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Salmiya Civic Center

by

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Thesis Submitted To The Graduate Faculty Of The Virginia Polytechnic
Institute and State University In Partial Fulfillment of the requirements
for the degree of

Master of Architecture

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Dennis J. Kilper
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Donna W. Dunay

May, 1987
Blacksburg, Virginia



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ABSTRACT

The richness of my culture is deeply rooted in its history. Its forms change and develop according to the needs of time and place...but its essence is always the same.

Its spaces are all defined and limited by boundaries that hold society together and allow development within sets of rules which maintain the general character and the cultural framework of the environment.

ACKNOWLEDGEMENT

TO

My Family For The Love And Support

Special Thanks:

Dennis

Jaan

Donna

Andrew

Heinrich

Mario

Beth

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BACKGROUND

STRUCTURE OF THE TOWN

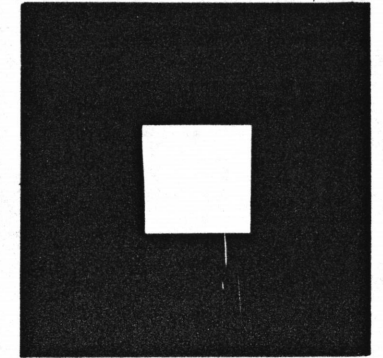
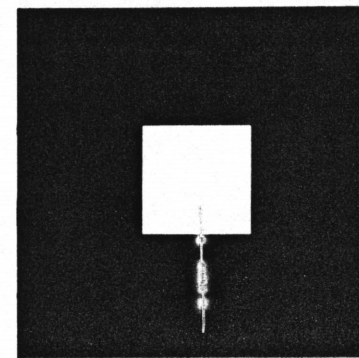
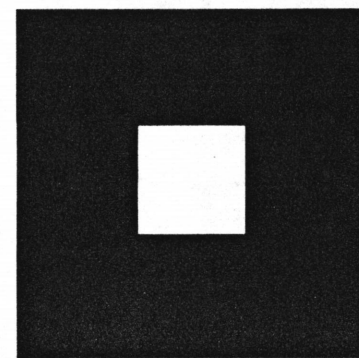
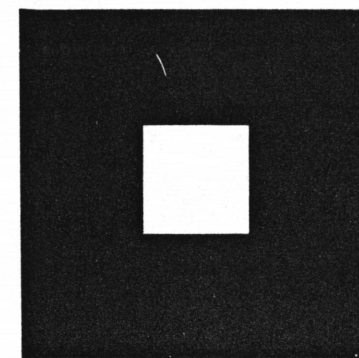
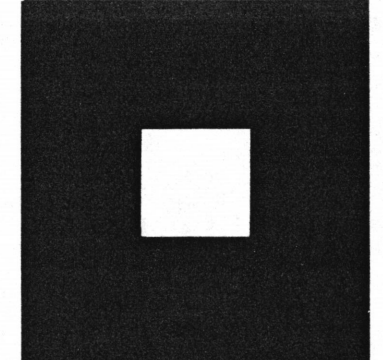
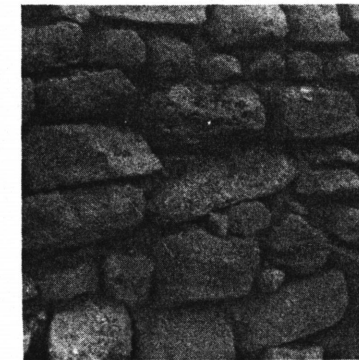
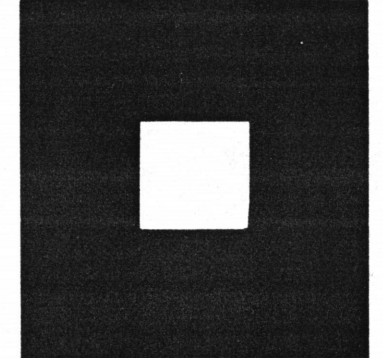
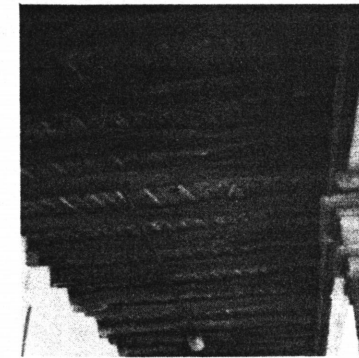
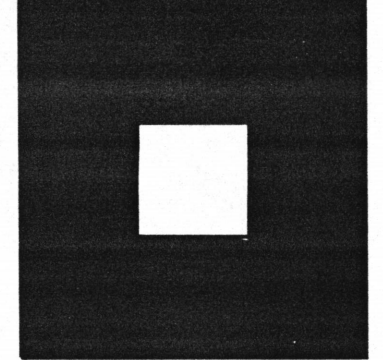
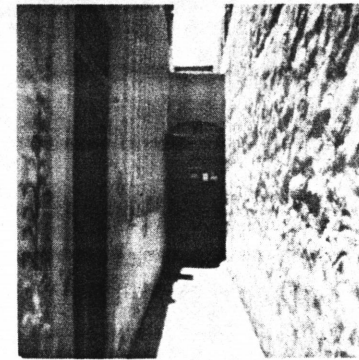
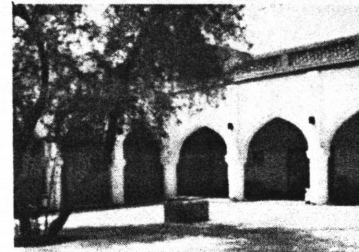
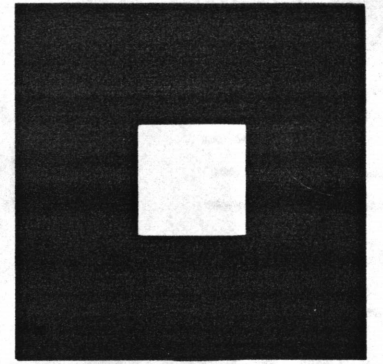
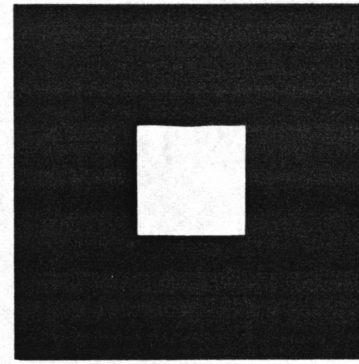
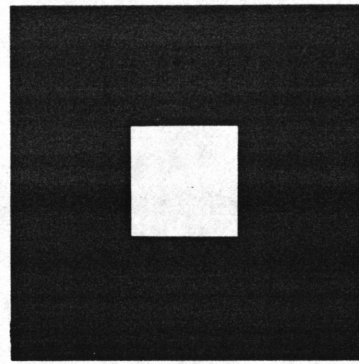
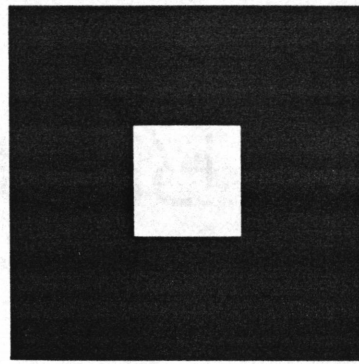
The setting for the old way of life was typical of the region: narrow streets with courtyards and houses that focus inward towards a courtyard. The narrow streets acted as a shelter from the hot sun, reducing glare and creating shade. They helped the circulation of air among crowded spaces like the markets. The creation of breezes was important in this hot region, where air movement was minimal.

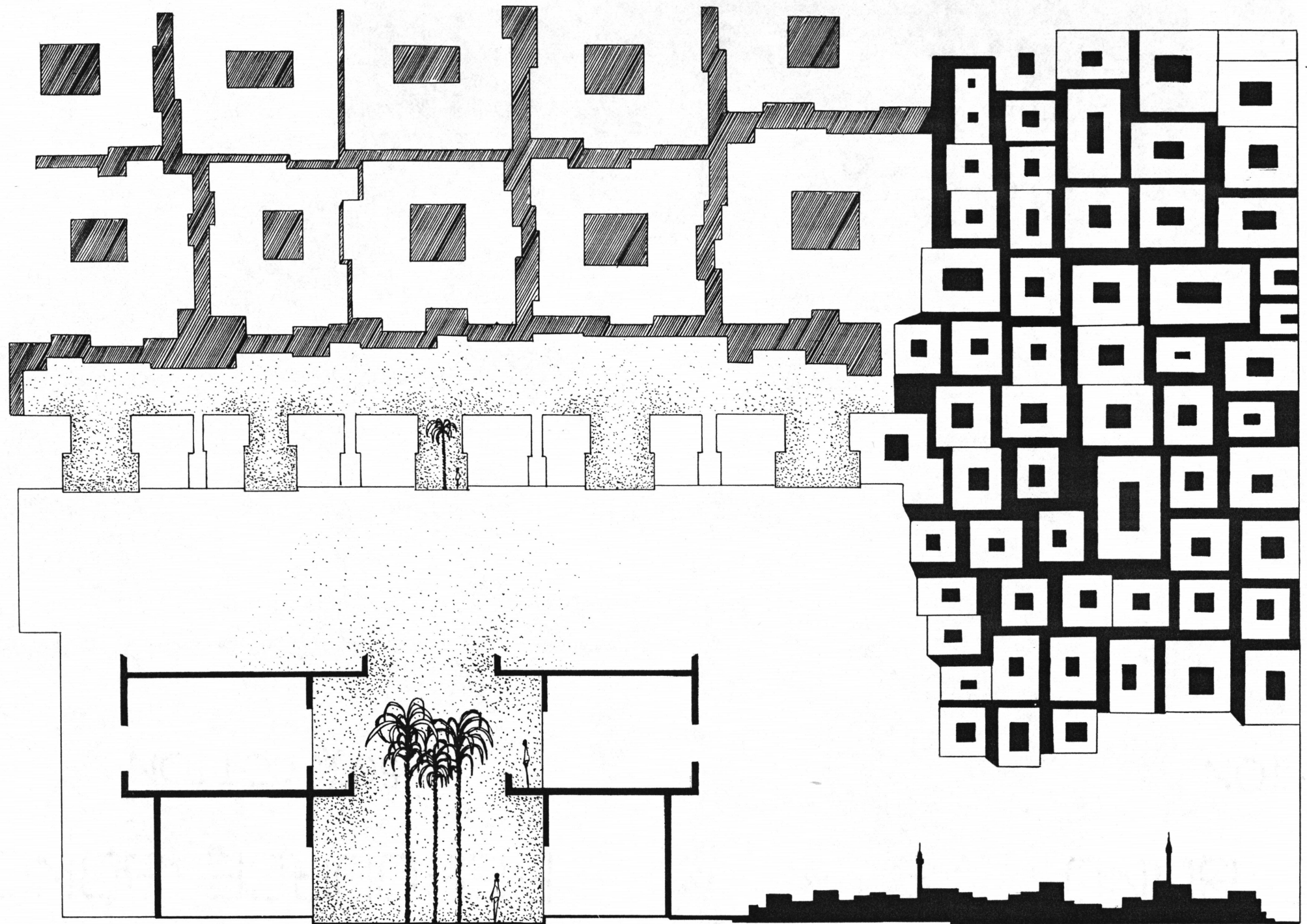
The street was a focus for community - a center where everything happened. The individual houses, however, were places of seclusion.

The traditional Kuwaiti house is organized around the courtyard for air and shade. Rooms opening onto the courtyard were shaded by a colonnade.

The form of the building that defined the central space was derived from the structure. The width of the rooms were determined by the length of the timber poles which were imported from Africa. The timber poles acted as joists for the roof. The length of the poles acted as a module which set the order of the house. Dried mud-brick were used to build the walls of the house.

The brick and the length of the timber pole that one man could handle established the human scale. It was the combination of space, order, and scale which made this traditional architecture. With a limited means, the people constructed buildings that were a simple frame for living: walls to surround you, openings for ventilation and view, and a roof to shelter you.



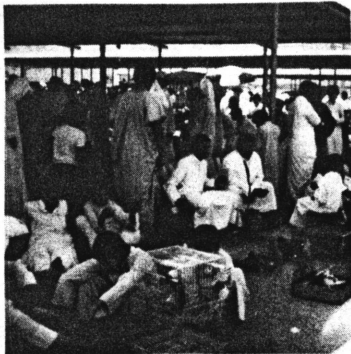
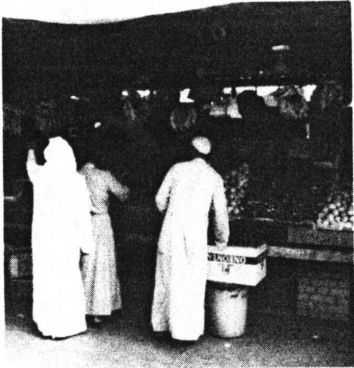
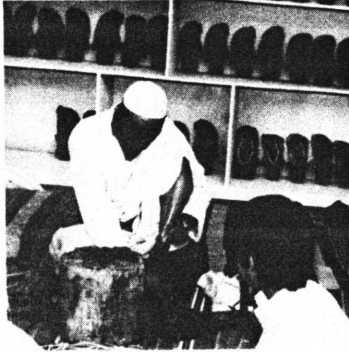
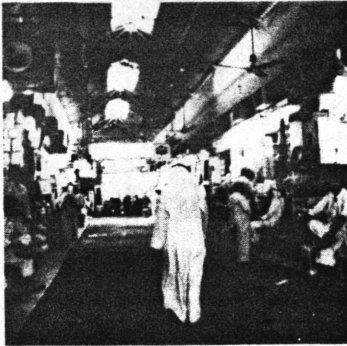
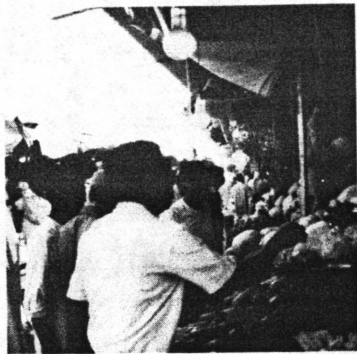


Structure Of The Town

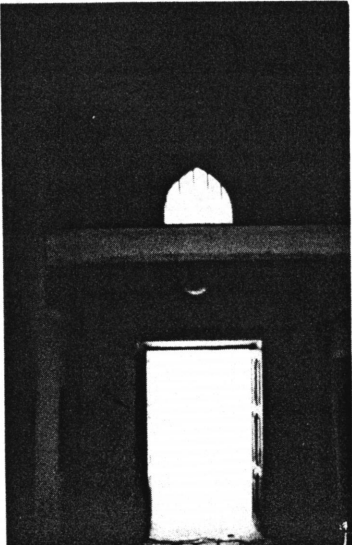
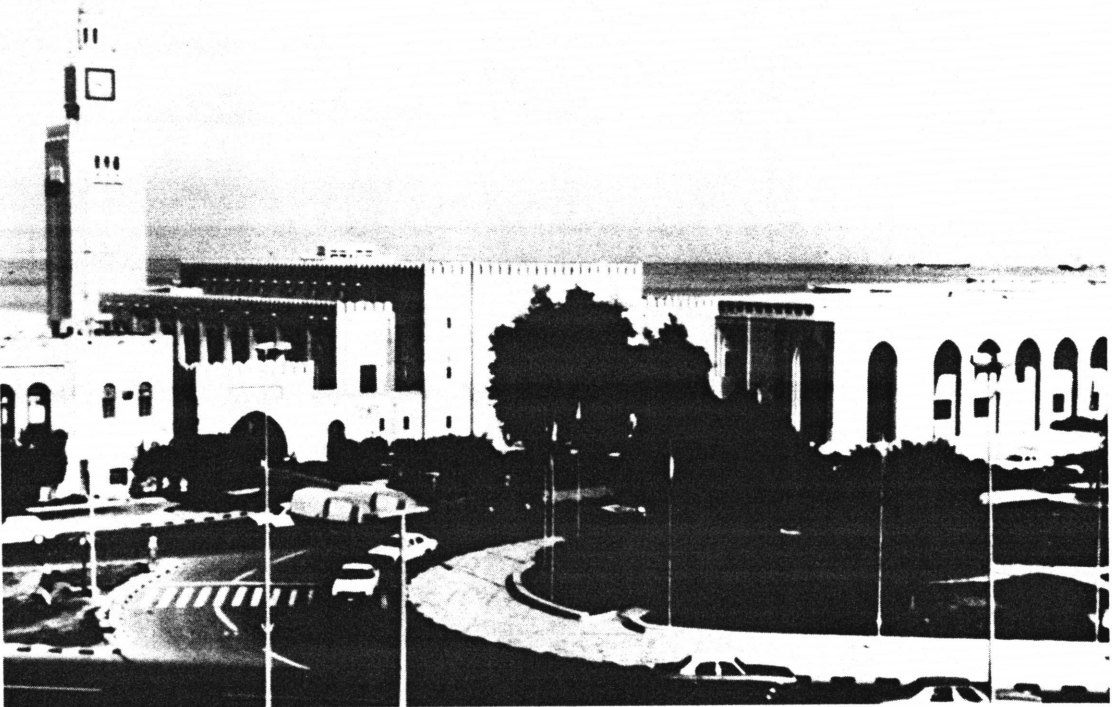
THE MARKETS

There were two types of markets: open markets and covered markets.

