Building Civic Intensity: A Cultural Center for Rua das Flores, Curitiba, Brazil

by
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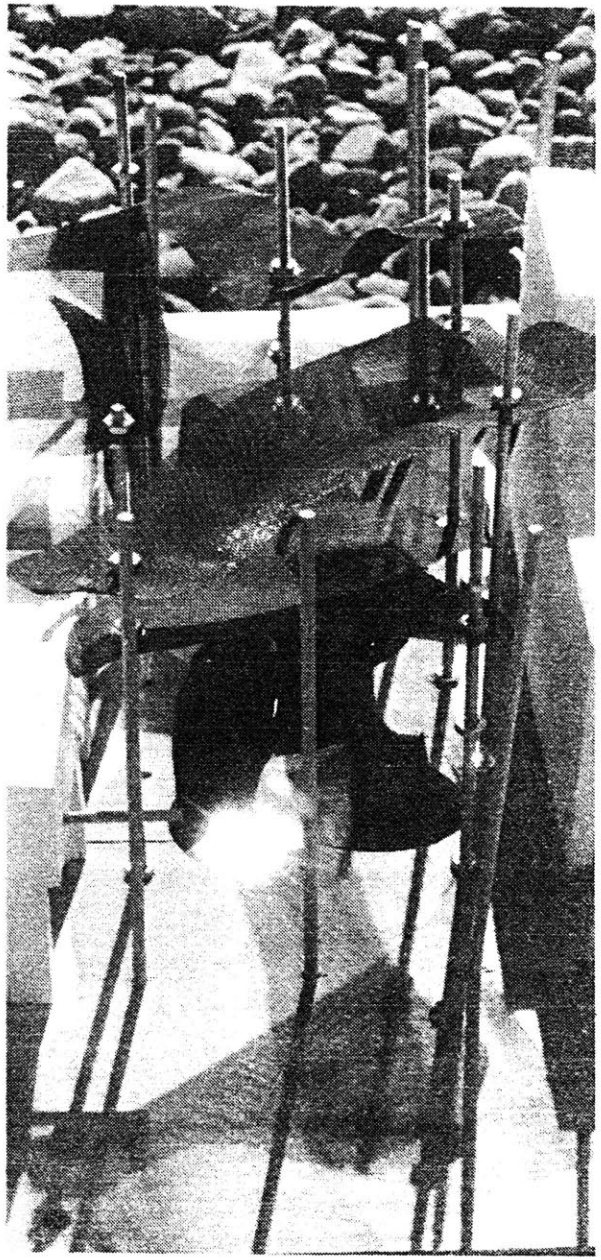

For Mary and Vanessa

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Abstract

This thesis focuses on the design of a cultural center and library as a means to promote civic intensity in the downtown area of Curitiba, southern Brazil. The site faces a pedestrian zone that acts as a magnet of activity and movement for the whole downtown area.

The thesis is divided into the following parts: introduction of the downtown area with special interest on Rua das Flores; explanation and criticism of the site in the context of Rua das Flores; development of a programmatic concept based on an analysis of the downtown area; design process based on the belief that architecture is experiential and buildings ought to be built in harmony and consistency with nature.

Thesis Advisor: Fernando Domeyko

Title: Lecturer

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PREFACE

This thesis is an attempt to re-establish physical and emotional ties with the city and life I left behind six years ago, when I came to study in the U.S. The city, Curitiba, is very close to my heart in a bittersweet way, for some of the best and some of the hardest periods of my life were spent there.

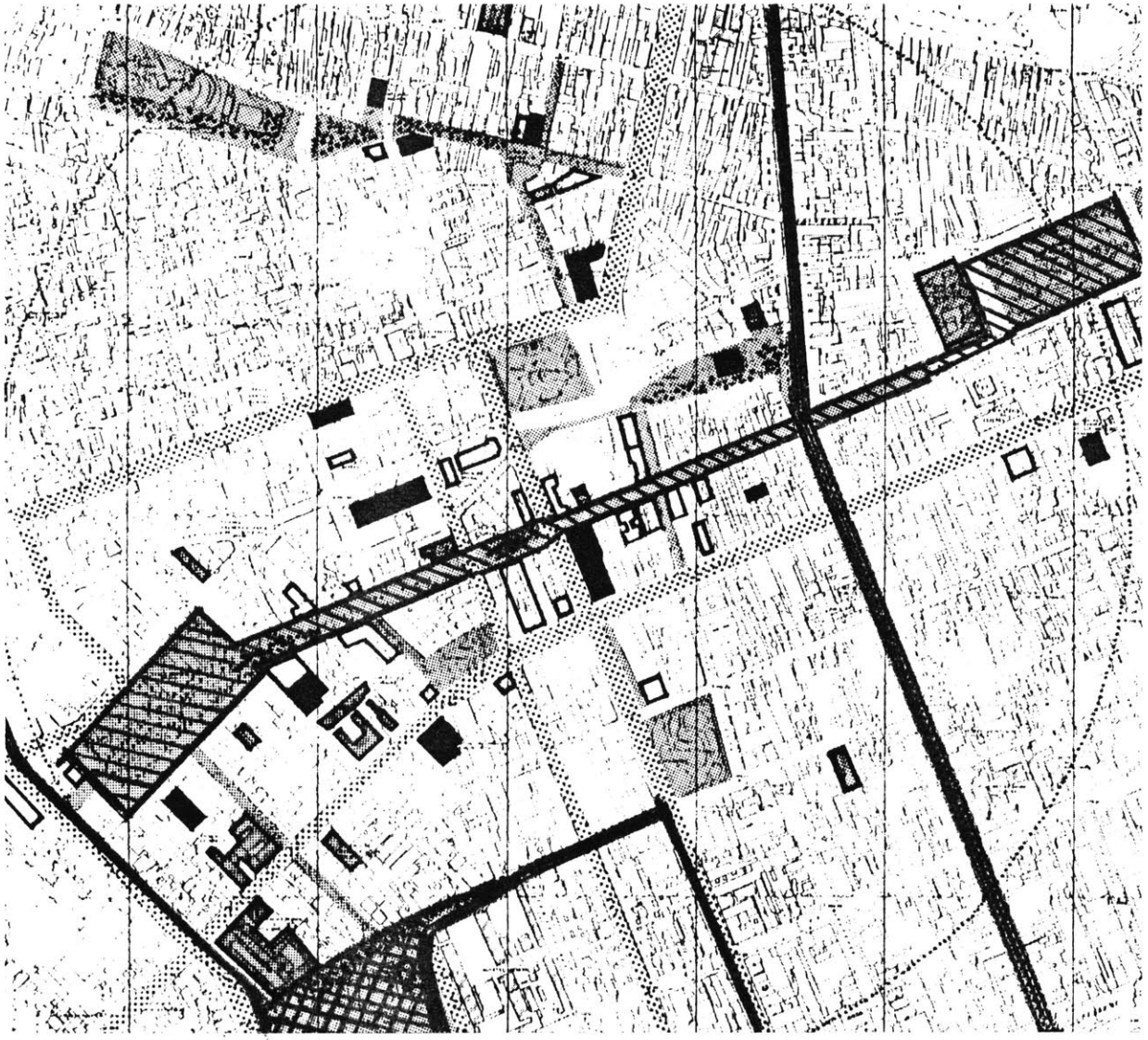
The choice of a thesis site in my hometown enabled me to connect my present life and experiences with those of my past. This choice has reinforced my belief that my education in architecture is universally applicable. I went back and looked at Curitiba with a critical eye. I tested my memory of the city and discovered new things about it. I looked for some problem that could become the object of my thesis.

The city has changed very much since I left. While it is still one of the most livable cities in Brazil, one can see the burden that hyper-inflation produces on people's faces and postures. However, one can also sense a determination on these same frowning faces, a determination that speaks of hope for better days.

Many more people live in Curitiba now than when I left in 1984. The growth of the city is not natural; it is the result of rural exodus. New slums appear overnight to accommodate newcomers. As the newcomers are unable to find urban jobs, downtown streets become the place to earn their livelihood and to spend their time.

My desire in this thesis is to go to the cultural and social melting pot of the city and promote civic intensity, the interaction of people from different age, social and

cultural backgrounds. This desire takes me to Rua das Flores, a pedestrian street in the heart of the city. As an architect, I intend to explore the central importance of people to my work by creating a place for them to meet and learn in the city center. This building talks about human relationships with the natural world. Although the city is an absolutely artificial world; light, rain, the earth and the sky must become a part of people's lives.



City of Curitiba

Downtown map showing pedestrian street network, main express bus terminal, and a few express bus streets

pedestrian street network

main express bus terminal

main pedestrian street

CURITIBA

Transformation of the downtown area

In the 1970's, Curitiba's transportation system reached a crisis point. The population, and consequently the number of vehicles, grew very quickly. The streets that carried them did not grow to meet demand. Several main roadways joining opposite ends of the city intersected in the downtown area, creating bottlenecks.

A very appropriate solution to the crisis was implemented. In order to liberate the center of town from vehicular traffic, some of the main arteries were diverted to different locations around the downtown area. Public transportation was improved through the new use of express buses, which connected several points in the periphery of the city with the downtown area. The new system was appropriate for Brazil; it was similar to but much less expensive than streetcar transportation.

This new transportation system relieved the local bus routes that service the city, decreasing conventional bus traffic in the downtown area and reducing arrival points to a handful, concentrating them in critical locations.

Once liberated from much of their vehicular traffic burden, a few of the most important downtown streets were transformed into exclusively pedestrian streets. Approximately two decades after the drastic changes in the center of Curitiba, an extensive network of pedestrian streets is in place. The main express bus stops and terminals are connected with pedestrian routes, all of which are located within a 1.2 km diameter circle.

Rua das Flores

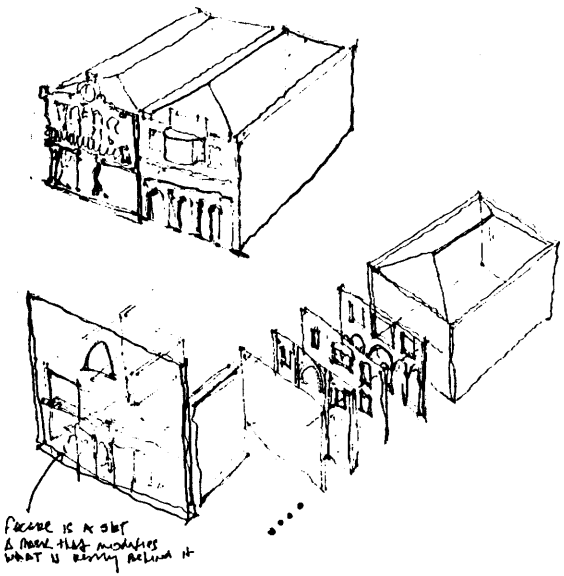
Description:

Rua das Flores is the nickname for Rua XV de Novembro. It is the geographic backbone of the pedestrian circulation system in Curitiba and indeed, is the most important link between areas of downtown Curitiba. The street's pedestrian portion is a 1 km stretch located between praca Osorio and praca Santos Andrade. It spans the main portion of the central business district in the east-west direction. The two squares serve as reference- or end-points to the street, giving it comprehensible dimensions.

The entire length of Rua das Flores reflects a few chapters in the history of the city as told through its urban fabric. From the street's beginning, in praca Osorio, large Art Deco buildings and the wideness of the street reveal what used to be Cinelandia: places of gathering, movie houses and cafés. Other blocks appear randomly narrow or wide. A few of the blocks boast 1960's and 70's high-rises. Other blocks are made up largely of masonry "boxes," two- and three-story buildings from the beginning of the century. The origin of this building type, to my understanding, was a competition in the early 1900's to design the most beautiful facade along Rua XV. The face-lifts many buildings received in that period have come to represent part of the Brazilian Eclectic architectural style. Nowadays, these "decorated boxes" are protected by the state's historical society. In one of the blocks of the street, between the streets Marechal Floriano and Monsenhor Celso, there is a half-block-long piece of arcade created by the city planner Agache in the 1940's. For reasons that I was not able to discover, it was never completed. It stands as a displaced piece of urban planning, never having served the purpose of widening the street for which it was probably intended.

The white and black stone pavers arranged in local motifs, the urban furniture , the flower beds that give the street its nickname, the close relationship between buildings and the street and the people that activate it are constant characteristics of Rua das Flores.

Typical Brazilian Eclectic buildings: "boxes" with elaborate facades

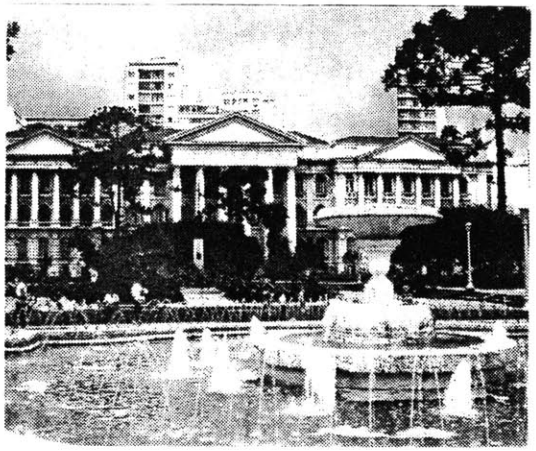


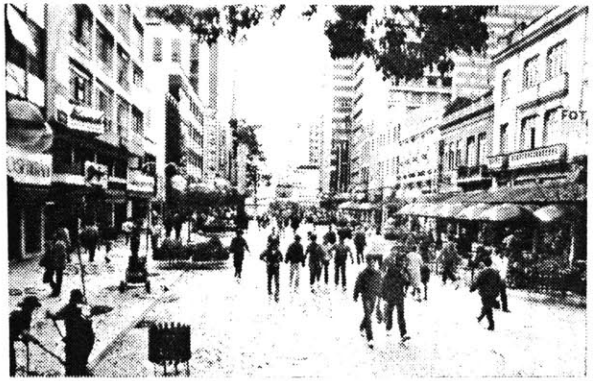
RUA XV DE NOVEMBRO – A PROMENADE THROUGH THE CITY

Above: Rua das Flores from praca Osorio to praca Santos Andrade

Right: praca Osorio

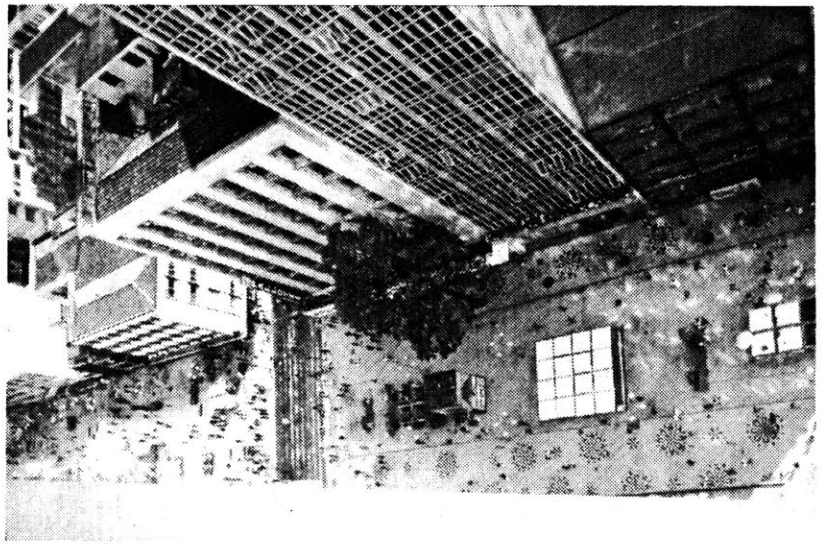
Far Right: praca Santos Andrade

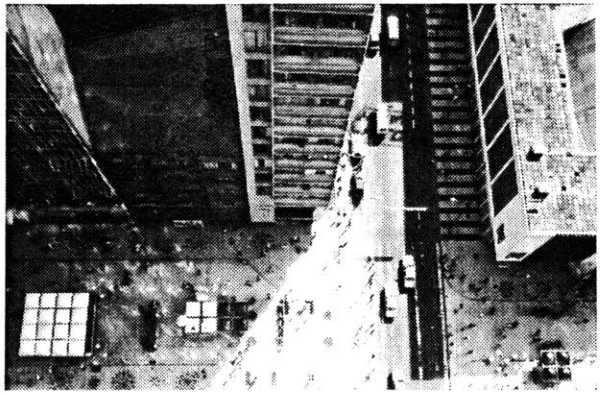




Above Left: Beginning of Rua das Flores (formerly Cinelandia)

Below Left: High and low buildings co-exist along multi-width street

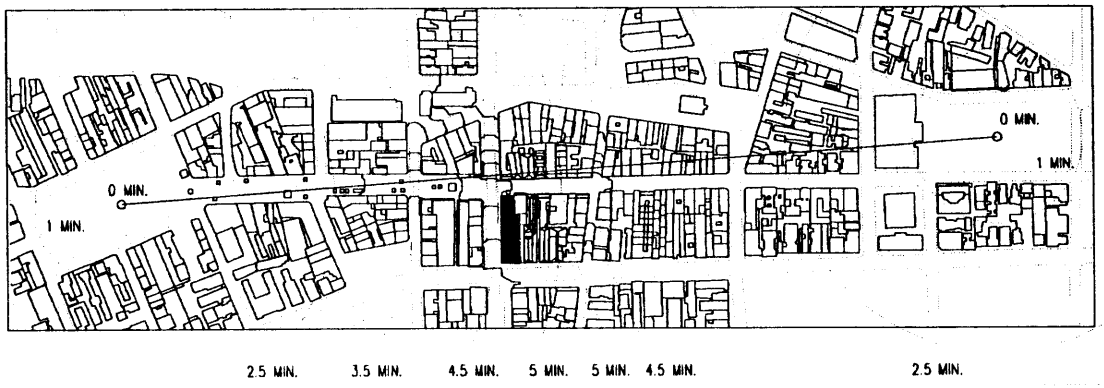




Above Left: Intersection of Rua das Flores and a vehicular street, Rua Doutor Muricy

Above Right: Intersection of Rua das Flores and Rua Marechal Floriano

Below Right: Informal gatherings are a common occurrence along Rua das Flores. (near intersection of Rua Marechal Floriano)



Above: Times required to walk non-stop to various points along Rua das Flores from its endpoints. People typically traverse these distances much more slowly.

