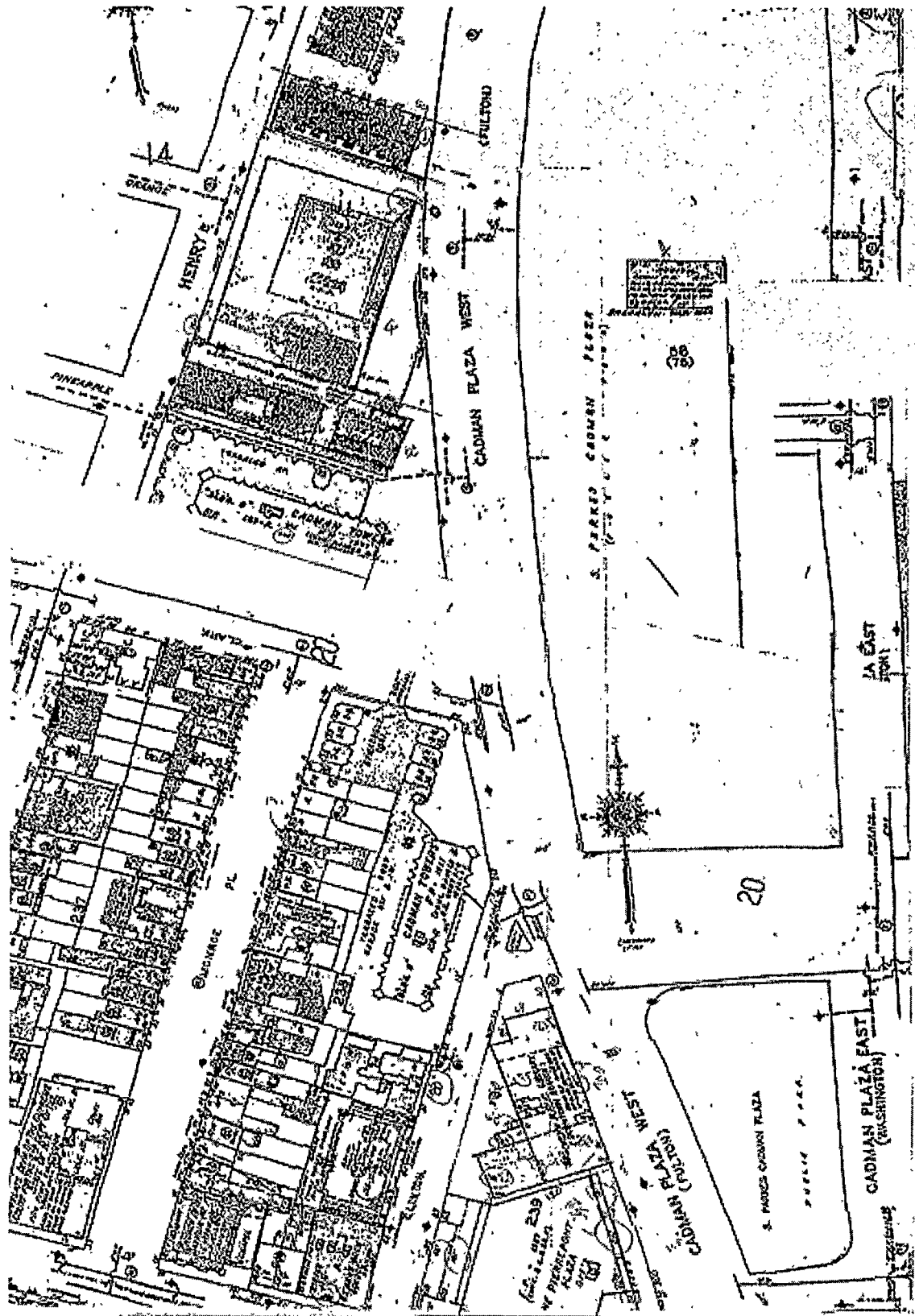


Figure 2.2: Sanborn Map West
Source: City of Brooklyn, N.Y.