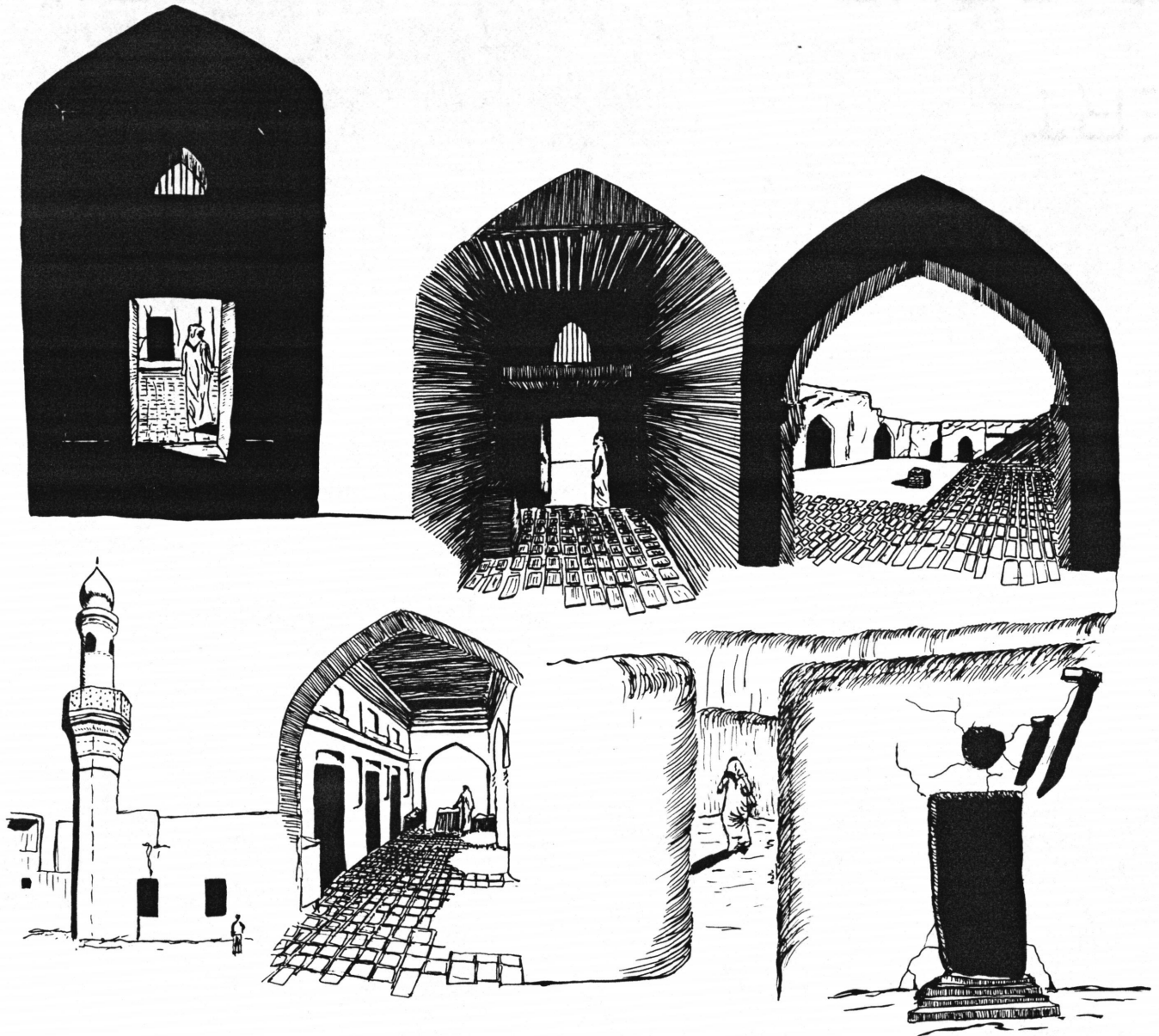
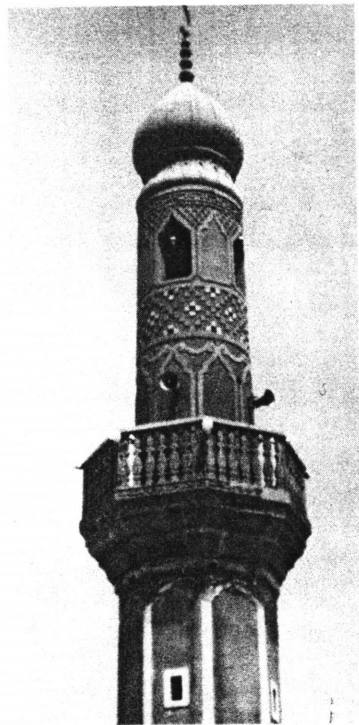
The open markets of Kuwait were not only places where trade is carried on, but also, the starting points for travelers. Along the north side of the open markets, many shelters of straw matts, palm leaves or stretched cloth upon wooden frames were set up. The covered markets were constructed with low permanent roofs over the stalls across the central passage space. The roofed markets opened in the clerestory and at the ends for ventilation. The markets were cool and shaded. Only small amounts of direct sunlight were allowed to pass through. Later, the covered markets were extended and sometimes replaced by trusses carrying light corrugated roofs.



Culture



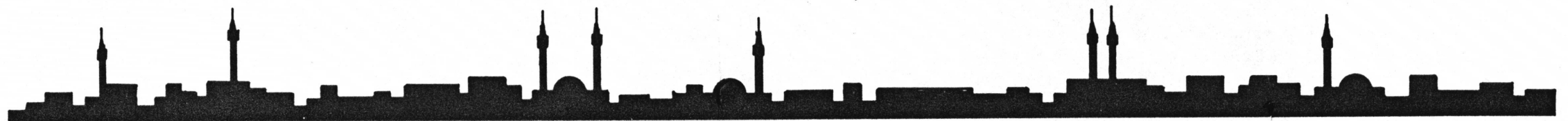
Culture



THE MOSQUE

The mosque was one of the main features of any Arab city. It was a superb architectural form and a unique tool for the designer. It controlled the silhouette of the city, acting as an architectural dominant.

The mosque has kept the tradition of great Arab architecture alive. Within each mosque, the minaret was an architectural feature of the Arab urban scene, contrasting the horizontality of a typical Arab town with its verticality. The minaret was an architectural reminder of history, tradition, and religion.



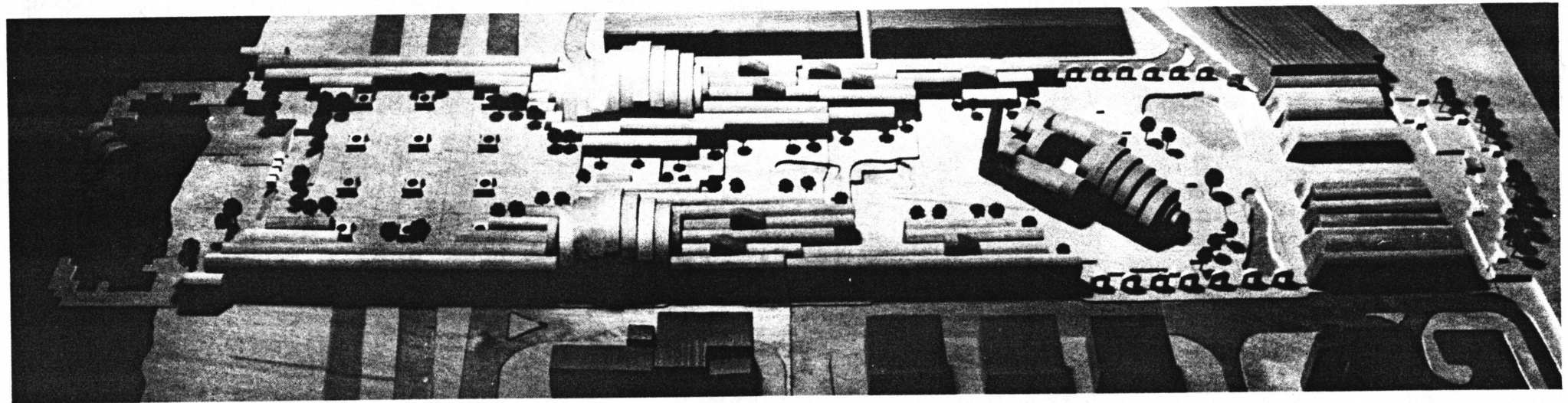
THE SEA

The sea was the source of life. Traditionally, the settlements on the coast served as trading posts as well as havens for fishermen and pearl divers. Ship building was important for trading and fishing. Large ships were used for long distance travel while the smaller boats went out on local fishing and pearl diving trips.

The importance of the sea trade was intensified after the discovery of oil. However, the sea as a source of life - of beauty - diminished. Pearl divers and the fishing boats were replaced by giant oil tankers, thus ending the people's intimate relationship with the sea.

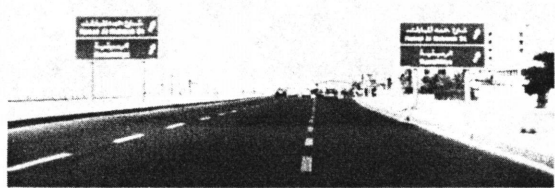
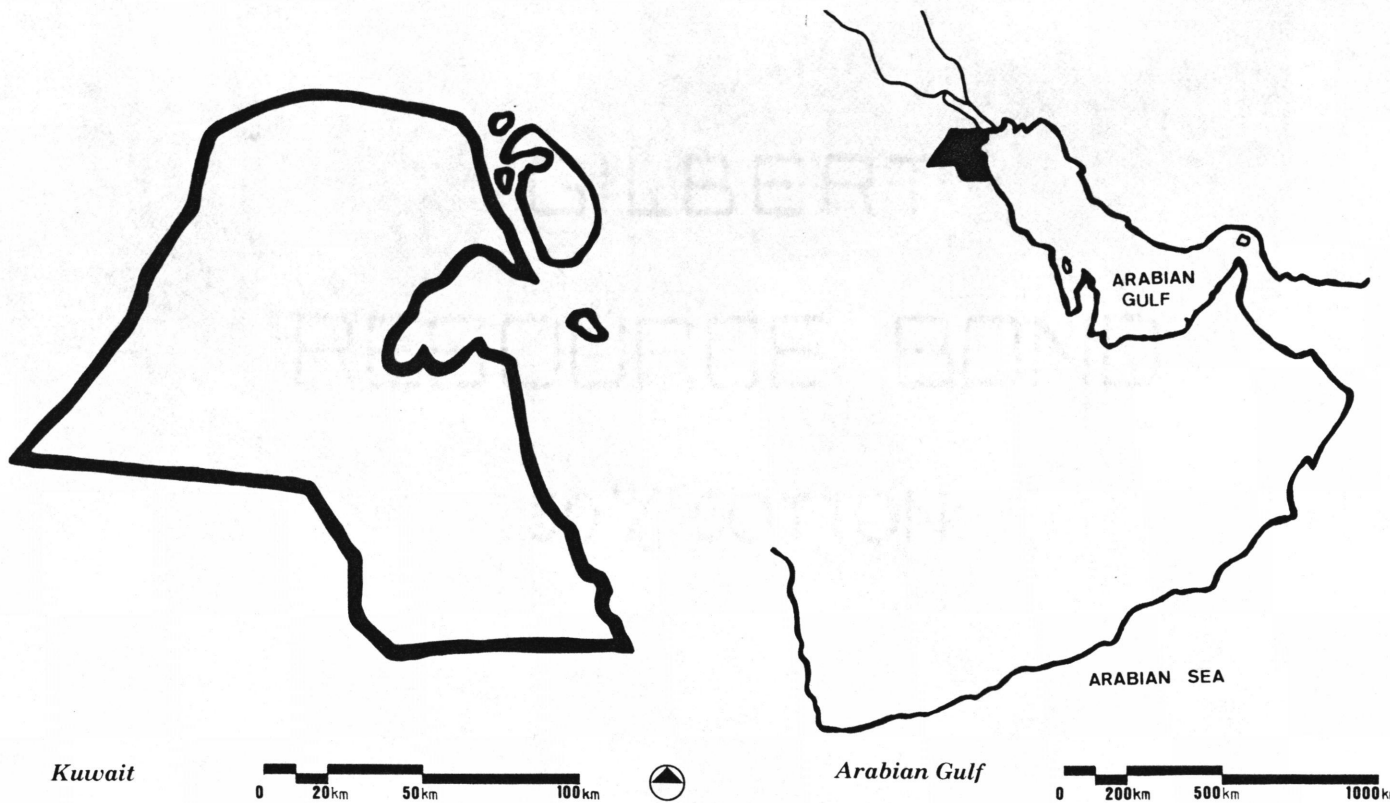


Salmiya Civic Center



THE SITE

Kuwait lies at the side of the head of the Arabian Gulf, where the coast curves inland to form spacious bay, 12 miles long and 23 miles wide. The coast is low throughout the length of Kuwaiti territory, which runs a distance of 120 miles from Iraq to the north and Saudi Arabia to the south. The depth of the country away from the coast does not exceed 90 miles. The site is located at Salmiya area which lies 8 km. to southeast of the old town of Kuwait. It is mostly residential, but also contains a major commercial area.

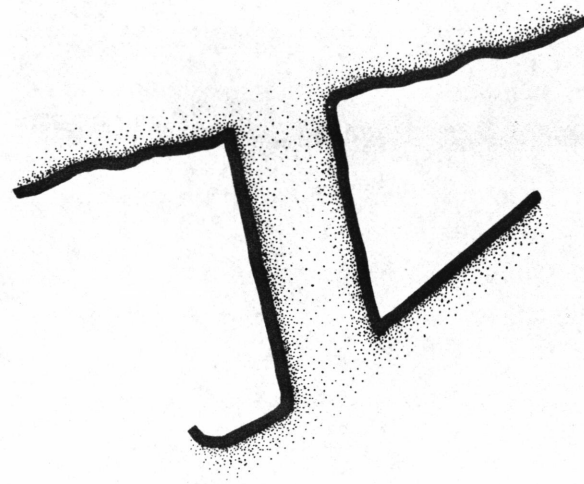


CONCEPT

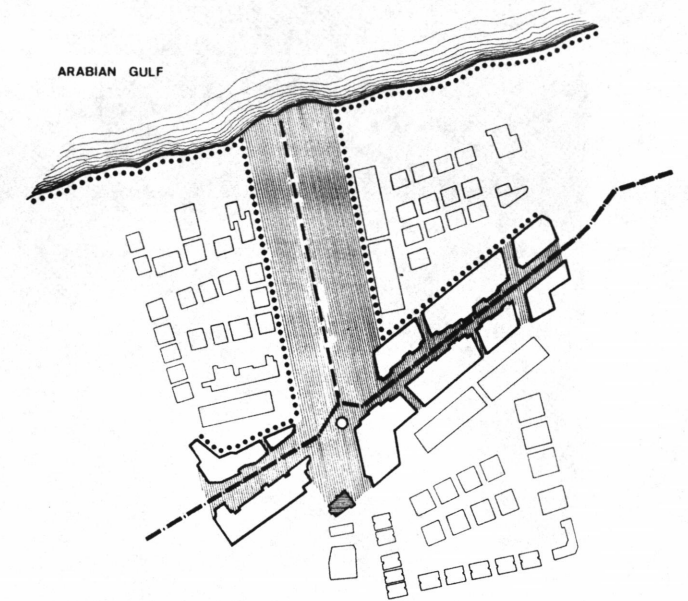
The intent is to tie the commercial zone to the Arabian gulf by means of a pedestrian space where people meet, communicate, and interact. It is space defined by the buildings that surround it. The wall of these buildings offers part of itself to the central plaza. The project is composed of distinct individual buildings, each organized around a courtyard just as the traditional Kuwaiti house was.

Among the buildings that compose the project, the mosque holds special significance. The mosque is the symbol of religion in the region and it is a landmark in the town.

It is oriented towards Mecca, which creates the two minor axes through the site.

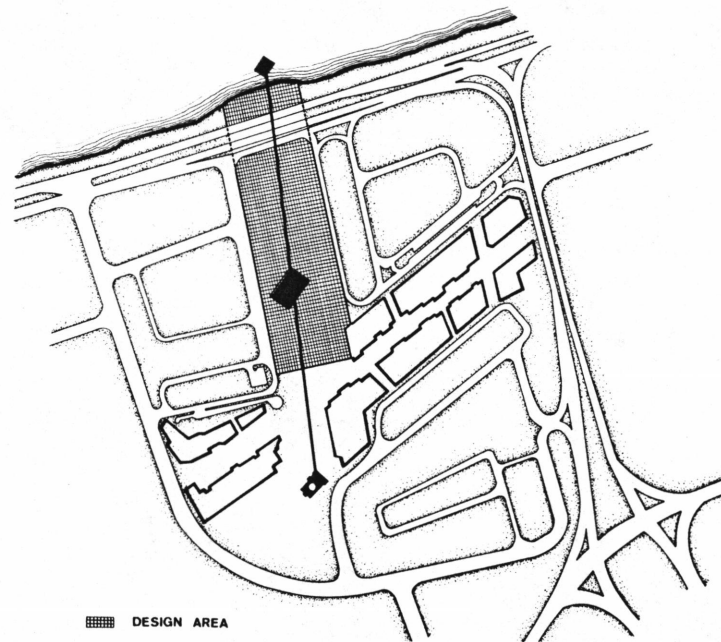


Pedestrian Tie Between Commercial Zone And The Arabian Gulf



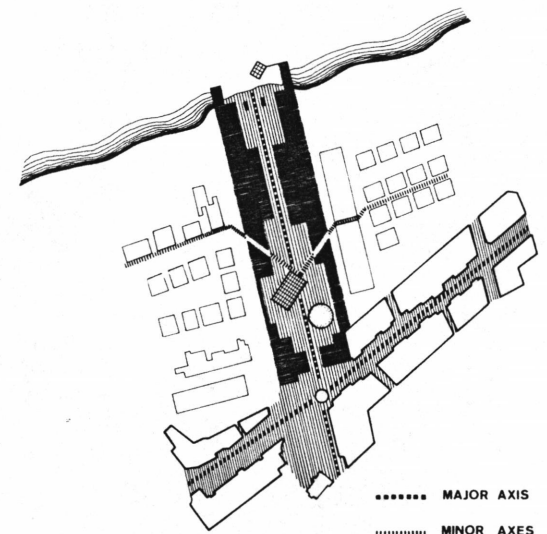
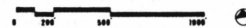
--- COMMERCIAL PATH
--- PEDESTRIAN TIE

Pedestrian Movement



DESIGN AREA

Traffic Movement And Mosque Axis

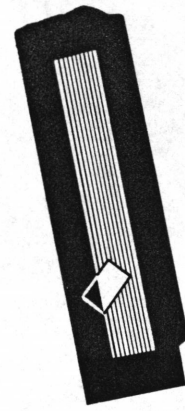


..... MAJOR AXIS
..... MINOR AXES

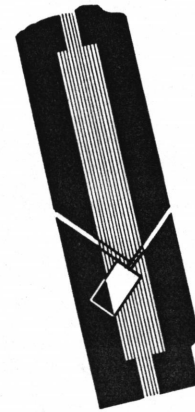
Walls...Plaza...Mosque



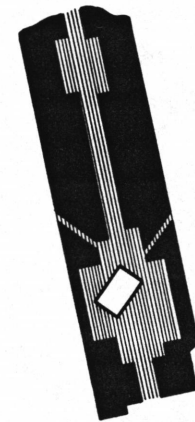
A wall....Courtyard....Mosque



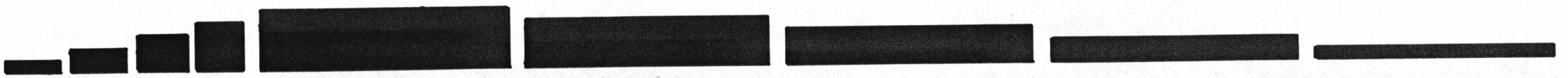
A wall....Courtyard....Mosque....Paths



Community



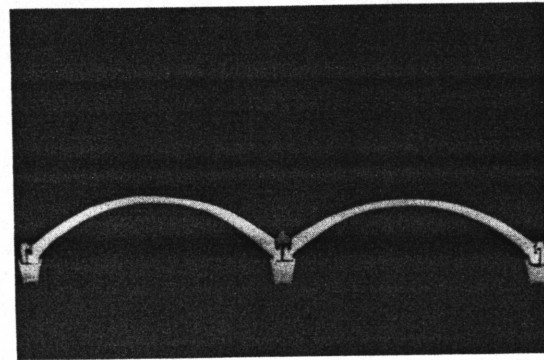
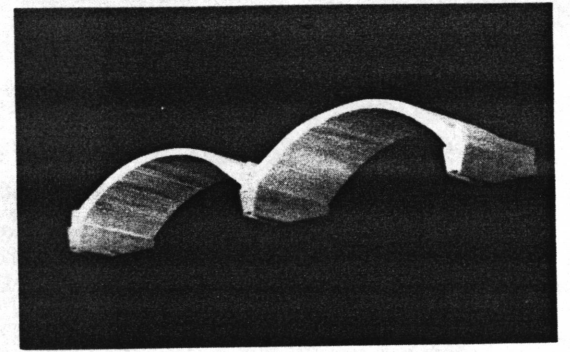
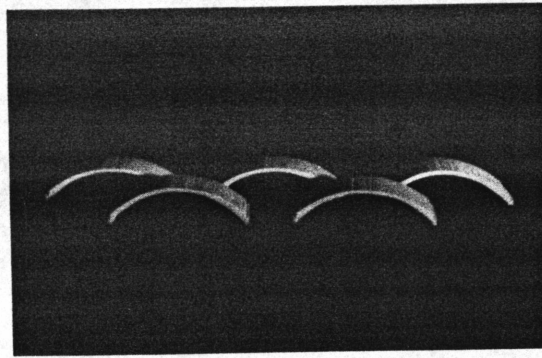
Plaza Motion



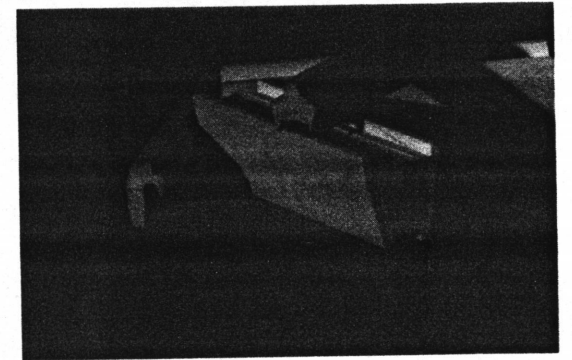
THE STRUCTURAL SYSTEM

The structure of the building is based on a cast-in-place concrete bearing wall system which runs along the site (major axis direction) with massive concrete walls outside towards the street and transparent walls inside towards the plaza.