Below: Saturday morning: music, art, and politics

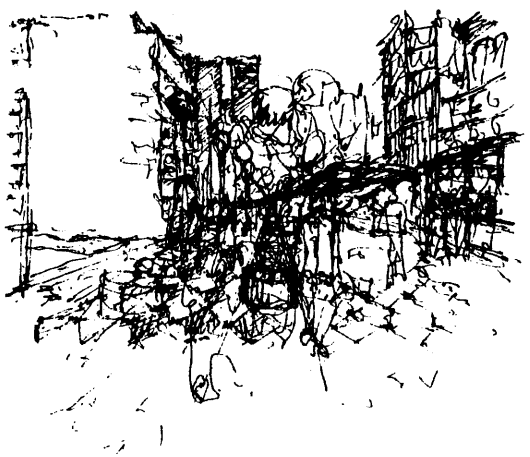
Experiencing the street: Time line of a Saturday morning in early June, 1989

9:30 a.m. I arrive at a large city-owned parking lot near a major express bus terminal. Driving a car, I realize immediately, is a bad start for my visit, for it disconnects me from most people around me. Most people who have come down to work or to walk around downtown have taken public transportation. Most of them have no alternative; I do, but I have been influenced by the same mentality that makes Americans drive a block to get the Sunday paper. My intention in coming to the general location of my site on a Saturday morning is to experience the street from the perspective of a native, but it soon becomes apparent that I am a spectator, somewhat detached from the reality of this place, my former hometown. For the most part, my memories of the place will have to be confronted from the perspective of a critical observer. I walk on a pedestrian street next to people who are clearly not in a hurry, absorbing the winter sun. As I walk, I worry that Rua XV might turn out to be a disappointment, different from my recollections of a few years ago.

10:00 a.m. As I arrive at the place where praca Osorio becomes Rua XV, I realize that Rua XV is still, by definition, the place of the people. A rally to promote the protection of the environment is taking place. Activists speak, children sing and a band of veterans plays music. Some people browse, some observe, and some participate. I hear somebody say that in this year of presidential elections, demonstrations of this sort have become common. My experience is positive from the start, I identify with the demonstrators' fervor to protect the environment. Presidential elections are an absolute novelty for me since I never had the opportunity to vote for President, but I feel the energy of the political moment.

In the same area, local artists exhibit and sell their paintings - abstract landscapes and still lifes with local themes.

I meet a friend, and for a moment participate in the festivities of the morning. We reminisce as we walk together for one block and sit down for a beer in a bar in the middle of the street.



Above: A site-sketch made from memory before my visit

Below: Drawing made from a slide of the site

11:00 a.m. Suddenly I realize that I have been sitting and drinking beer in a building that is without walls, yet is separate from the surrounding spaces. Part of my experience of this street is the periodic awareness of the reciprocity between buildings and the street that they face. In this case, the building has claimed a chunk of the street as part of its territory and the street, in return, passes through the building.

12:00 p.m. Finally, after a few blocks and about two hours, I reach the location of my site, at the intersection of Rua XV and Rua Marechal Deodoro. The site is located approximately in the middle of the pedestrian portion of Rua das Flores. Depending on a person's frame of mind, the distance between my site and praca Osorio can be covered in 5 minutes, but that is quite difficult to accomplish.

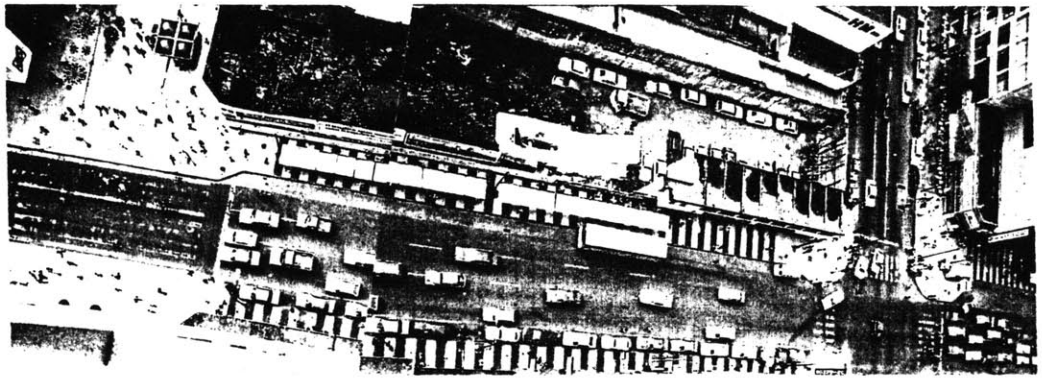
At the site and at the block before it, Rua das Flores is interrupted by vehicular streets. The off-white paving is broken, the flow of people stops, life comes to a halt as the stop lights are open for cars and buses to pass, a reminder of the reality of modern life in the city. The two interruptions on Rua XV are major public transportation streets that bring to and take away large quantities of people from the center of the city.

The block of Rua XV delimited by the two vehicular streets is severed from the rest of the street. It is isolated, ambiguous because it is meant to be as dynamic as the rest of Rua XV, static, similar to a square. However, Saturday's light cross-traffic does not disturb pedestrians.

12:30 p.m. Noticeably fewer people remain in the street. In another half hour, when shops close down, street life will die just as it does every Saturday afternoon. It is strange to look at Rua XV after people have left, it becomes like an empty stadium after a big game - echoes of the happiness and the noise seem to float in the air. Thus ends my first visit to Rua XV, interrupted by the law that forces businesses to close down at 1:00 p.m. on Saturdays- one of the many laws locals consider senseless.

Above: A bar in the middle of Rua das Flores. Fuzzy distinctions between public and bar territories.

Below: Cafe in the middle of Rua das Flores - the entrance is also used as a street.



Week days: A different experience

On week days, much of Saturday's gay atmosphere exists, but the rallies are replaced by small groups of men "hanging out" at the Boca Maldita, "Infamous Mouth," discussing politics, soccer, the economy and other subjects deserving their attention. The "Infamous Mouth" is an informal men's club dedicated to discussion and gossip that makes Rua XV its home.

Unlike Saturday morning, weekday rush hours exist, although a term such as non-stopping hour would be more appropriate, as people rarely rush to work. As a rule two main groups of people can be seen among those occupying the street: those who are trying to get some place and those for whom getting some place, at least in the immediate future, does not matter all that much.

I reach my site fairly quickly, as I am one of those trying to get some place that morning. On the way, I participate in the choreographed motion of pedestrians crossing the streets that intersect Rua das Flores. Today, the experience of waiting while catalytic-converter-less cars and buses go by is a little different from the previous Saturday morning. Most people around me do not mind waiting, but some fairly suicidal or impatient people take on the cars and cross the street. Rua XV is still a paradise for pedestrians.

The site is a long, narrow sliver of almost vacant land, serving as a parking lot and a billboard site. A small, fabric store sits in one of the corners. The lot is very desirable, but because the family who owns it is not able to agree on what to do with it, the property remains undeveloped.

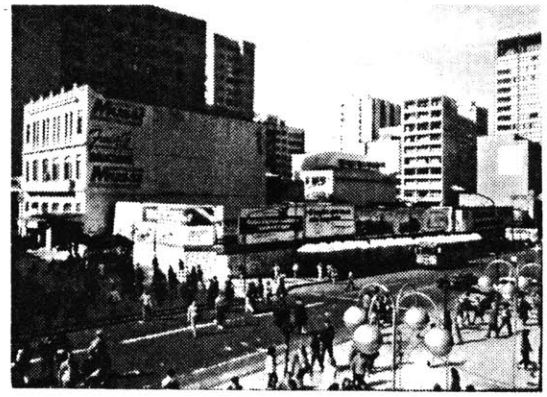
Next to the site, along Rua das Flores, stands an old three-story building that sticks out about 2 meters into the street.

Continuing on Rua das Flores, but still on the block of the site, there exists an arcade on both sides of the street. Apparently, it was built to widen the street for the entire length of the block, but was never completed. The presence of the arcade has a very negative effect on the street. It creates a layer between the street and the entrances to buildings that is dark and unused, redefining the formula of reciprocity that makes the street work so well.

Once the arcade ends, the street regains the vitality it has on the stretch between praca Osorio and the first vehicular street that interrupts Rua XV. Small businesses face the street, re-establishing a close relationship with it. This block is built-up with two- or three-story Brazilian Eclectic buildings. A few restaurants and a famous pastry shop are the main meeting places in the area. The reciprocity between open and interior spaces is perhaps best demonstrated where the street finds its way past the facade of one particular building. Here, paving continues inside a combined movie theater, coffee shop and restaurant. The relationship between the street inside the building and the activities within breaks down barriers between Rua XV and the buildings that face it. The building is an extension of the street.

The last block of Rua XV before praca Santos Andrade is also cut by two vehicular streets. Despite the interruption of vehicular traffic, the block is long and pedestrians do not quite lose their momentum. The street is darkened by tall buildings on both sides.

In the afternoon, the whole extension of Rua XV becomes busier. But the festive mood is replaced by the discomfort of a crowded street. The population growth that



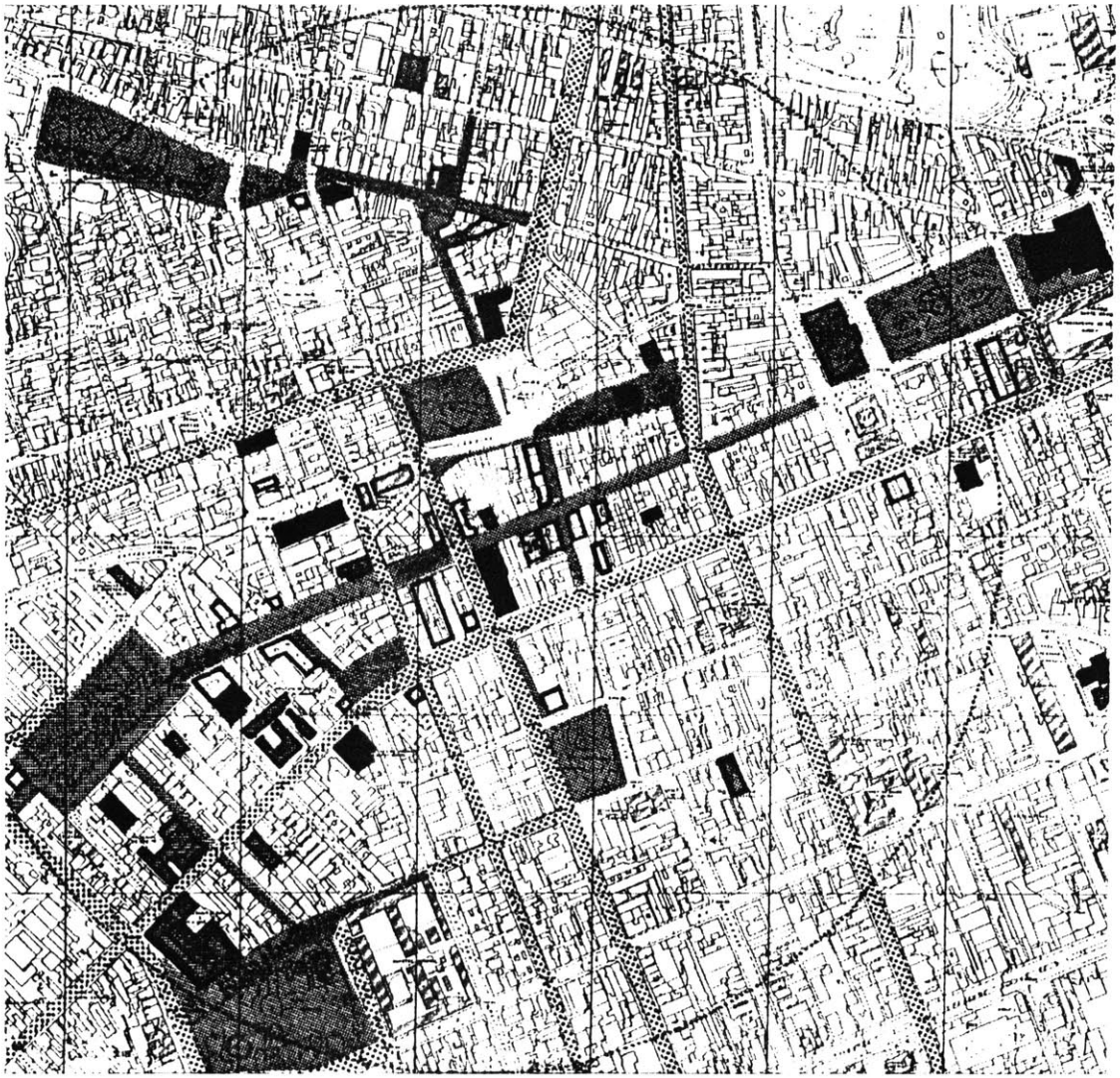
The intersection of Rua das Flores and Rua Marechal Floriano. The building next to the empty lot protrudes 2 meters into the street.

originated downtown pedestrian arcades is beginning to overwhelm streets and squares.

At 4:00 p.m., all banks close down for business and as a result, some portions of the street become instantly lifeless. Eventually all businesses close down and lifelessness spreads throughout Rua XV. Nothing happens on the street at night to give it life. It becomes a desert.

Above: Schaeffer gallery: street-like qualities inside the building

Below: Painting workshop for children on Rua das Flores



INVENTORY OF PUBLIC MOVEMENT AND BUILDINGS

KEY

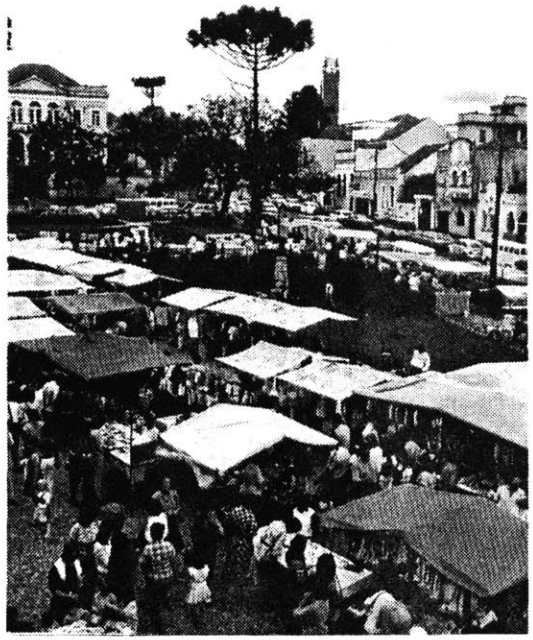
- *Pedestrian Network*
- *Major Vehicular Network*
- *Open Air Markets*
- *Cultural Institutions*
- *Educational Institutions*
- *Banks and Department Stores*
- *Site of Project*

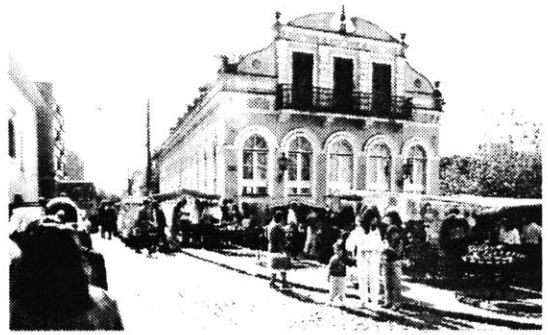
Analysis of the Downtown Area

Diagram

The diagram of downtown Curitiba shows the major pedestrian network created in the 1970's as well as the major vehicular street network. Rua das Flores is located in the middle of this network.