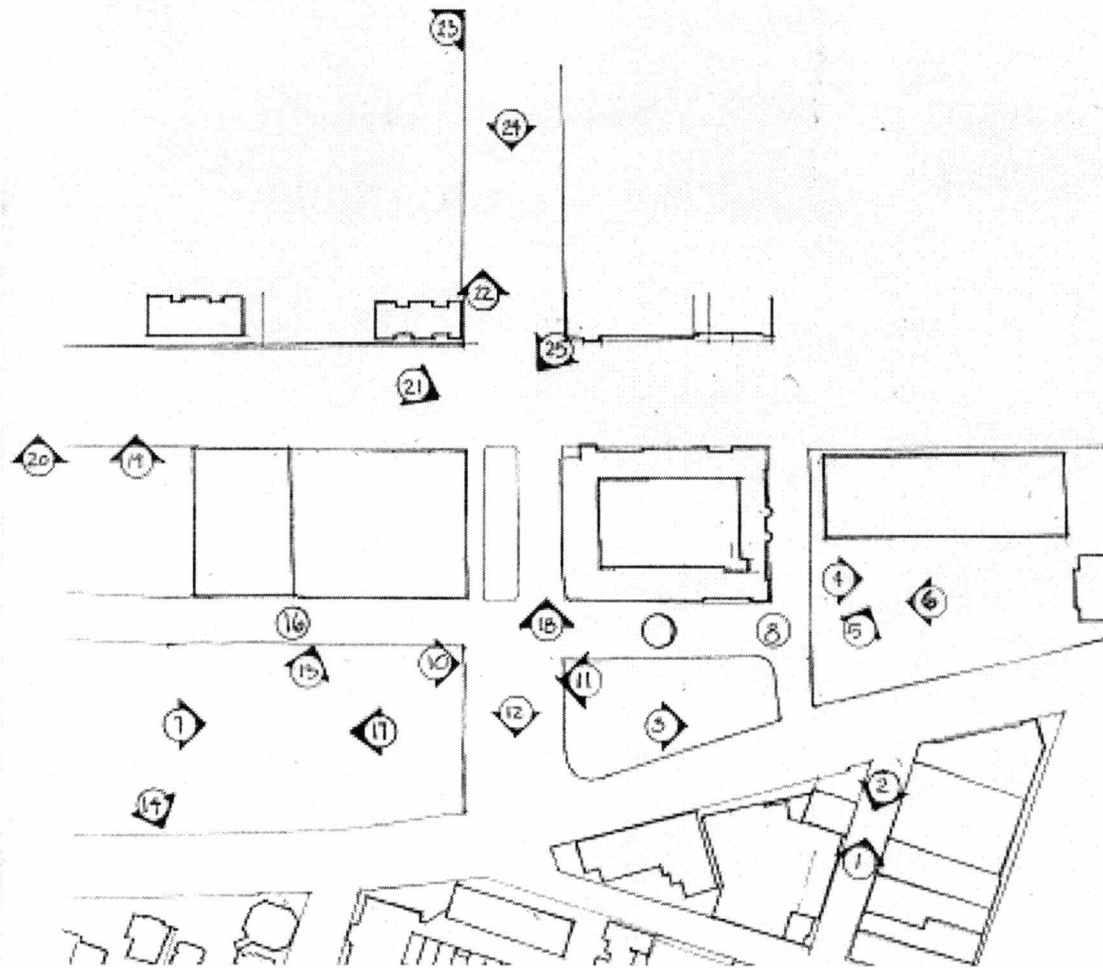


Figure 2.3: Labeled site plan of Cadman Plaza
Source: Author

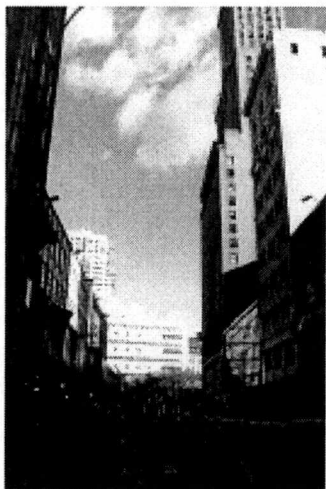


Figure 2.4: View towards Cadman Plaza from Montegut
Source: Author

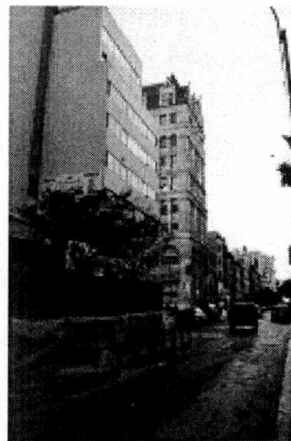


Figure 2.5: View from Cadman Plaza to Montegut
Source: Author

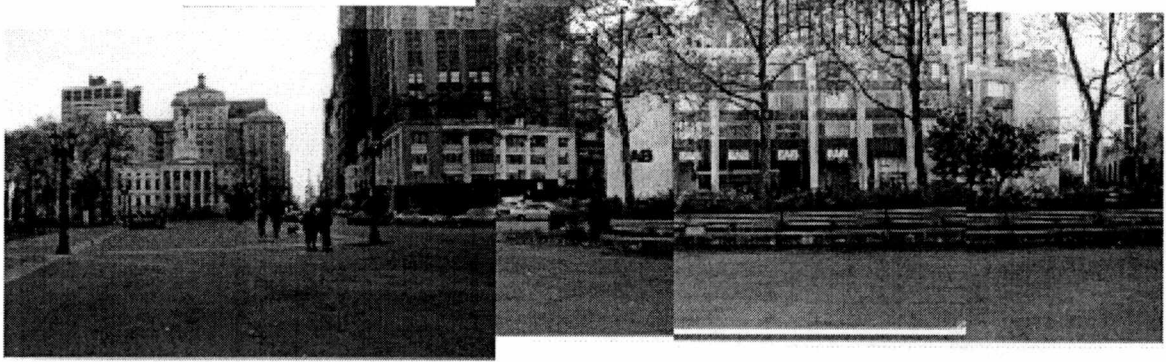


Figure 2.6: View looking toward Cadman South
Source: Author

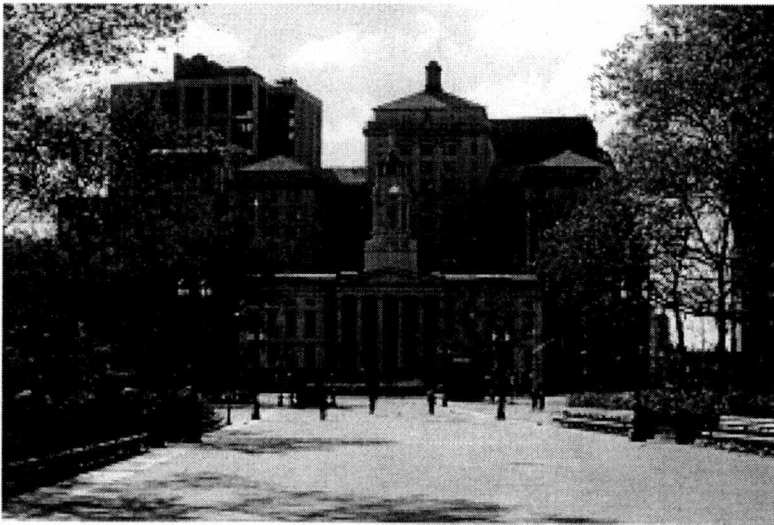


Figure 2.7: View looking toward City Hall
Source: Author

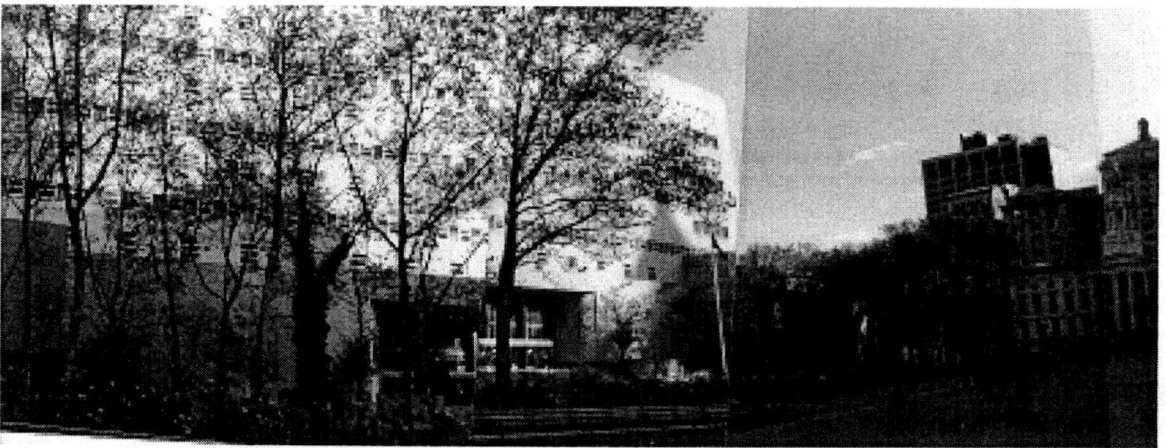


Figure 2.8: View looking toward Cadman East
Source: Author

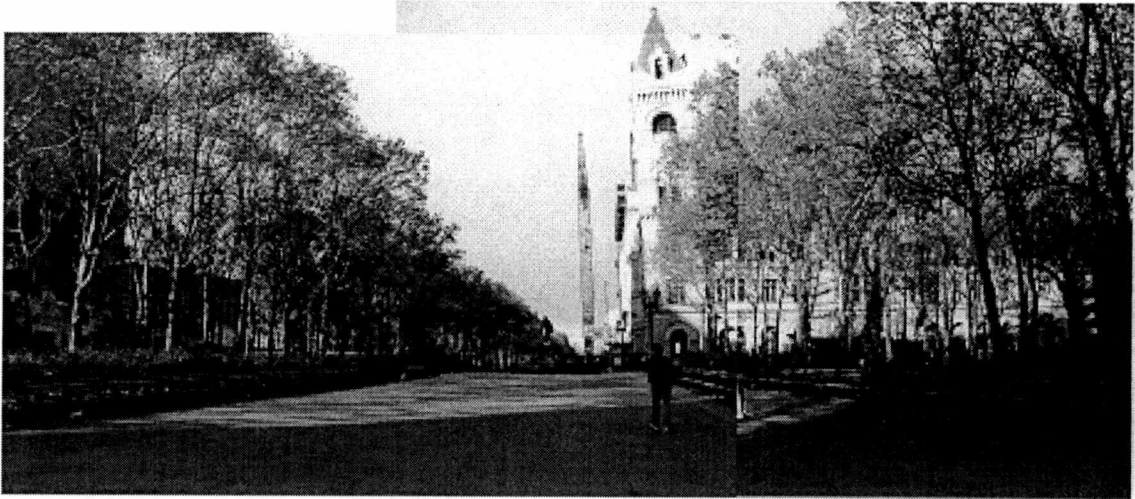


Figure 2.9: View looking toward Cadman North
Source: Author

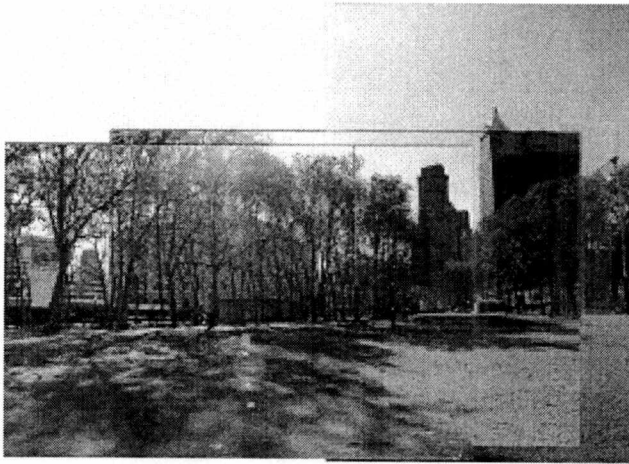


Figure 2.10: View looking toward Brooklyn Heights from park
Source: Author



Figure 2.11: View looking toward Columbus Park
Source: Author

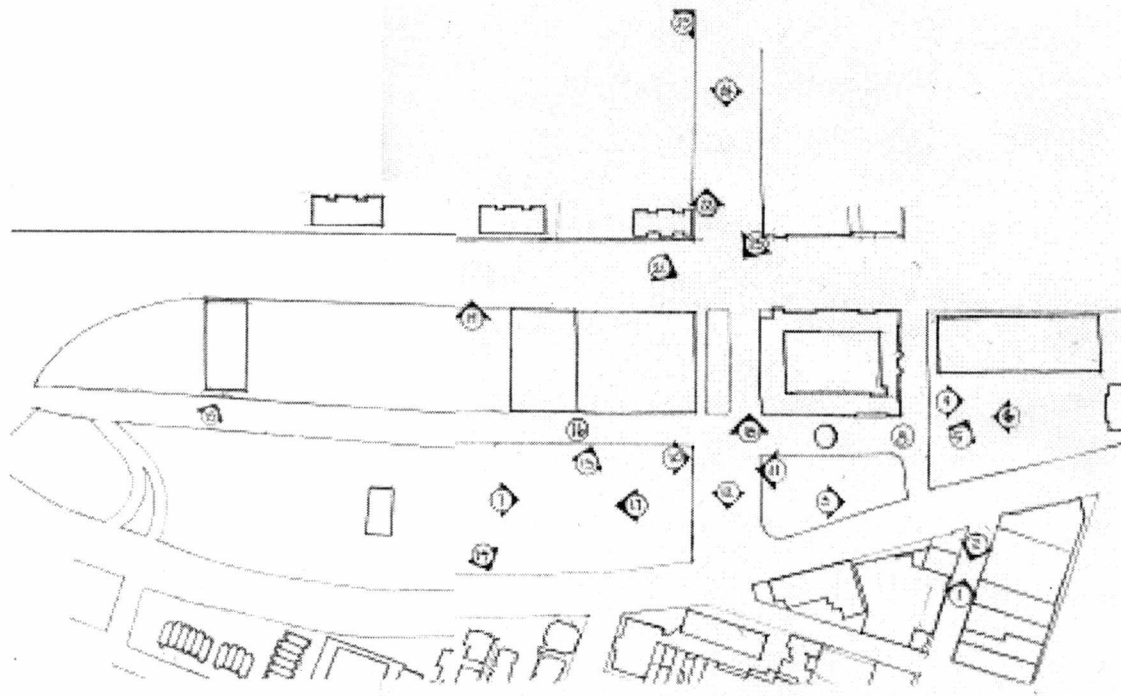


Figure 2.12: Labeled site plan II of Cadman Plaza
Source: Author

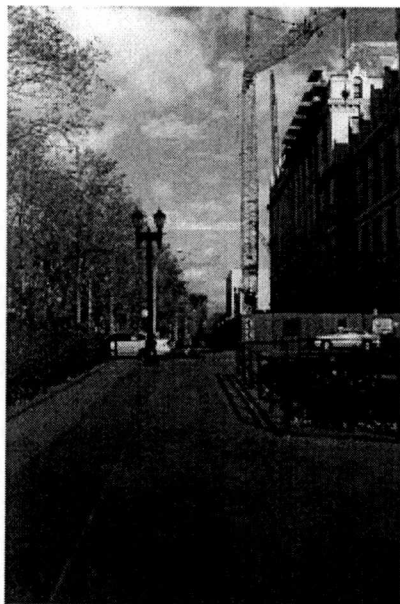


Figure 2.13: View looking north
 towards Post Office.
Source: Author

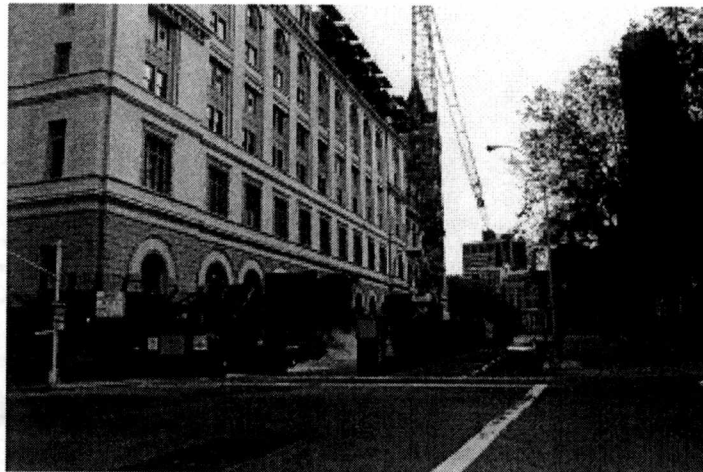


Figure 2.14: View looking south towards Post Office
Source: Author



Figure 2.15:
View looking towards site at Tillary Street
Source: Author



Figure 2.16:
View looking towards intersection
of Fulton Street and Tillary
Source: Author



Figure 2.17:
View looking towards site from
Cadman Plaza
Source: Author

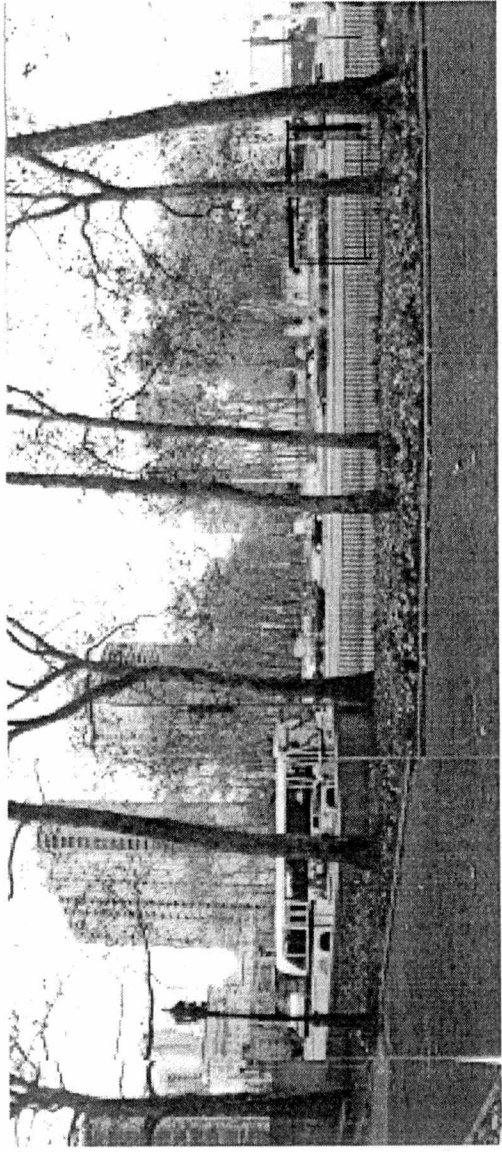


Figure 2.18: View of Fulton Street from Cadman Park
Source: Author

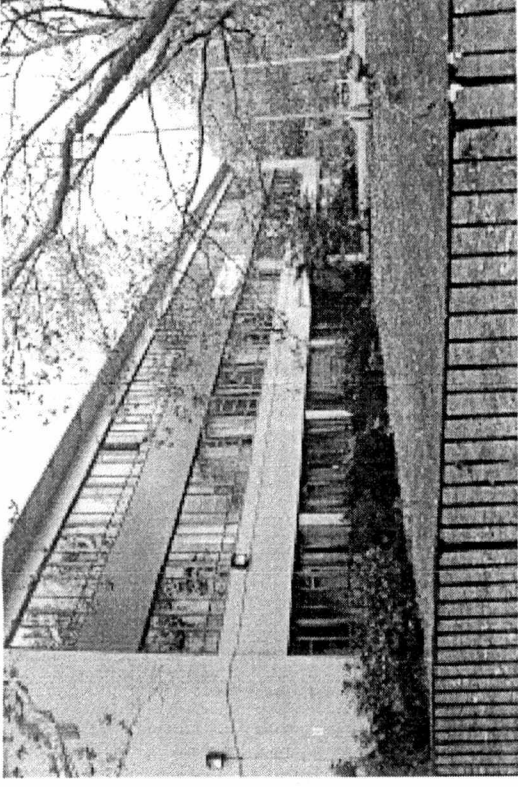


Figure 2.19: View of Red Cross
Source: Author

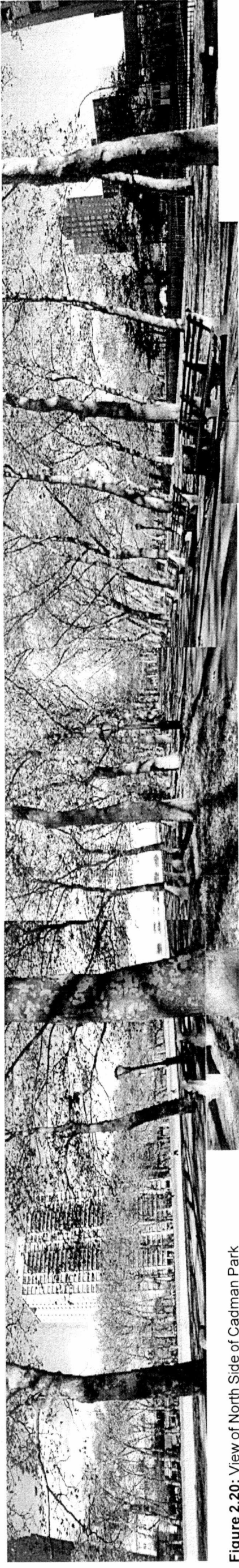


Figure 2.20: View of North Side of Cadman Park
Source: Author

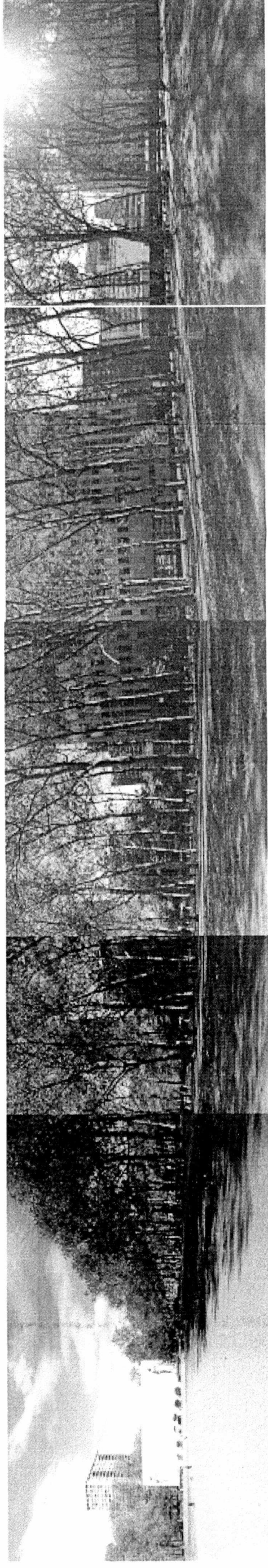


Figure 2.21: View of Cadman Park
Source: Author

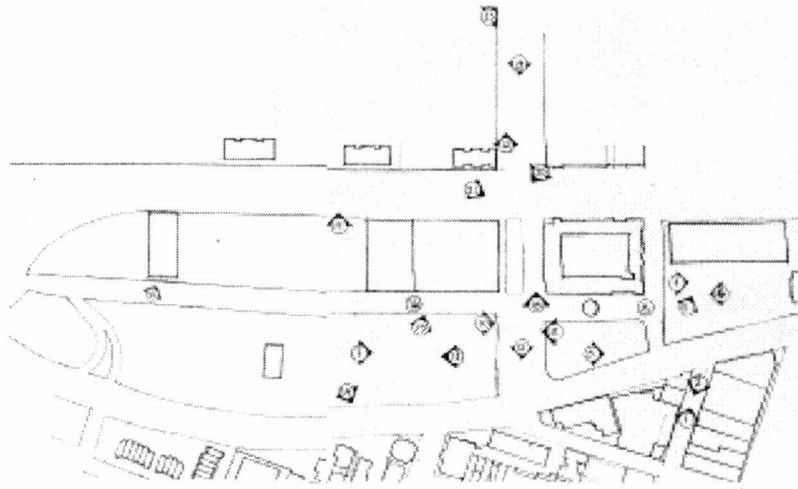


Figure 2.22: Labeled site plan III
Source: Author



Figure 2.23: View of Tillary Street East
Source: Author



Figure 2.24: View of Housing on Adams
Source: Author

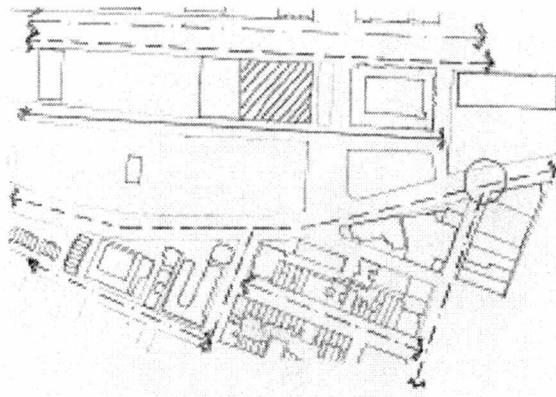


Figure 2.25: Preliminary usage diagram
Source: Author

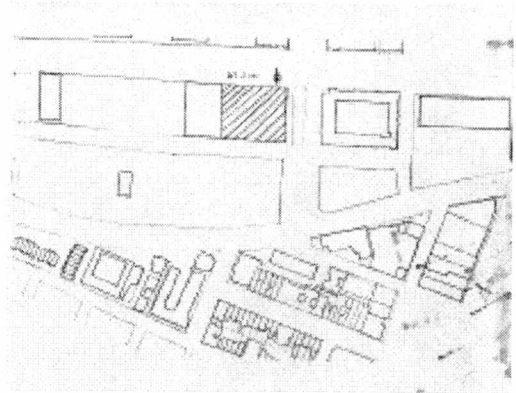


Figure 2.26: Square footage
Source: Author

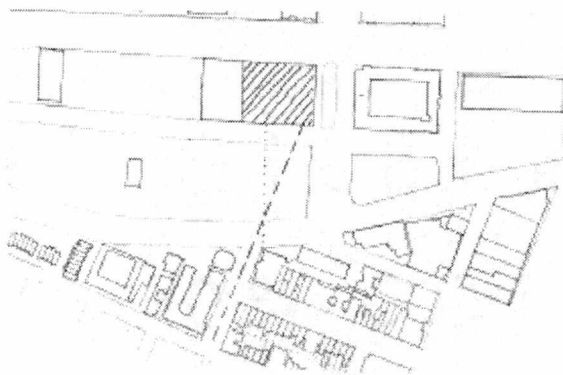


Figure 2.27: Preliminary site forces diagram
Source: Author

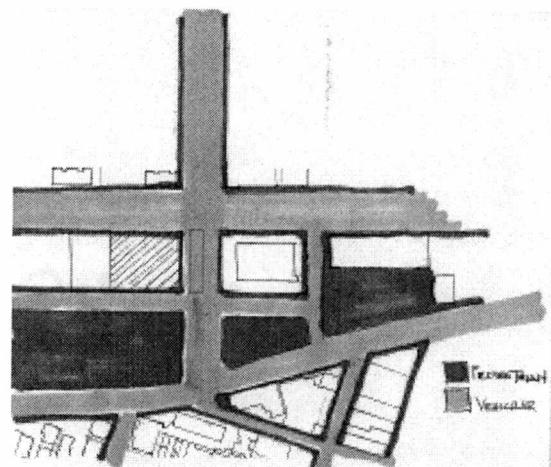


Figure 2.28: Preliminary pedestrian and vehicular traffic
Source: Author

CHAPTER IV: EVOLUTION OF ISLAMIC ARCHITECTURE

HISTORY

The four principal building types that constitute a Muslim community are the mosque, palace, market, and residential building. The mosque will be the primary building type discussed in the following synopsis. It is one of the most important buildings in the community "which provides a sense of identity and place" (Steele 8). The fundamental elements of the congregational mosque are the prayer space which is partially covered (haram) and partially open (sahn), the mirab in the quibla wall (direction of prayer), and the minbar (place from which prayer is called). Also elements, minaret gateway and courtyard are found throughout the history of Islamic architecture.