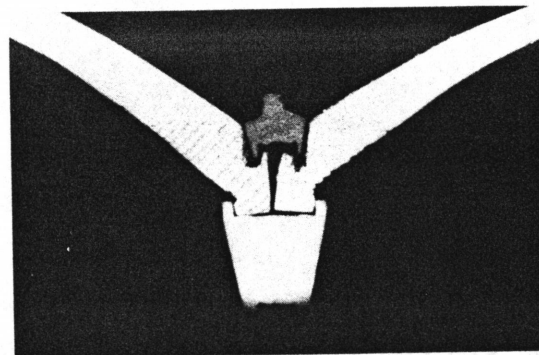
The roofs are pre-cast concrete vaults which span 20 ft. between the walls, resting on deep concrete beams. To accommodate wider spans, varying from 40 ft. to 120 ft., the roofs are vaulted concrete trusses on concrete girders.



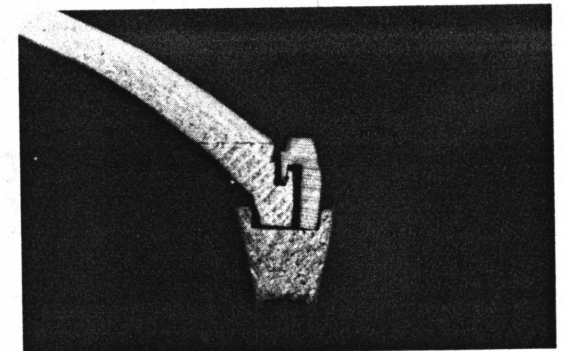
Vaults Connection



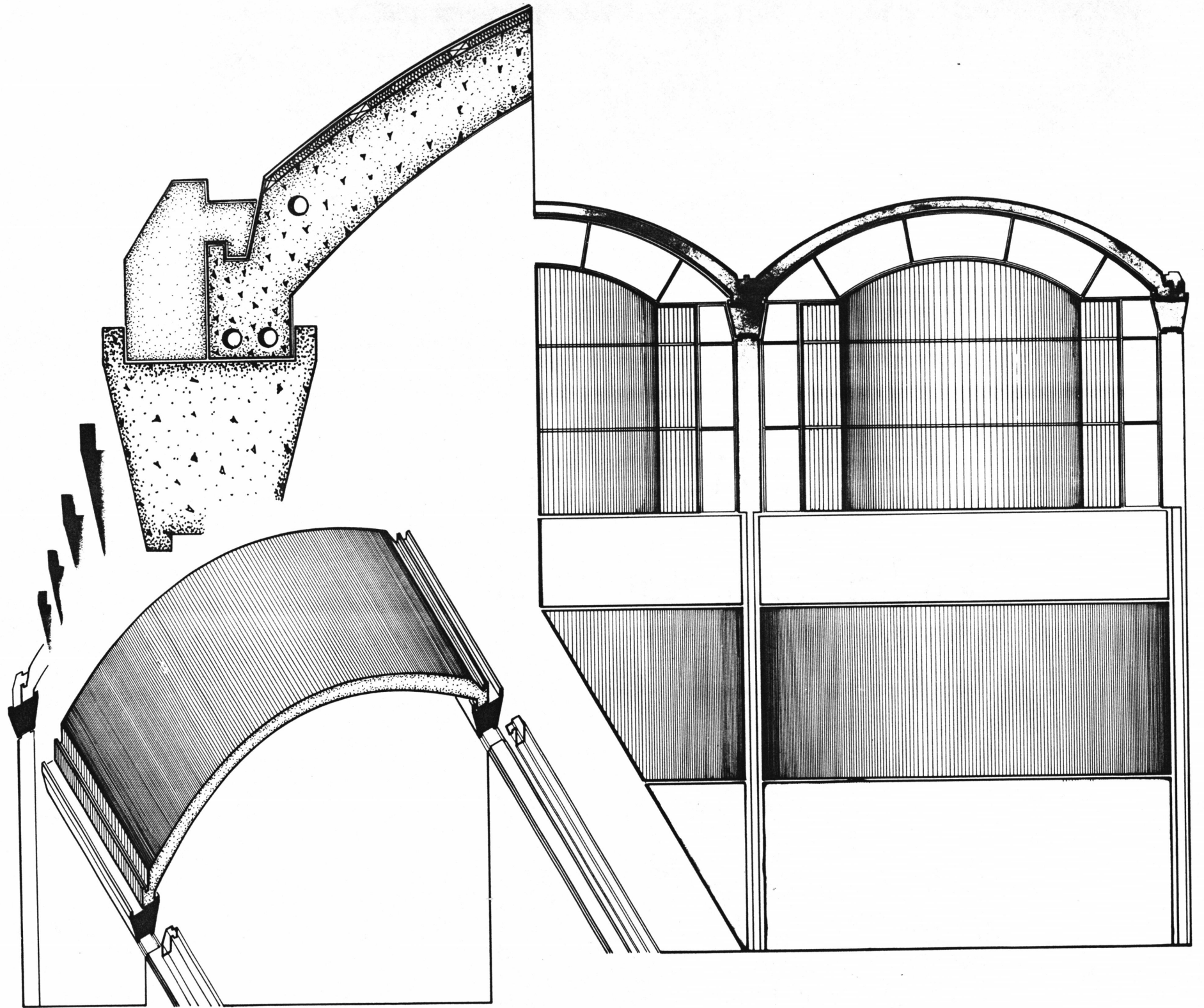
Beams



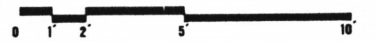
Two Vaults Connection



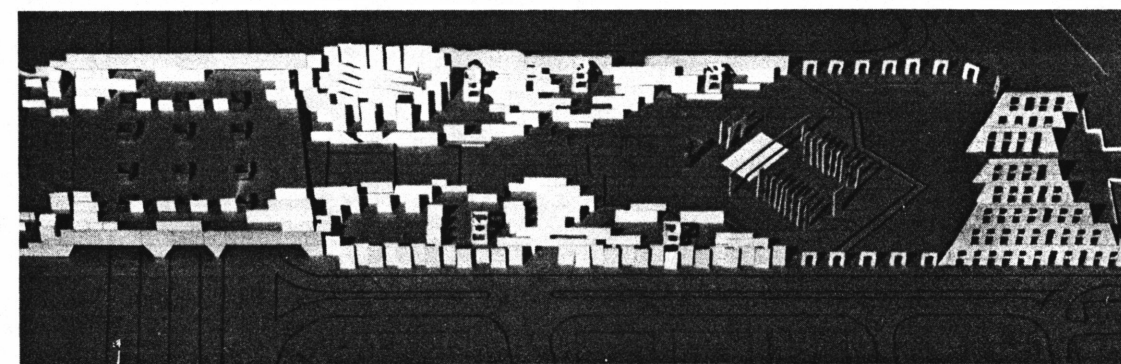
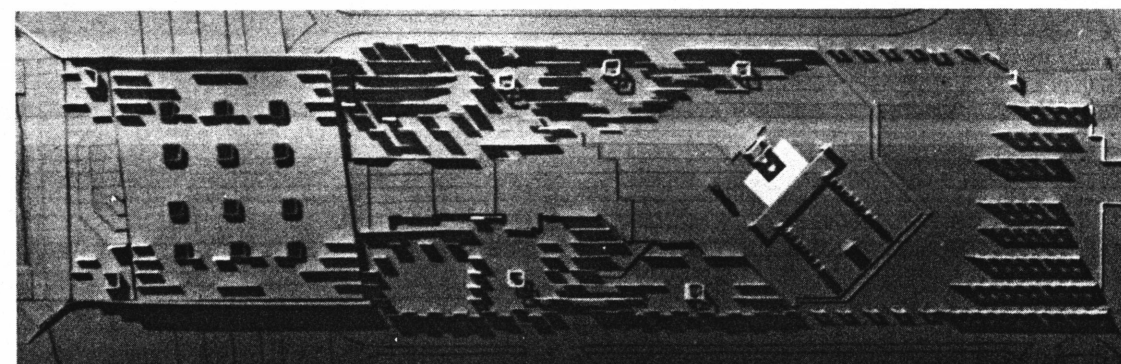
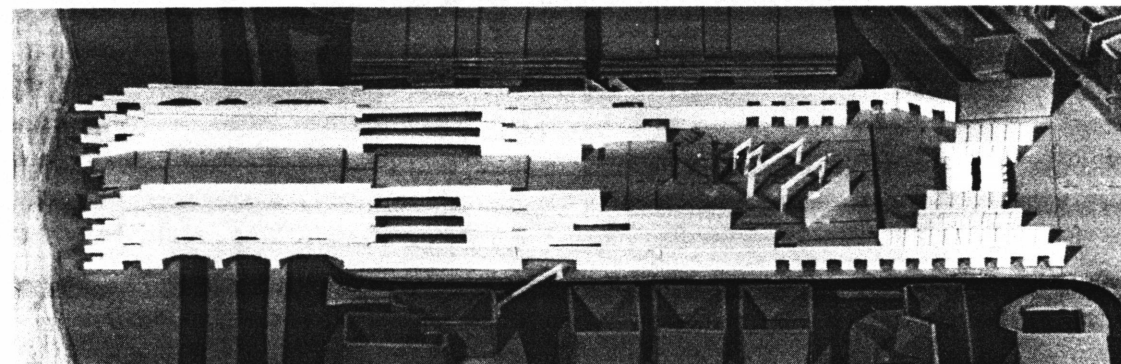
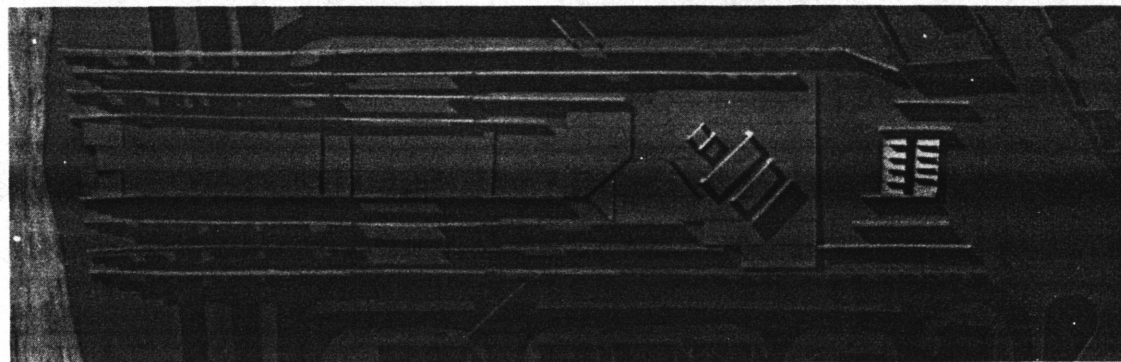
One Vault Connection



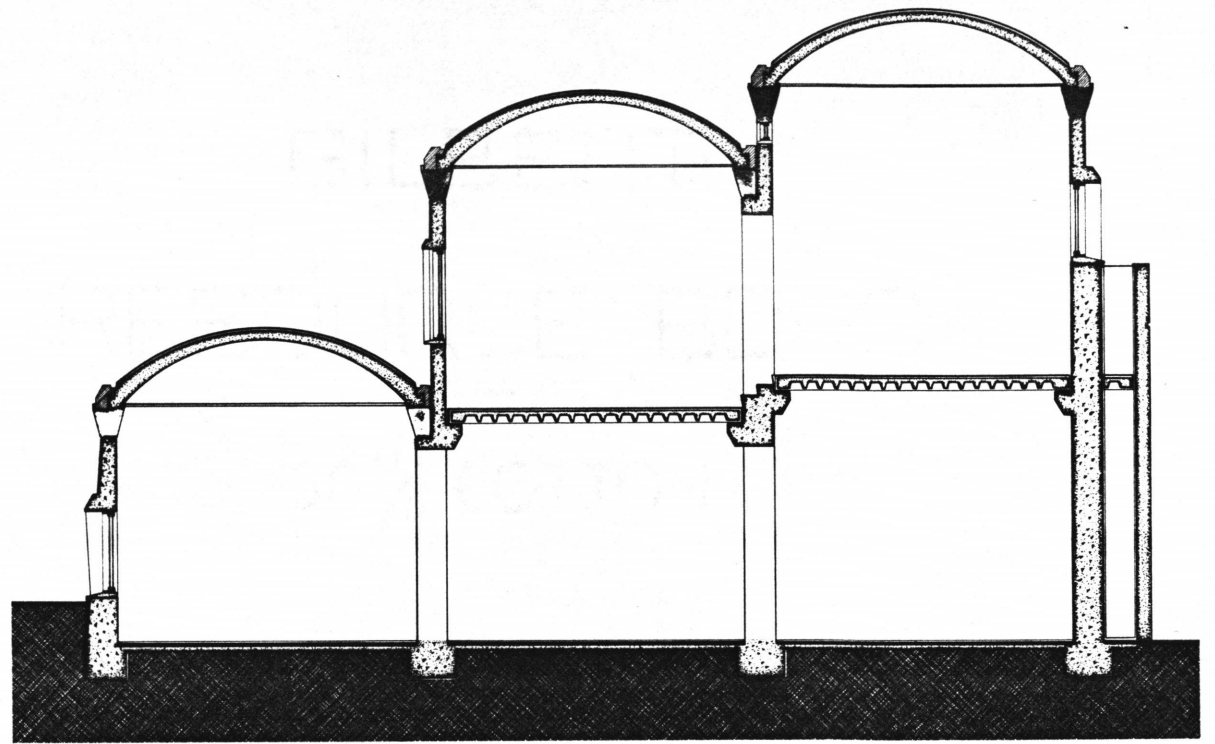
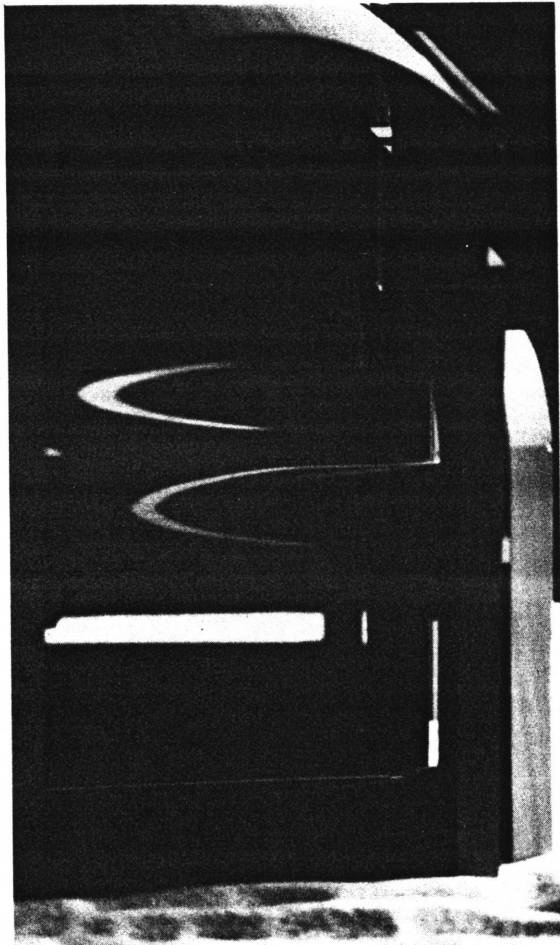
Structural Details