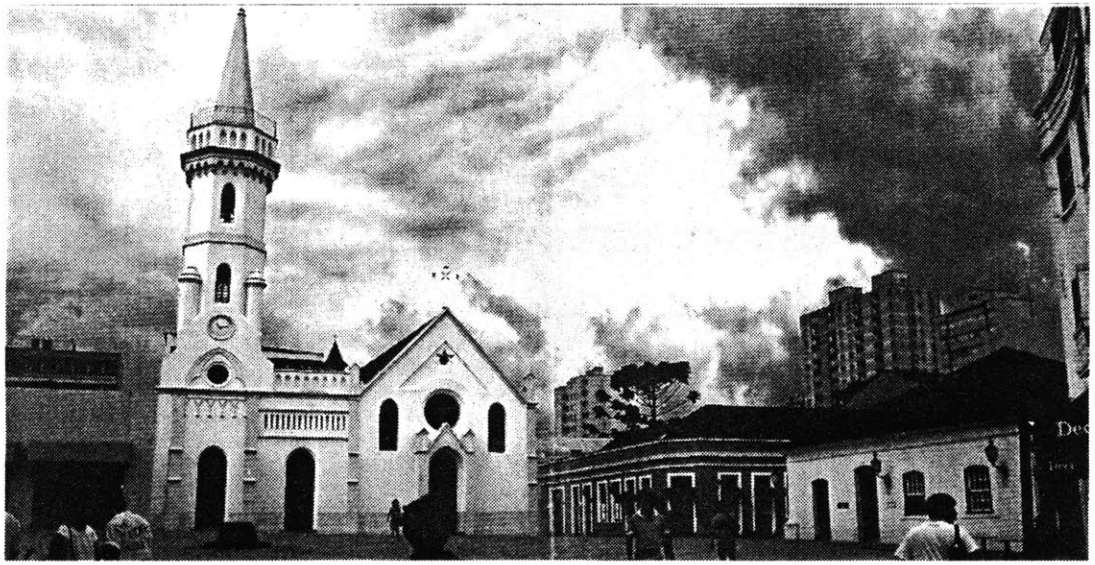
Although a fairly large number of educational and cultural institutions exist in the general area, the street is over-populated with banks to the point that current zoning regulations prohibit the building of new banks there. The fact that banks are only open for business four hours a day creates problems for Rua das Flores. During most of the week and the entire weekend, a large number of buildings along Rua das Flores are closed. Large department stores have begun to locate along the street. This, in my opinion, creates a problem for Rua das Flores because these stores develop a parasitic relationship with the street, not contributing to its life and activity.





Open-air market in Largo da Ordem area

New and Old



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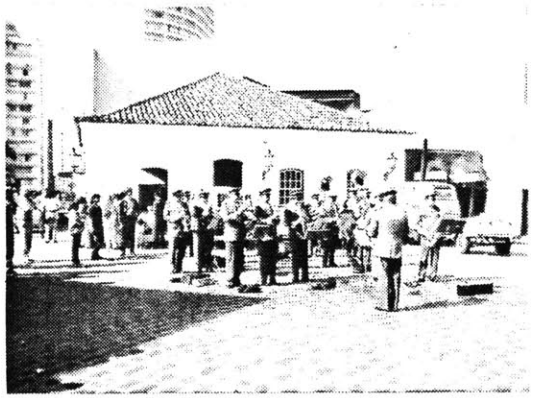
Above: Paul Klee's "Illuminated Leaf" (watercolor), 1929

Below: Downtown Curitiba

Largo da Ordem, where Curitiba started

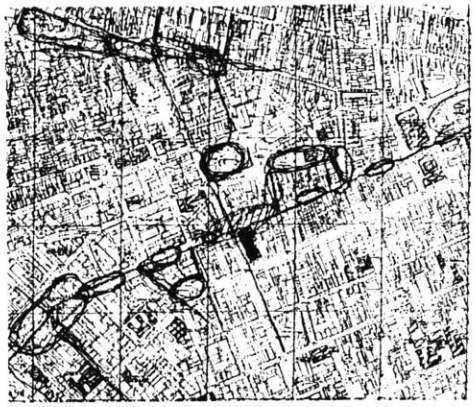
The diagram of downtown Curitiba shows two main directions that determine the grid of streets. The majority of the downtown follows an orthogonal grid and is diagonal to the traces of the old part of town that grew on the ridge of a hill. The old town is a point of interest to the city because of its historical value, but has acquired more significance recently, because it has become an important cultural area. Museums and other cultural buildings as well as an open-air market that functions on weekends attract thousands of people during different times of the week. The link between the center of town and the old town is of great importance to the city. The vehicular street that crosses Rua das Flores, one edge of the site for this project, is one of the main connections between the downtown and the old town area. Therefore the site is in a location that is important to the connection of two of the most important portions of downtown Curitiba, the Rua das Flores area, representing the new town, and the Largo da Ordem area, the place where Curitiba started.



Movement systems

> The Klee watercolor...adds...[a] dimension to the structural movement of energy within the city: the creation of fields of quality at the points of convergence of movement systems. Since the veins of a leaf or the branches of a tree are comparable to the channels of movement of people and goods within a city, we see the parallel between organic structural forms and the city movement system, their sequential effect on the sensibilities of the people who move over them, and the resulting effect on the appearance and character of the city adjacent to them.
>
> In this painting we see that it is the movement systems which determine the shape of the fields of influence. These vary in intensity with the degree of movement, overlapping one another as they radiate outward."
>
> -Brawne, Libraries: Architecture and Equipment

The downtown area is a network of activities and movement. Squares, bus terminals, cafes, newsstands, and street intersections are points of intense activity. As the diagram of the downtown implies, the city is concentrically arranged with radial connectors between the residential neighborhoods and the center of town. The notion of nodes of activity within movement systems from Klee's painting can be applied to the downtown diagram. As a result, the intersection of Rua das Flores and Rua Marechal Floriano is one such node of intense activity. The opportunity exists to expand the influence of this node of activity so that it overlaps with the adjacent nodes, creating a large network of activity in the downtown area.



THE SITE

Rua das Flores is an important component of the experience of Curitiba for many thousands of people. It is a station within time and space in the city, whether it is used as a connection between the express bus terminal and the work place, or as a destination in itself.

Two blocks separated from the rest of the street:

The block between Rua Doutor Muricy and Rua Marechal Floriano, in the middle section of Rua das Flores, is separated from the rest of the street by motor traffic at either end. This isolated area has characteristics of a square, a multi-directional field of movement, a place of arrival in the center of town. Although the block is busy, it is not lively. I believe this is because the street is bound by elements that do not contribute to the quality of life on it. Two vehicular streets interrupt the continuity of the pedestrian street and both edges are built up with high-rises of twenty or more stories. It also has a major department store. People using this block do not inhabit the street, but rather use it as a way to get into the internal world of office buildings, as a bridge between two portions of a pedestrian street, or as an gateway to the downtown area. I believe that this block can become a legitimate plaza, a special point in the middle of the street, a destination in its own right, by re-establishing its importance as a site of activity. A school on the perimeter activates the block, but more has to be done to bring it to life.

Above: Rua das Flores and two vehicular streets that cross it (shaded)

Below: Interrupted arcade

The arcade running half of the block between Rua Marechal Floriano and Rua Monsenhor Celso separates the street from the buildings it faces. It works as a barrier to light, and therefore to vision and activity. This zone between buildings and street is not used by people as a part of the street, nor is it claimed by buildings as extension to their territory. Therefore one of the main characteristics of Rua das Flores, the reciprocity between building and public space, doesn't exist along this block. If the arcade were to be connected to Rua Marechal Floriano, it would acquire the continuity that would make it function as an integral unit of the street, and, I believe, the block would share the lively character of most other blocks of the street.

Different times of the day, different days of the week: different problems

The street functions very differently at different times of the day and on different days of the week, in part due to the position of the sun. Morning light illuminates the length of the street making Rua das Flores an important pathway to travel to work.

In the afternoon, the sun illuminates one side of the street, which becomes the most active side. On the well-lighted side, Rua das Flores becomes more than a street, with outdoor cafes, flower shops, and spontaneous activities. The shaded side of the street becomes the movement side, a traffic corridor. At night, the lighting is poor and life almost stops.

Life on the Rua das Flores is related to the activity within buildings along it. Therefore, commerce, banks, and office buildings, for the most part, determine the times in which the street is allowed to fully function.

According to Fernando Popp of Curitiba's urban planning institute, the institute recognizes this problem and is studying ways of creating 24-hour activities along Rua das Flores, in order to make it both safer and as important to the city at night as it is by day. Similar strategies would activate the street during weekends.

Contextualism

My approach to the context of my site is to identify the relationships between street and buildings that generate activity and life in the city and to incorporate them in the concept of my design. The building to be built on the site ought to enhance the quality of life and activity the area already has.

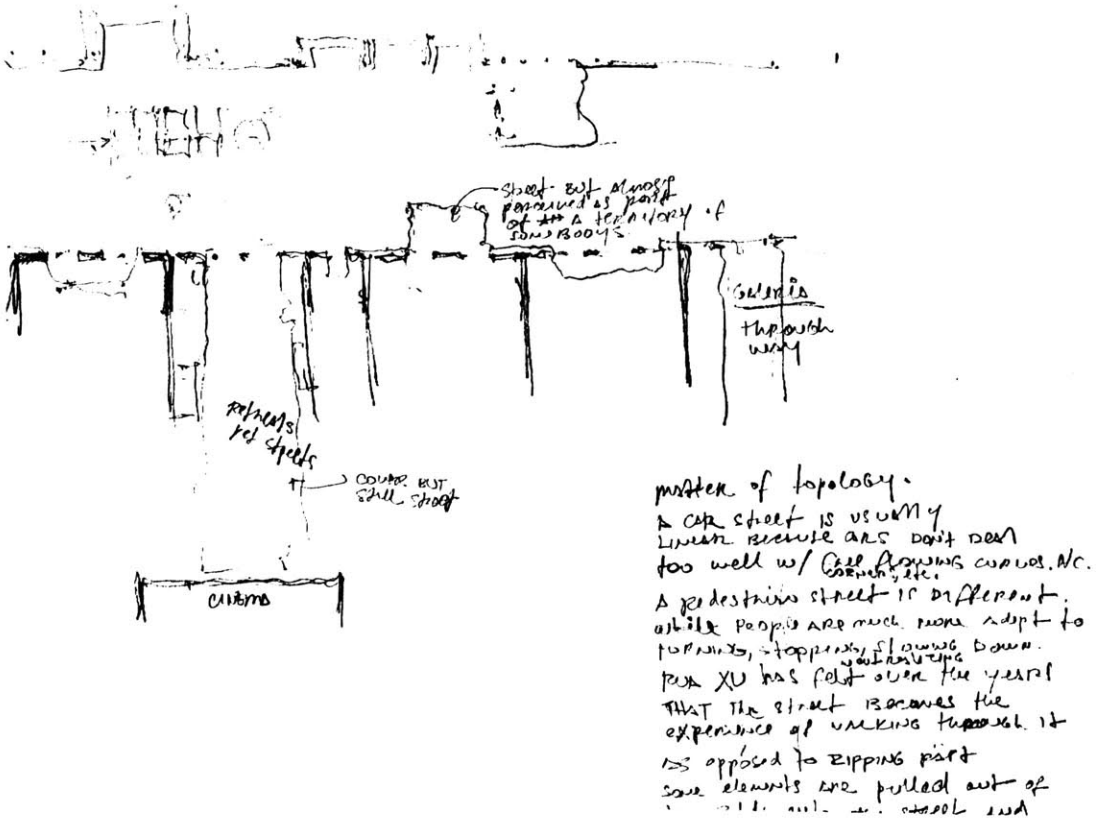


Diagram. Dynamics of building and street relationships

Rua das Flores is the most important border of my site and the most important determinant of my attitude toward context. The exchange of activity between building and street is achieved by buildings of external character as opposed to buildings such as department stores and office buildings. The buildings that work the best to establish the relationships that interest me are the two- or three-story buildings located along Rua das Flores. My proposal will have the following relationships with and effects on the edge of Rua das Flores:

-Establish continuity of the street by allowing the connection of the arcade to the vehicular street;

-Help activate the block between Rua Marechal Floriano and Rua Doutor Muricy;

-Be an extension to the street;

-Be one more place in the sequence of places for public use that exist along the street;

-Be the entrance to a more defined destination or activity;

-Offer a range of choices of use, be multi-purpose ;

-Activate the street at night.

The long dimension of the site facing Rua Marechal Floriano is lined with very high and internally-oriented buildings. The whole length of the block has bus stops that can be occupied by as many as three buses at one time. In relation to this street, the new building will be:

-A gateway downtown;

-The urban edge along the street;

-Movement as it faces this street.

Along the third edge, Rua Marechal Deodoro, the new building will follow the existing character of the street. It is a street of big buildings, cars, trucks, buses, banks and

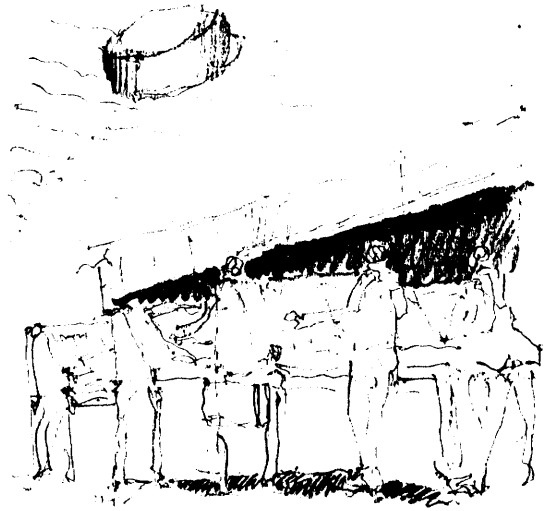
chaos. This side of the building will be institutional, perhaps as imposing as its neighbors. This side can serve as a service to the building as it functions now as a service to Rua das Flores. The building will not be very accessible to this street.

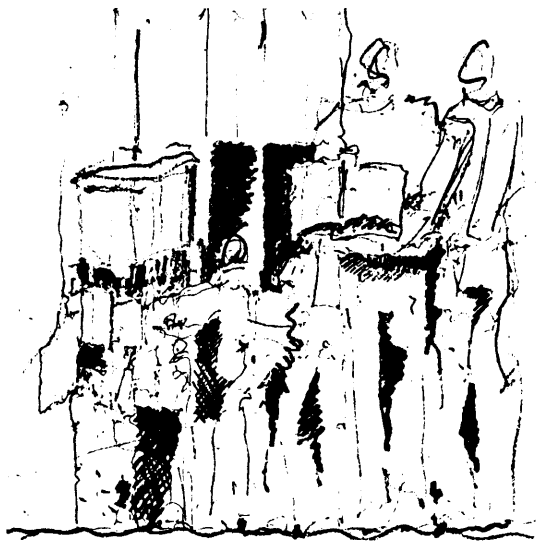
Opposite Page:

Above: Periodicals reading table similar to type used by Aalto in Viipuri library

Below: A "cloud" of books as proposed by Bruno Munari. Exhibited in Milan

PROGRAM





The choice of a cultural facility

My reflections about what I saw and heard in Curitiba and at Rua das Flores made me realize that a cultural center was the best building for the site, as it would encourage interaction between people from different walks of life. The cultural center should derive its life from the phenomenally complex part of the city surrounding the site. I decided that the building should offer a range of uses, validating the claim that the building is an extension of Rua das Flores. In order to arrive at the technical program for the building, I conceived three scenarios that exemplify the range of uses that I see for the center.