Historically, Islamic architecture has reflected social changes as well as the "particularities of the region in which it is located" (Steele 13). When closely analyzed there are unifying principles and typologies which connect early Islamic architecture to the present. Antiquity is a fundamental influence in Islamic Architecture and includes such typologies as the Greek Agora, the Byzantine plan, the Greek courtyard, and Roman aqueduct (Hoag 9).

One of the earliest mosques, the Great Mosque at Kufa, was transformed from a Greek agora into a hypostyle congregational mosque or *masjid* (Hoag 10). The *diwan* (audience hall) had five rows of columns on the south side and *riwaqs* (arcades) of two rows of columns surrounding the *sahn* (courtyard) on the other three sides.

The Dome of the Rock had a profound influence on the evolution of the architectural vocabulary of Islam (Steele 9). The Dome of the Rock was built on the site of what was formerly occupied by Solomon's Temple (Hillenbrand 21). The Byzantine plan of Dome of the Rock is an octagon that surrounds a circular central dome. Mosaic tiles with images of paradise and the first monumental inscription shroud the walls and dome (Hoag 18).

The tiles and the inscriptions are both borrowed from Christian shrines and were used ubiquitously in Islamic architecture.

The Great Mosque of Damascus is one of the most influential buildings in Islamic architecture because it is the oldest congregational mosque in the Muslim world and reflects the core values and functions of Islam (Yeomans 2). The *sahn*, which is surrounded by *riwaqs*, is inspired by the Greek courtyard. It is a peaceful, informal place where families gather socially, students study, and worshippers ritually prepare for prayer at the courtyard fountain. Like a basilica, the prayer hall of the mosque contains a central transept and is divided into three aisles with gabled roofs parallel to the south wall of the *qibla*. The central court facade resembles Theodoric's palace at Ravenna and is decorated with mosaics around the *sahn* illustrating Paradise without human form (Hoag 25). Although the Koran states that imagery and art are distracting to thoughts that should be of spiritual contemplation, human and animal imagery were used in early Islamic architecture (Hoag, 32) *figures 3.1 – 3.6*.

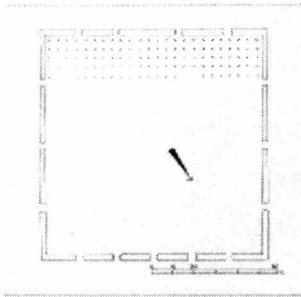


Figure 3.1: Plan of Great Mosque at Kufa
Source: (Hoag 10)

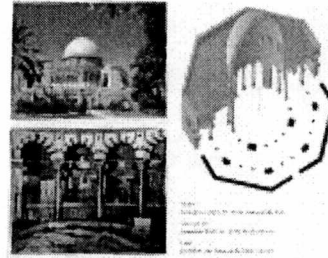


Figure 3.2: Dome of the Rock
Source: (Hillenbrand 21)

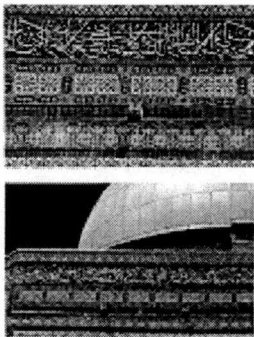


Figure 3.3: First Monumental Inscription
Source: (Hoag 18)

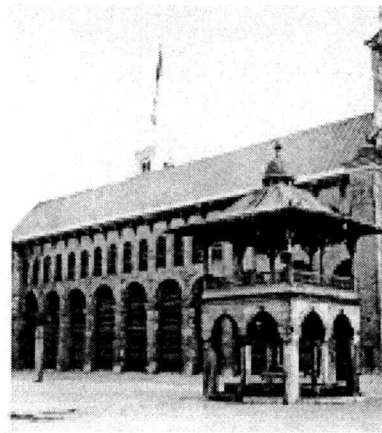


Figure 3.4: Courtyard of Great Mosque of Damascus
Source: (Yeomans 2)

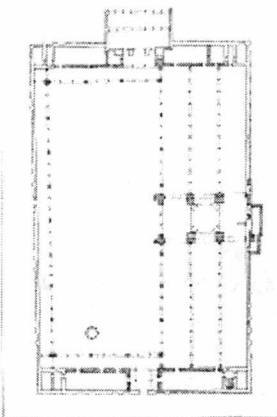


Figure 3.5: Plan of the Great Mosque of Damascus
Source: (Yeomans 2)

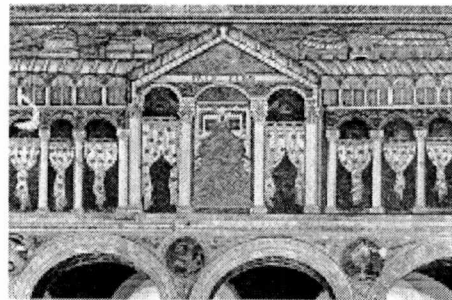


Figure 3.6: Mosaics around sahn of central court facade
Source: (Hoag 25)

Ibn Tuln is one of the first mosques to establish a unique, mature Islamic architecture. It has a spiral minaret with stairs on the exterior, second only to the *malwiya* tower of Samarra (Yeomans, 64) *figure3.7*. Ibn Tuln is a hypostyle mosque with four riwaqs, five aisles deep on the qibla side and two aisles deep around the rest of the square sahn (*figure 3.8*). For the first time in architecture, there are thirteen pointed arches which appear (*figure3.9*). The ranks of these arcades frame a diversity of views and forms within the sahn and the walls of a *ziyada* enclose the mosque in a serene and protective environment. The Samarran style of the stucco decoration is evidence of the developed decorative language of Islamic art and is used to strengthen the total unity of this monument. In this mosque, traces of the Byzantium and Persia are fused with traditions that make a new geometry of patterns that are presented on the soffits of the arches (*figure 3.10*). These designs are a combination of the trellises of geometry juxtaposed with the dynamic movement of vegetable motifs. This grammar of ornament differs from the Greek because it is locked into the surface instead of grown out of the surface (Yeomans 66).

The mosque of al-Azhar in Cairo is even more elaborate than Ibn Tulun. Al-Azhar mosque is located on the site of oldest university in the Muslim world. The arcades in this mosque employ the keel arch, which is more elaborate than the rounded arches found in previous Islamic architecture. The pattern and carving of the mosque is ornate because as a religious duty, rulers since the early Fatimid period have contributed to the restoration and expansion of

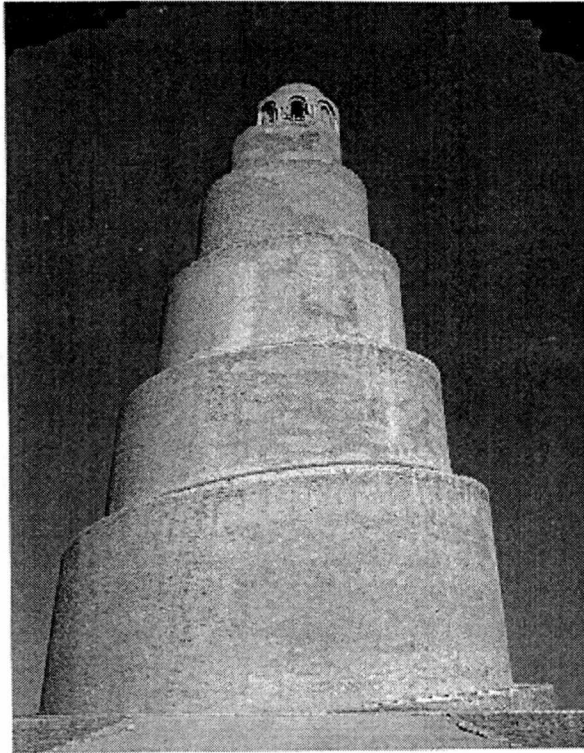


Figure 3.7: Spiral Minaret of Ibn Tulun
Source: (Yeomans 64)

- a. haram
- b. sahn
- c. mirab
- d. qibla wall
- e. minaret
- f. riwaq
- g. ziyada

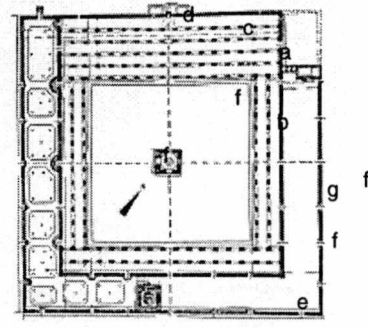


Figure 3.8: Plan of Ibn Tulun
Source:(Yeomans 64)

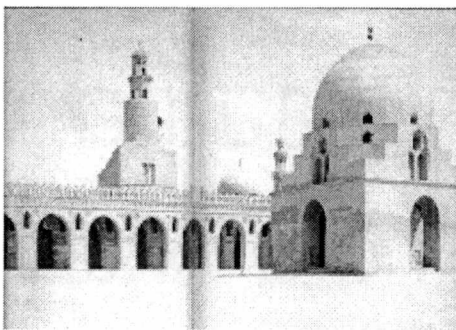


Figure 3.9:Thirteen pointed arches of Ibn Tulun
Source: (Yeomans 65)



Figure 3.10: Patterns on soffits of arches of Ibn Tulun
Source: (Yeomans 65)

Al-Azhar mosque (Yeomans 69). A developed feature of the mosque facade, called a *pishtaq*, is associated with eastern Islamic architecture and is built higher than the rest of the facade to emphasize the central transept.

The next evolution of Islamic architecture is represented by the iwan (open vaulted hall) that is located around the sahn (Steele 9) *figure 3.11*. The iwan lead to the construction technique of the *murqarnas*, the interface between square elements and circular elements (*figure 3.12*). In addition to the murqarnas, domes, arches, and other complex three-dimensional construction techniques were used more effectively (Steele 9). This three-dimensional construction technique is also found in palaces and public buildings. The dome of the Ottoman mosque would not have been possible without the murqarnas.

The Islamic Empire expanded from Africa into Spain and influenced Spain for eight centuries (Yeomans 80). This culture consisted of Muslim, Christian, and Jewish scholars and artists who enriched the West with literature, art, and architecture (Yeomans 80).

The Great Mosque of Cordoba reflects the juxtaposition of the Spanish and Islamic cultures in its architecture. It is a large congregational hypostyle mosque built over a course of 200 years (Yeomans 81). The original plan was simple with a prayer hall perpendicular to the quibla wall like earlier mosques in Jerusalem (*figure 3.13*). The sahn had no riwaqs initially, but they were added later (*figure 3.14*). The distinct double tier arcades of horseshoe arches below and round ones above are modeled after a Roman aqueduct in Merida. These

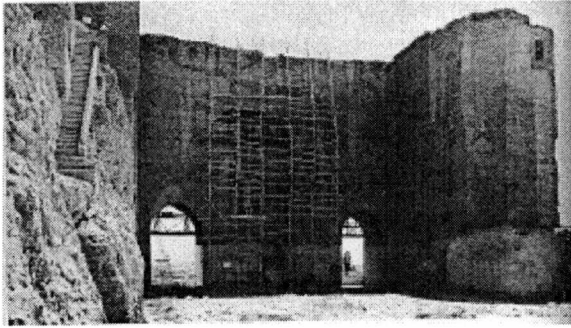


Figure 3.11: Iwan
Source: (Yeomans 29)



Figure 3.12: Murqanas
Source: (Steele 9)

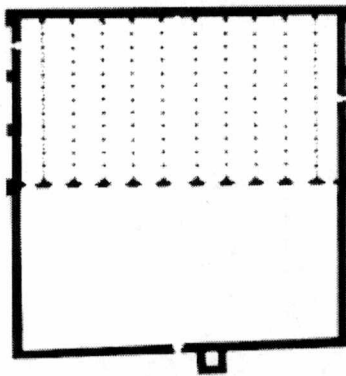


Figure 3.13: Early plan of Great Mosque of Cordoba
Source: (Yeomans 81)



Figure 3.14: Double tier arches @ Great Mosque of Cordoba
Source: (Hoag 77)

arches support the flat wooden roofs of the aisles. The horseshoe shaped arch was used in Visigoth Spain, Iraq, and Syria before the Arab occupation. (Hoag 77). Spanish terra cotta and stone are used alternately on the wedge-shaped voussoirs of the round horseshoe arches (Yeoman 83). The elaborate carving of the column capitals of the horseshoe arches are influenced by the Byzantine period as are the gold, red, blue, and green mosaics around the arch of the mihrab. Not only do the decorative motifs emphasize the mihrab, but they symbolically represent victory, glory, and paradise (Grabar 134). The lower arches of the double tier arcade, the horseshoe arch, lend to a sense of transparency which allows the dynamic rhythms and repetitions of the radiating pattern of the voussoirs to be experienced as a multi-point perspective (Yeoman 83).

The Alhambra palace in Granada, Spain also exhibits a dialogue between the Jewish, Spanish, and Islamic cultures. A description of the palace of Nagrallah by the Jewish poet Solomon ibn Gabirol "explains something of the Alhambra's imaginative context" (Yeoman 96). The descriptive image of Nagrallah's palace foretells of the Alhambra and its synthesis of landscape and architecture:

*The buildings are built and decorated
With openwork, intaglios and filigrees,*

*Paved with marble slabs and alabaster-
I cannot count its many gates.*

*The doors are like those of ivory mansions
Reddened by palatial algum woods. (Gabirol)*

The Alhambra consists of three sections: the Alcazaba which contains stables, storage areas, and barracks; the palace; and residential buildings. The fluid connection between the exterior and interior and the building materials of glazed tiles, brick, stucco, plaster, and wood link the three different sections. The mosaic tile, which is exclusively a Spanish and northwest African geometric pattern; offset the floral motifs and Qur'anic scripture found in tilework of the eastern Muslim world (Yeoman 99) *figures 3.15, 3.16*.