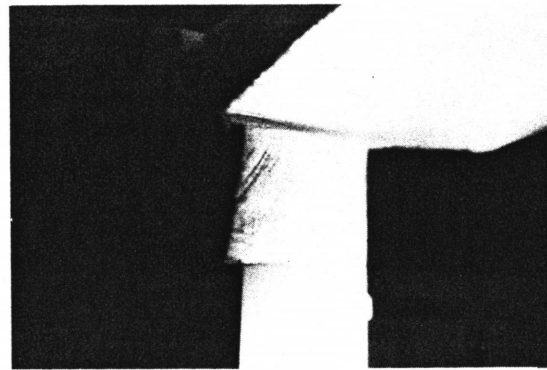
Development



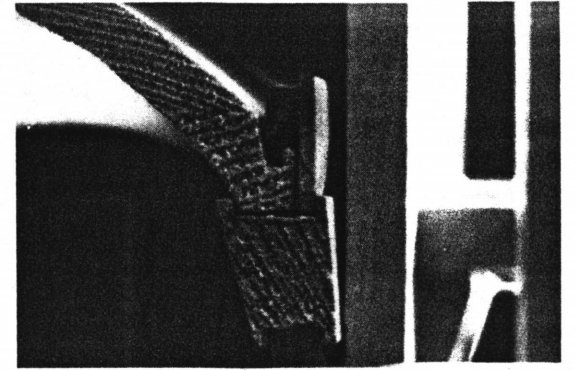
Typical Section



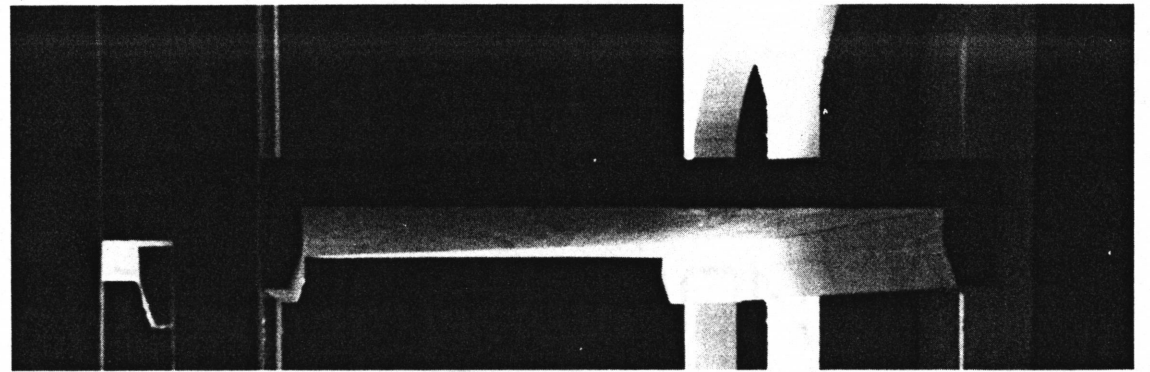
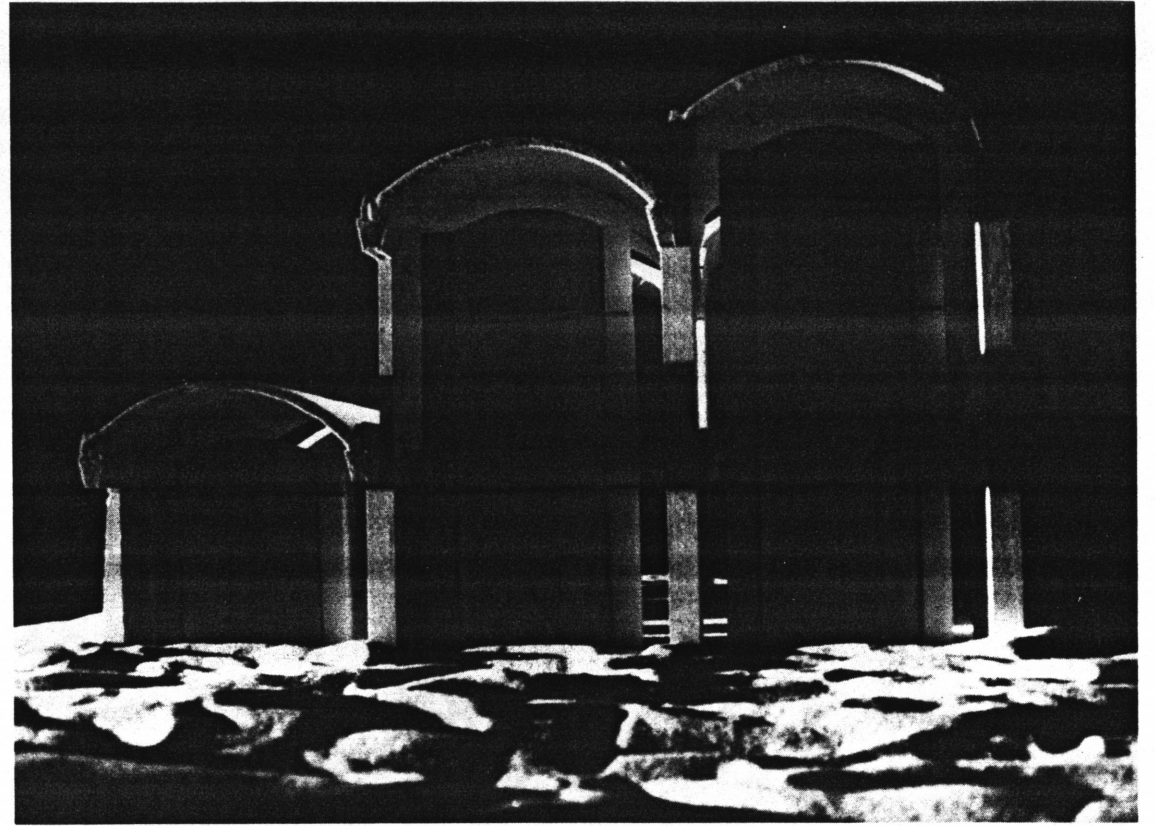
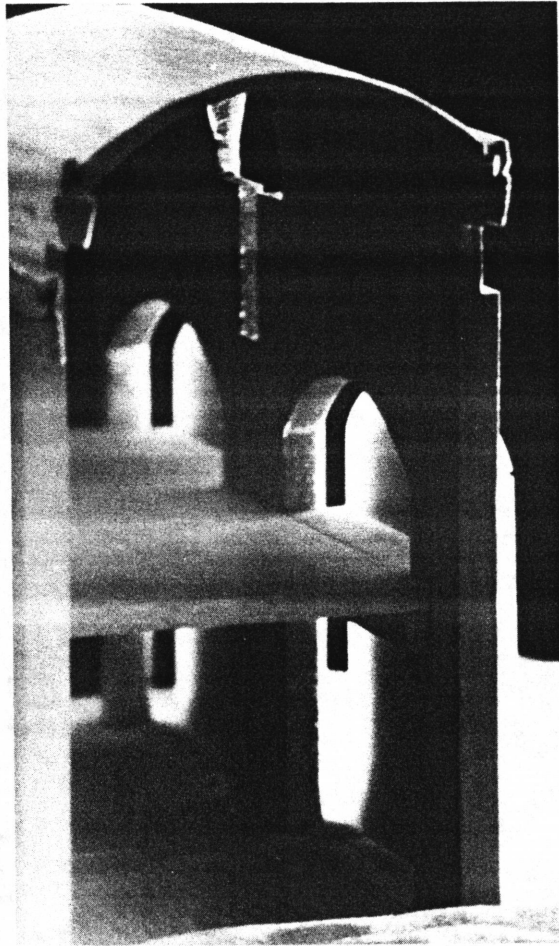
Typical Section



Vault-End Connection

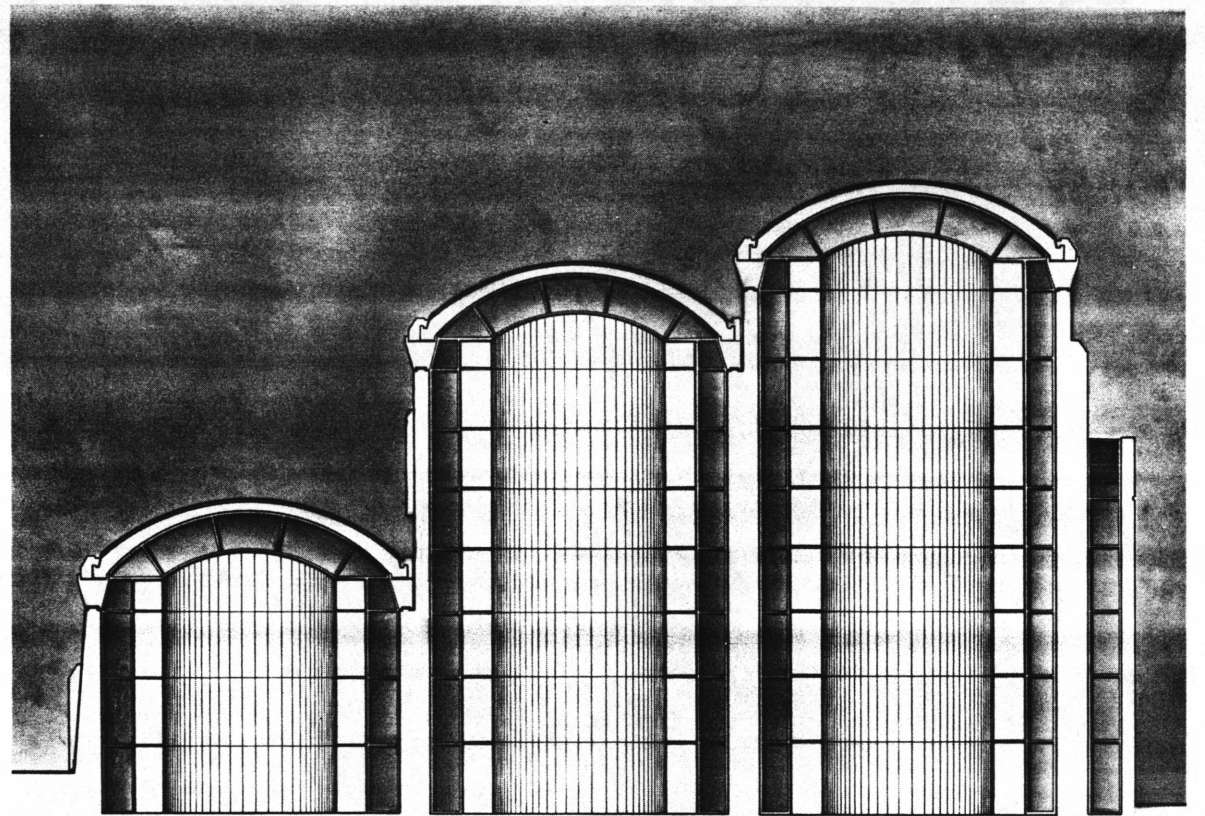


Vault-Wall Connection

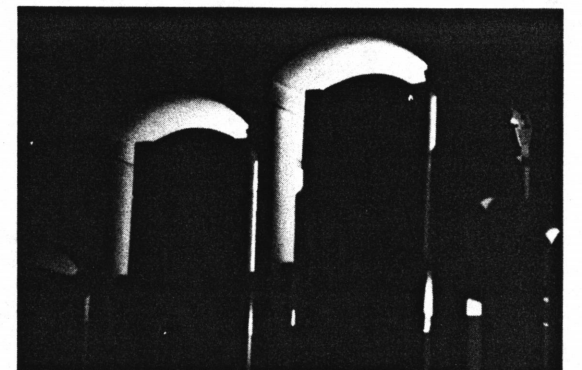


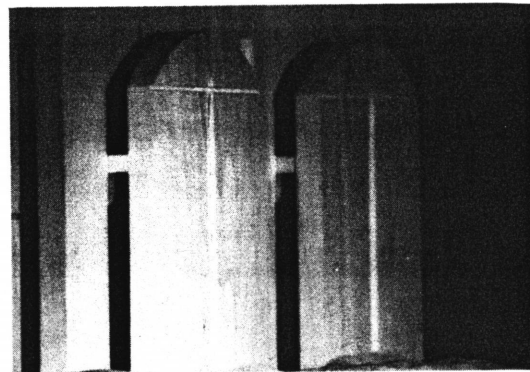
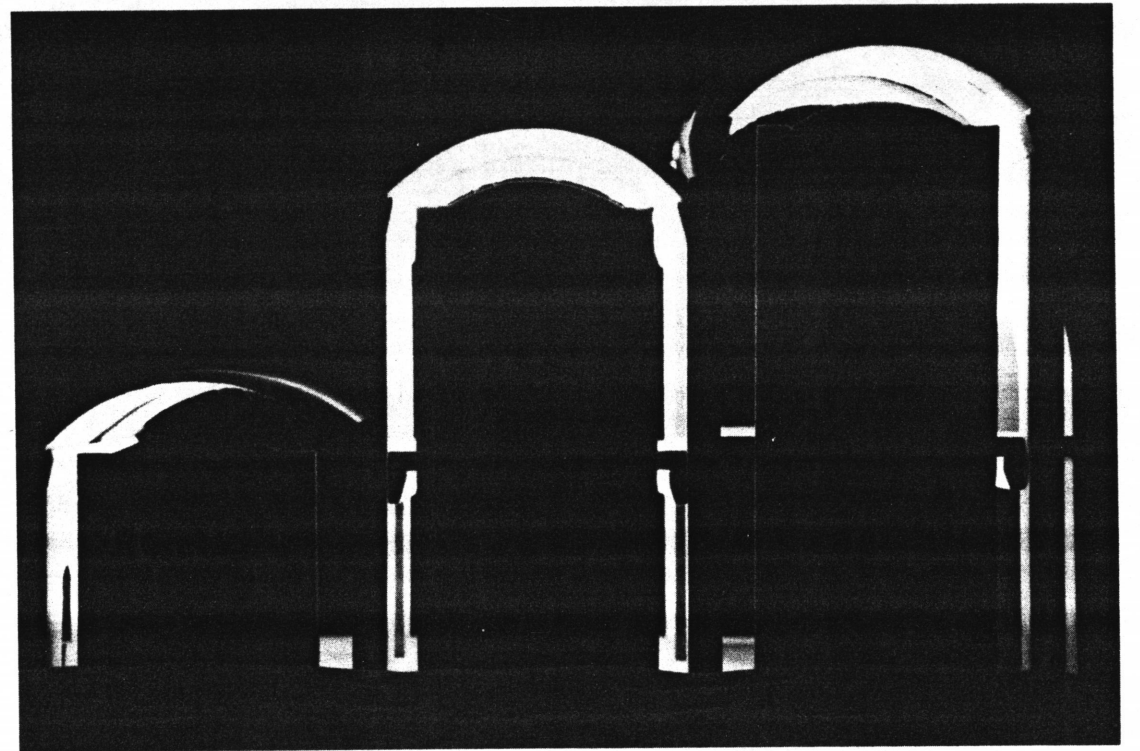
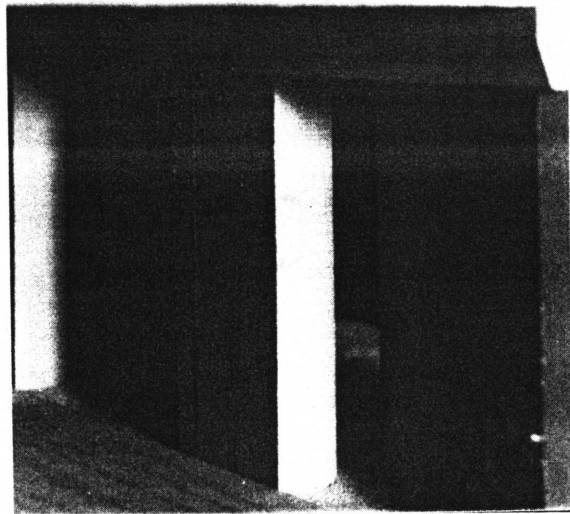
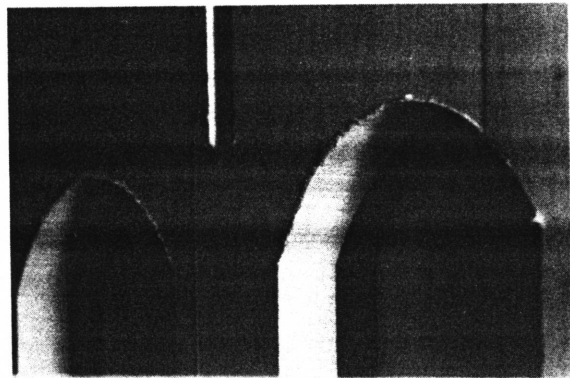
50% COTTON

Typical Elevation

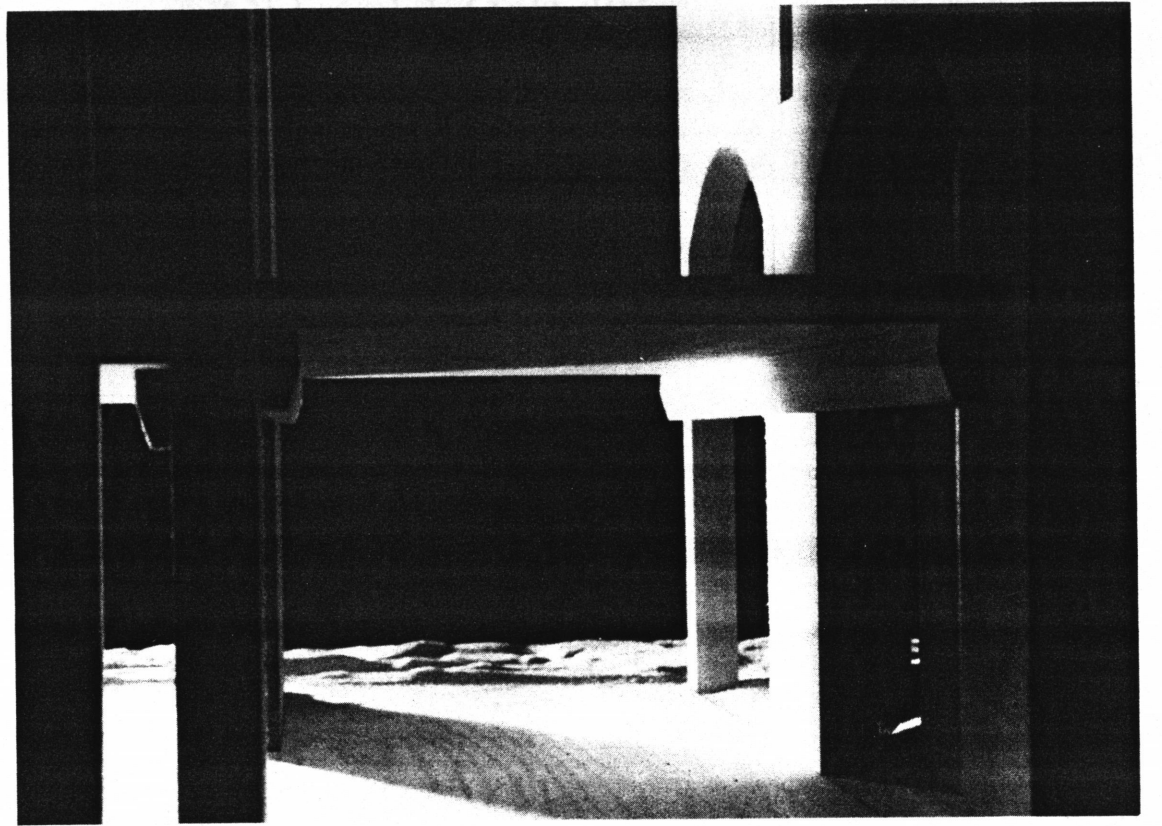
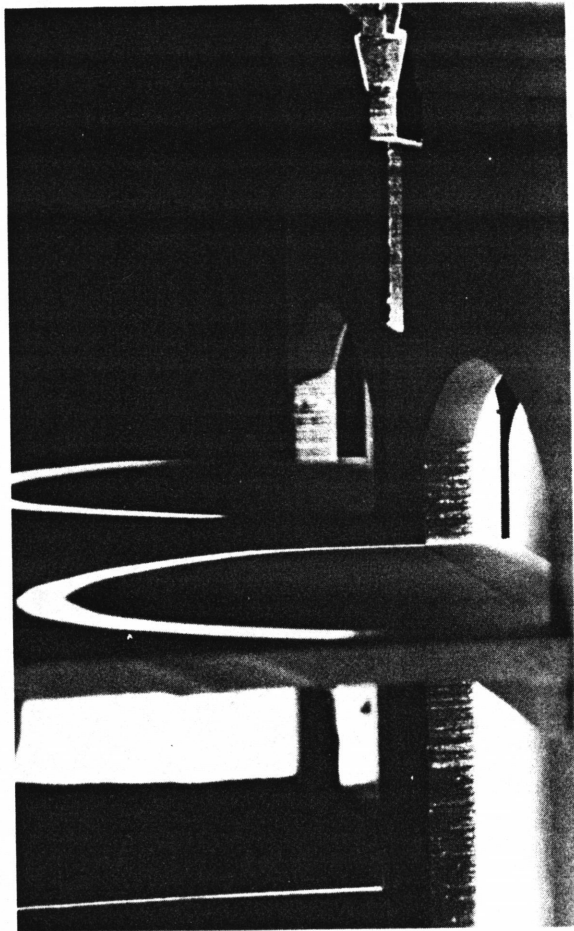


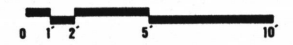
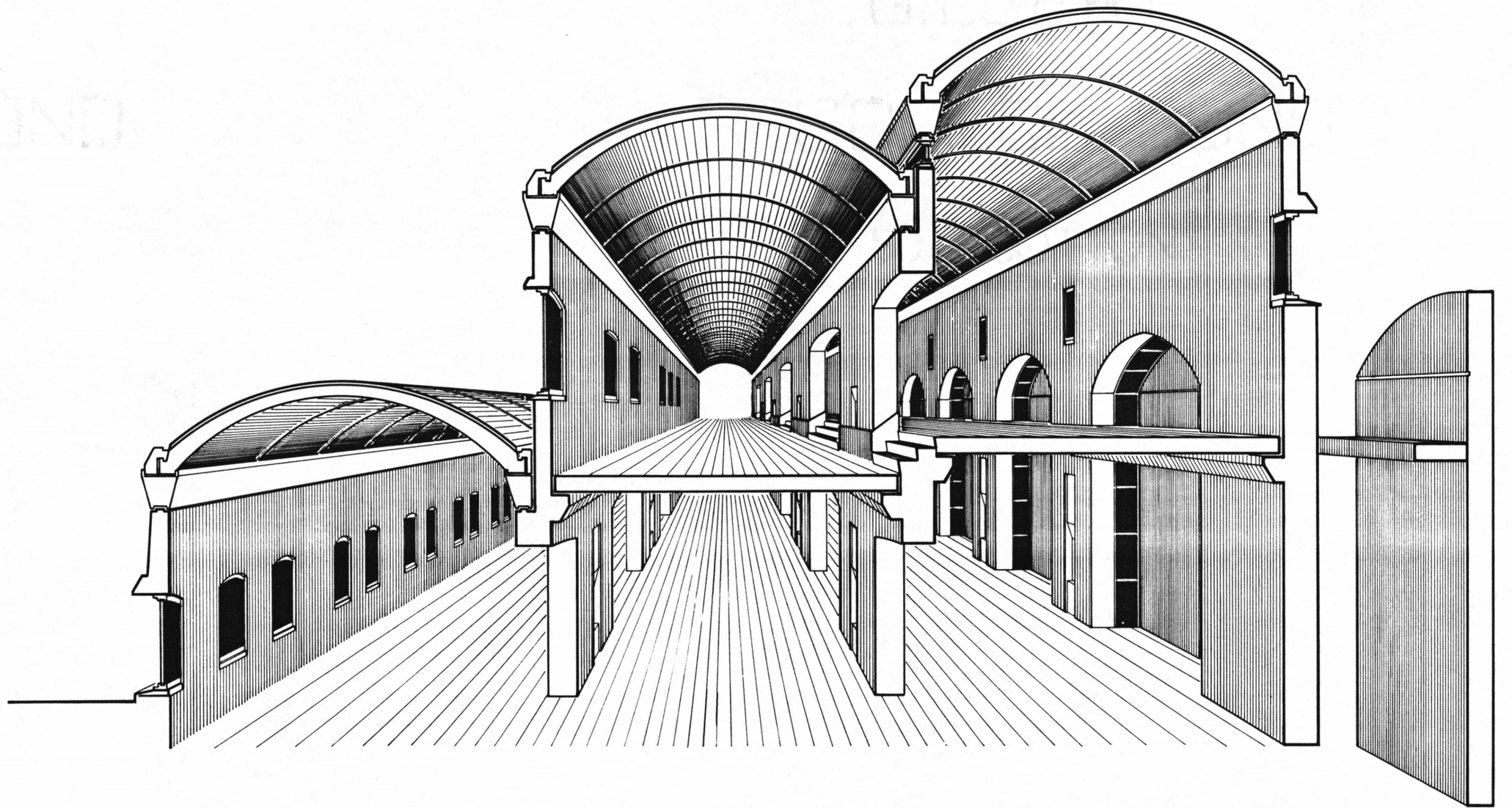
Typical Elevation