Different use scenarios

-Browsing. People may walk in from the street and read the daily newspaper glued to the wall or displayed on "browser" tables. A person may also walk through a "cloud" of books or view an exhibit of local crafts, or buy a cup of coffee and continue along Rua das Flores. Life goes on after a quick break. The place where the break takes place does not seem very different from the street itself.

-Study. The building is a library and meets the need young people have for places to study as they prepare for university entrance exams. For most students, serious study is the only hope for a promising future.

The location of this place to study is very strange, for the student needs to be able to concentrate in order to be productive and this site is so very busy! However, the site is perfect for studying, for it is located near the schools and homes of the people who need it. The library is a refuge, a second home to the student. Here the student can take a nap on top of his notes on the busiest corner of town. It is a rock, a solid depository of knowledge.

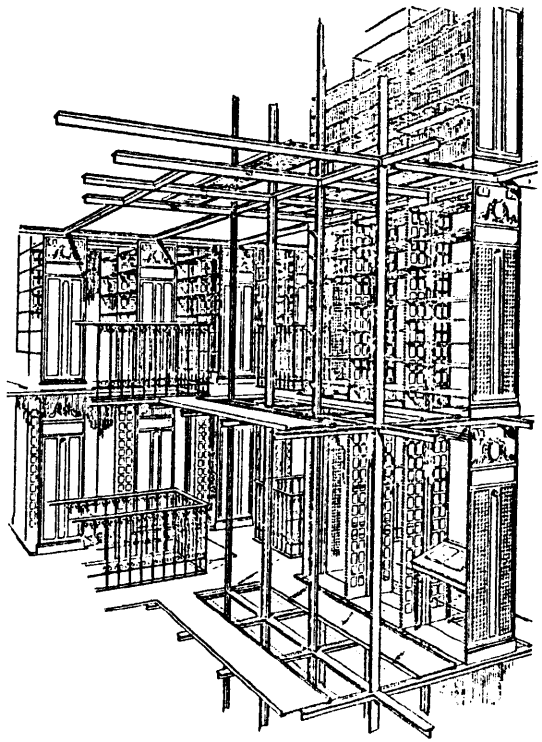
-Public gatherings. A musician may play guitar to earn some money in the lobby of the building. A band may play an informal concert during a lunch-time concert series. Bank clerks, secretaries, students, cops, children, and street people sit around watching the performance. Public activities of different kinds happen during the day: art exhibits, lectures, music, dance performances. This part of the building is a chameleon-- it has to constantly adapt itself in order to work.

Once I established the function of the building in the context of Rua das Flores, the development of the program was aided by observations of the site as well as two books: The Influence of Angus Snead Macdonald and the Snead Bookstack on Library Architecture by Charles H. Baumann and Allan Konya's Libraries: A Briefing and Design Guide.

Snead Macdonald invented structural bookstacks and other equipment found in libraries today. His inventions reflect a deep understanding of many issues that have to do with the functioning of a library, such as book storage and retrieval, and the quality of the spaces for reading. Konya's book, on the other hand, presents case studies in library design.

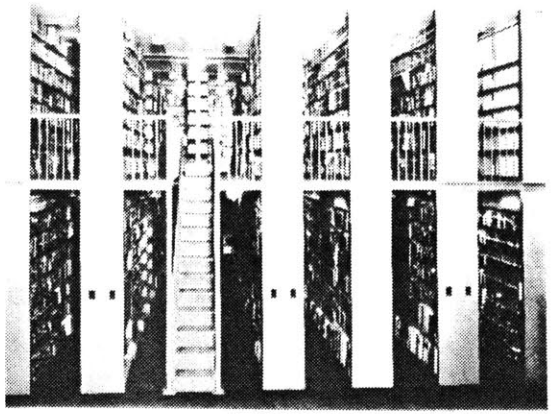
Macdonald maintained that traditional libraries "... don't assume a more vital role in our society because they are in architectural straight jackets." (p.123) The three fundamental faults of traditional libraries were their lack of intimate charm, inadequate accommodation and narrow class interest. Libraries ought to be usable. His structural bookstacks are great! Other equipment invented by Macdonald reflect his belief that access to the books is of capital importance to the serious reader.

Structural bookstacks in the Library of Congress



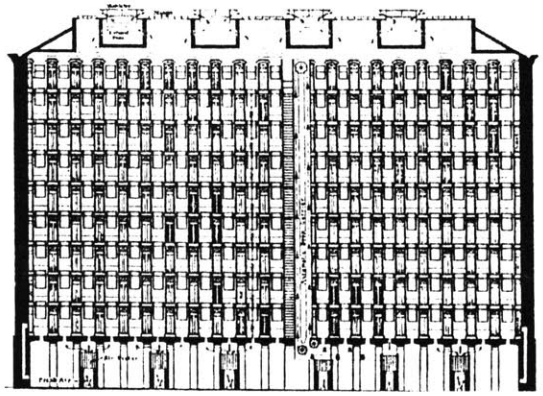
Structural bookstacks allow freedom in the design of the building by relieving the loads caused by books. The books are stored in rational and compact locations, easily accessible to the reader. Macdonald also proposed the use of "interchangeable stack spaces" (p.125) to allow for flexibility in library configurations and studied modular library configurations. These aspects of his work are not as relevant to my thesis as his bookstack designs.

Konya discussed the issue of library design in terms of functions that correspond to the cycle of use: locating information, retrieving information from storage, communication of the information to the user, and return of information to storage. Based on his writings, I decided that the attraction element of the library, the part that includes lending and reference, should be at or close to street level, whereas the research component should be relatively secluded with respect to the rest of the building. I developed a program for the building following Konya's guidance, adapting his design procedures for a library that is a part of a larger cultural building.



Above: Typical structural bracket stacks

Below: Longitudinal section of Library of Congress structural bookstacks



TECHNICAL PROGRAM

Though Curitiba has approximately 1,000,000 inhabitants, the program is designed to service 100,000 people. The reason for a design population of 10% of the actual population of the city is that there is already a public library, albeit too small, in the center of town.

Adult Lending	750 m^2
Reference Area	750 m^2
Children's Library	200 m^2
Mediathéque (media library)	400 m^2
Materials, storage and remaining book stock of 200,000 volumes	1600 m^2
Seating room for 100 students	140 m^2
Meeting/seminar room for 200 people	420 m^2
Lecture hall and theater for 300 people	400 m^2
Catalogue and counters	70 m^2
Photocopy room	20 m^2
Offices and workrooms	300 m^2
Staff area	90 m^2
Entrance hall and circulation	300 m^2
Mechanical, electrical, services	150 m^2
Bookshop	80 m^2
Cafe	80 m^2
Exhibition Area	200 m^2
Total Area	5950 m^2

DESIGN

This chapter provides a graphic description of my design exploration. The organization of this chapter is as follows. The concept for the building is established through models that progress toward clearer definition. Programmatic elements are incorporated that change the concept into a building. Only after several iterations of model-making does sketching become part of the process of design. Eventually drawings become the main exploration tool of spaces. Finally, the explorations are tested in a model.

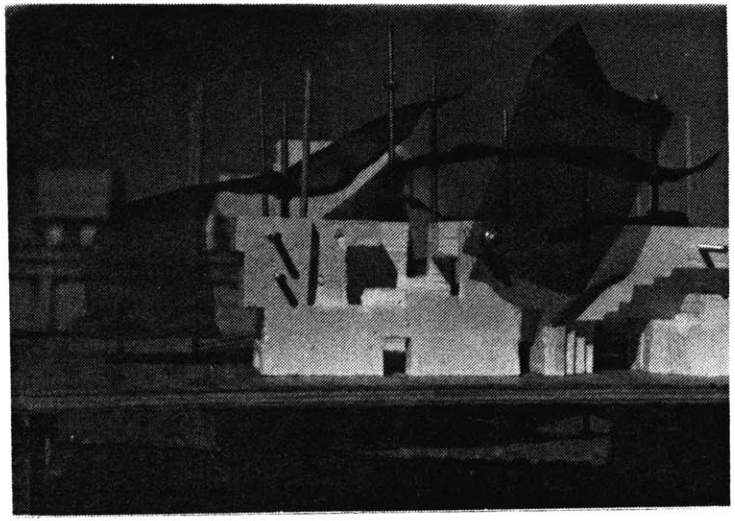
The plaster, wood and metal model is the beginning of the design exploration. The main concern is to develop a concept with respect to the site and to the natural elements.

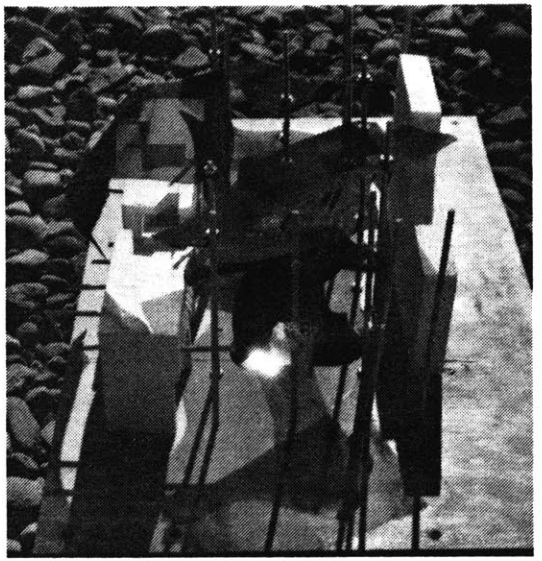
The two walls are an attempt to establish a simple initial definition of space and separation from vehicular traffic of Rua Marechal Floriano. The thick dimension of the plaster wall allows for movement through and along it.

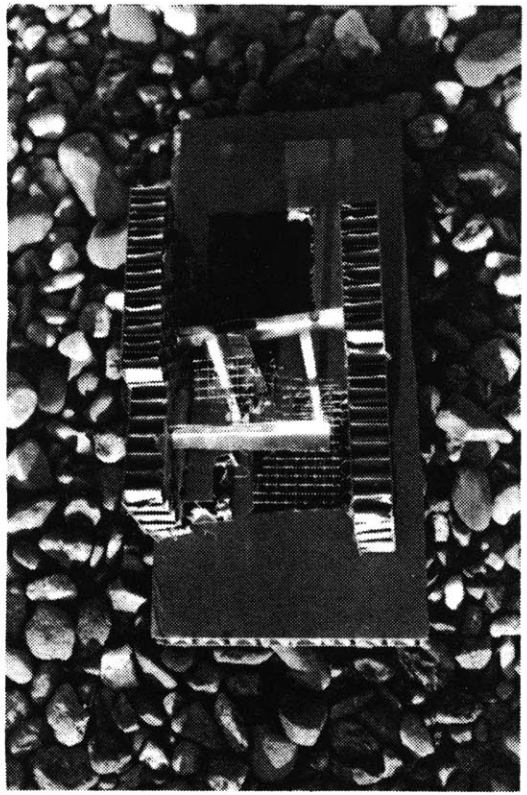
The ground plane is denied by the intensification of what is underground. The base of the model is three-dimensional and so is the space that makes the connection between ground and sky.

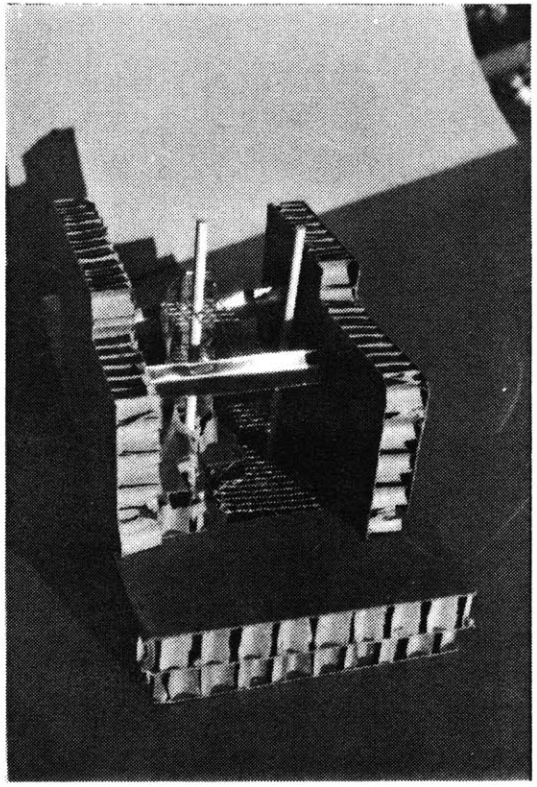
The sky is revealed through structure and transparency. Light can penetrate different layers of material and reach below the ground plane.

Making the model is an exploration in materials, assemblage and tectonics.





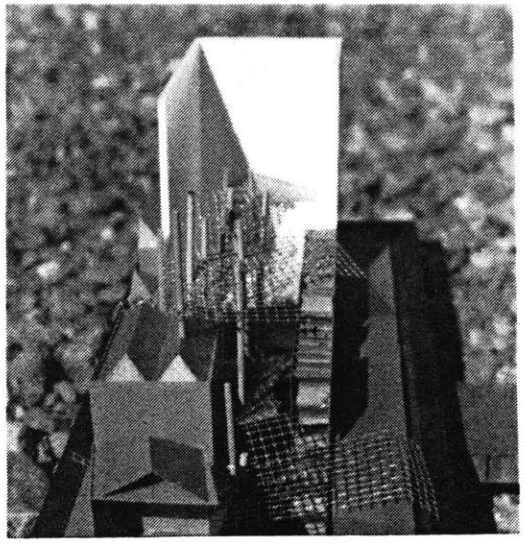


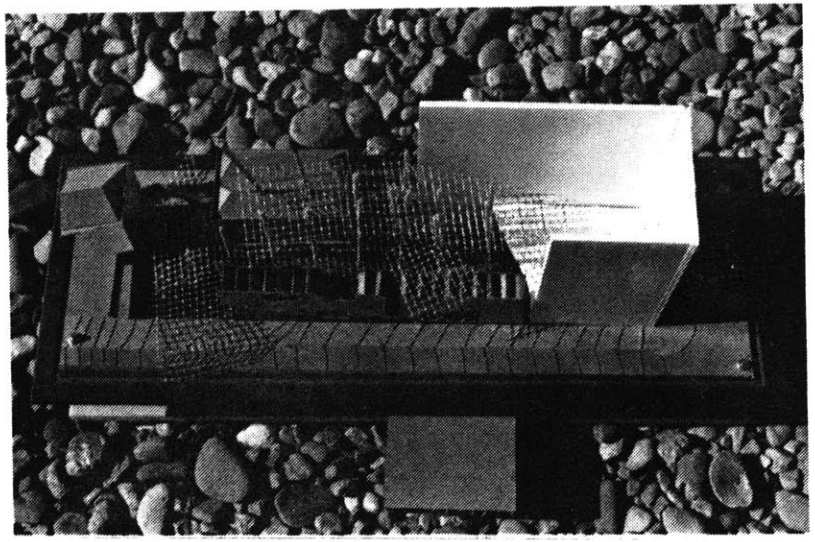


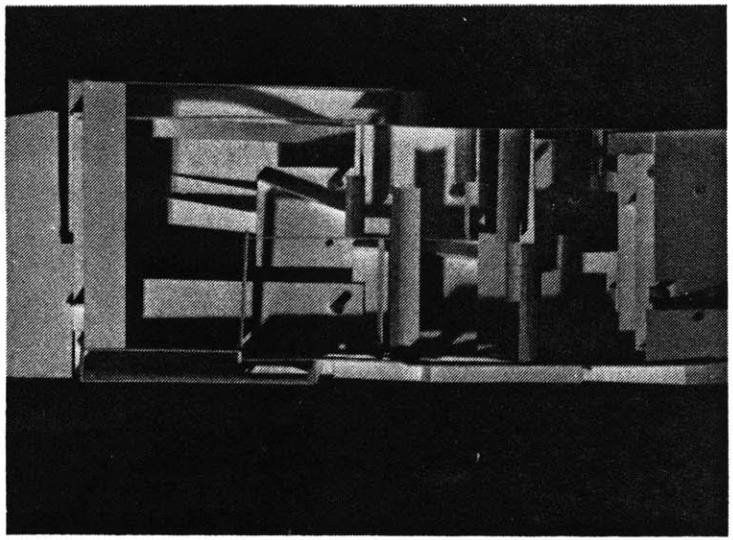
The second model synthesizes attitudes towards the natural elements: ground, water, and sky. The ground moves above and below a reference ground plane to create places and enclosure. The sky is harnessed to become part of the building through light-catching devices. Rain, the water flowing from the sky to the ground, defines the flow of forces along its path.