Color and form also define the language of Islamic architecture in Persia. Persian architecture was influenced by Muslim rule as well as Byzantine, Caucasian, Hindu, Chinese, Armenian, and Crusader influences (Yeomans 151). This resulted in a flamboyant architecture and convolutions of form such as the portal of the mosque and hospital complex of Divrigi (*figure 3.17*). The mosque of Madir i Shah is colored in bright tile mosaic and scripture. The minarets and the dome are covered in colors of blue, red, turquoise, purple and green tile (*figure 3.18*). The interior is also shrouded with the pattern of scripture, geometric tile, and tapestries.

The Mosaic tile of the Ottoman Empire characterizes a change that is a naturalistic floral style and a red color that were introduced in the small mosque of Rustem Pasa Cami. This tile is displayed on the mihrab and is viewed as a gateway to heaven (*figure 3.19*). This is one of the few cases that decorative

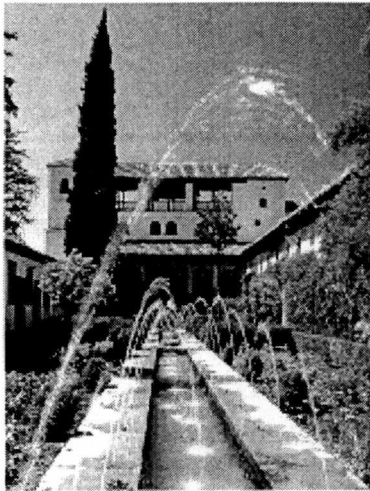


Figure 3.15: Alhambra palace
Source: (Yeomans 96)

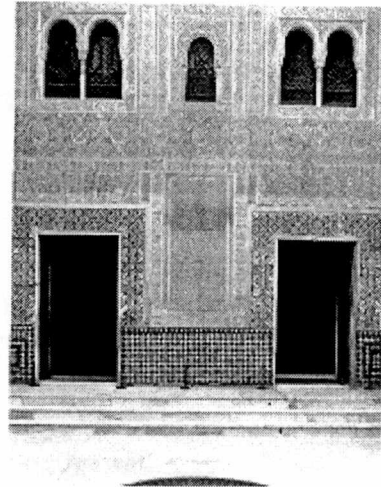


Figure 3.16: Alcazaba
Source: (Yeomans 99)

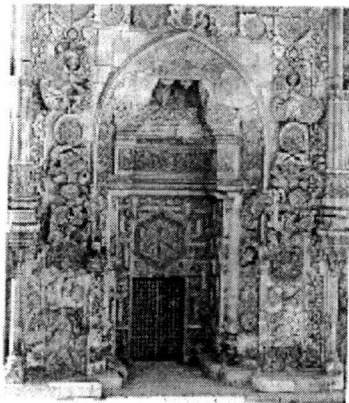


Figure 3.17: Divrigi
Source: (Yeomans 151)

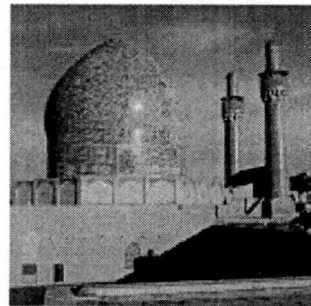


Figure 3.18: Madir i Shah
Mosque
Source: (Yeoman160)

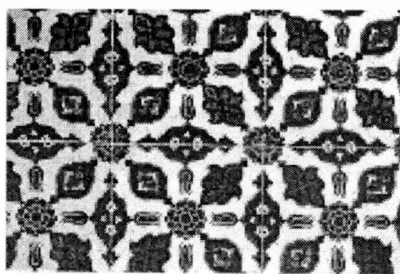


Figure 3.19: Mosaic tile of Rustem
Pasa Cami
Source: (Yeomans 168)

detail in Islam is used as symbolism – “Meaning is expressed in the totality of experience, rather than in iconic detail” (Yeomans 168).

In the Ottoman Empire two principle means of space enclosure evolved: the T-plan and the great dome. The dome of Sinan, which was built in the sixteenth century, is divided into a sahn surrounded by a colonnade and the quibla area which is covered by a large dome supported by half domes. The entire complex is framed with four minarets (Steele 10). Both the T-plan and great dome can be seen in the Orhaniya mosque of Bursa (Yeomans 157).

Like Classic Islamic architecture, contemporary Islamic architecture still responds to the spiritual and functional needs of a community. There are two schools of thought in contemporary Islamic architecture. One wants to adhere to traditional vocabulary and forms while the other wants to combine iconography and industrial building methods to develop a new architectural language (Steele12). However, Ismail Serageldin says that these two positions are “technically flawed” and that social issues are not being examined (Steele, 12).

Muslim societies are being altered because of population growth, rural migration to the cities and interaction with the West. These contemporary challenges are motivating Muslim societies to redefine their identity. The outcome of the architectural language must present a building that provides a place for the identity of the Islamic culture and can respond to the needs of modern society, the community, and a connection for the peoples using it.

The continuity of symbolism in the evolution of Islamic architecture is a way to achieve this goal. Elements and patterns of Islamic architecture can be transformed without losing their architectural expression.

THE ISLAMIC GARDEN

The Islamic gardens and courtyards were inspired from religious symbolism and for functional needs. Gardens surrounded the architecture and courtyards were integrated with exterior and interior spaces. The principle of Islam is “unity of the diversity of experience”, and this doctrine is expressed in every facet of the spiritual and material realm of Islam (Lehrman 17). Geometry in art and architecture is the way to symbolize unity. The continuity of the importance of order, space, form, texture, pattern, water, light, and movement in Islamic gardens and courtyards have transcended through time and place. The garden represents a state of transition which reflects the evolution of the society of Islam. At one time Islamic gardens were only for the wealthy, but today the public is free to use the garden as a place of retreat. “The unity and simplicity of the Islamic garden and courtyard still express much that is of significance for our own time” (Lehrman 222).

Order

In Islam a universal order symbolizes the unity of God and is achieved by geometry, symmetry, shape, surface, and proportion (Lehrman, 41) figure 4.1.

Space

For the Muslim, space flows up to the heavens and can be external or internal.

Three – dimensional objects such as walls and trees transform space into place (figure 4.2).

Form

Tradition, culture, and site issues such as terrain and climate determine the shape of a garden. The main axis is usually determined by the direction of water, a major element in an Islamic garden. A building is usually located with in the Garden to terminate a primary or secondary axis (Lehrman 67) figure 4.3.

Texture

Texture is many small units brought together as one. Texture refers to the garden as individual elements to the whole. In the Islamic garden there is the visual texture of the foliage, water, light, and ground; and tactile texture of the mosaic tile, paving, wood screen, and stucco (figure 4.4).



Figure 4.1: Order of the Islamic Garden
Source: (Lehrman 44)



Figure 4.2: Space of the Islamic Garden
Source: (Lehrman 59)

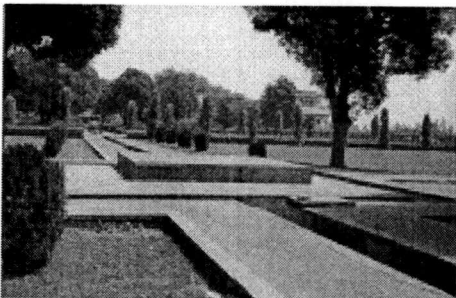


Figure 4.3: Form of the Islamic Garden
Source: (Lehrman 60)



Figure 4.4: Texture of the Islamic Garden
Source: (Lehrman 121)

Pattern

The line and the circle are the geometric basis of Islamic pattern. The repetition of geometrical patterns as a whole “reflects unity through interlocking forms which symbolize plant and natural forms signifying fertility and abundance” (Lehrman 74). Pattern is used as transition between interior and exterior spaces (figure 4.5).

Water

Not only is water used as purification before prayer, but it is an element of continuity from the garden to the structure to give a sense of direction and symbolize infinity (figure 4.6).

Light

The sun symbolizes the Absolute Being since its light gives life. Light unifies perceptual and aesthetic conditions. Because natural light is intense in the Islamic world, materials, living and inanimate, are often used to diffuse the light (figure 4.7).

Movement

There is a sequence of experiences that take place in the formality of the Islamic garden. A gateway begins the path that changes levels, direction, and viewpoints, and a place terminates the path. Organic qualities such as light, water, and foliage also create a dynamic movement (figure 4.8).

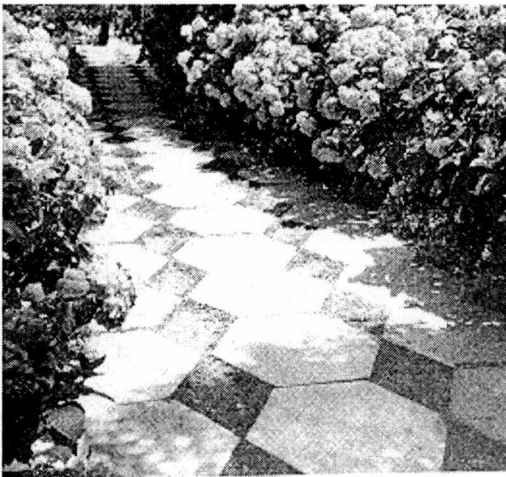


Figure 4.5: Pattern of the Islamic Garden
Source: (Lehrman 76)

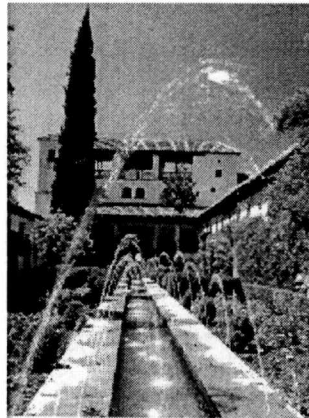


Figure 4.6: Water of the Islamic Garden
Source: (Lehrman II)

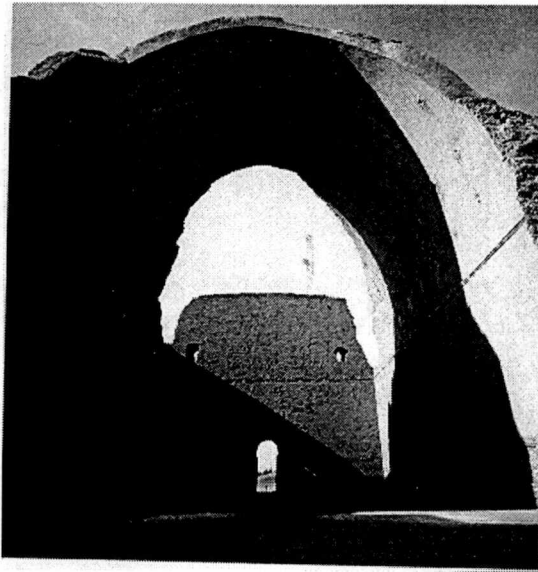


Figure 4.7: Order of the Islamic Garden
Source: (Yeomans 128)

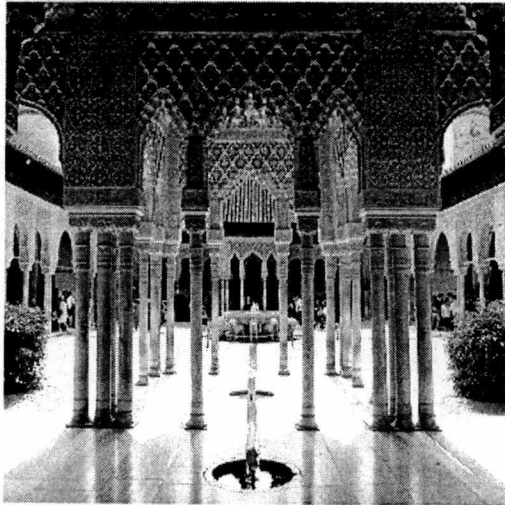


Figure 4.8: Movement of the Islamic Garden
Source: (Yeomans 103)

CHAPTER V: PRECEDENCE

HASSAN FATHY

Precedence for revitalization of traditional construction methods.

There have been many architects who have engaged in the challenge of unifying eastern and western cultures. Hassan Fathy was an Egyptian architect whose work reflected a duality of eastern and western influences and the disparity between them (Steele 6). He looked at his own culture through western eyes and was influenced by the mythology of orientalism (Steele 6).

Fathy revitalized traditional construction methods such as natural ventilation to join people and the natural world (Steele 16). Two examples of traditional construction methods that Fathy used were the *malkaf* (wind catch) that rises above the balcony with *mashrabiya* (wood screen) for natural ventilation (Steele 19) *figures 5.1-5.3*. The *mashrabiya* is a symbol of Islamic architecture because it was a result of social need and functional reason. Heat flow is reduced and reflected by the *mashrabiya* that allows air to circulate freely (Steele 85). The round balusters aid in the reflection of light and shade, by reducing the glare of light that comes in between them. Wood was used to absorb moisture of the air passing through them. The pattern of the *mashrabiya* is narrower only at eye level to prevent the glare and provide privacy for women who wished to see but not be seen. Fathy says that the *mashrabiya* is proof that "culture is the unique human response of man to his environment in his attempt to answer both physical and spiritual needs" (Steele 85).

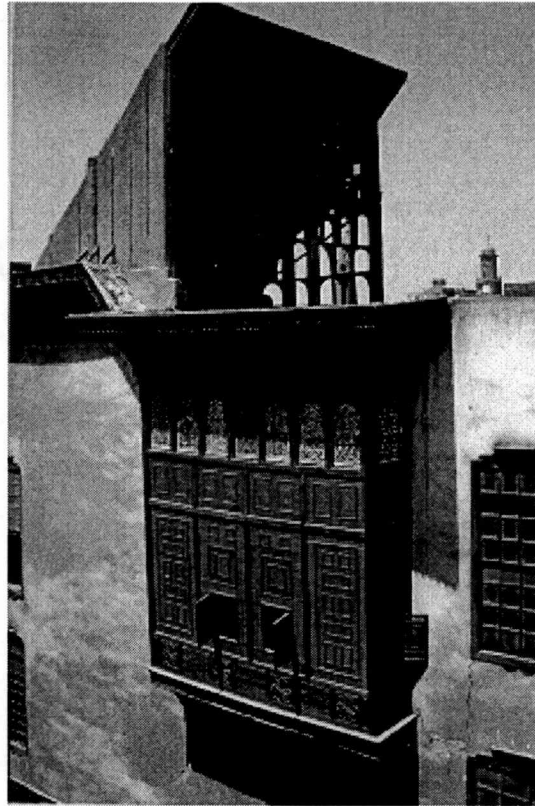


Figure 5.1: Traditional malkaf and mashrabiya
Source: (Steele 18)

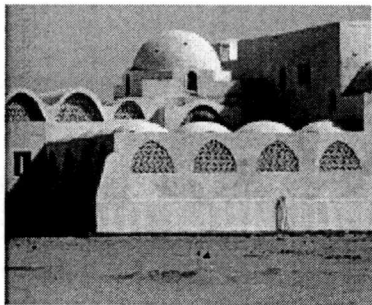


Figure 5.2: Fathy's contemporary mashrabiya in Sadat's home
Source: (Steele 19)

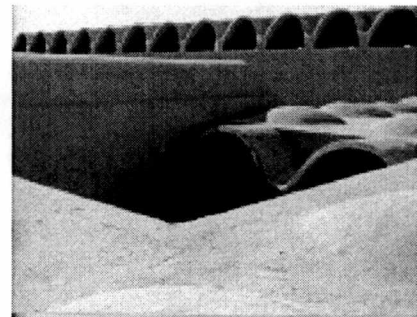


Figure 5.3: Fathy's contemporary malkaf
Source: (Steele 137)

LUIS BARRAGAN

Ergestrom House: Precedence for redefining culture via architecture.