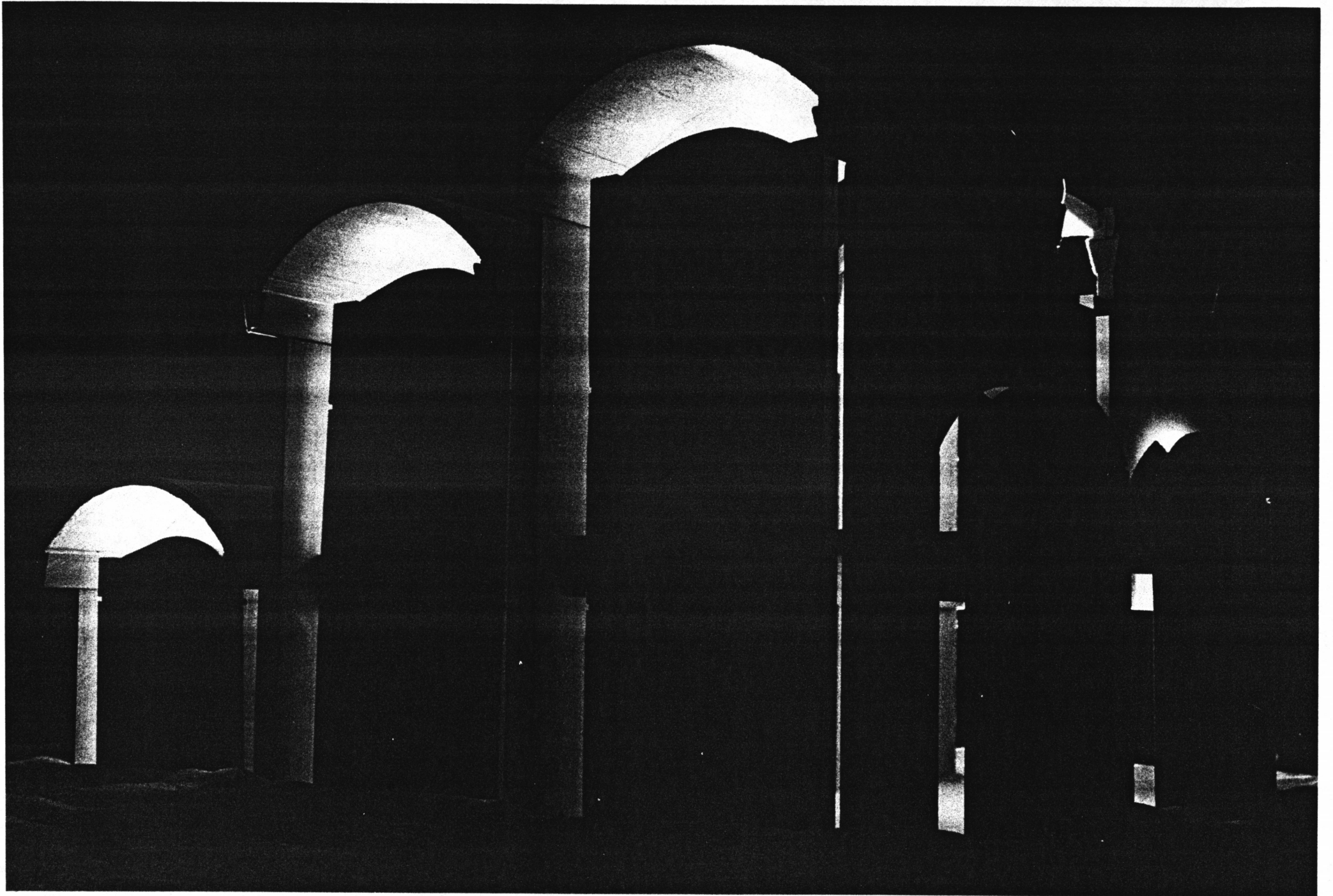




Interiors



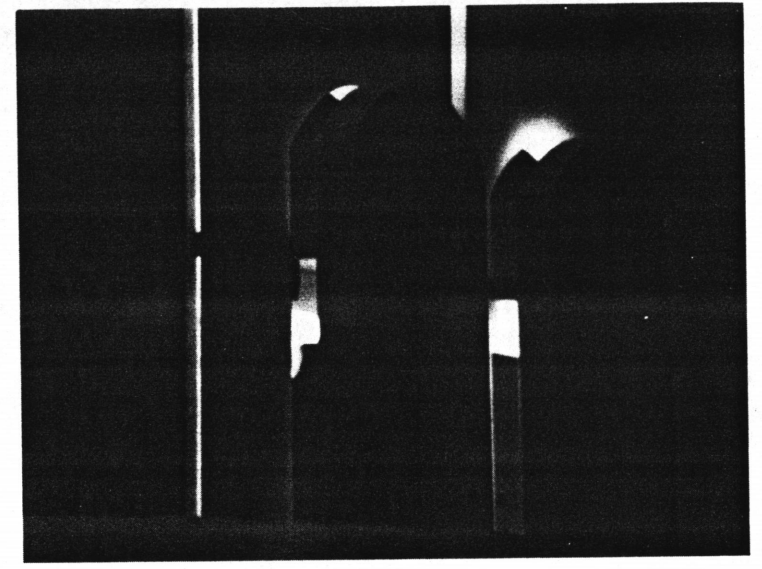
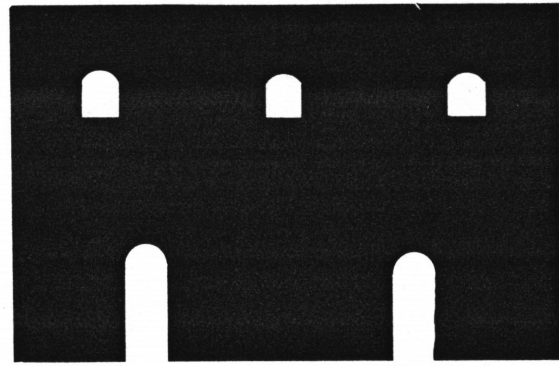




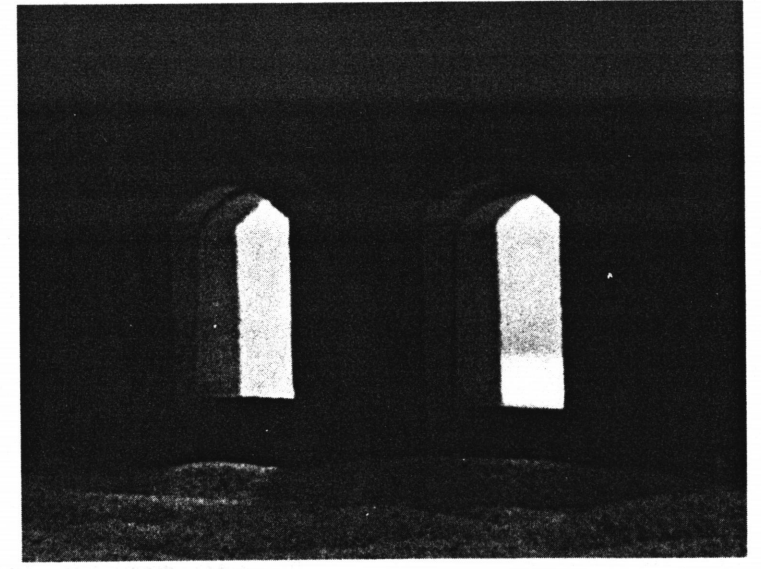
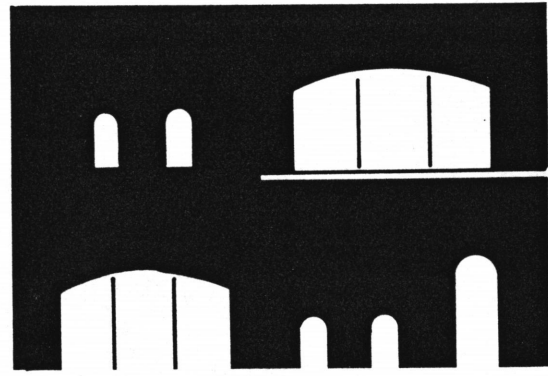
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Walls Nature

Street's Wall...



Plaza's Wall...



Salmiya Civic Center

Program

Mosque

Fresh Markets

Library

Theatre

Post Office

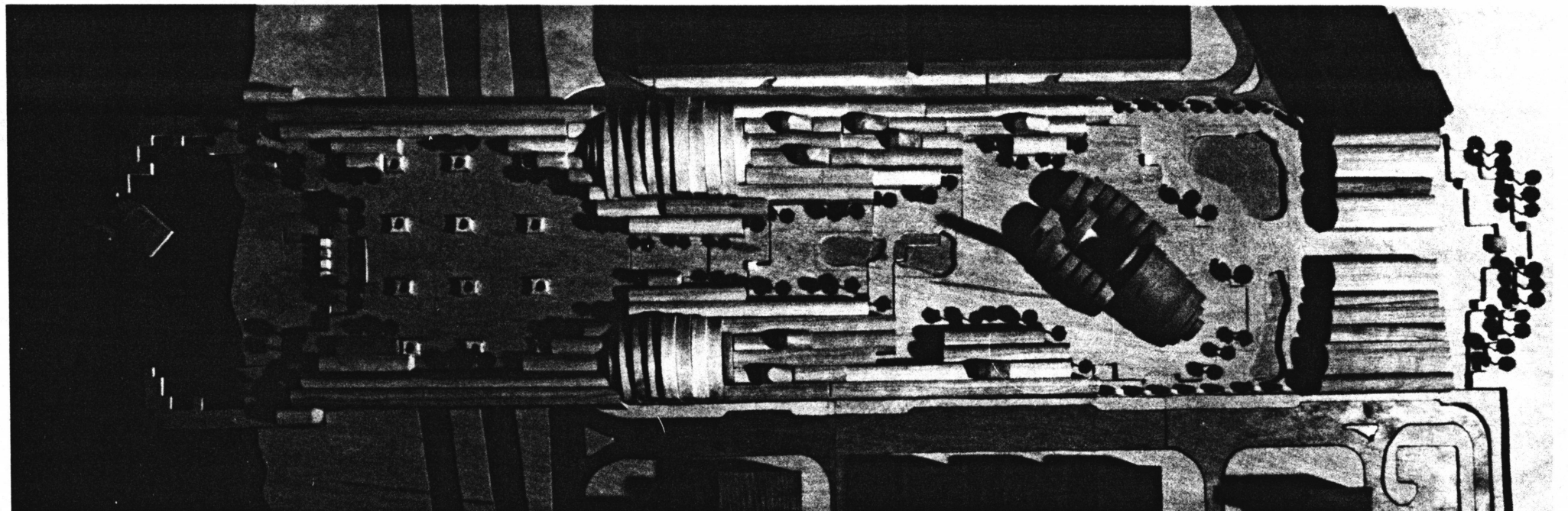
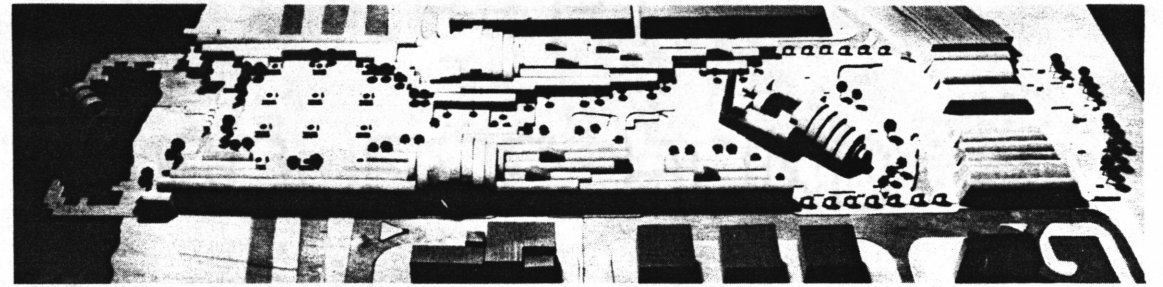
Social Hall