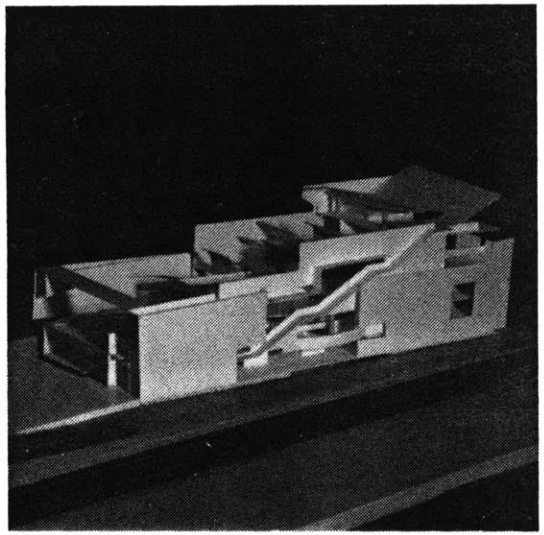
The concept of space and enclosure is first introduced to the site. The existing three-story building on Rua das Flores is engaged by the new building due to dimensional constraints of the site. This edge of the site is very three-dimensional and little defined. The building is an extension of the pedestrian street.

The end of the site opposite Rua das Flores is a well defined container; it is the institution, the library.







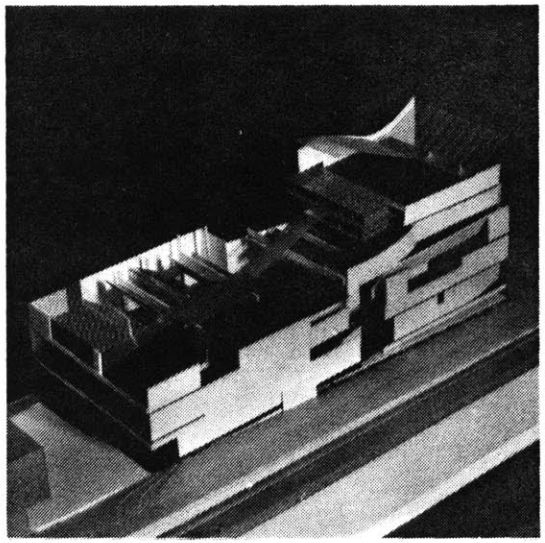


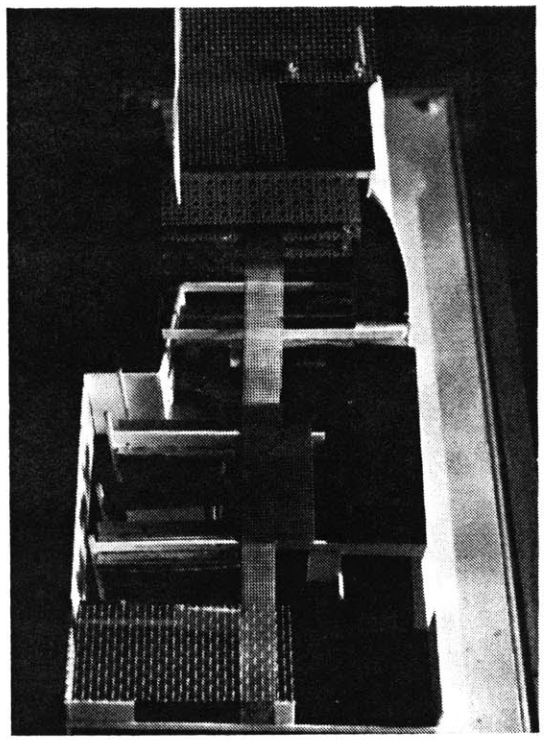
The Rua das Flores dimension is very important to the building. The three-story building adjacent to the site has to be removed in order to allow the new building to create civic intensity.

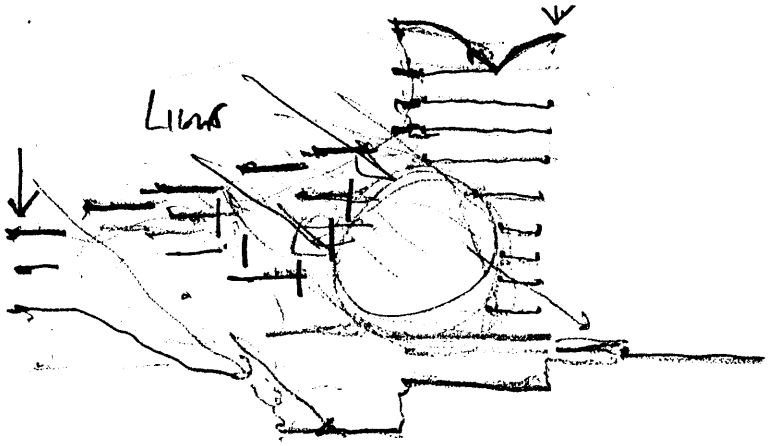
The model is an exploration of movement, light and creation of spaces that range from loosely to well defined.

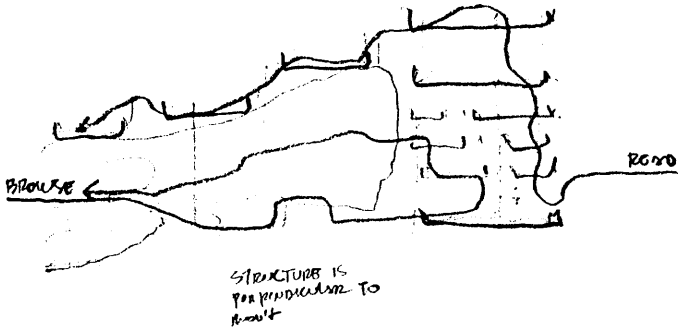
The spaces are defined by vertical and horizontal planes that are held up by the beginnings of a structural system.

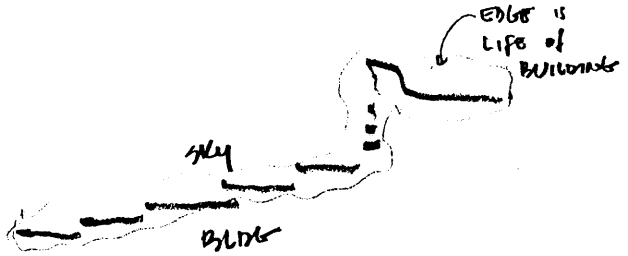
Places, movement and construction become more clearly defined. The building is separated by a "wall" of structural bookstacks which cut the library from the more public part of the building.