Luis Barragan's architecture corresponded with Hassan Fathy's work. Both men were concerned about the sustenance and evolution of their cultures. Like Fathy, Barragan used modern construction and traditional building techniques simultaneously. He was also greatly influenced by Mediterranean gardens and European rationalism however; his buildings still capture the spirit of Mexican culture. "Barragan's most important contribution was the way in which his architecture presented Mexico with another medium through which to recognize itself and to be recognized." (Fernandez 19) figures 5.4, 5.5.

Nature inspired Barragan and gave him personal and professional direction. He drew from his experiences of his childhood memories of Mexican fountains and blended the gardens of Spain and Morocco. The reinterpretation of the Court of the Myrtles in the Alhambra was one of these places that can be seen in the Plaza of Las Arboledas and the serenity of the Ergestrom Stables

JEAN NOUVEL

World Arab Institute : Precedence of program

The World Arab Institute was built in Paris to educate the Europeans of Arabic culture via event. Programmatic elements include an art and civilization museum, two temporary exhibition spaces, a library, an administration department, a cafeteria and restaurant, a 400-seat auditorium, and workshops (*figures 5.6-5.9*).

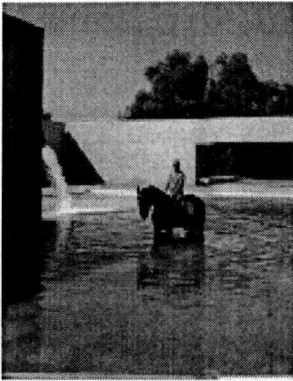


Figure 5.4: Ergestrom Stables
Source: (Barragan 180)



Figure 5.5: Las Arboledas
Source: (Barragan 173)

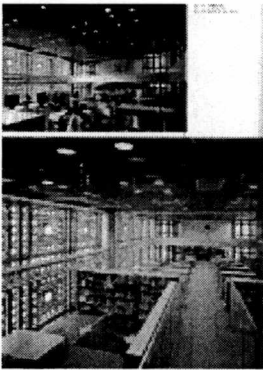


Figure 5.6: Library reading room and stacks
Source: (Ellis 31)

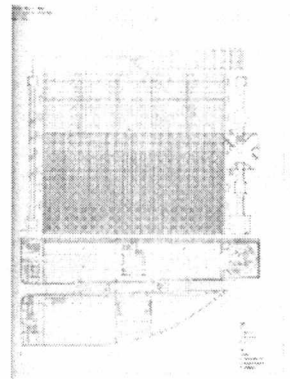


Figure 5.7: Lower Level
Source: (Goulet 75)

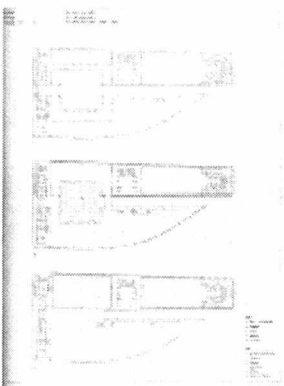


Figure 5.8: 3rd, 5th, 6th floors
Source: (Goulet 75)

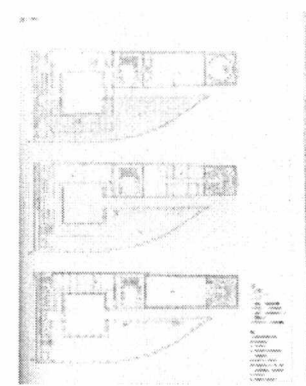


Figure 5.9: Upper floors
Source: Goulet 75

HEIKKINEN-KOMONEN ARCHITECTS

Finnish Embassy : Precedence of contemporary building methods

The design of Finnish embassy fuses modern technology with Finnish design. This embassy contrasts the stone and brick buildings on embassy row, with its wood, glass, copper, and metal facades. Light filters into the slot in the atrium and the transparent lobby façade (*figures 5.10-5.12*).



Figure 5.10: Covered walkway and enclosed porch.

Source: (Pearson 63)

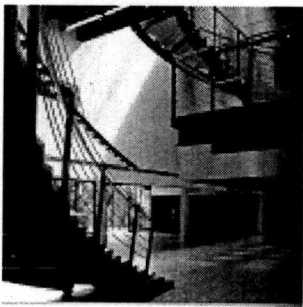


Figure 5.12: Grand staircase

Source: (Pearson 67)

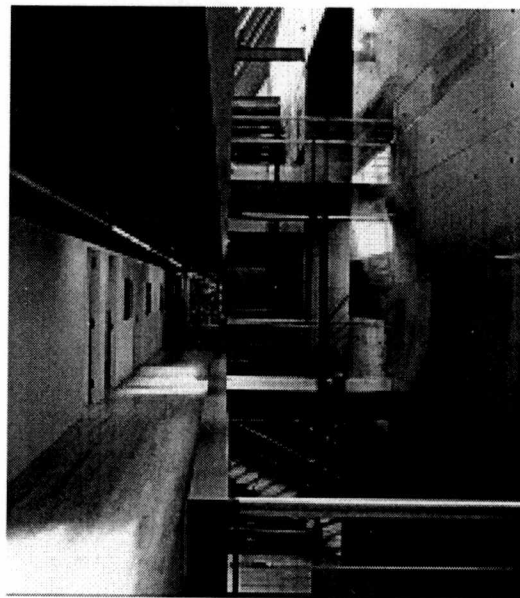


Figure 5.11: Atrium

Source: (Pearson 66)

STAN ALLEN

Korean American Museum of Art : Precedence of program

KOMA is a gallery of unfixed space within an urban context. The simple geometry is contrast by the complexity of diverse scale. The interior of the horizontally layered museum is the organizational focus and the galleries are volumes in within a field of collective functions such as lobby, café, lecture hall,

bookshop, auditorium, garden, storage, and temporary exhibition (figures 5.13-5.16).



Figure 5.13: Diagrams of KOMA
Source: (Allen 69)

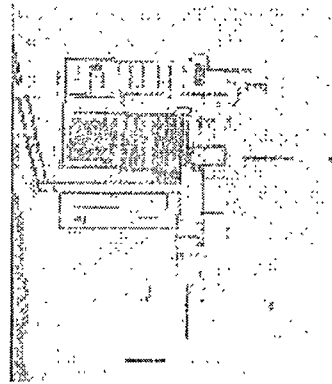


Figure 5.14: Ground level of KOMA
Source: (Allen 68)

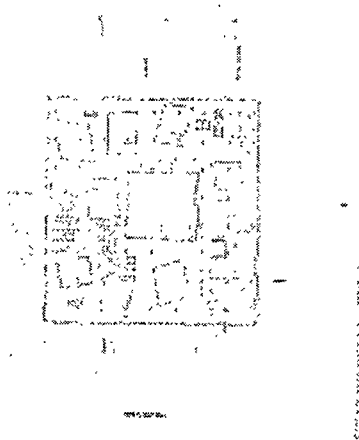


Figure 5.15: Gallery level of KOMA
Source: (Allen 68)

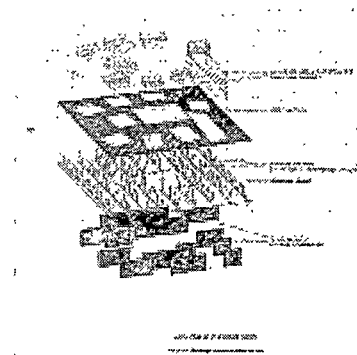


Figure 5.16: Exploded axon of KOMA
Source: (Allen 69)

TAKEFUMI AIDA

Tokyo War Dead Memorial Park : Precedence of evolution of contemporary architecture.

Aida is concerned with an architectural language that responds to the changing Japanese city. He uses central concepts of Japanese thought and

culture, void (mu) and absence (ma) (Bognar viii) figures 5.17 - 5.19.

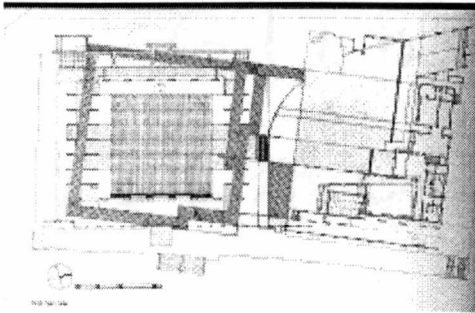


Figure 5.17: Plan of Tokyo War Dead Memorial Park
Source: (Aida 94)

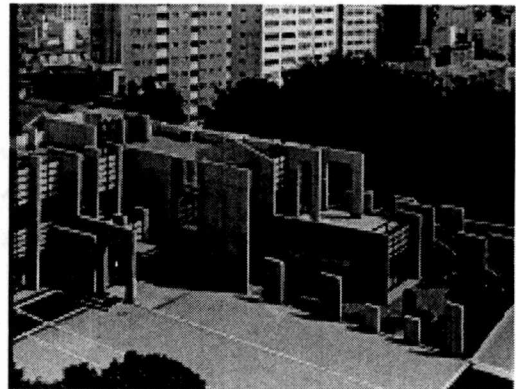


Figure 5.18: Rest area of Tokyo War Dead Memorial Park
Source: (Aida 99)

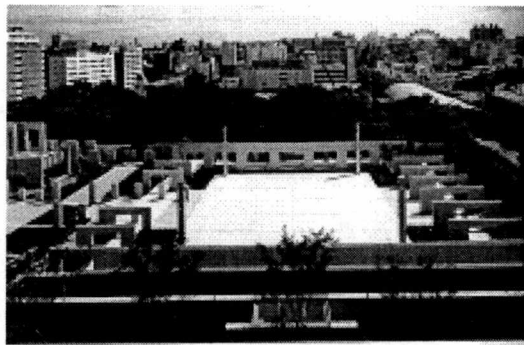


Figure 5.19: Plaza of Tokyo War Dead Memorial Park
Source: (Aida 99)

SOM

Islamic Cultural Center of New York : Precedence for contemporary Islamic architecture

20th century technology is blended with traditional geometric ordering of mass, enclosure, and fine finishes (Kliment 93) figures 5.20 - 5.22.



Figure 5.20: Islamic Cultural Center of New York
Source: (Bowles 92)

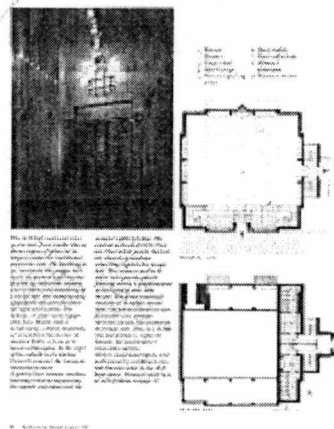


Figure 5.21: Cultural Center of New York
Source: (Bowles 94)

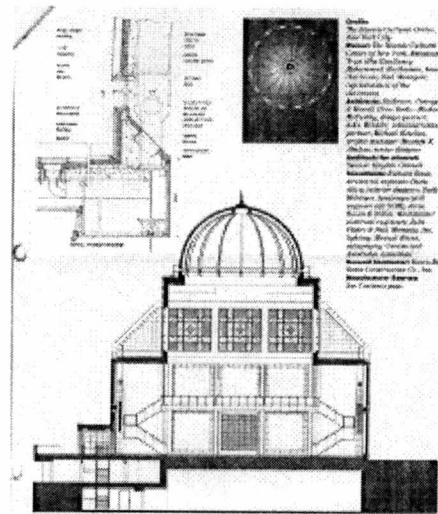


Figure 5.22: Section of Islamic Cultural Center of New York
Source: (Bowles 96)

SECULAR PRECEDENCE

Figures 5.23 – 5.27 on the following pages, are examples of secular architecture in various parts of the world.

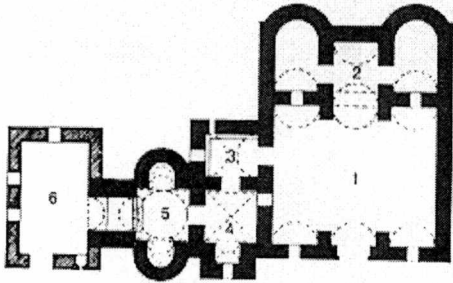


Figure 5.23: Plan of the Baths of Quasayr Amra
Source: (Sceratto 29)

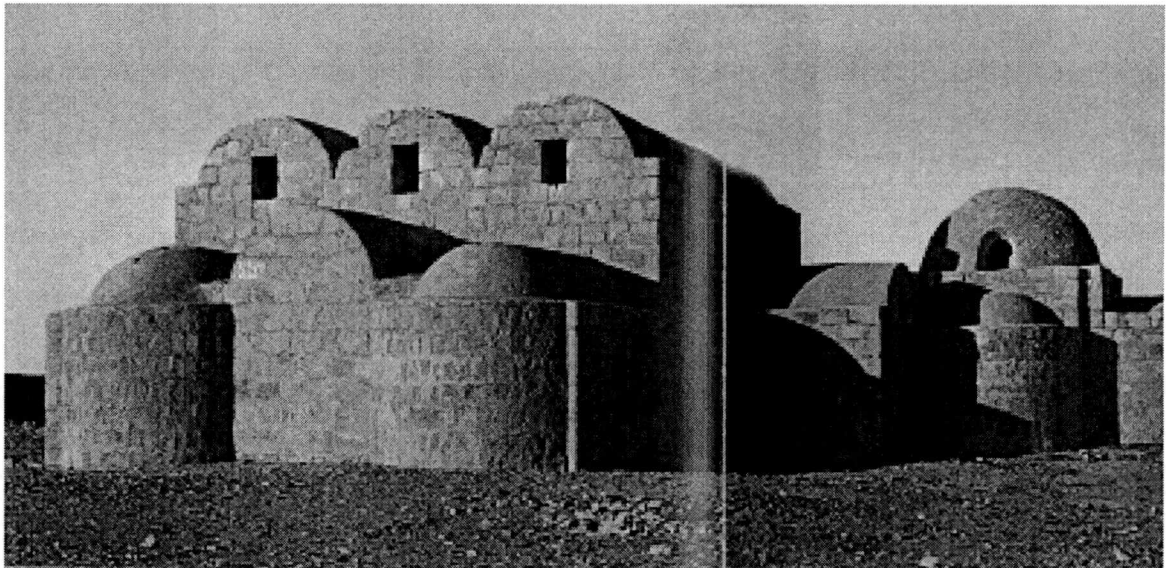


Figure 5.24: Baths of Quasayr Amra
Source: (Sceratto 29)