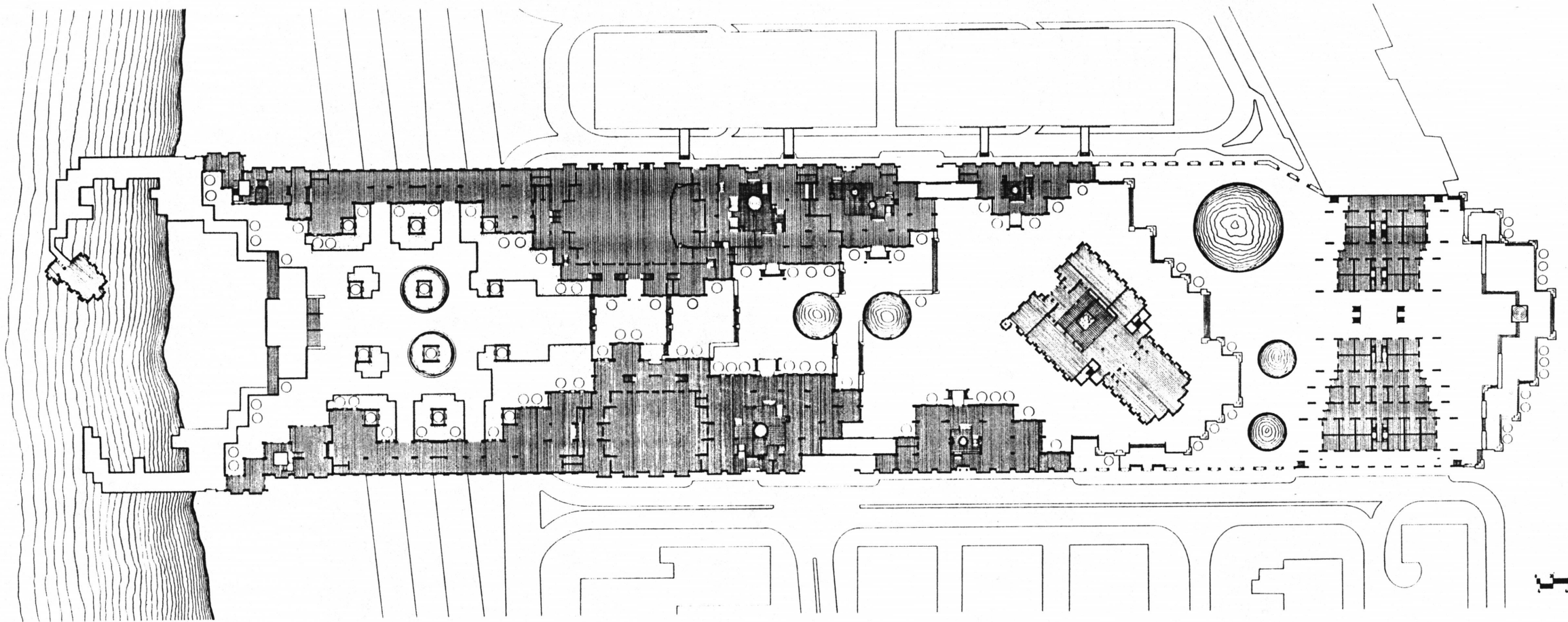
Local Cafe

Restaurant

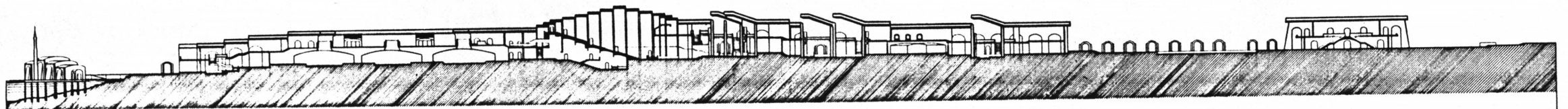
Recreational Center

Garden

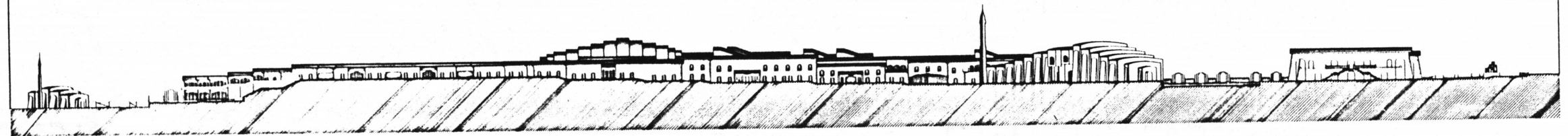




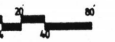
Plaza Level Plan



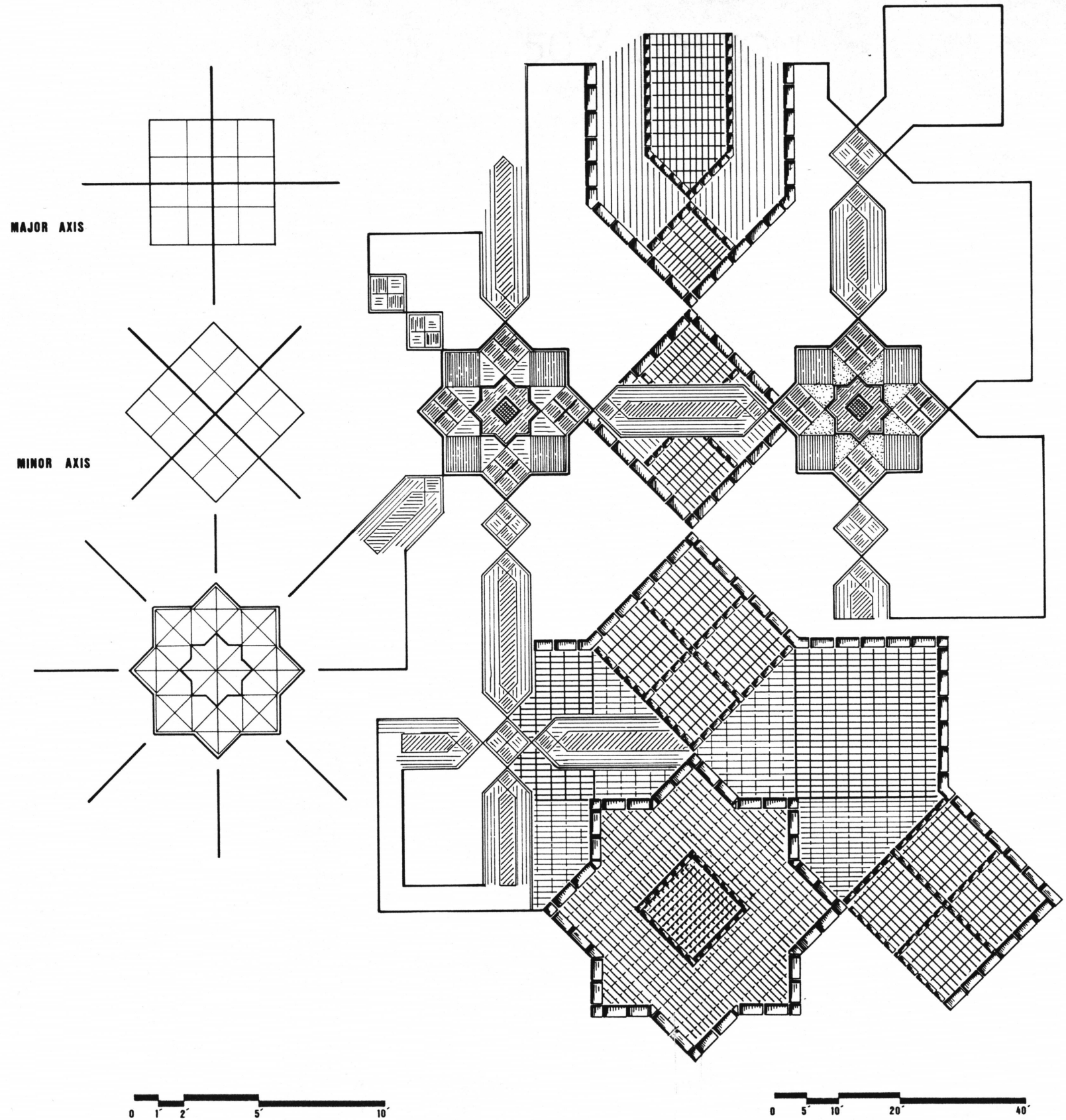
Section



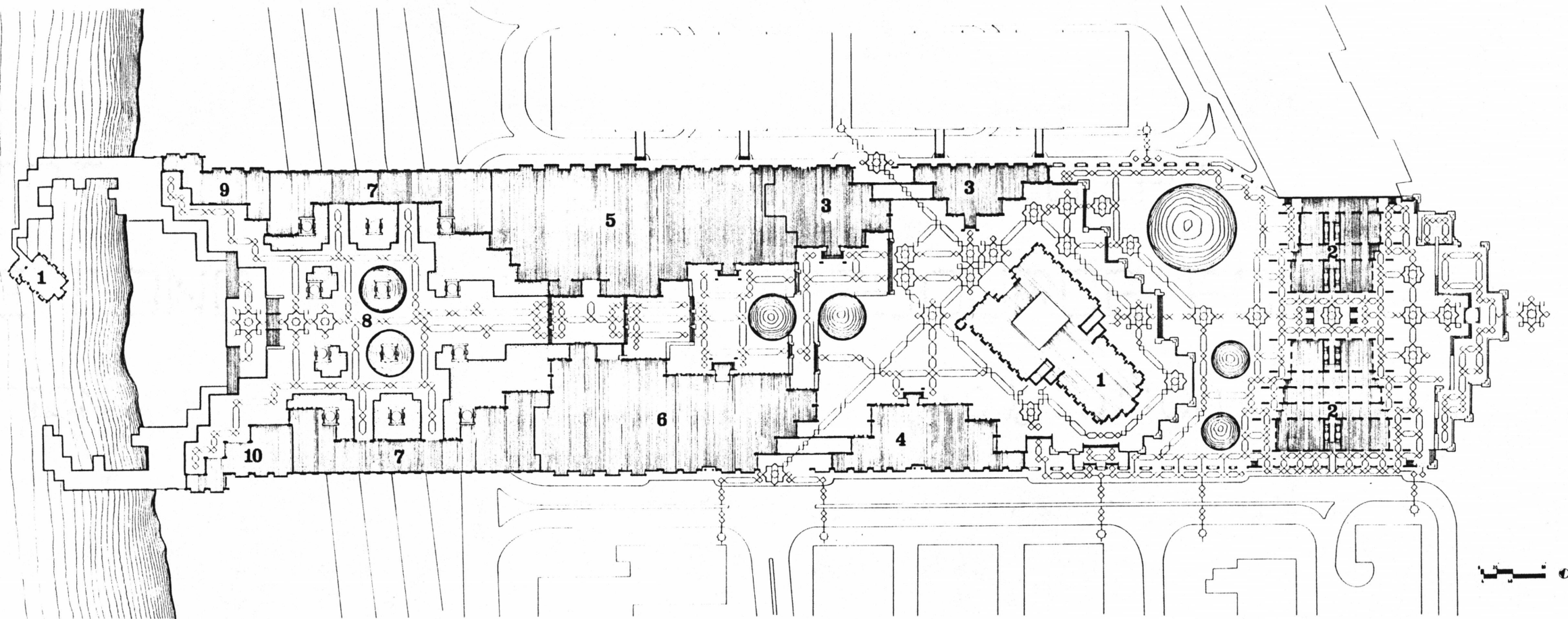
Elevation



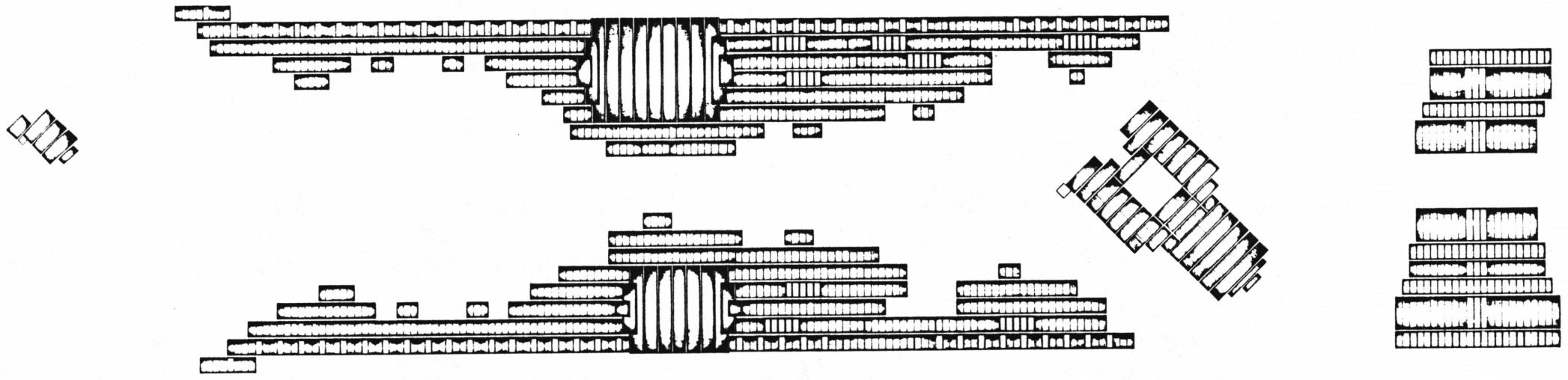
Paving Pattern



- 1-Mosque
- 2-Fresh Markets
- 3-Library
- 4-Post Office
- 5-Theatre
- 6-Social Hall
- 7-Recreational Center
- 8-Garden
- 9-Restaurant
- 10-Local Cafe



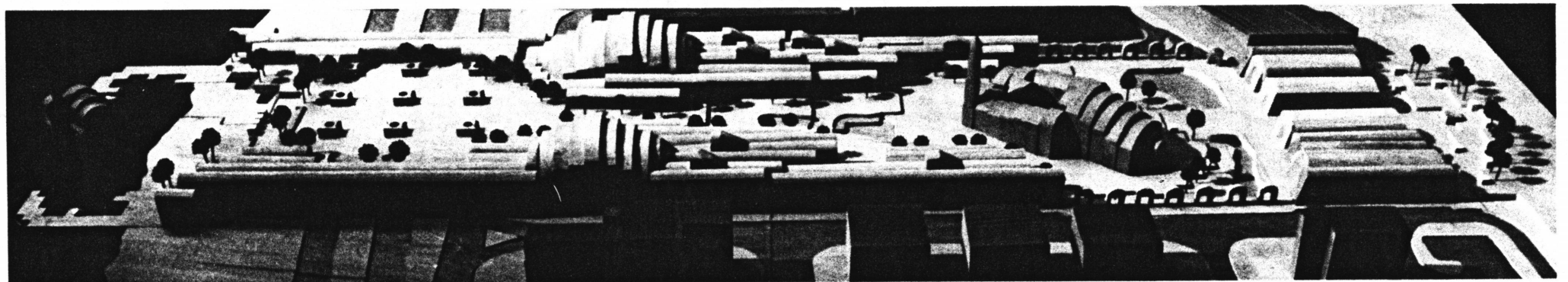
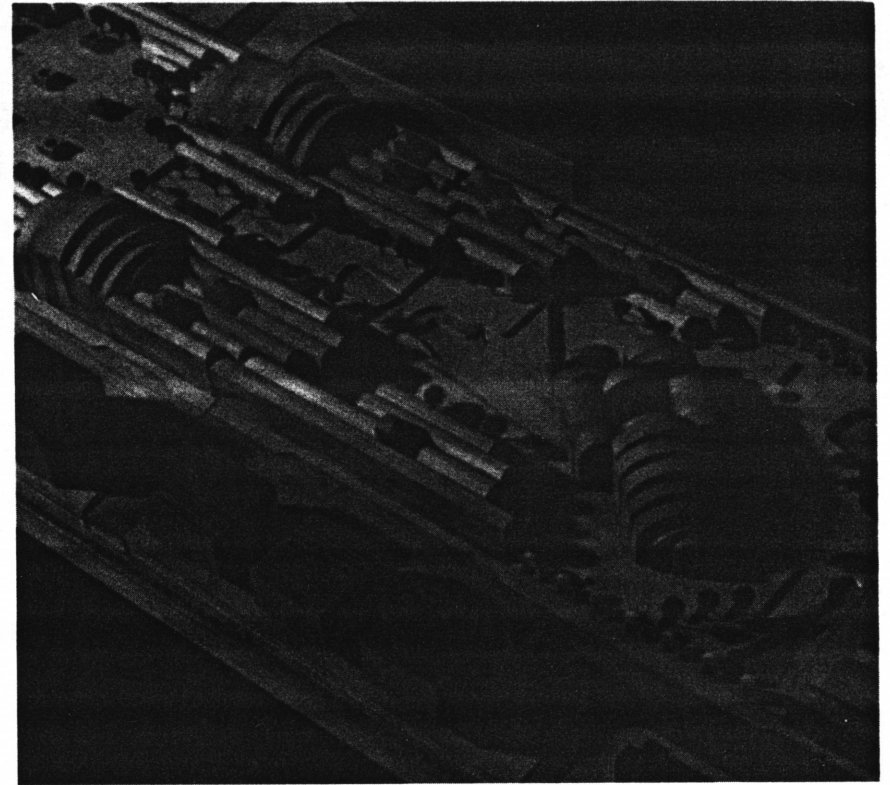
Plaza Paving Pattern

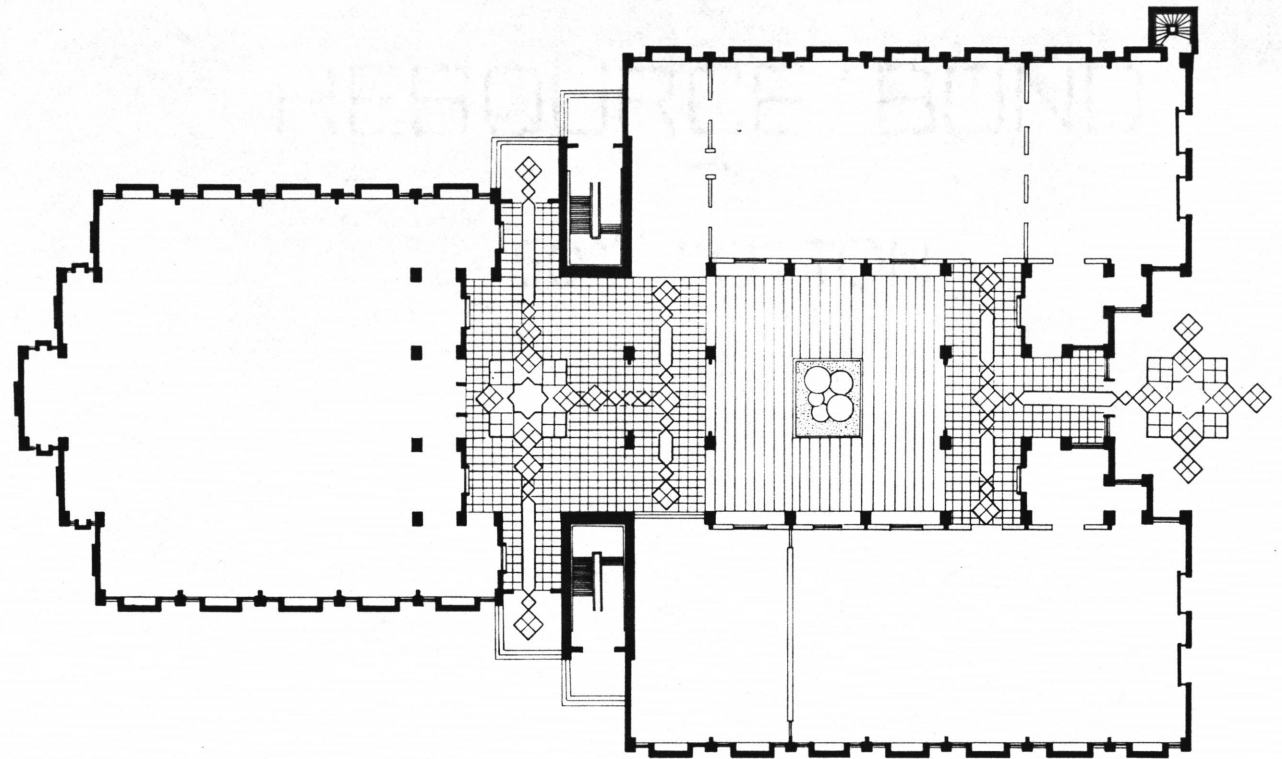


Reflected Roof Plan



The Civic Center

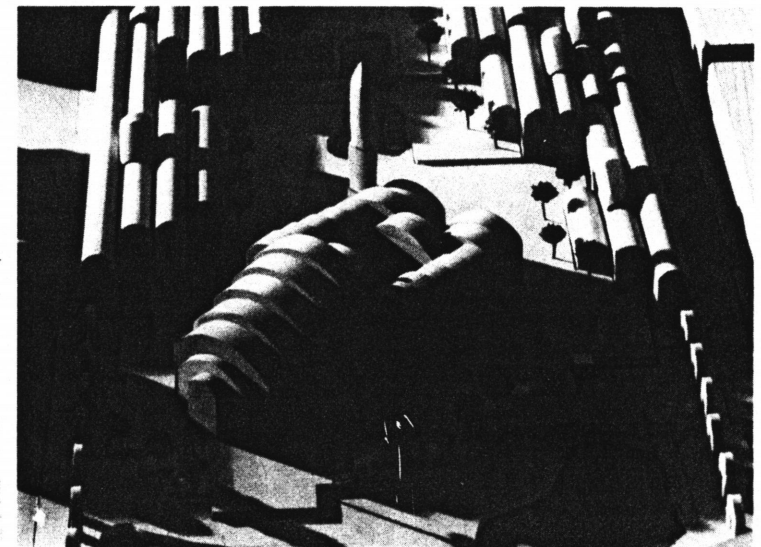
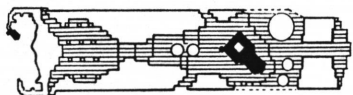


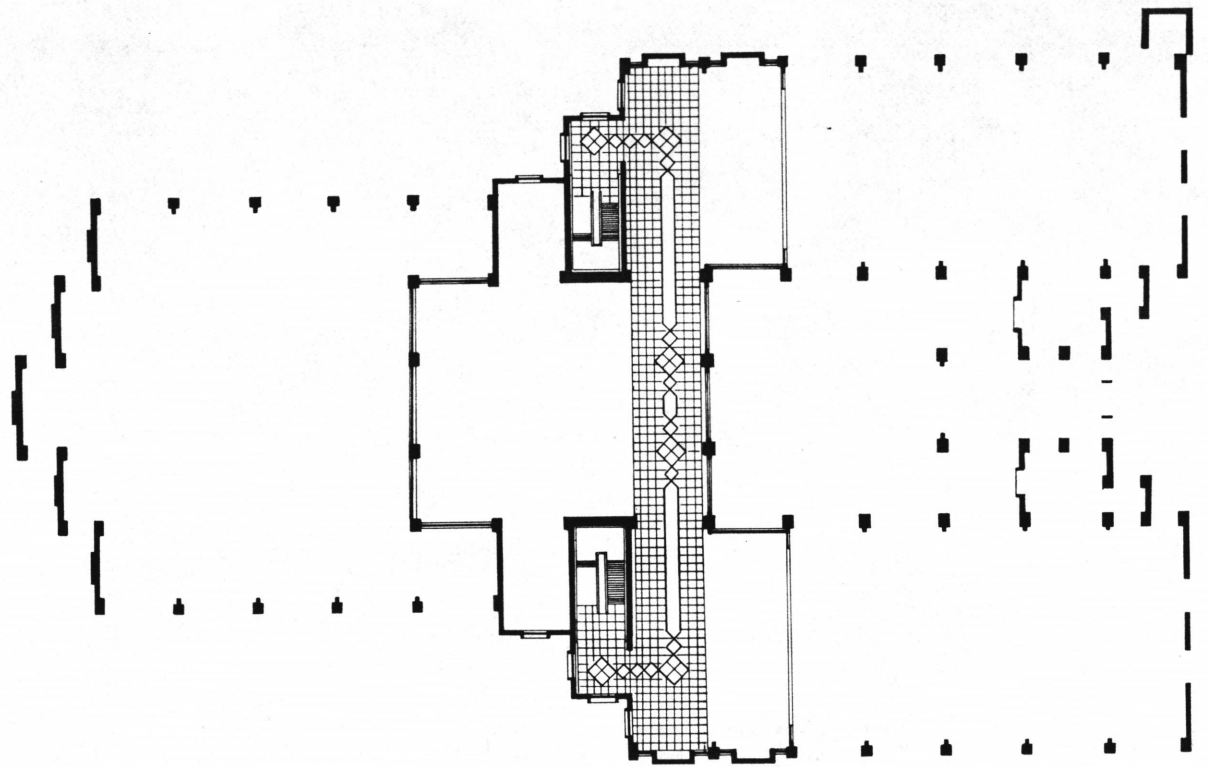


First Floor

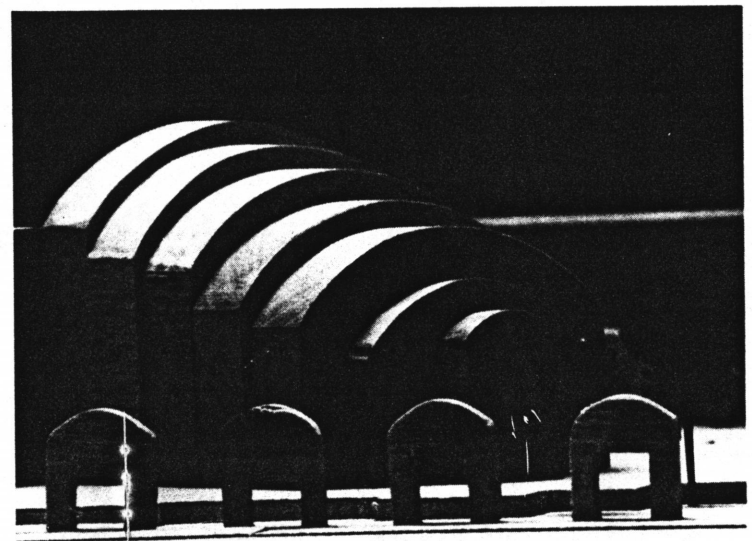
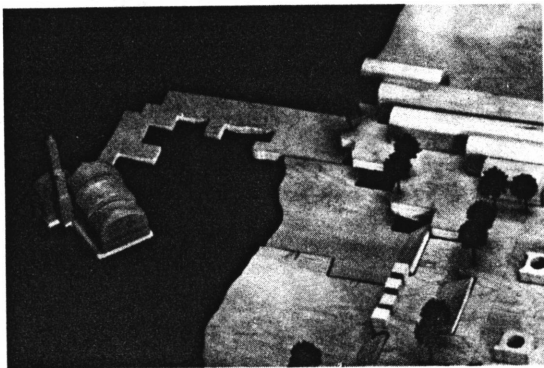