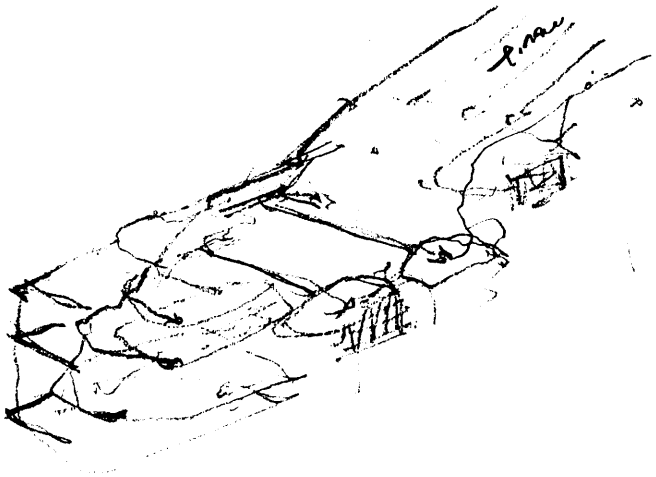


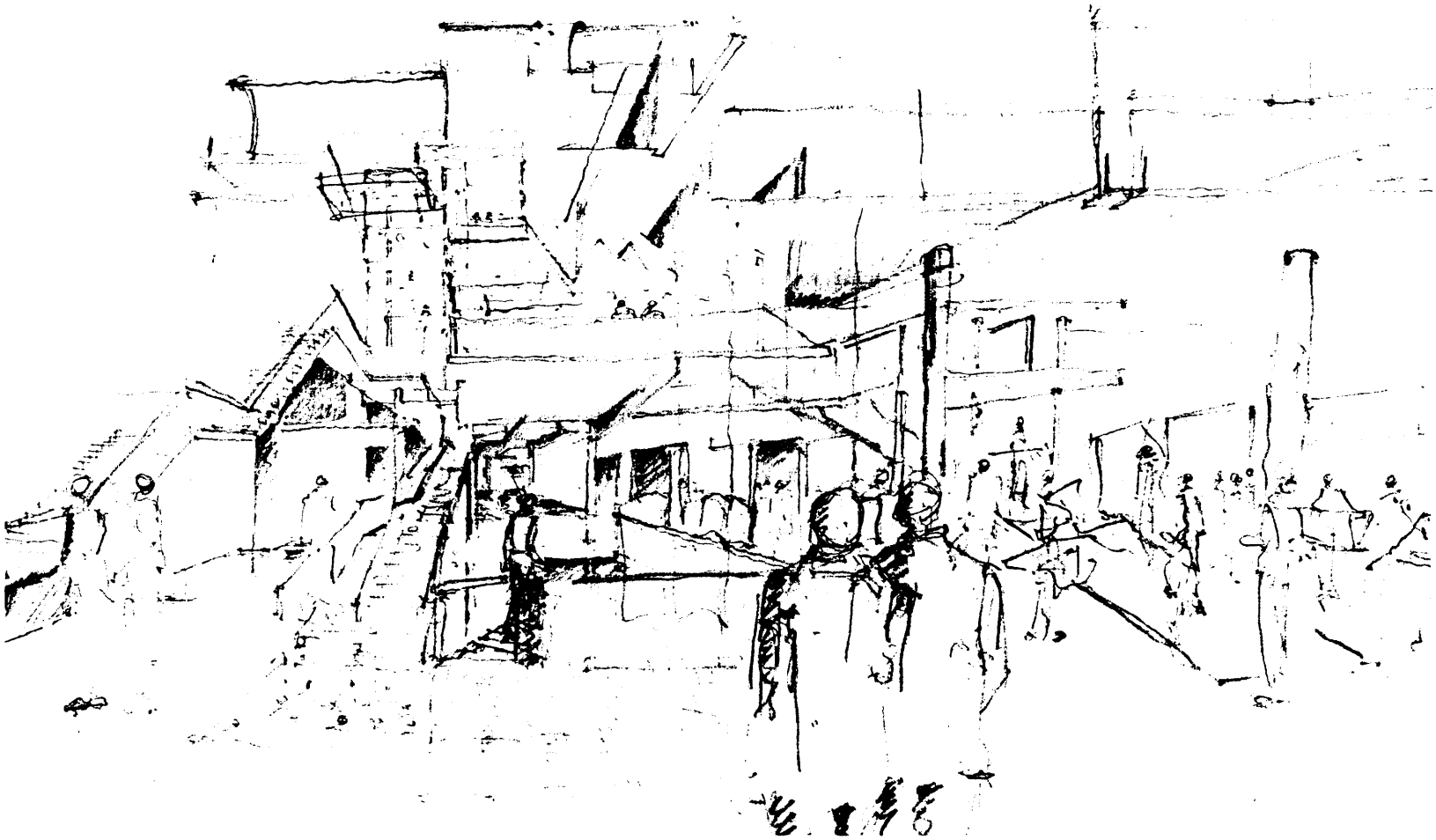


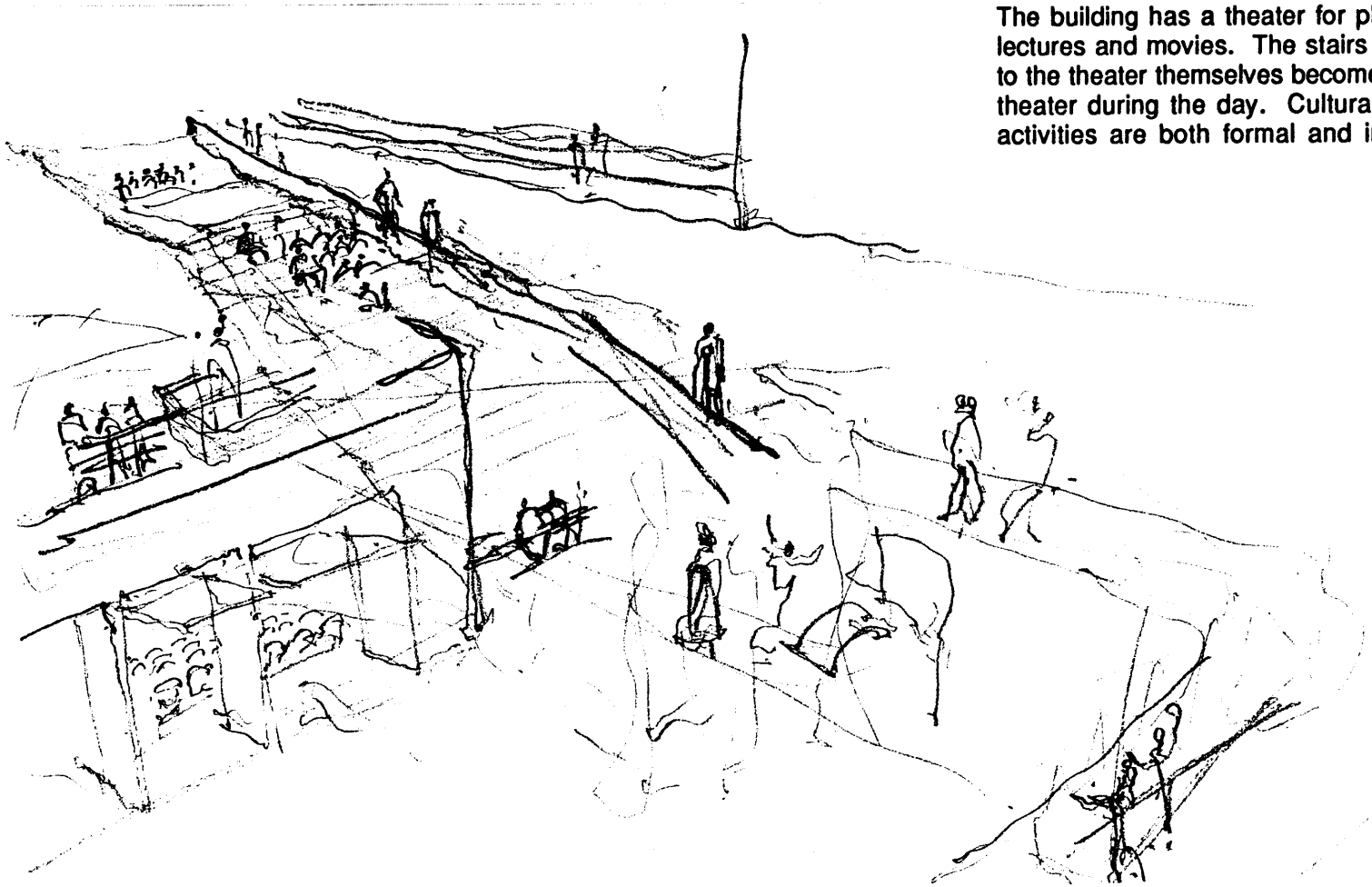

LIGHT


ROAD
STRUCTURE IS
PERPENDICULAR TO


EDGE IS
LIFE of
SKY
BUILDING

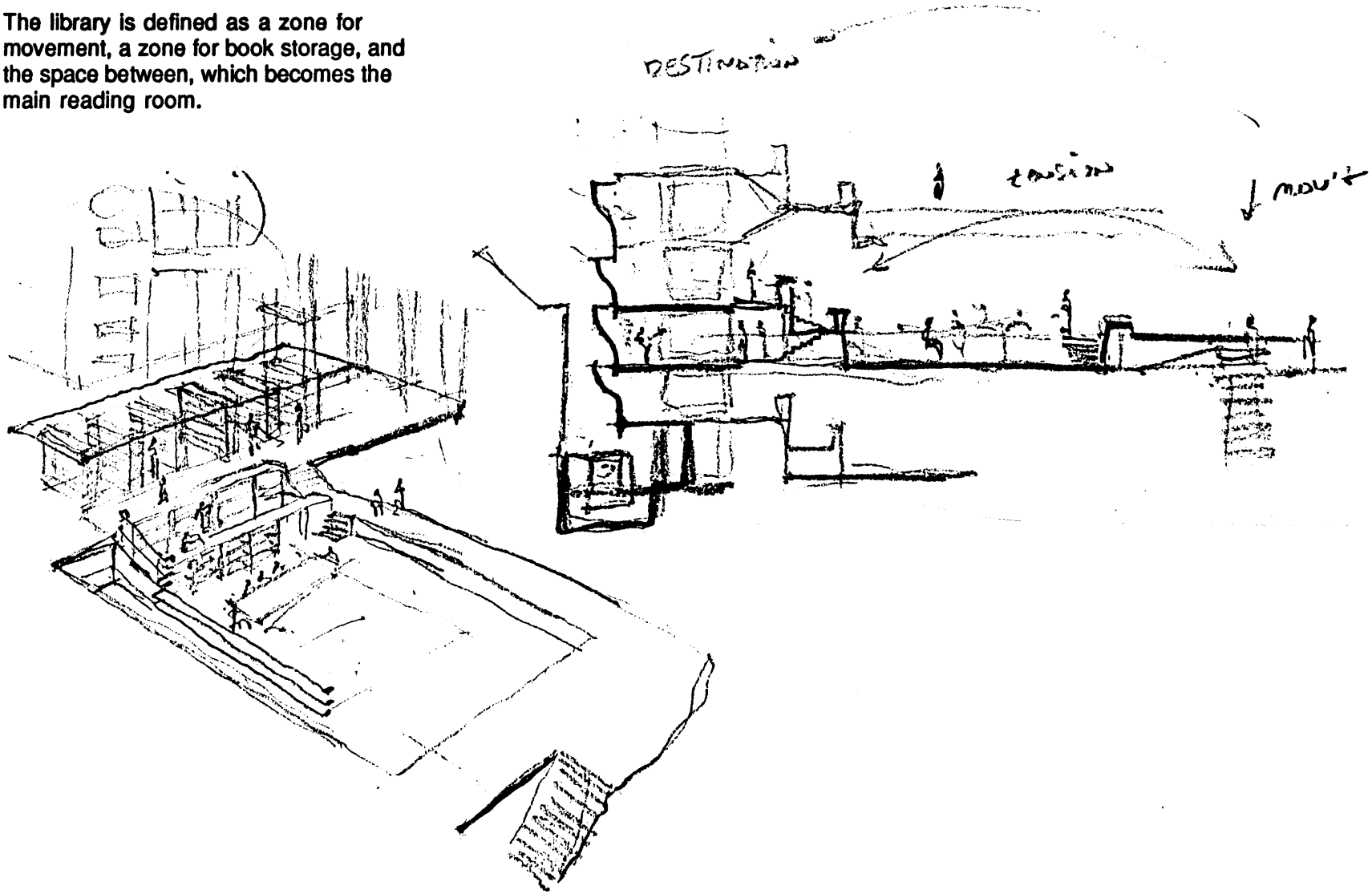


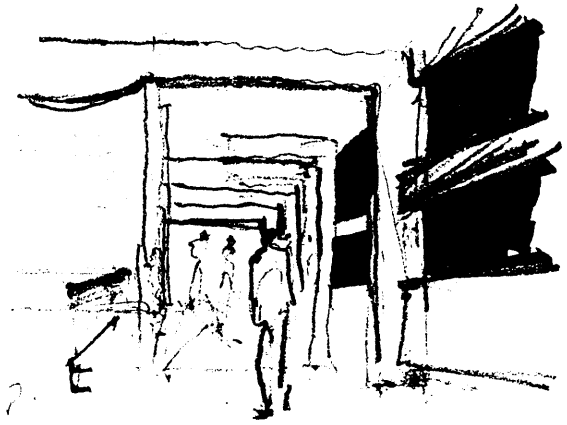


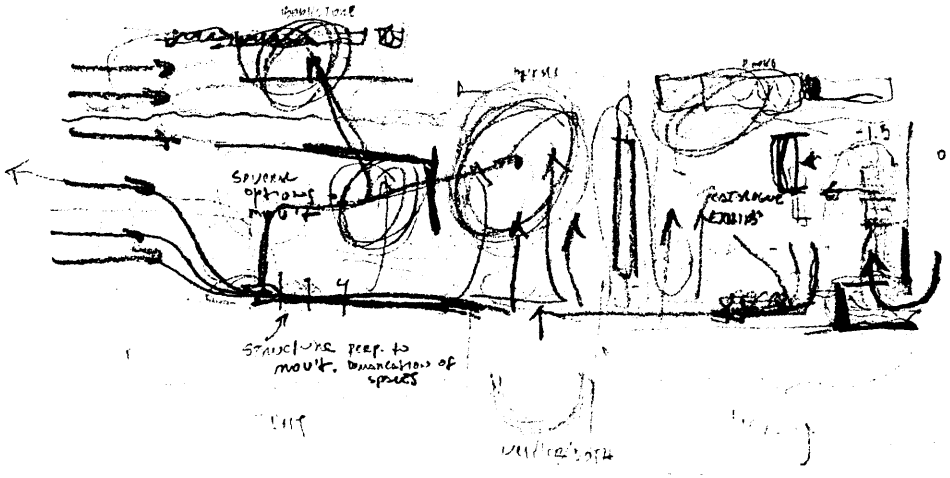


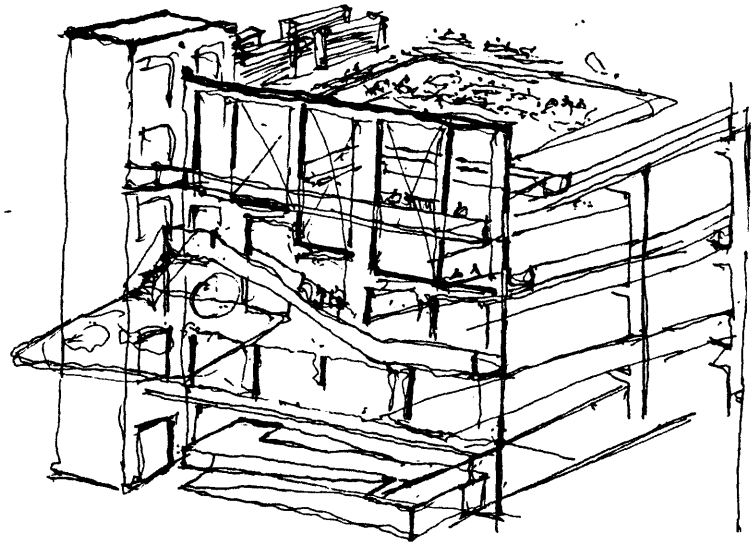
The building has a theater for plays, lectures and movies. The stairs that lead to the theater themselves become a theater during the day. Cultural activities are both formal and informal.

The library is defined as a zone for movement, a zone for book storage, and the space between, which becomes the main reading room.

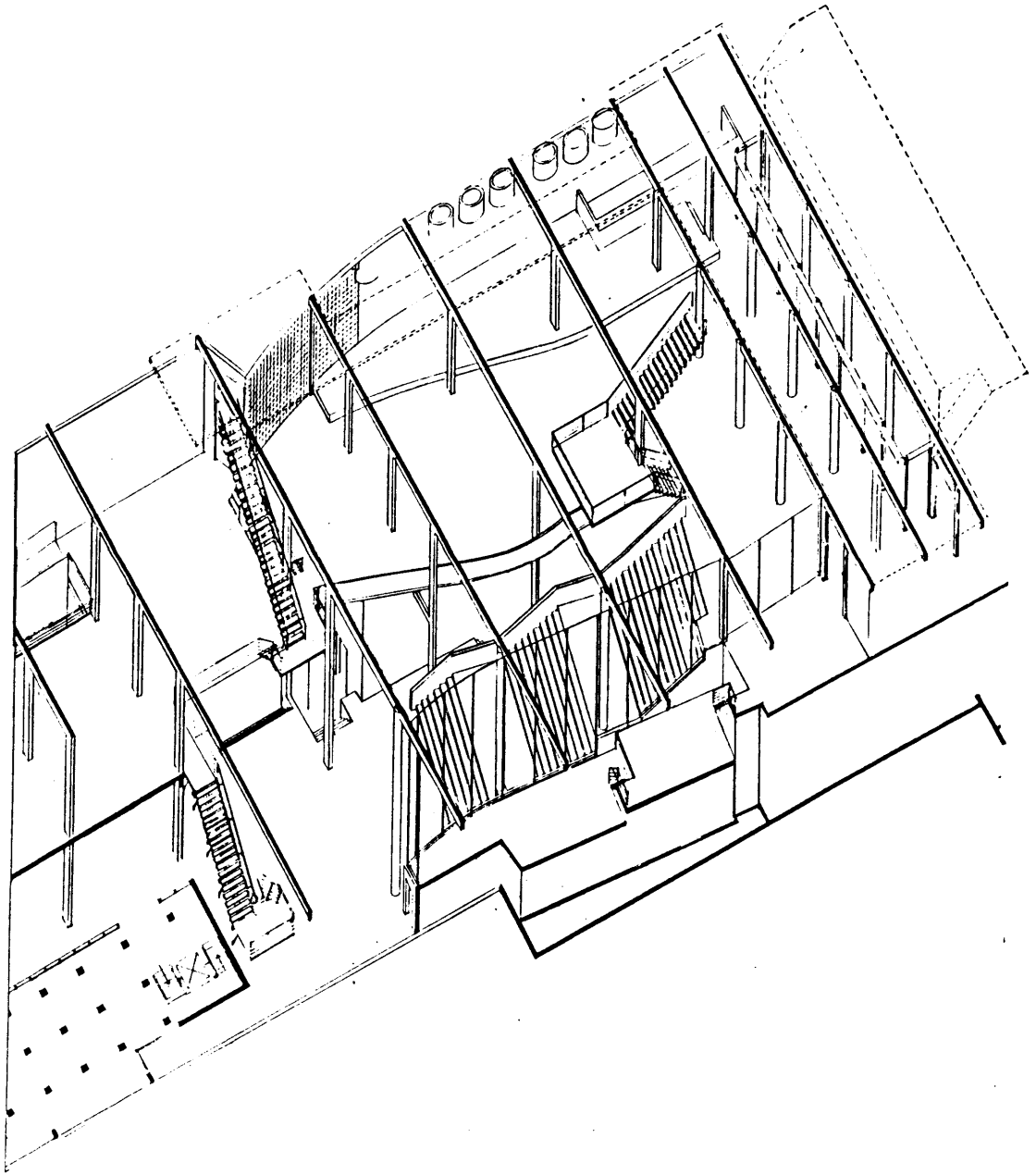


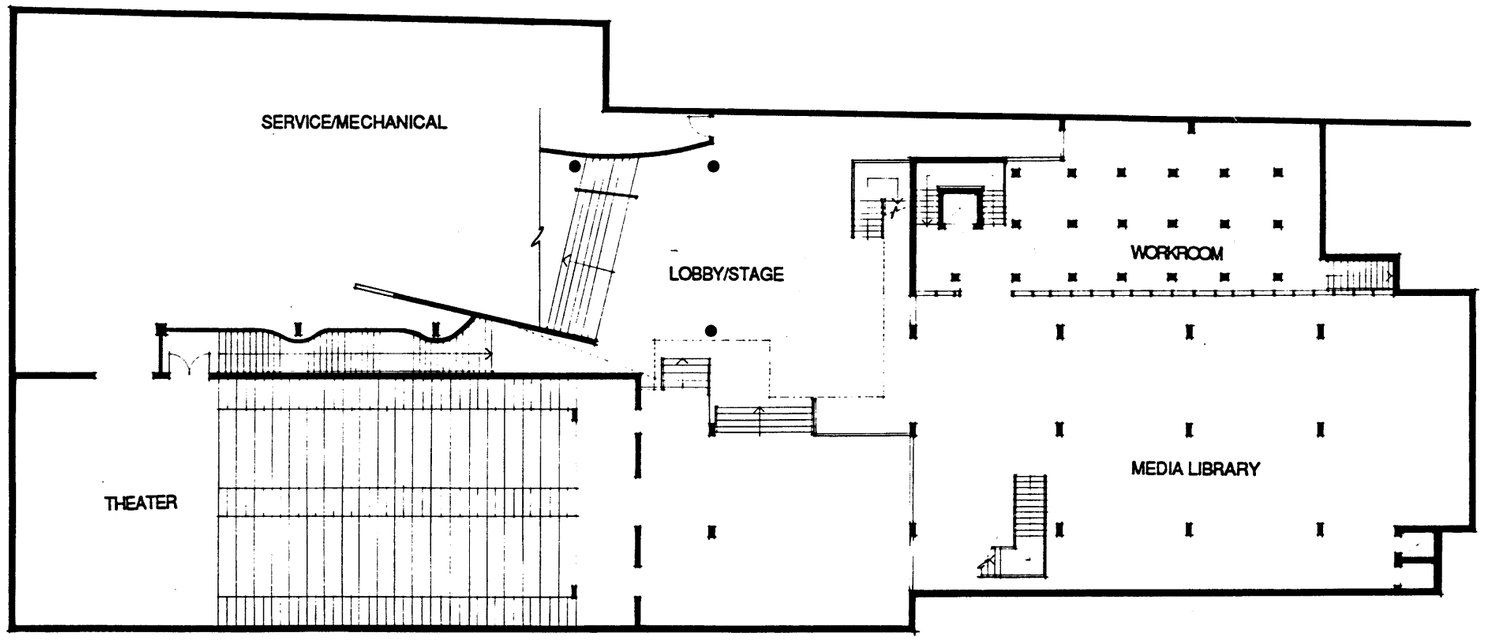






MANIFESTATION OF THE CONNECTION BETWEEN CIRCULATION AND ACTIVITY IS INFORMED BY CONSTRUCTION.