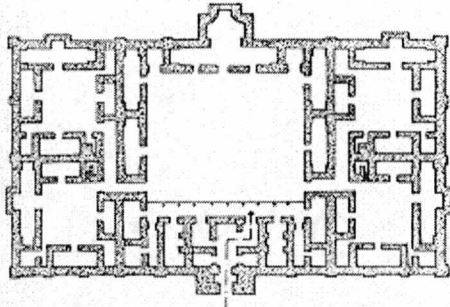


Figure 5.25: Plan of Qairawan
Source: (Sceratto 50)

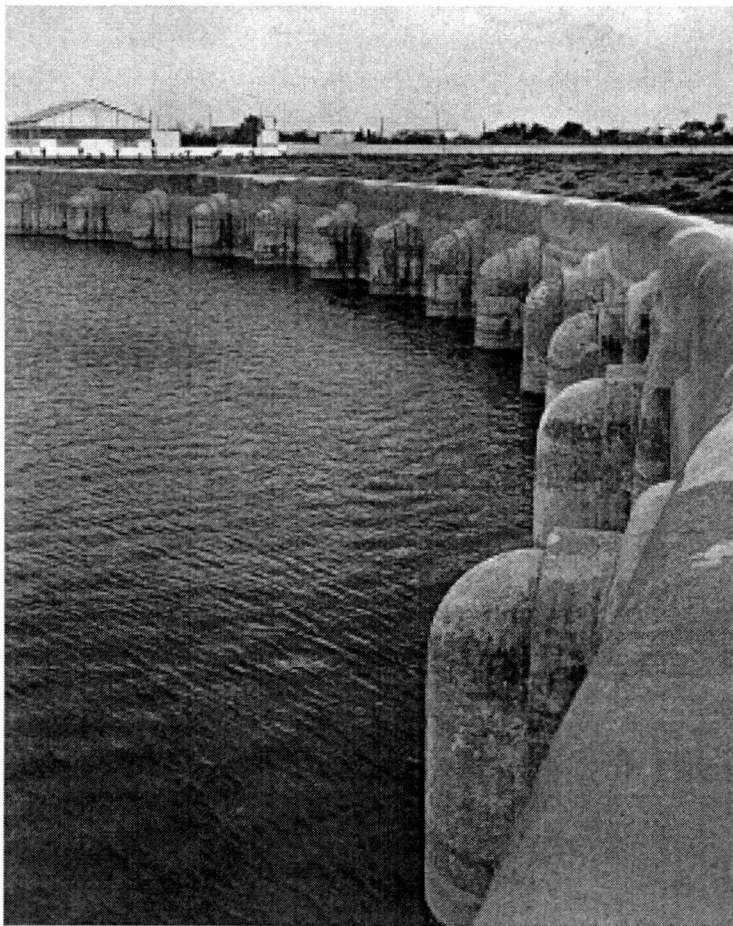


Figure 5.26: The Reservoir of Qairawan
Source: (Sceratto 50)

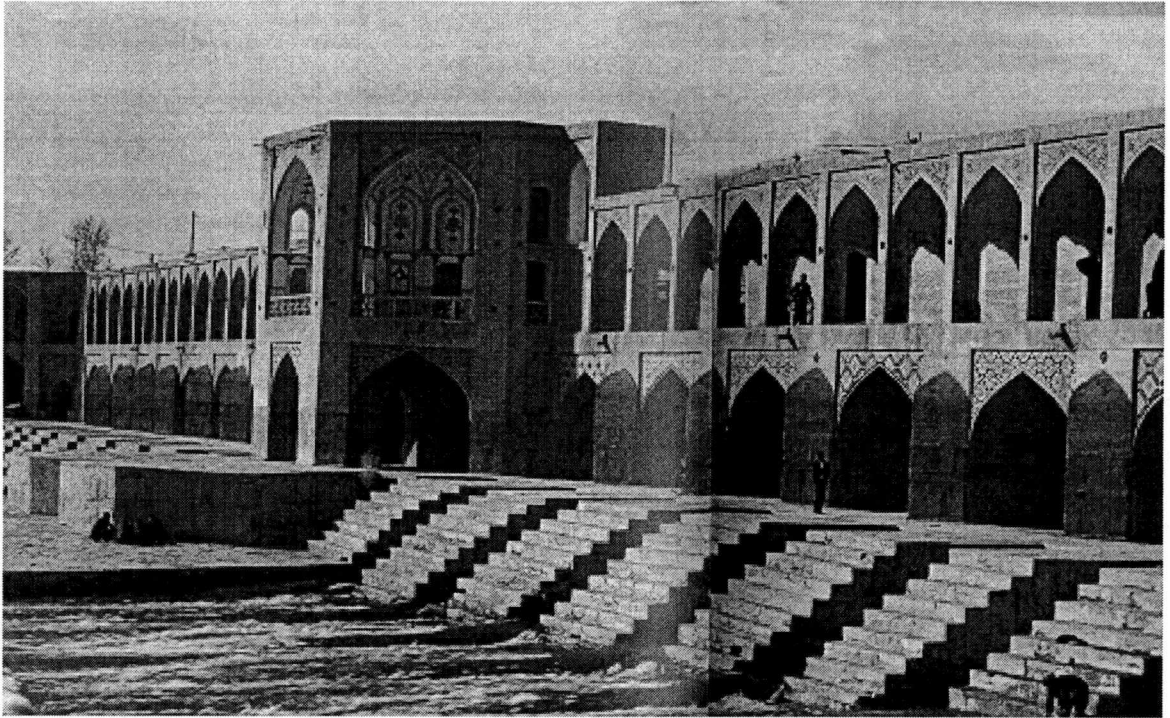


Figure 5.27: Pul-i-Khvaju Bridge
Source: (Sceratto 126, 127)

CHAPTER VI: THE PRESENTATION OF THE PROJECT

BUILDING DESIGN

There are four major components to the building design: the public garden, the quibla wall, the library, and the museum. This sixteen square parti is formally influenced by the Catholic Church on east side of the site and synagogue located on the west side of the site. This is emphasized by placing a promenade on the north side of the building, allowing the natural world to come into the manmade environment and pulling the Institute away from the existing building on that edge. Linking these two sacred structures metaphorically reflects the connection of these two diverse neighborhoods.

Two important primary decisions were made when a quibla wall was established at an angle canted in the southeast direction towards Mecca, and an honorific garden was introduced on the west side of the Islamic Institute. The space, which includes the quibla wall, is called the zawiya and is monumental and sacred. These two characteristics are expressed by lifting the quibla area 30ft. above the ground and shrouding it in a translucent alabaster so that only the silhouette of people praying can be detected from the exterior. The honorific garden is a place that the public uses for gatherings and signifies a gift to the city of Brooklyn from Islamic Institute.

On the opposite side of the quibla wall is the library. The library facade, on the west side of the Institute is canted at the same angle as the quibla wall to resonate the sacredness of the holy Koran. This space looks onto the public

garden from the reading room as well as connects to the museum, the sunken garden within the museum, and the roof garden. The roof garden is an ideal garden because it is close to the heavens. The relationship between these spaces is important because a correlation is established between the public garden and the ideal garden as well as creates a vertical and horizontal layering. On all the levels, the central spaces are given to the public, accommodating gathering spaces such as the auditorium, reception hall, main museum level, and roof garden. Spaces such as the restaurant, giftshop, offices, and intimate gallery areas are located on the perimeter of the parti. Finally, the elevator/bathroom/mechanical cores are located on three corners of the Islamic Institute.

There are also layers of materiality consistent throughout the design. The gift shop, restaurant, library, and quibla wall have a transparent quality with skeletal system of a curtain wall enclosing these spaces and the circulation cores are solid. The various skeletal systems represent texture that would be seen in Islamic architecture.

The parti also expresses New Urbanist and Modernist qualities. The Institute forms a hard edge, which strongly defines the street and corners, as advocated by the New Urbanists. At the same time, the structural system is pulled away from the skin to allow for the flexibility of an open plan, advocated by the Modernists.

The Institute provides opportunities for a wide variety of users to come together and relate on both large and small scales. As a multi-functional facility, it helps to revitalize Cadman Plaza during the weekends.

SITE DESIGN

I discovered that by addressing the issues of the particularities of this site, the culture of Brooklyn is considered. This building cannot be transplanted to another site because of its specificity to this context. The specificity consists of relationship of the scale of the Islamic Institute to monumental context; the sensitivity of each facade related to the contextual issues; as well as the public garden.

The monumentality of the Institute relates well to the buildings within the context. For example, the top of the library is deliberately the same height as the government building on the direct north and south side of the Islamic Institute and the quibla wall. The height of the Institute serves to mediate between shorter buildings and skyscrapers.

Each facade of the Institute also begins to mediate between buildings such as the austere building on the north side and the classical language of the post office. The appropriate facades are shrouded with translucent alabaster or louvers to protect the monumental interiors from the sun's heat.

The public garden across Cadman Park is designed to be occupied. The central space of the garden is for gathering and is defined by the poche of the

promenade of trees that respond to the geometry of the Islamic Institute. Site influences have dictated entrances to this garden and the elements within.

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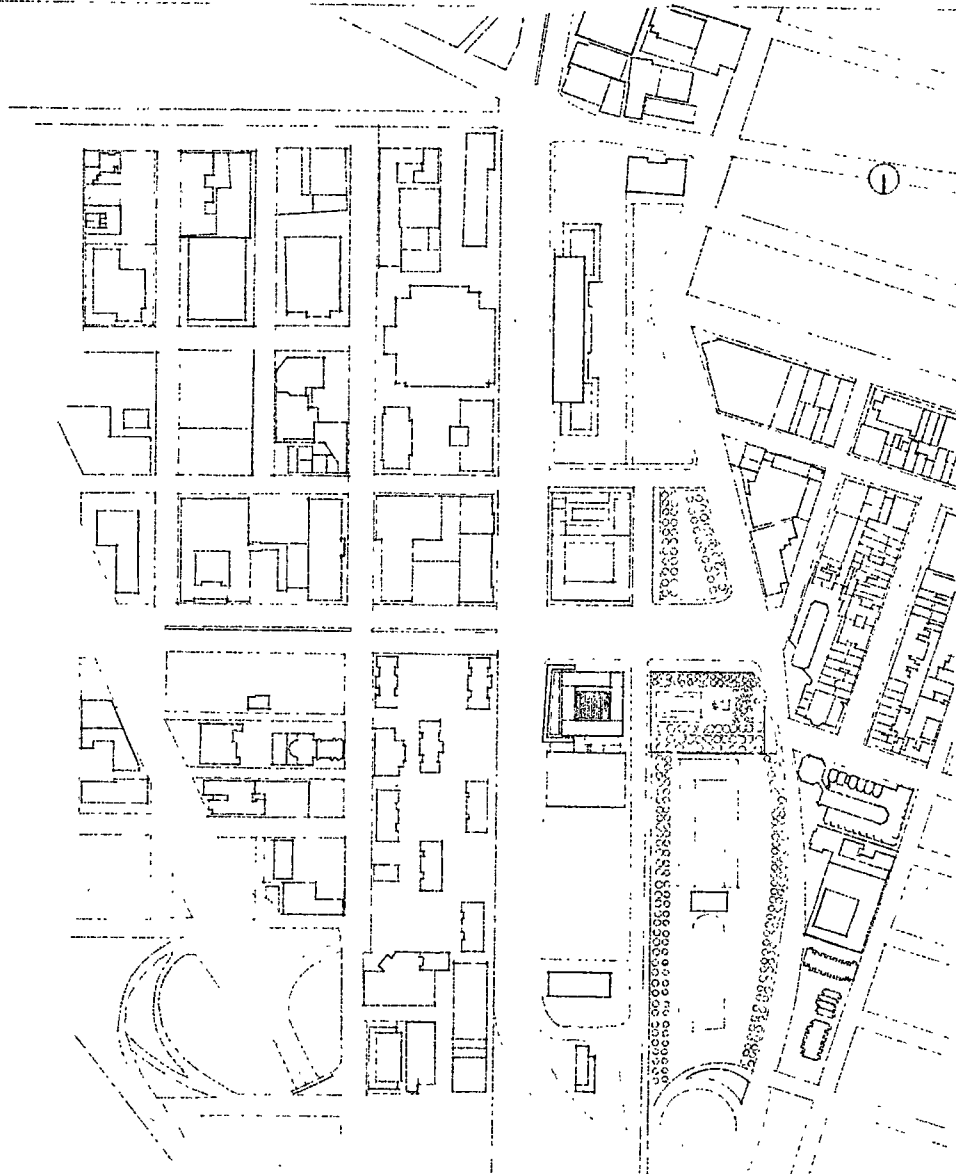
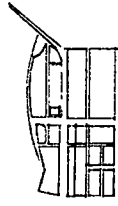
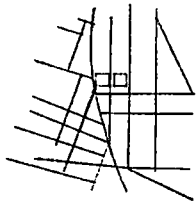
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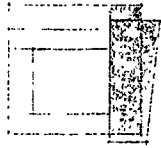
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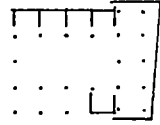
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APPENDIX

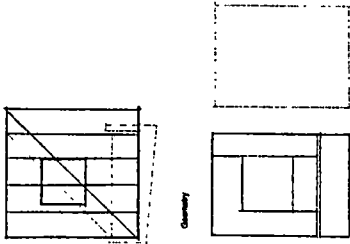




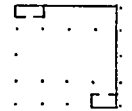
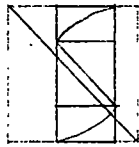
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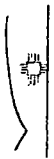
Public House



Country



Public House and Bar



Public House



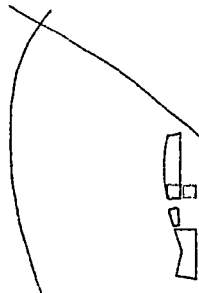
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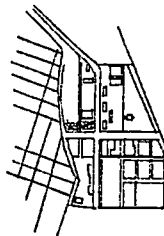
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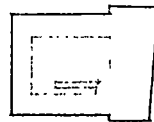
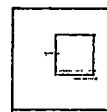
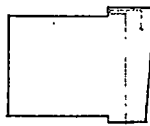
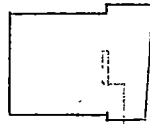
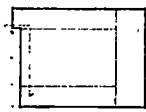
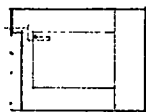
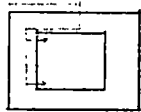
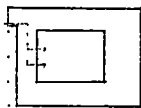
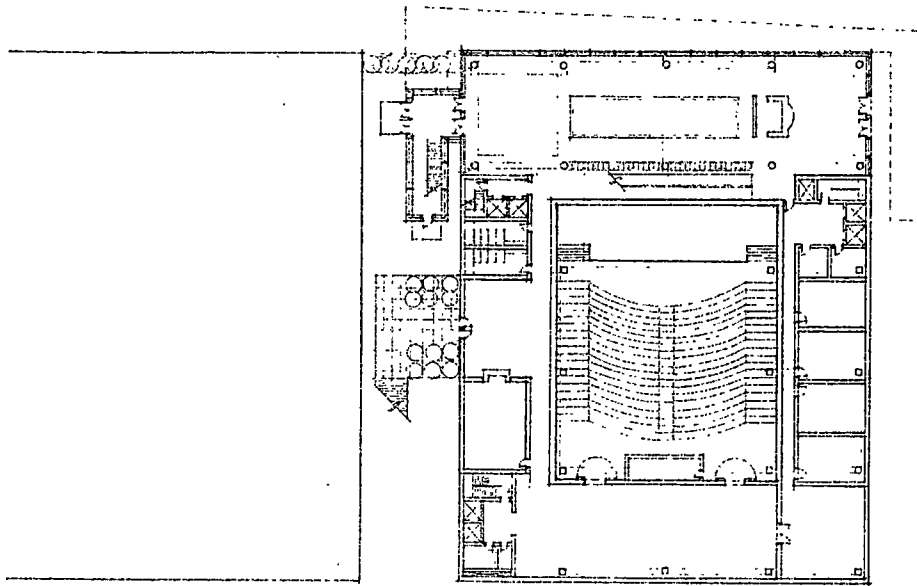
Public House