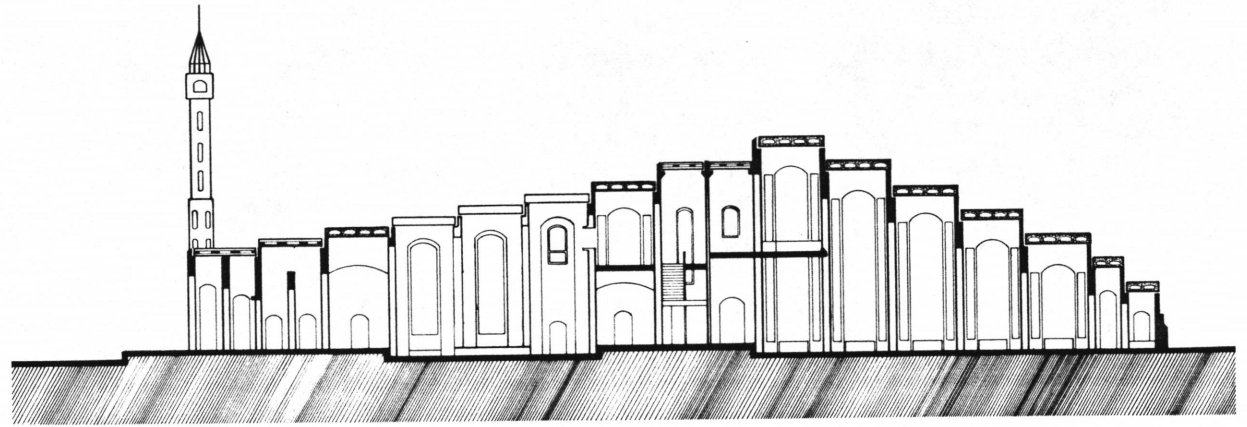
The Mosque



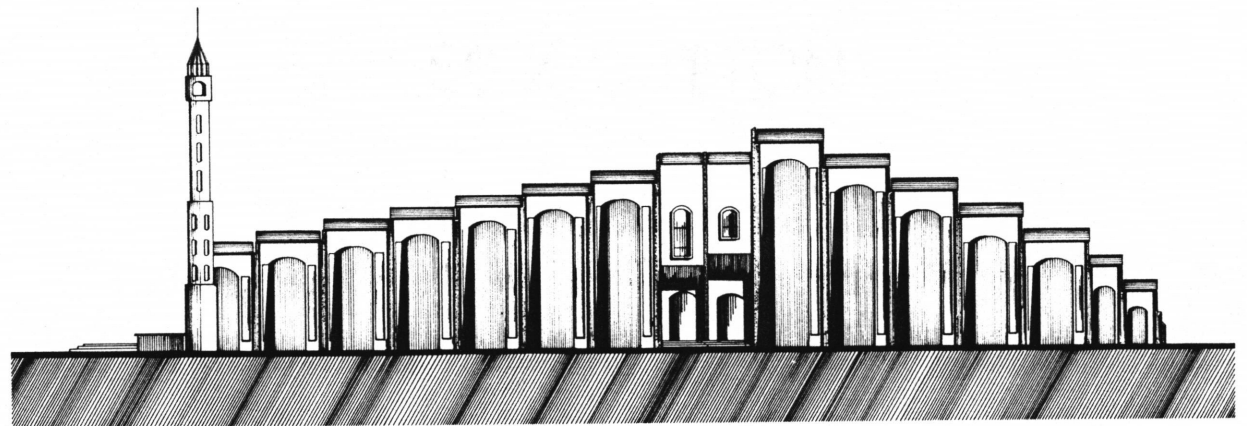


Second Floor

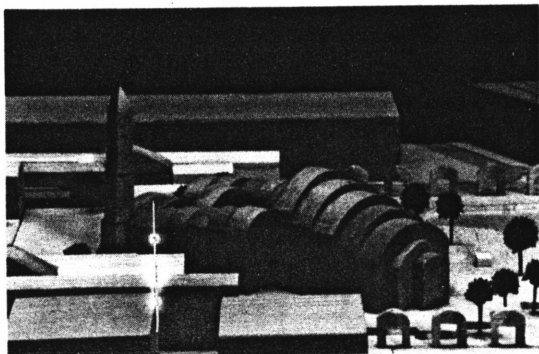


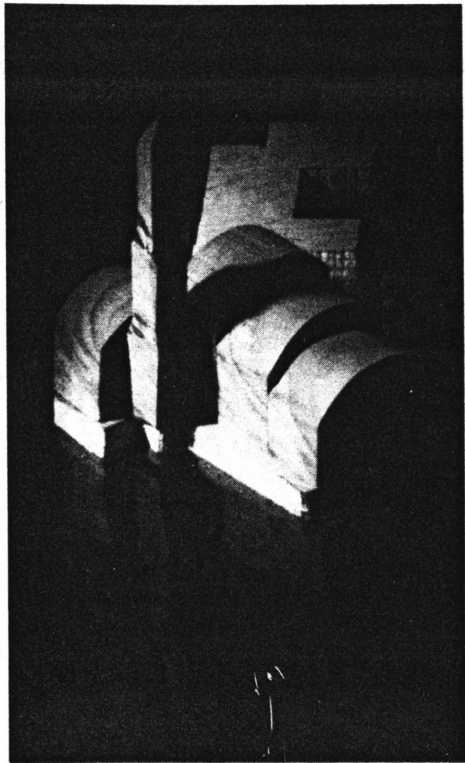


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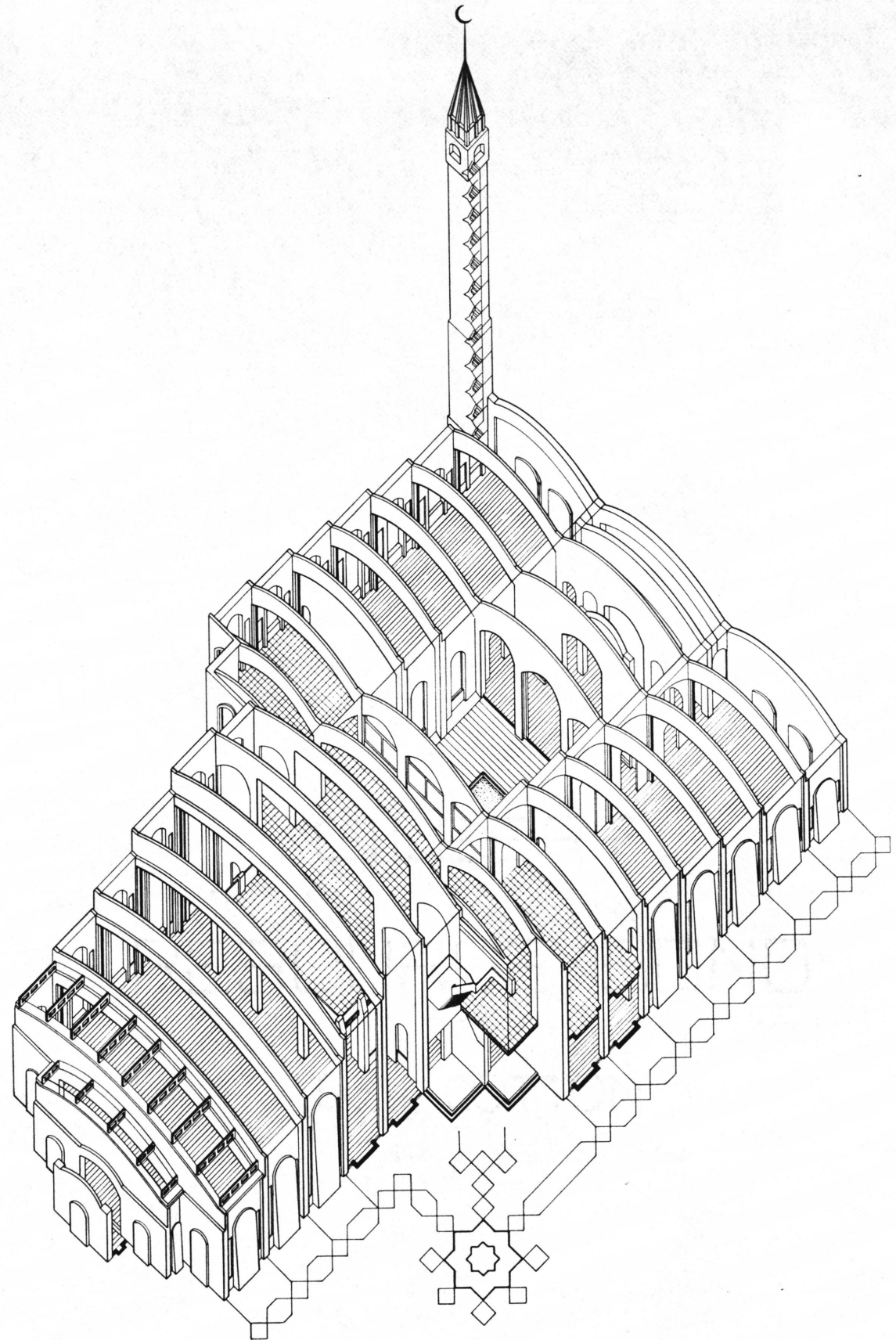


Elevation



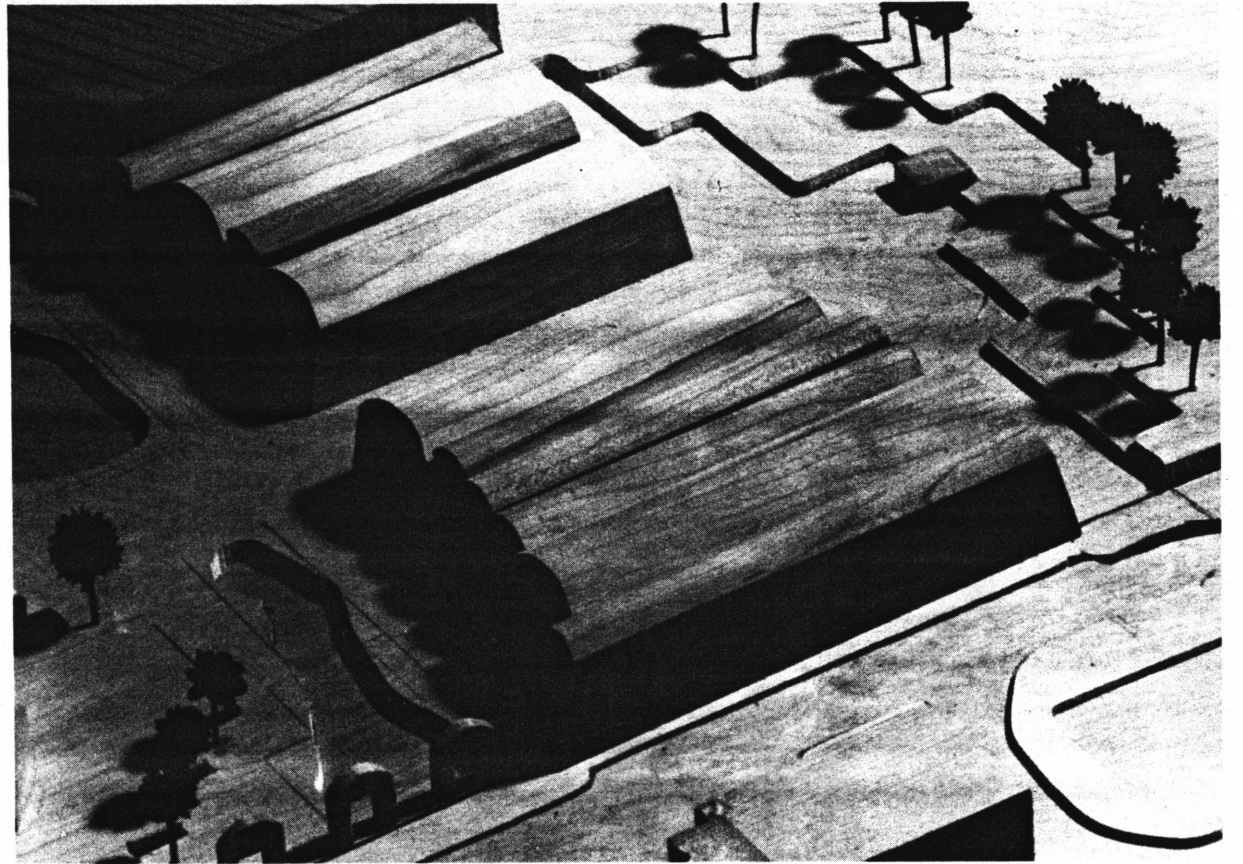


Small Mosque

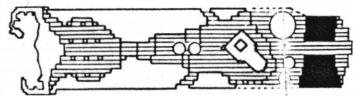


Large Mosque

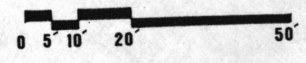
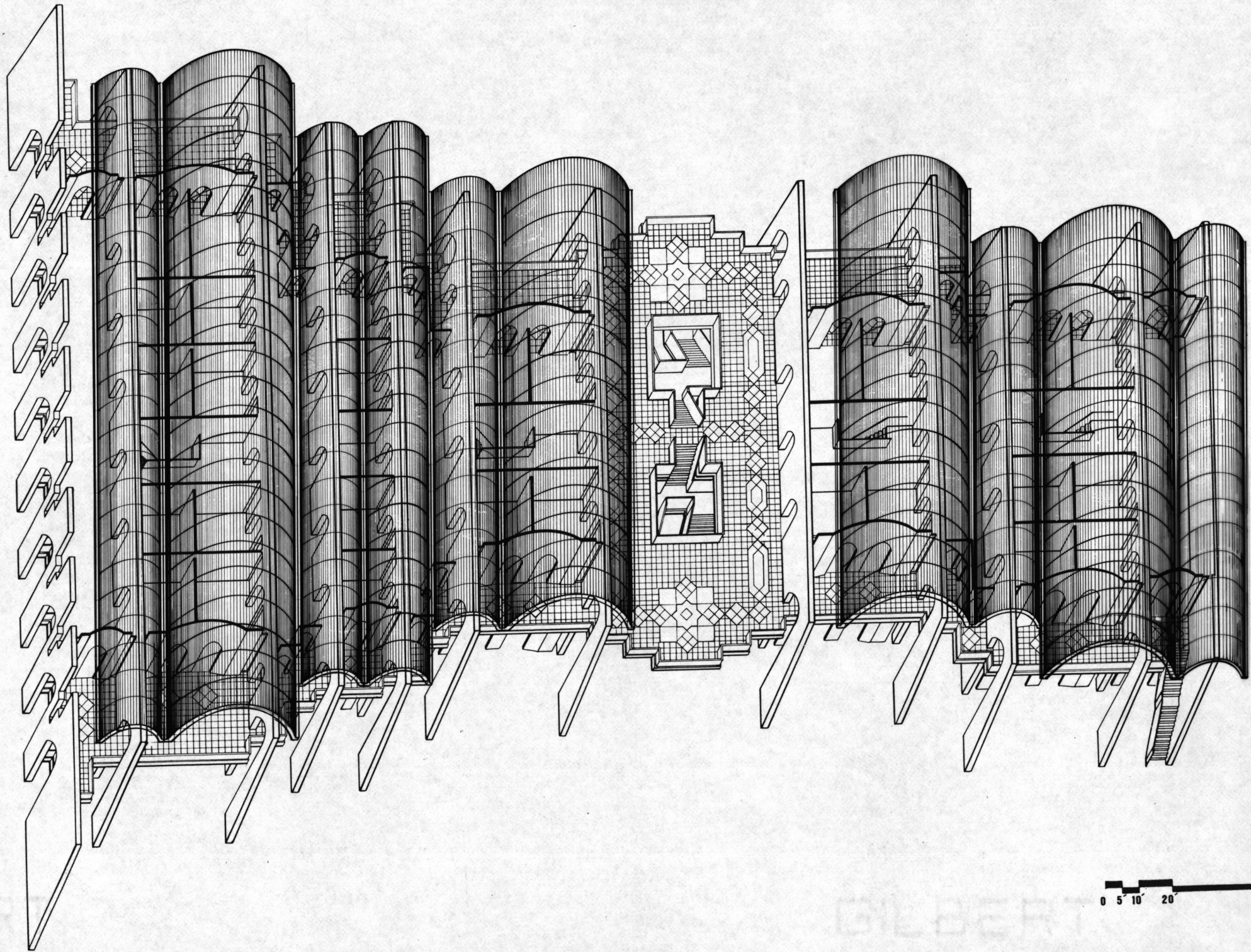