THEATER LEVEL PLAN

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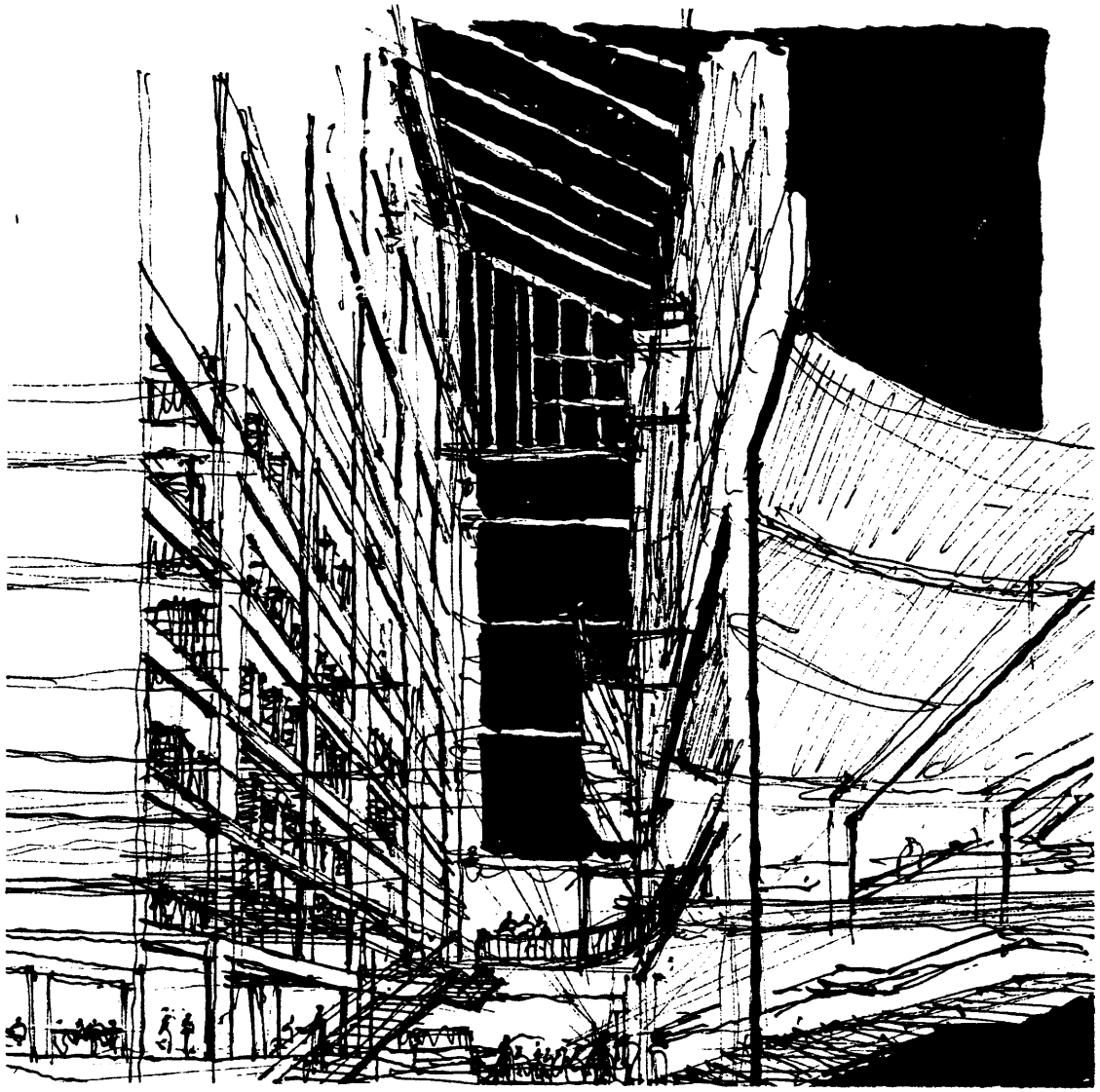
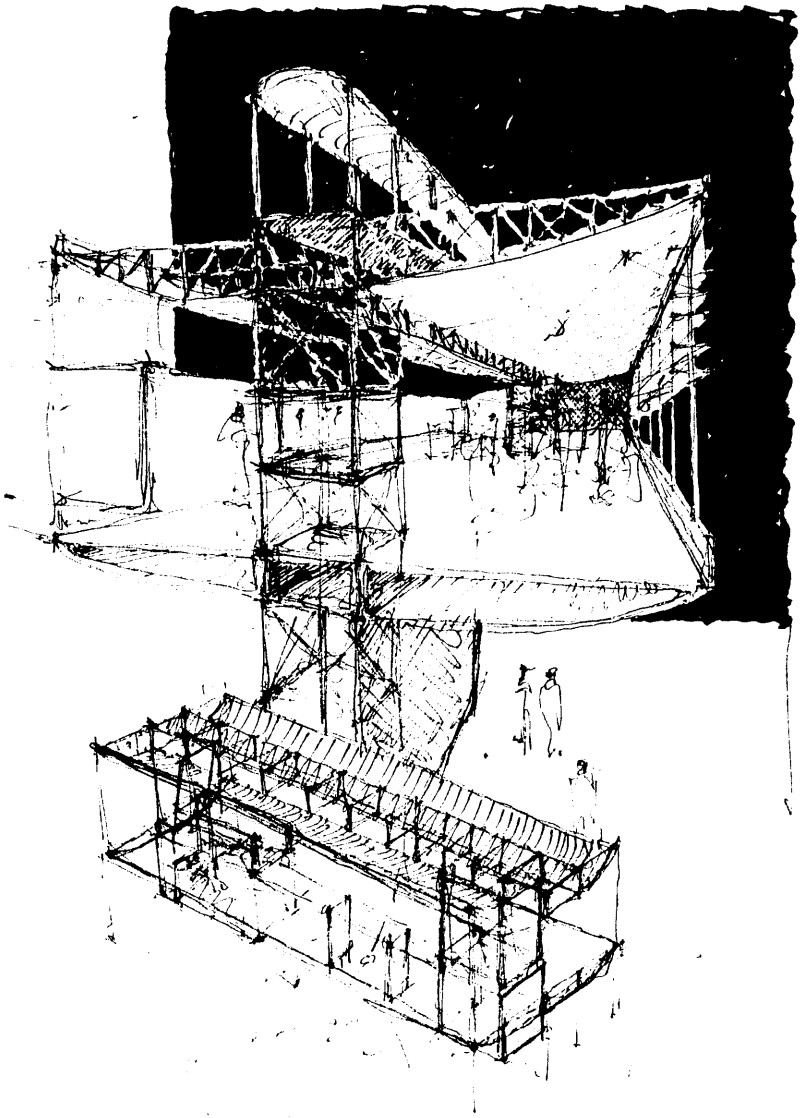
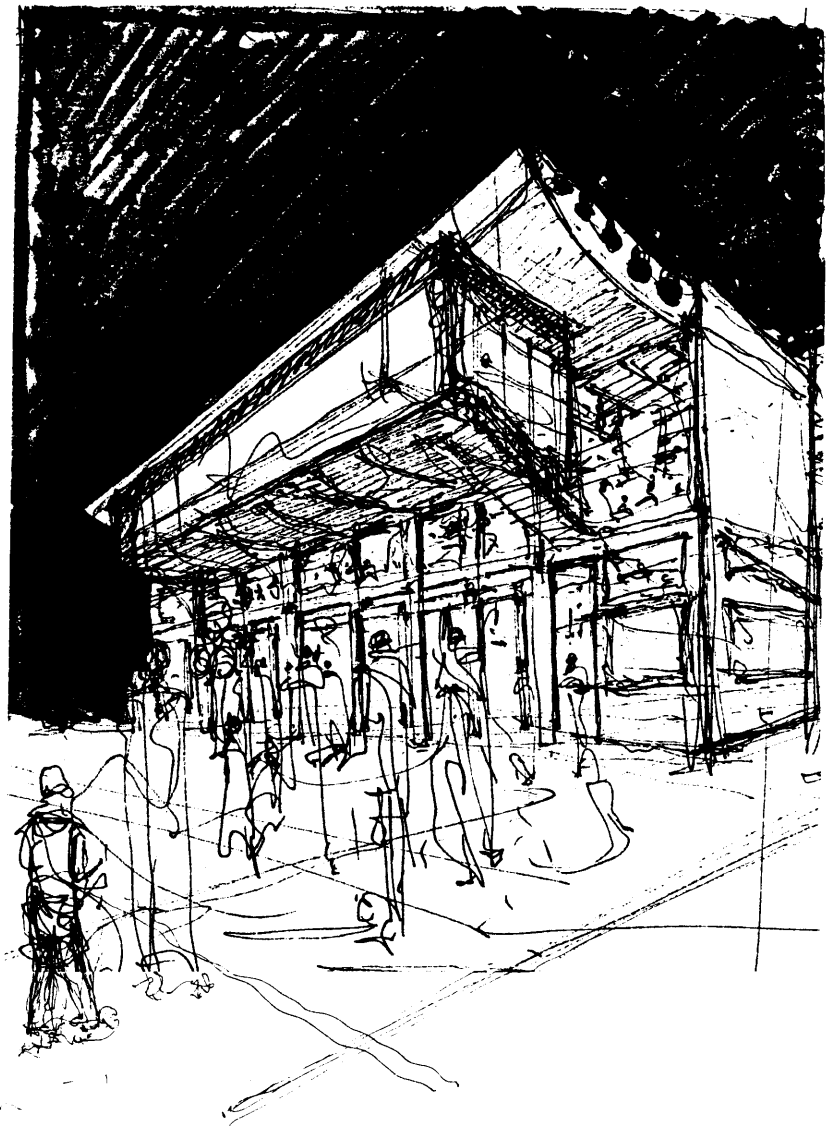
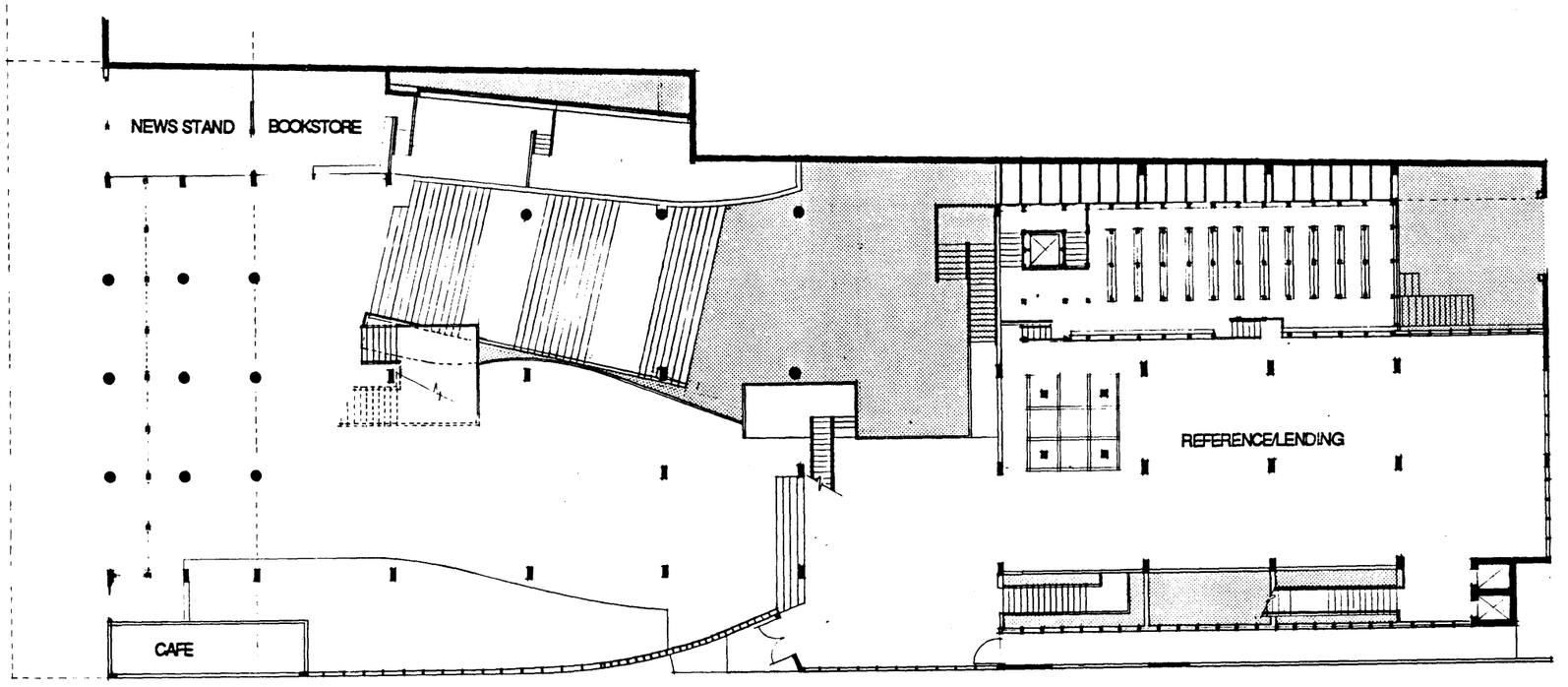
1m 5