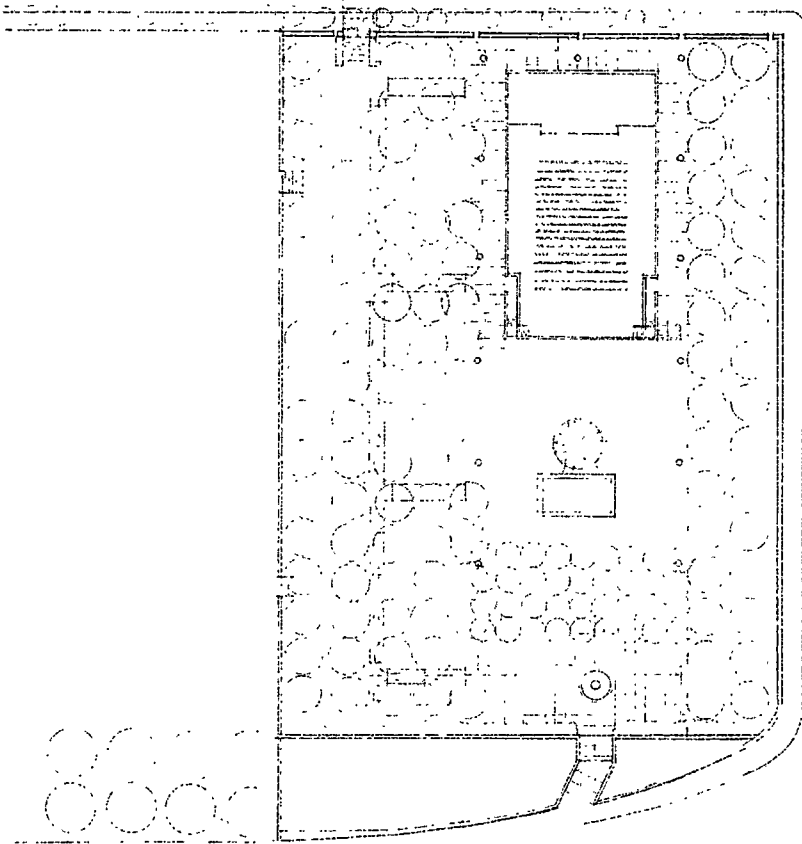
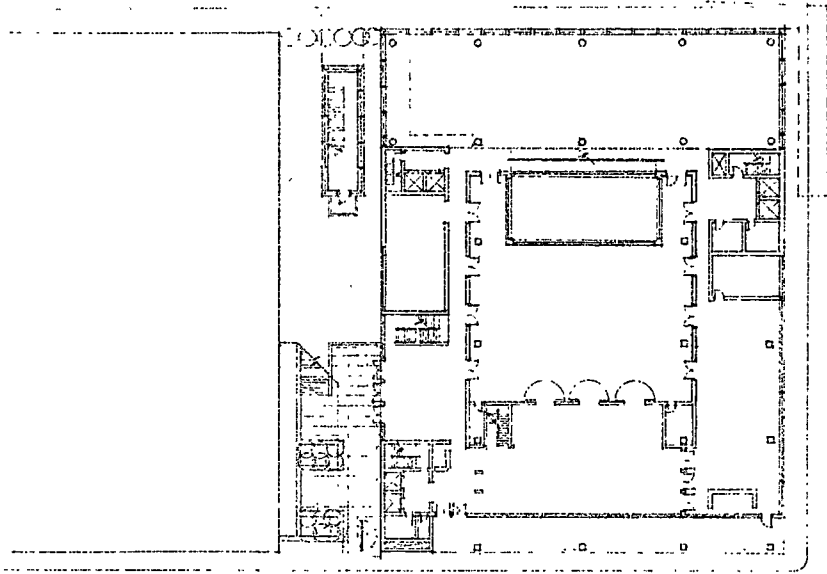
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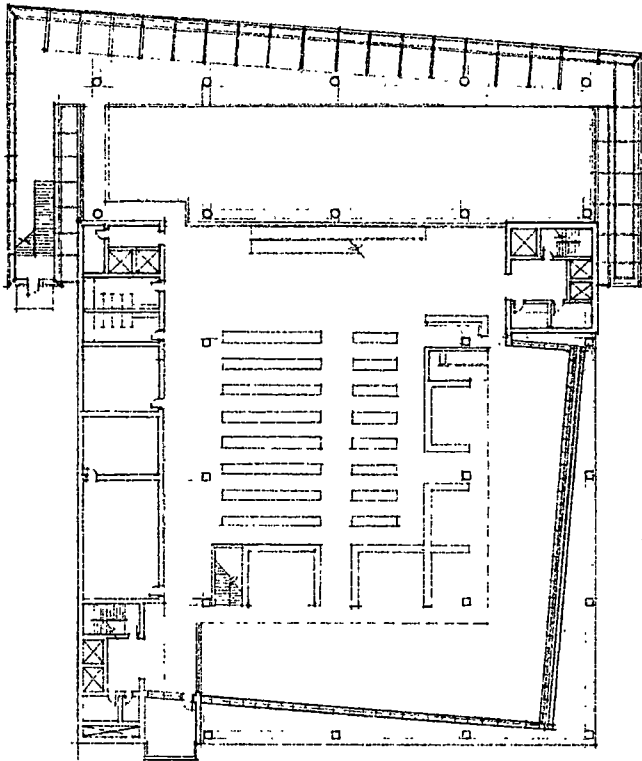


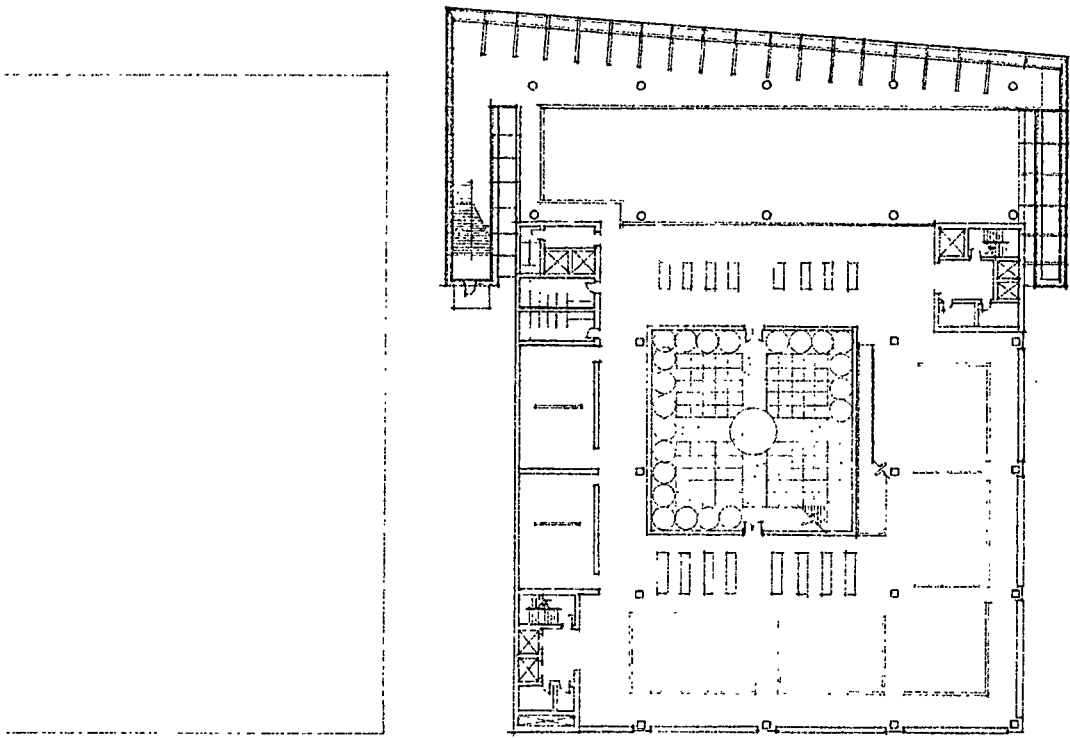
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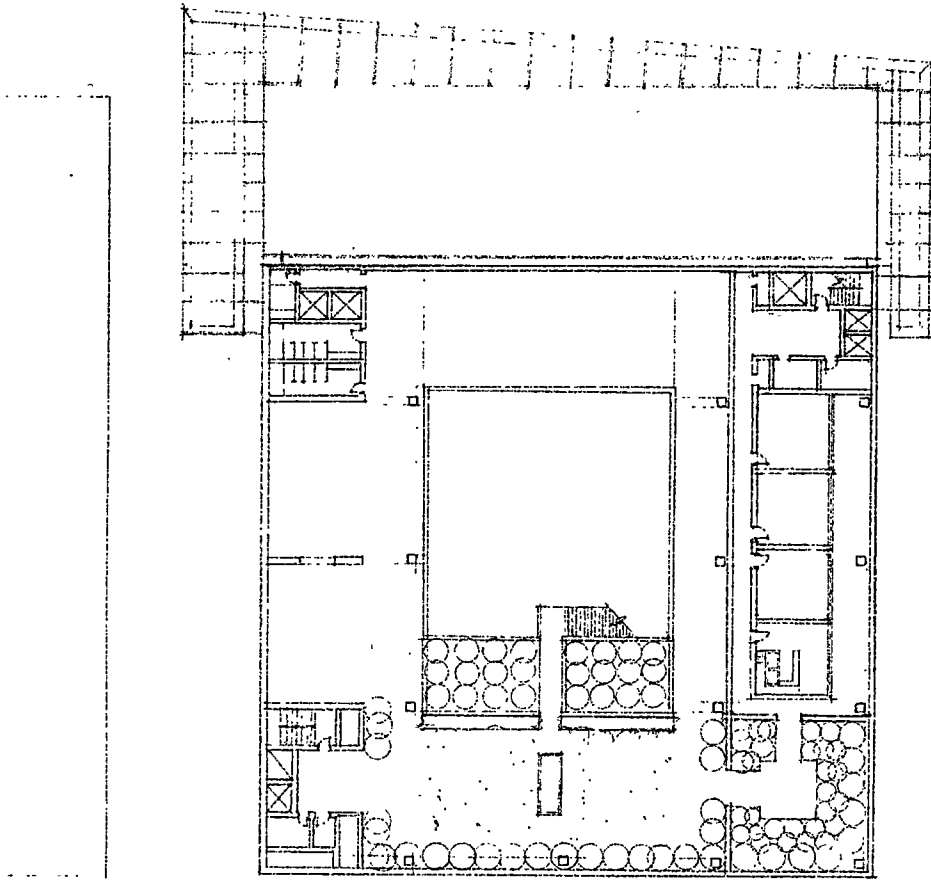