The Fresh Markets

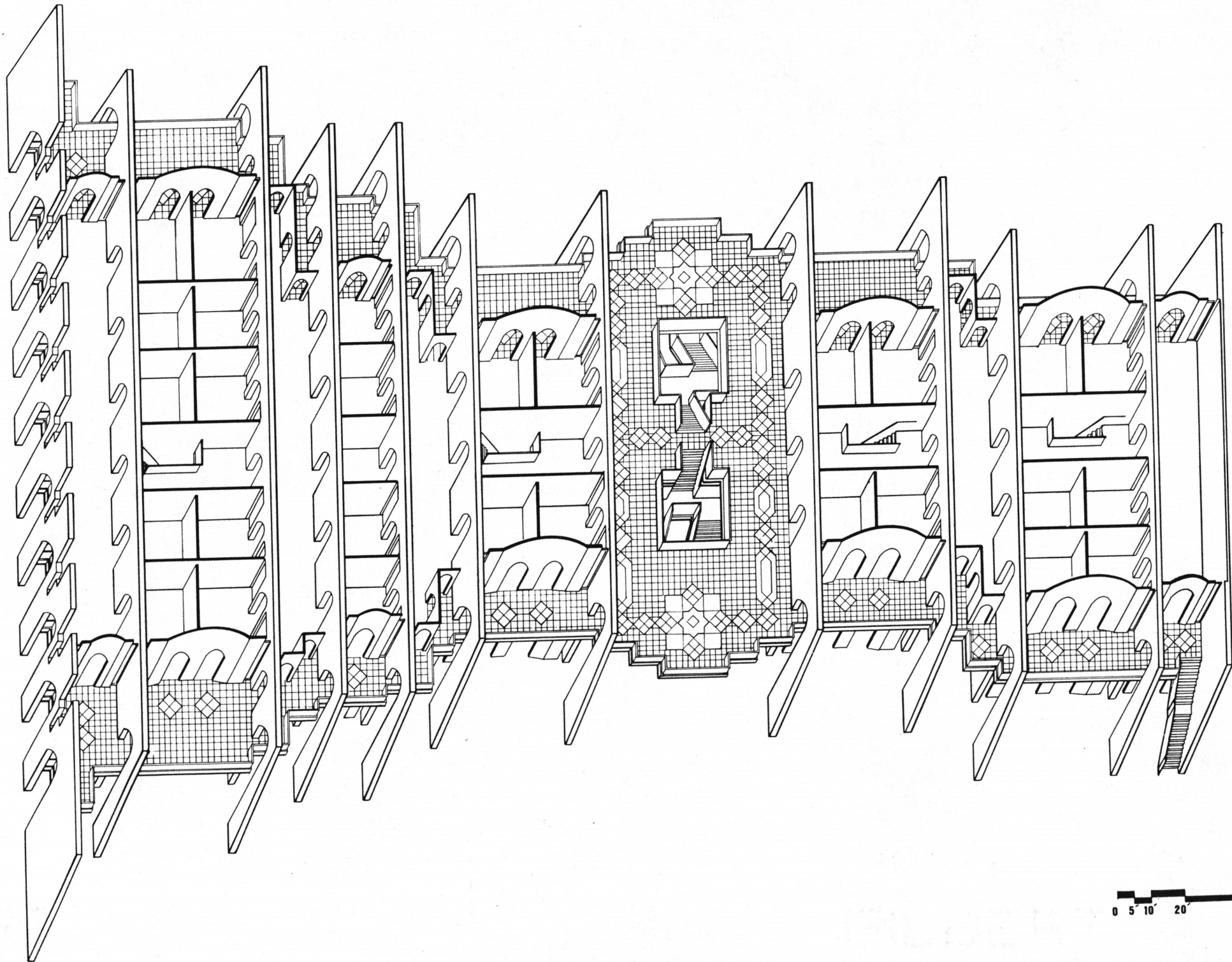


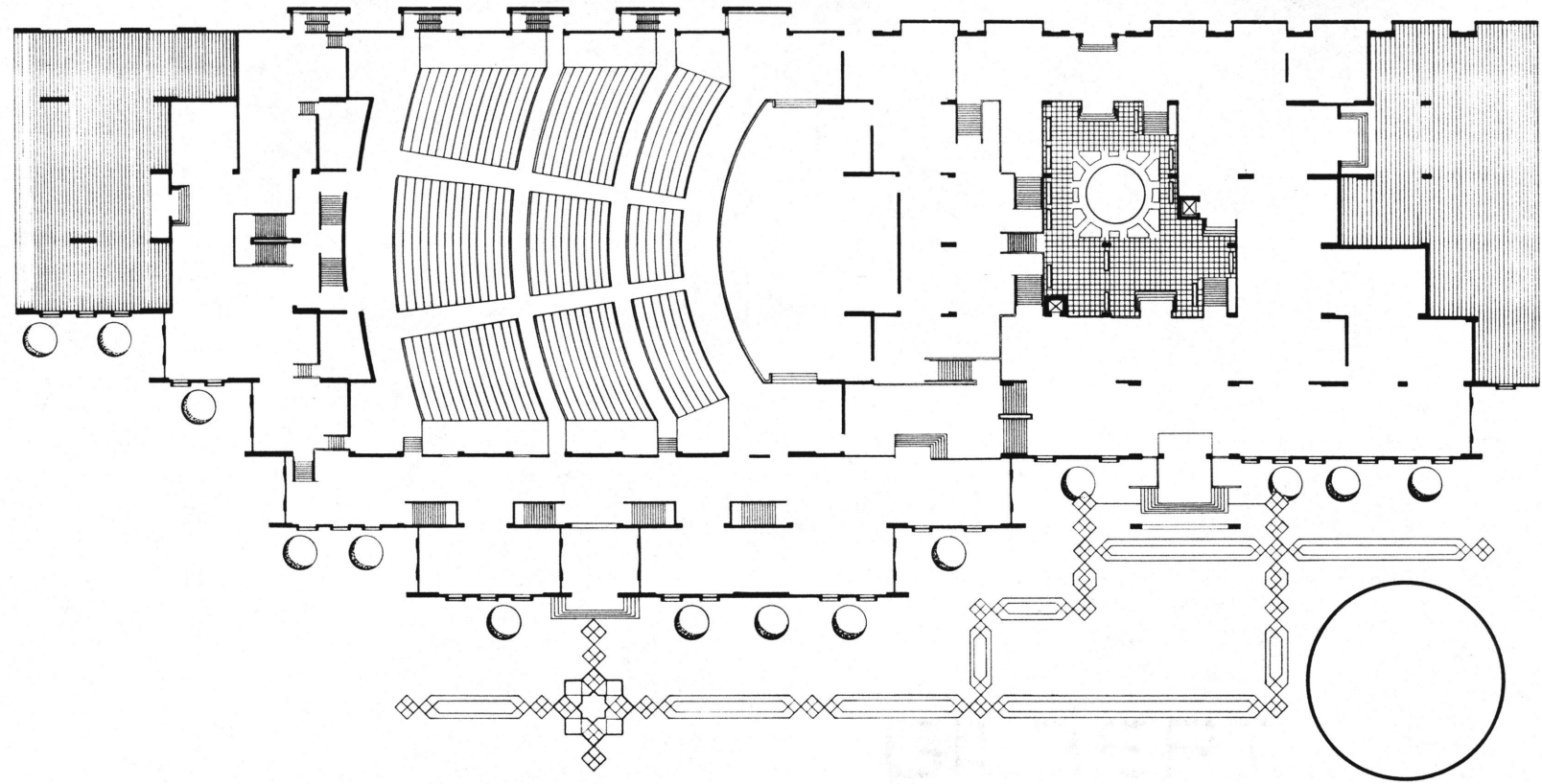
GILBERT
RESOURCE BOND
50% COTTON



LIBER

GILBERT

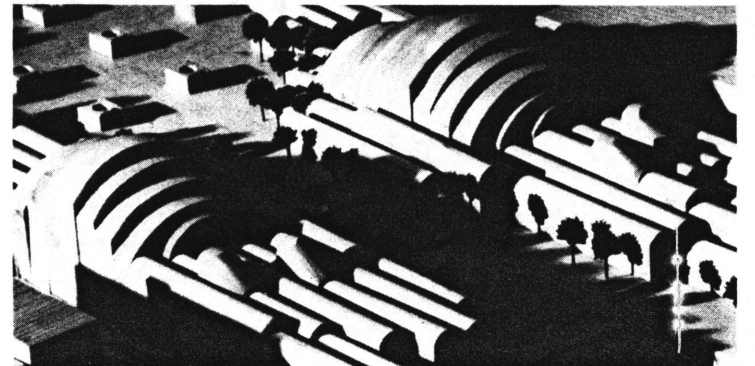
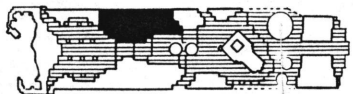


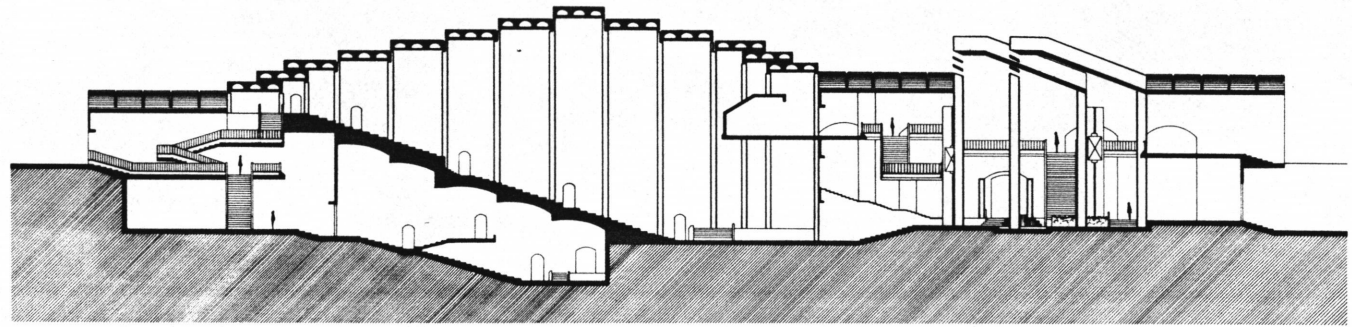


Plaza Level Plan

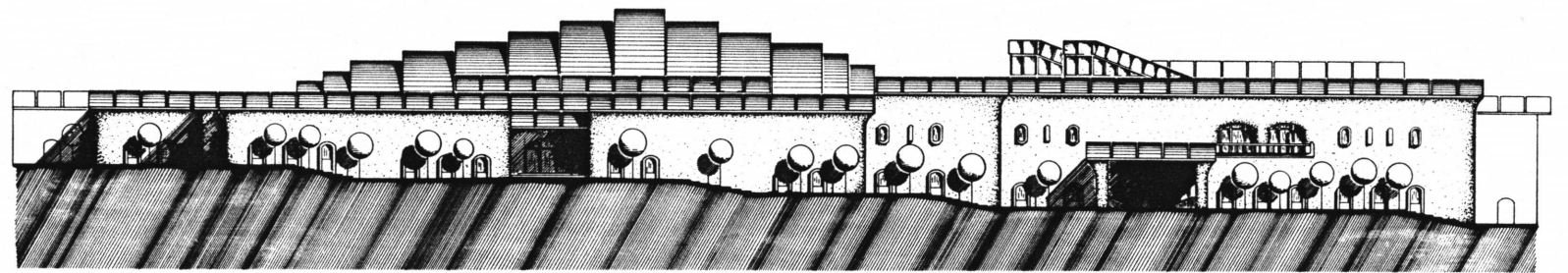


The Theatre

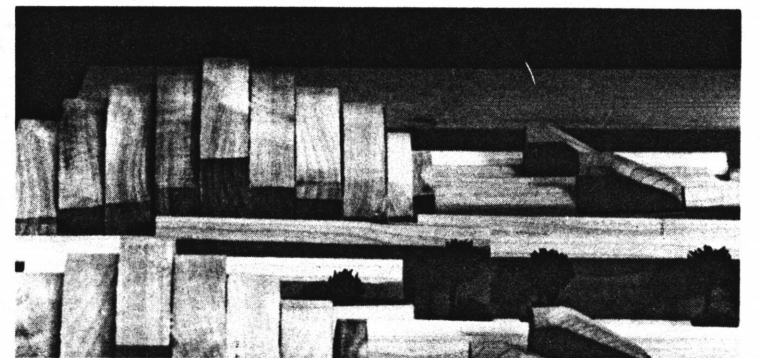
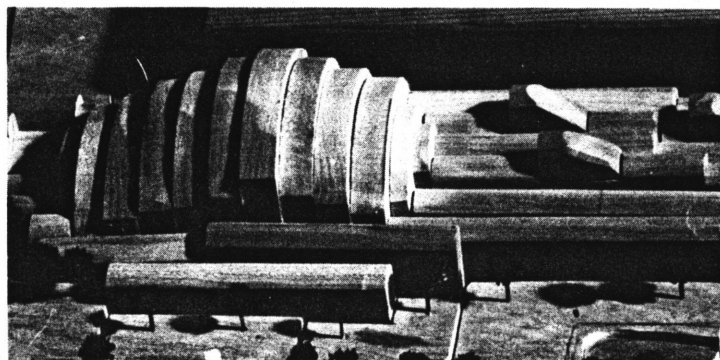


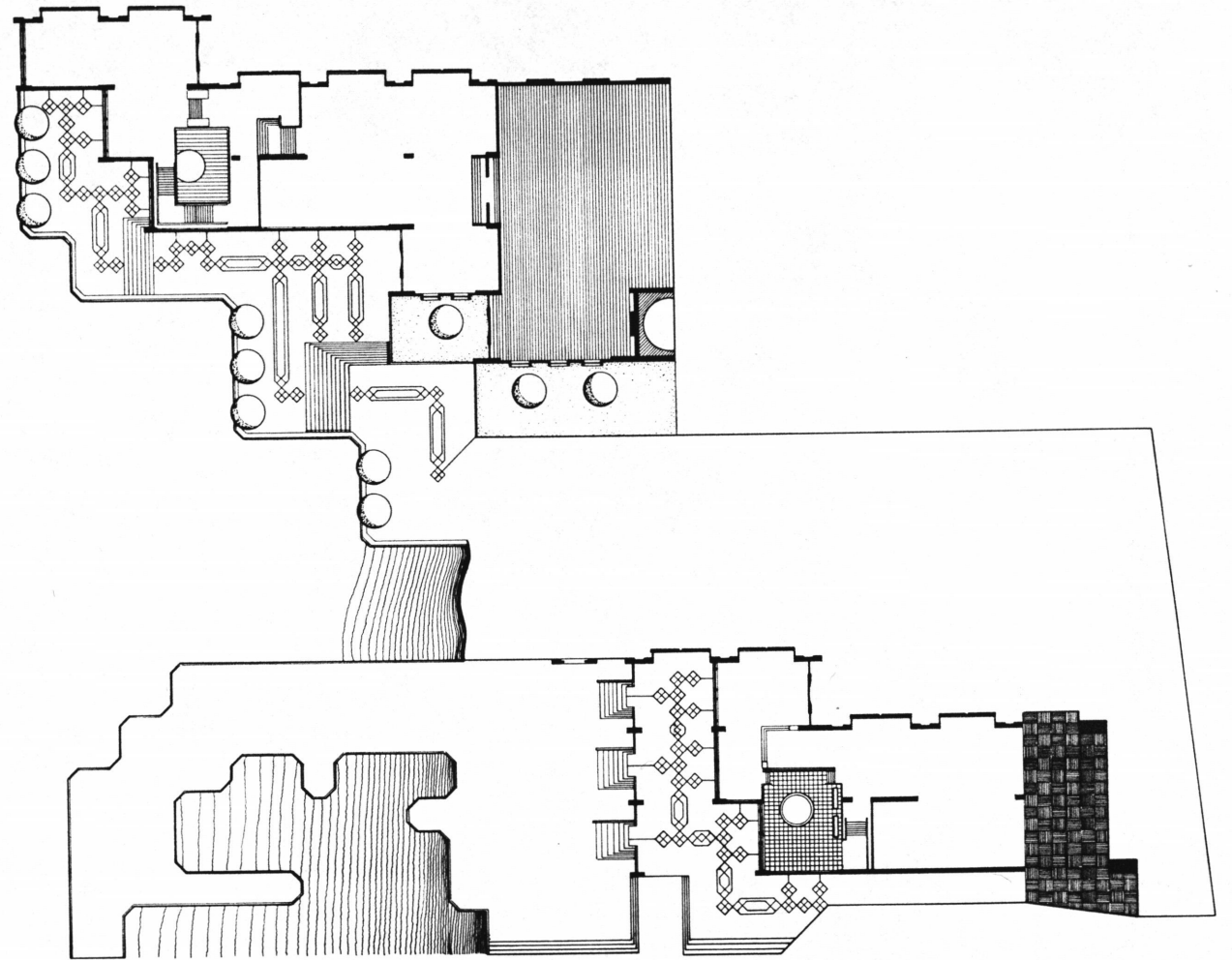


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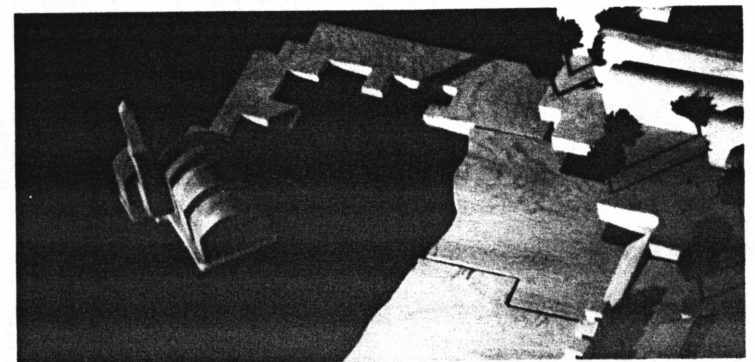
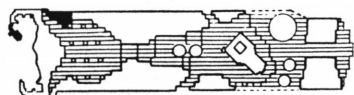


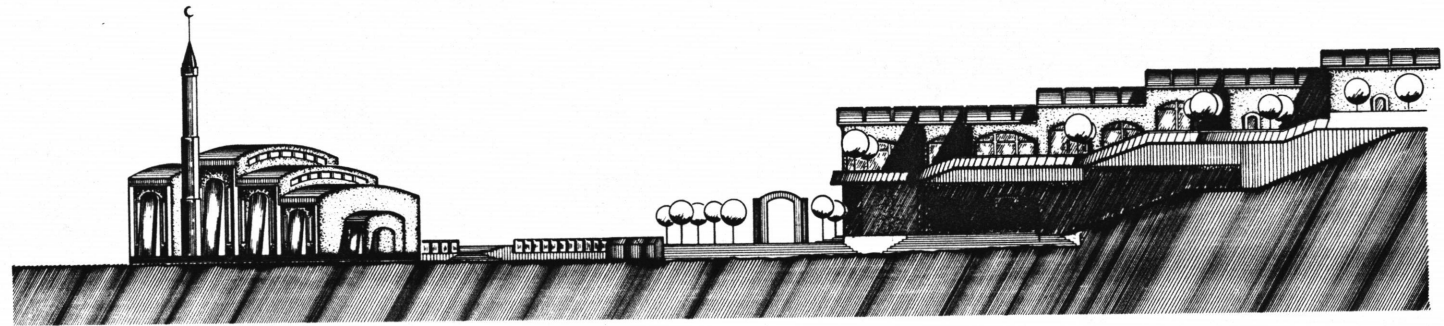
Elevation



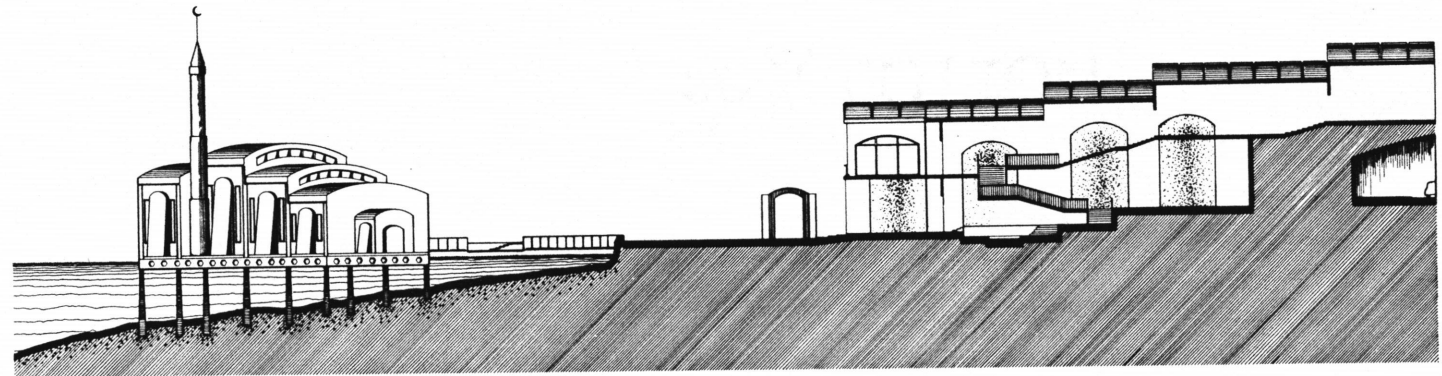


The Restaurant and Small Mosque





Elevation

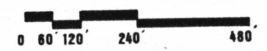


Section





Site Plan



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