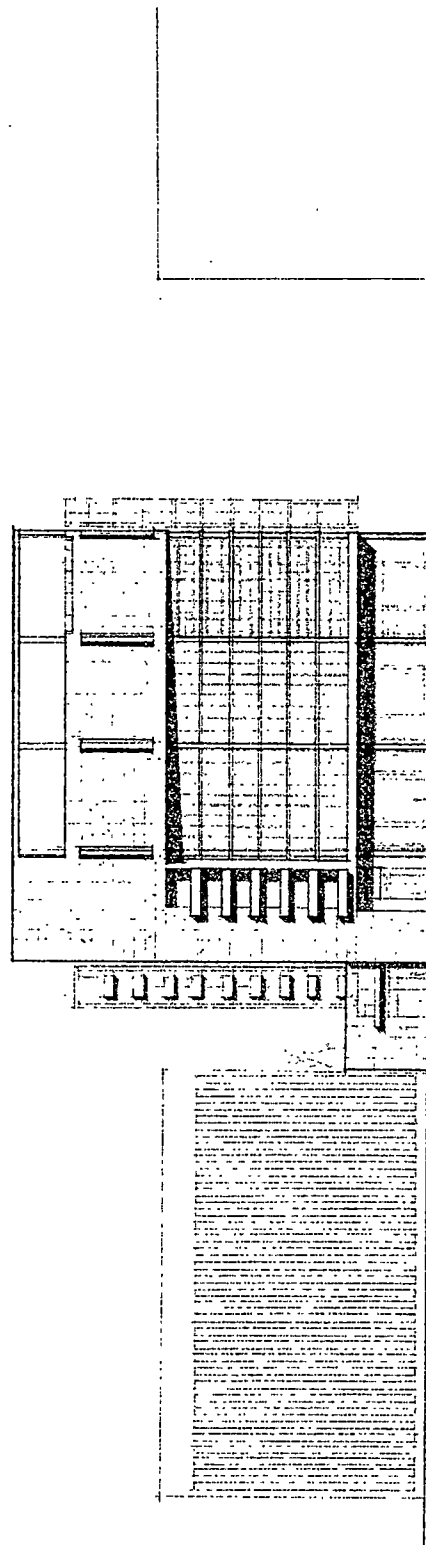
Architectural drawing

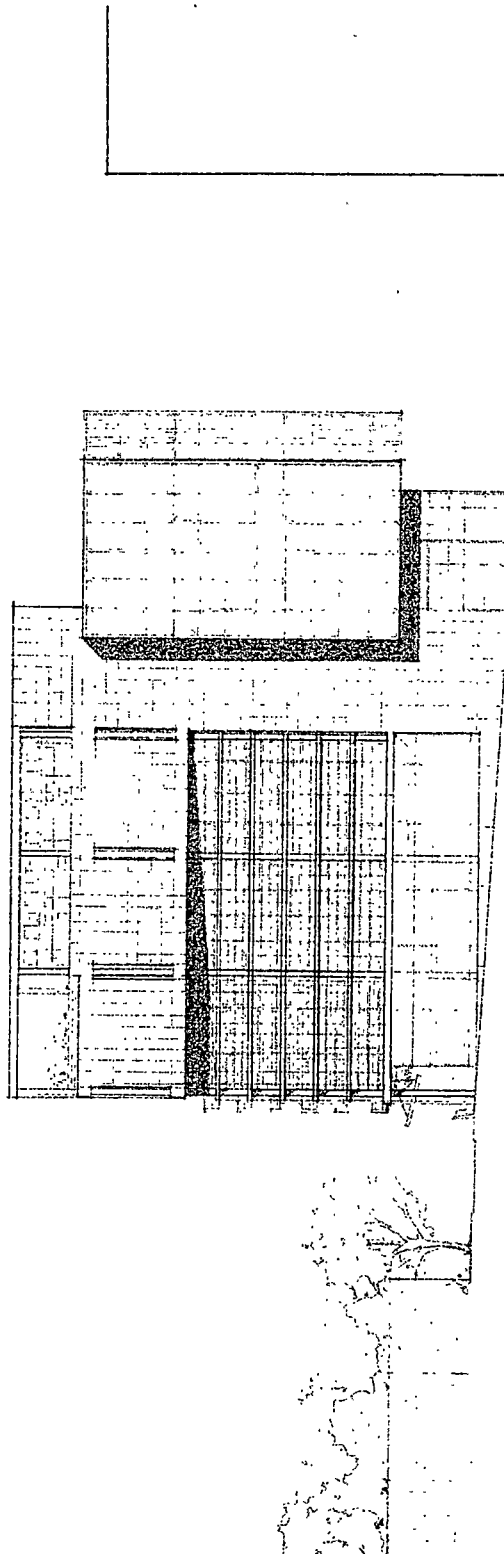


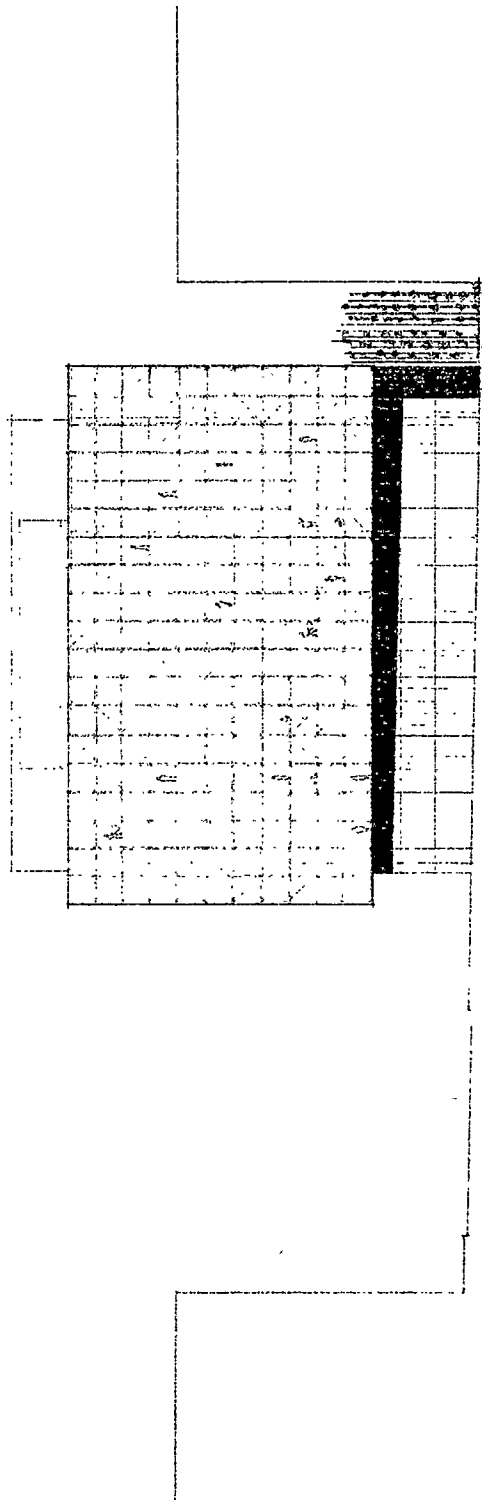


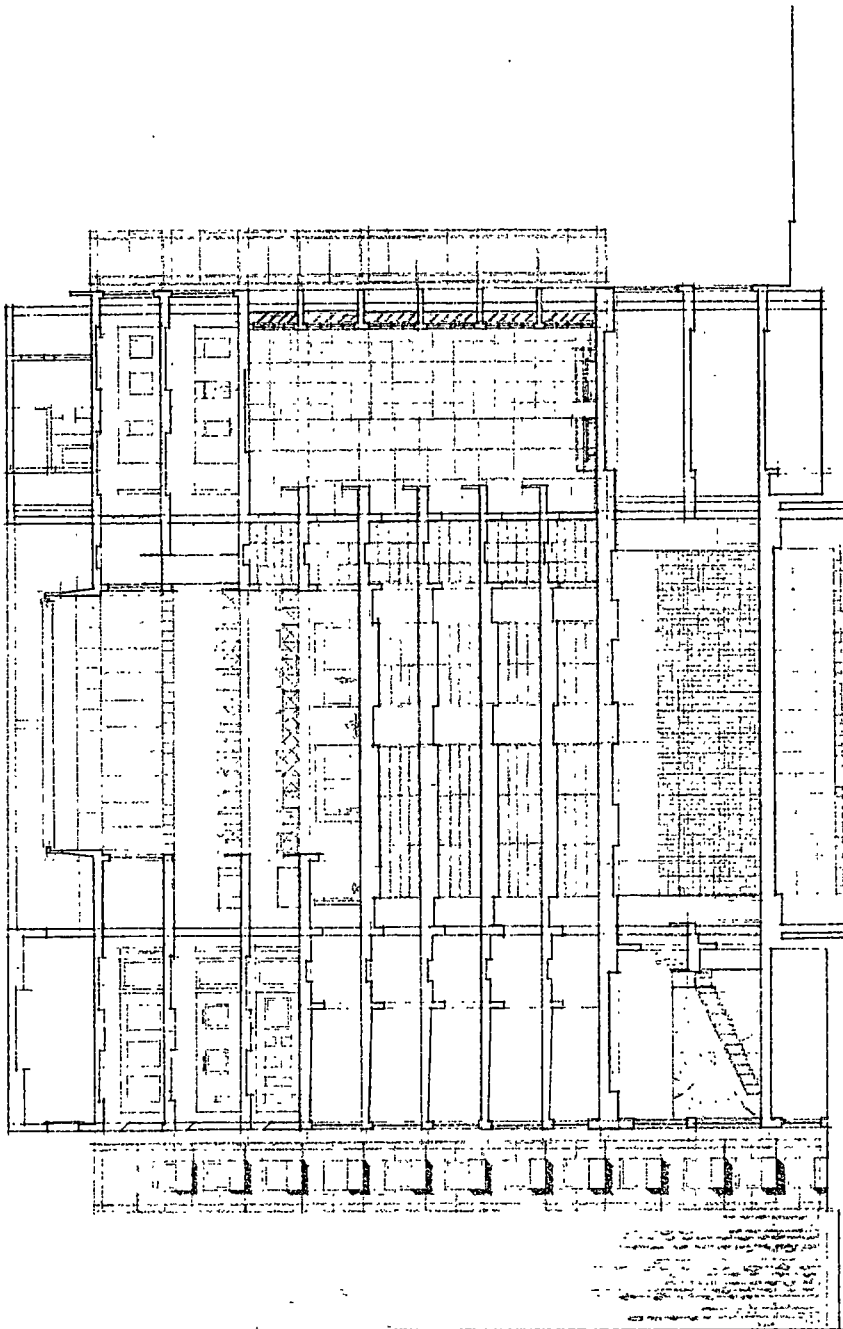


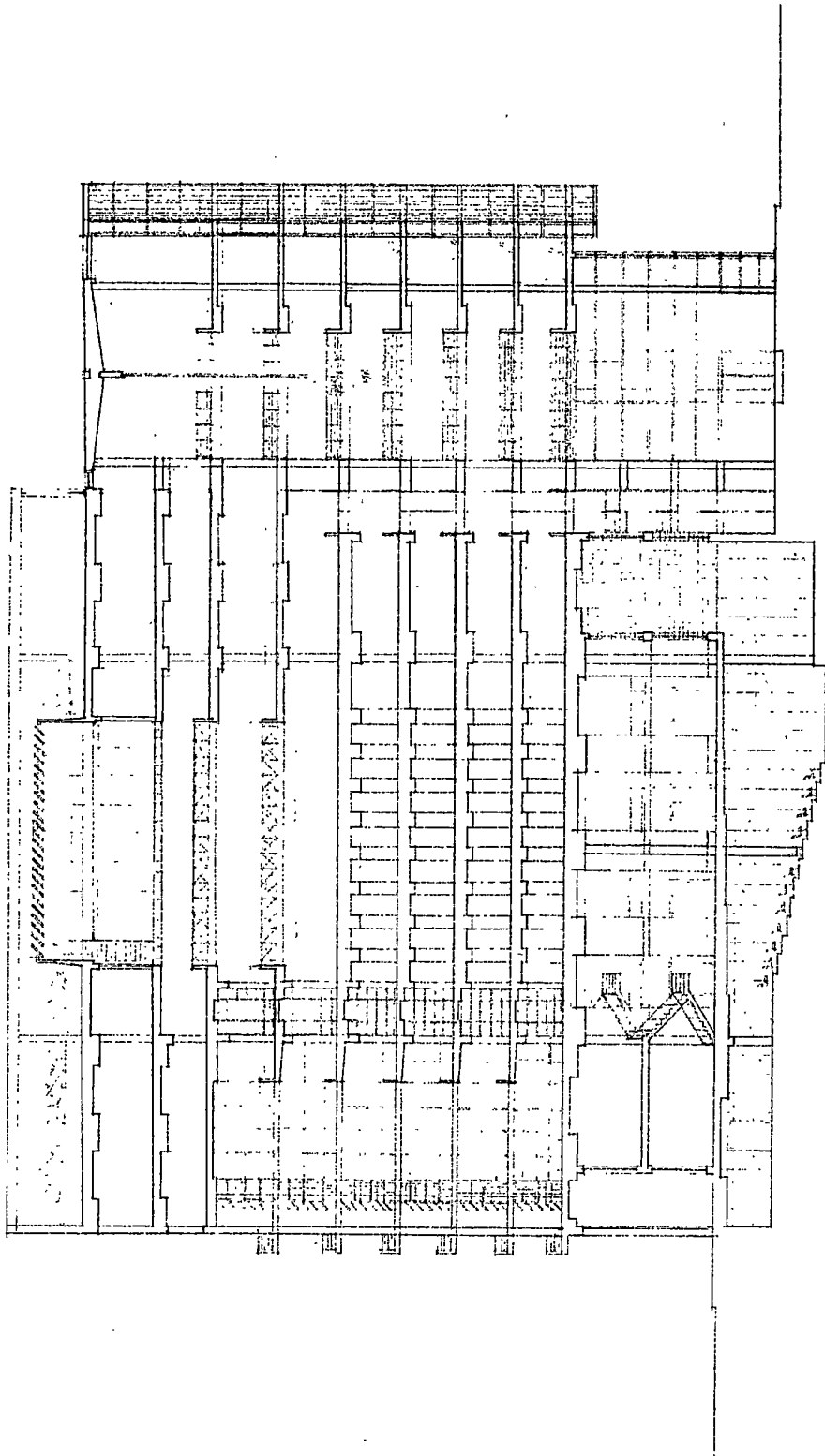


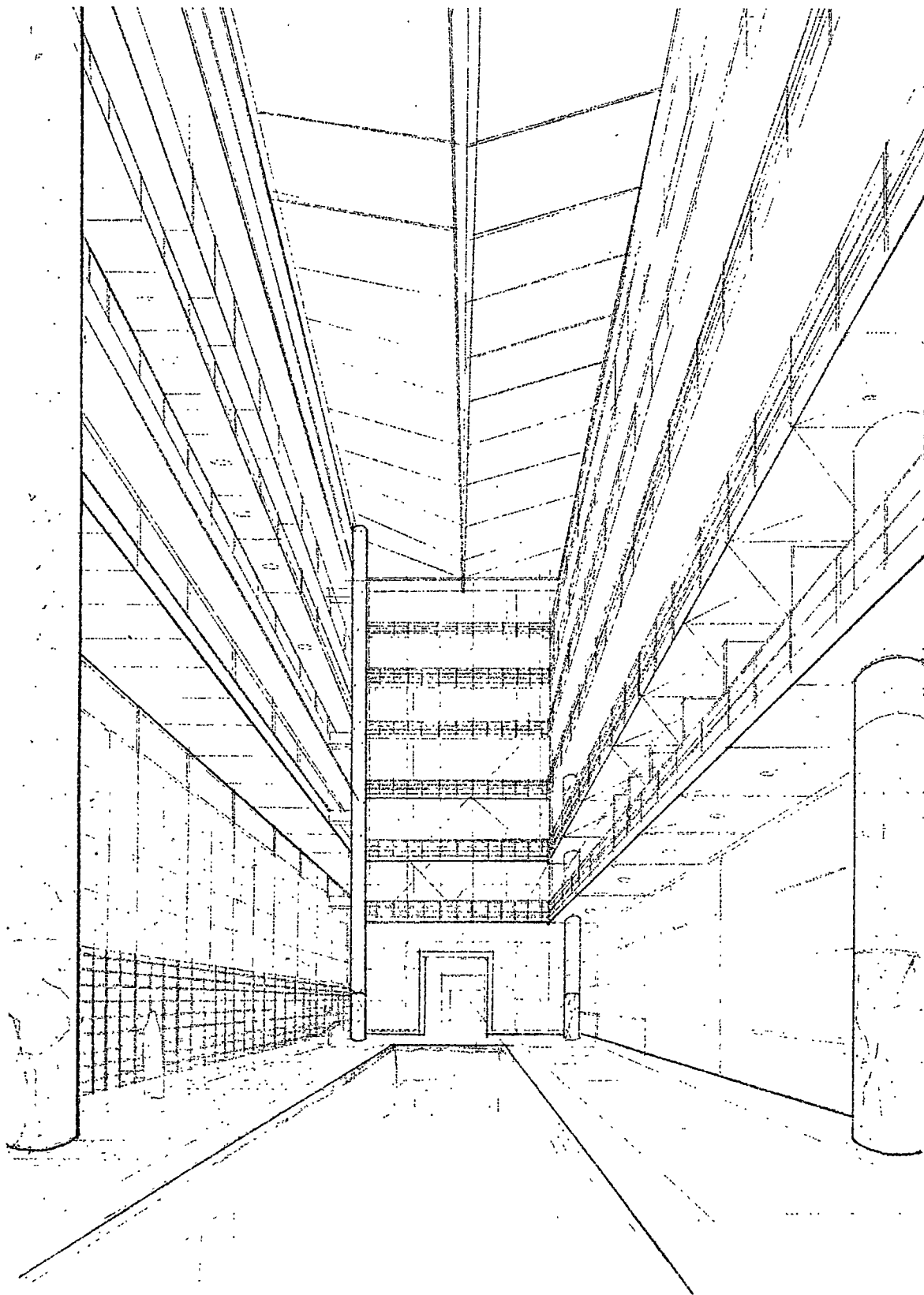
















VITA

Sumaya El-Attar was raised in Starkville, Mississippi and graduated from Starkville, High School in 1983. Since both of her parents taught at Mississippi State University, she attended the college of architecture for three years before transferring to Louisiana State University in Baton Rouge. There, Sumaya graduated with a Bachelor of Interior Design in 1990. After working for eight years, she decided to return to her original passion of architecture and entered the Master's program at the University of Tennessee. Upon graduation, she plans to continue working in and contributing to the field of architecture in a position in which her experiences in both architecture and interior design are utilized in conjunction.