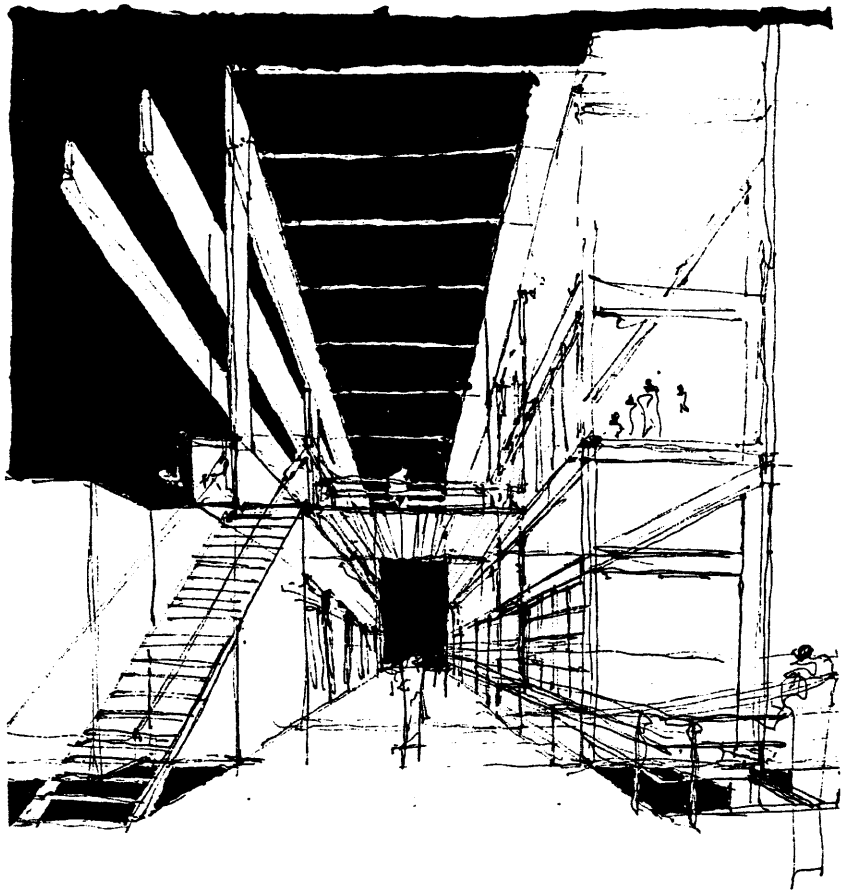


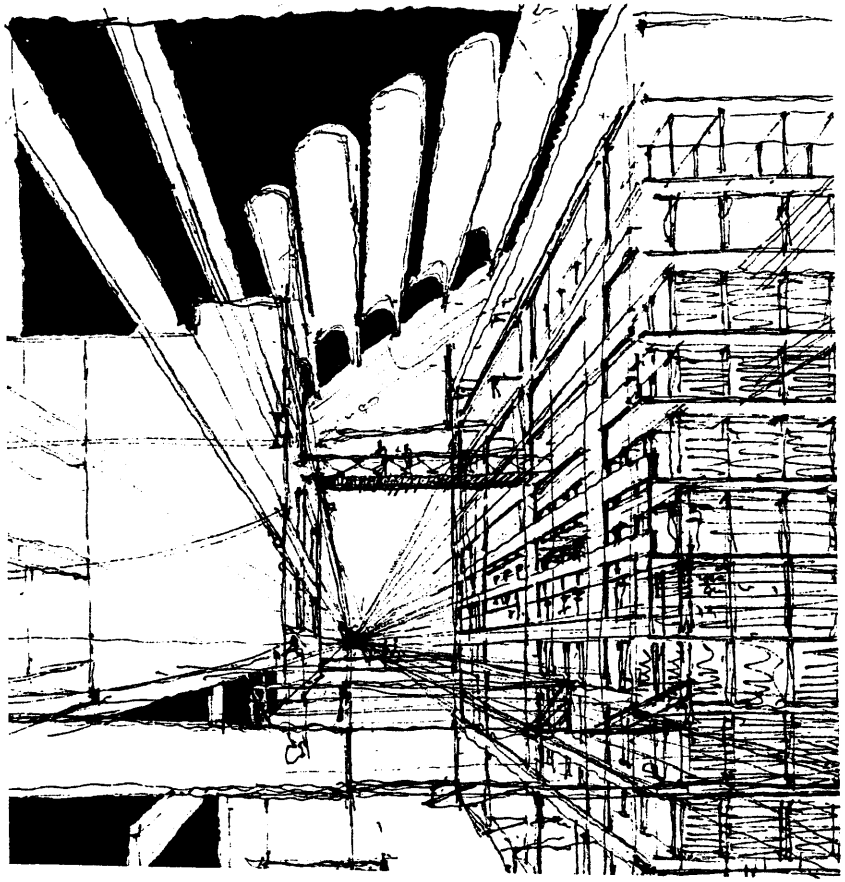


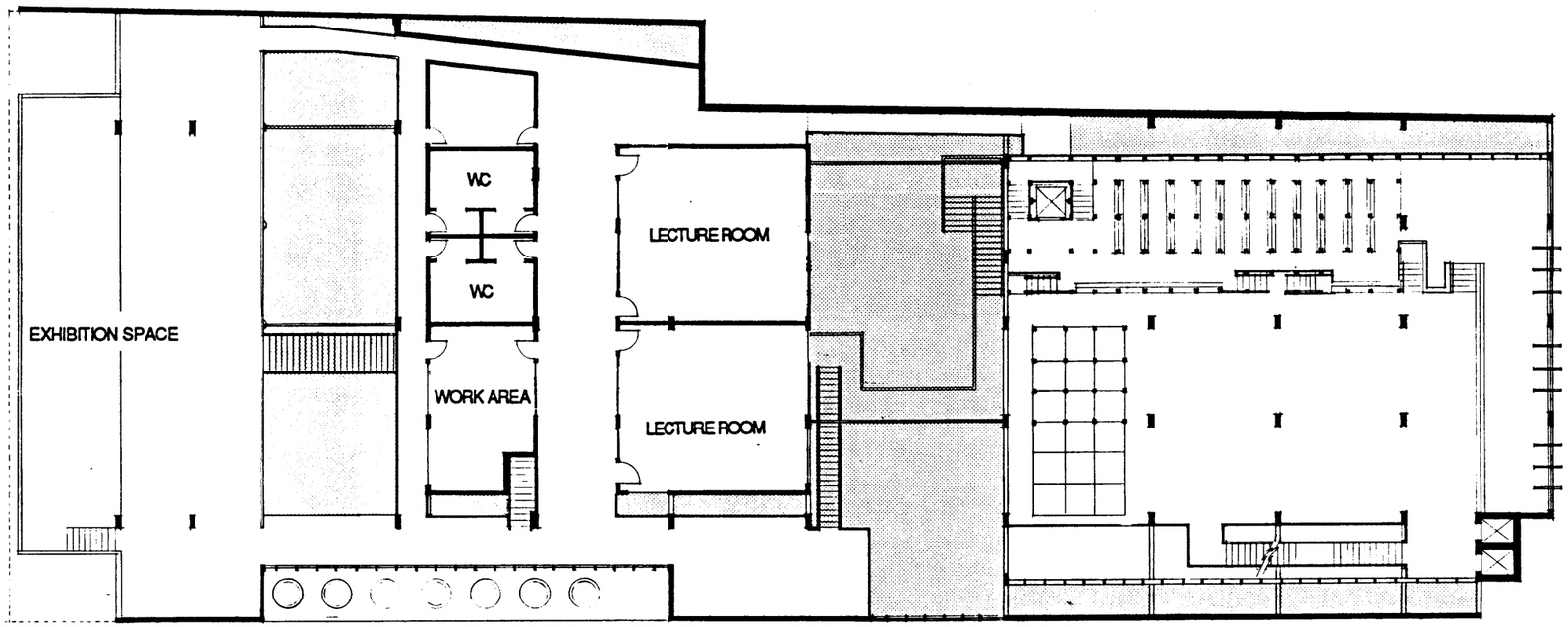




STREET LEVEL PLAN .5 2 1m 5







FIRST FLOOR PLAN

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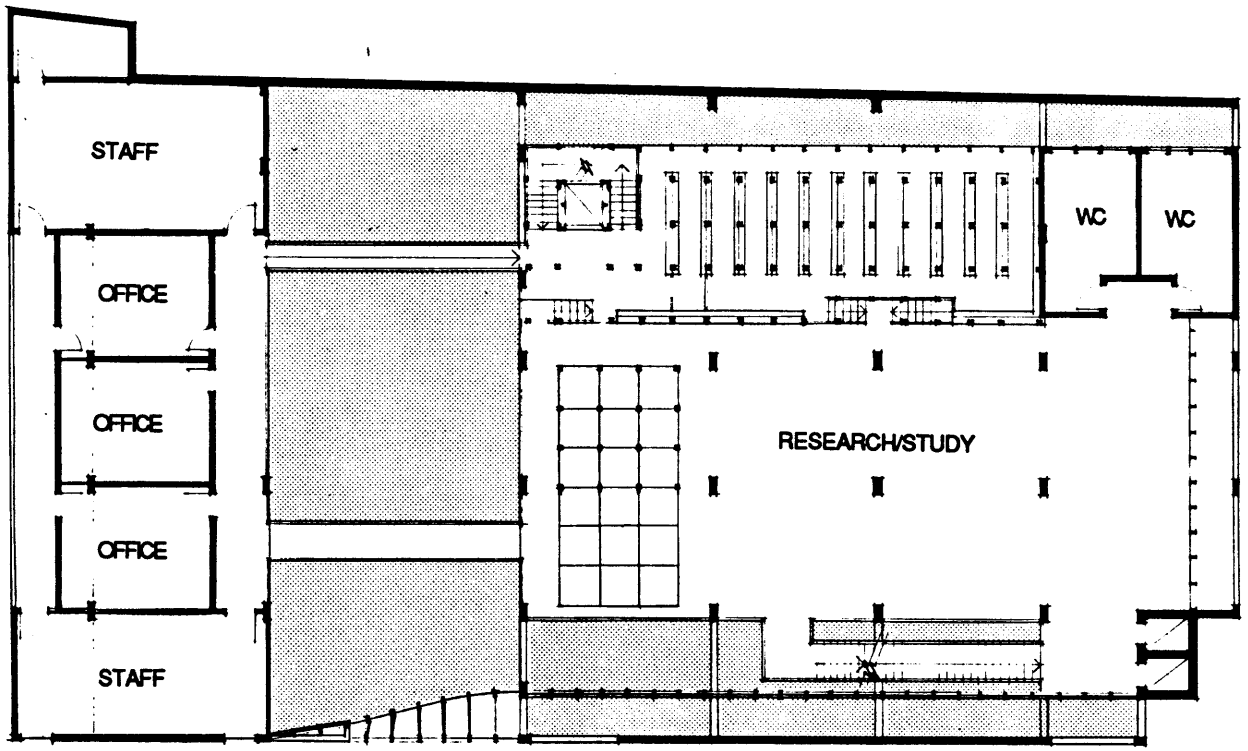
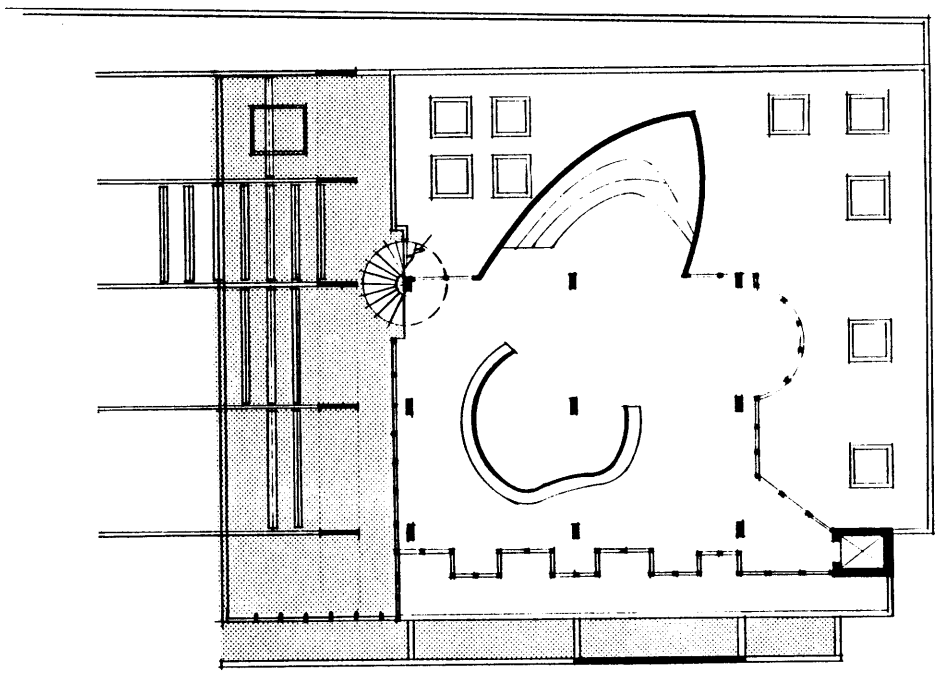
1m 5



THIRD FLOOR PLAN .5 2 1m 5



CHILDREN'S LIBRARY PLAN

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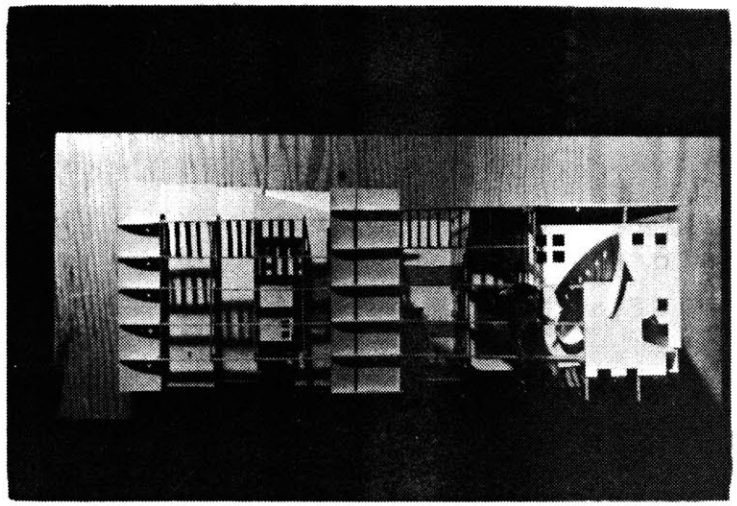

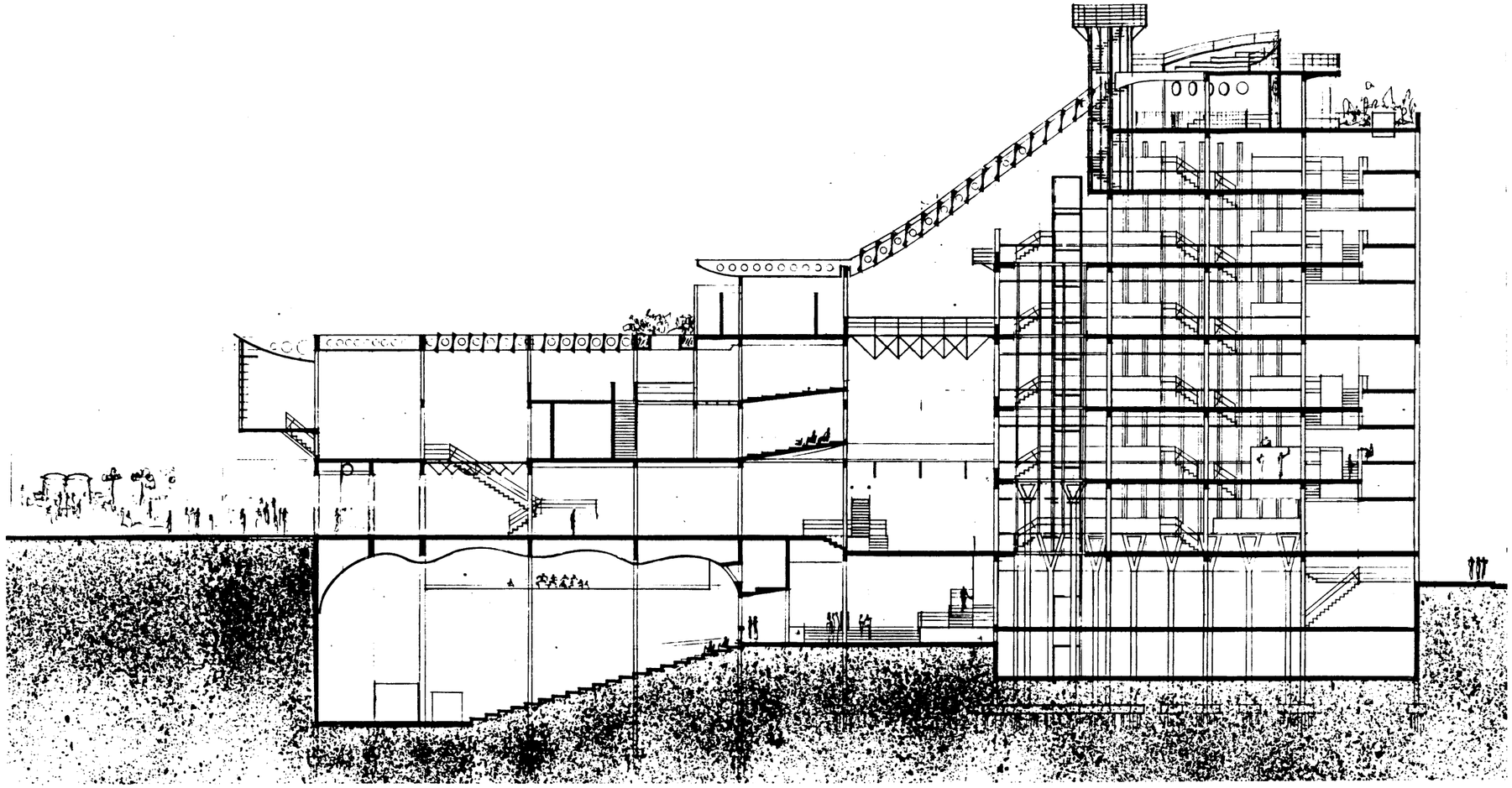

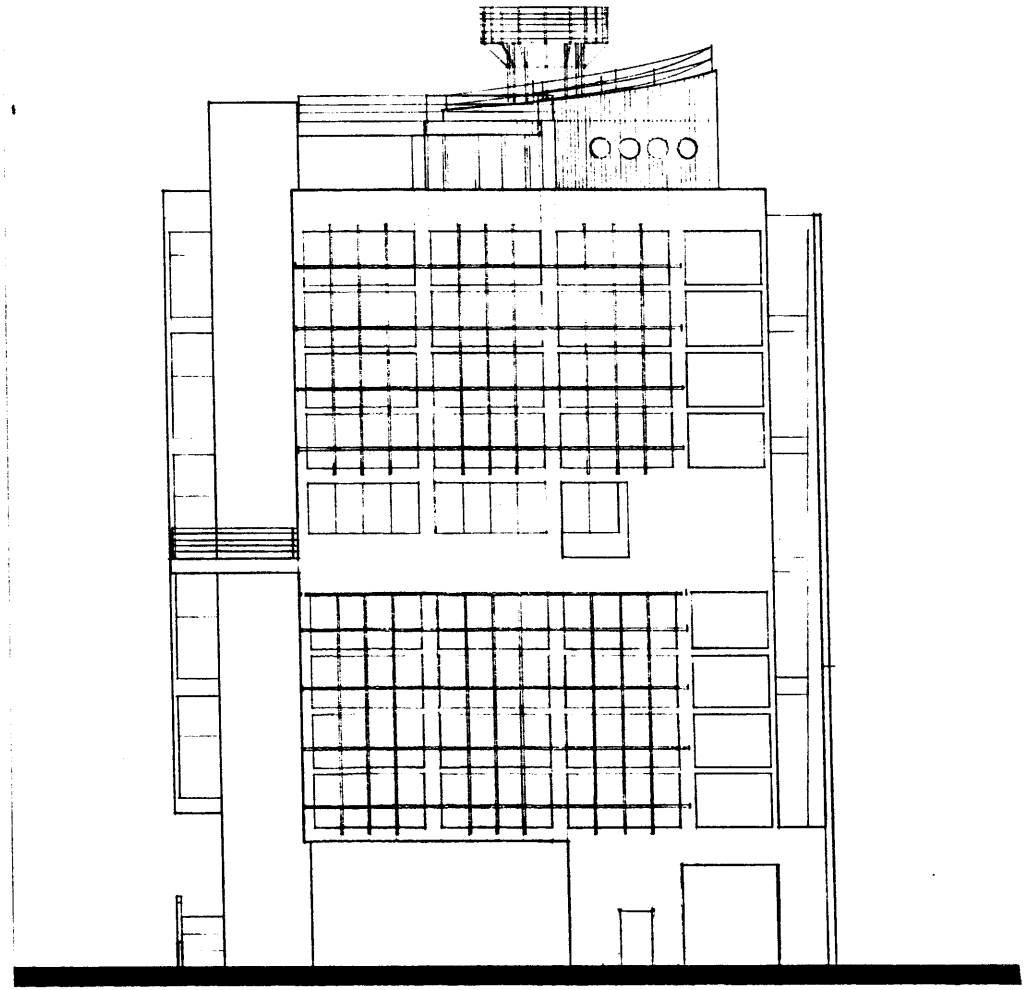

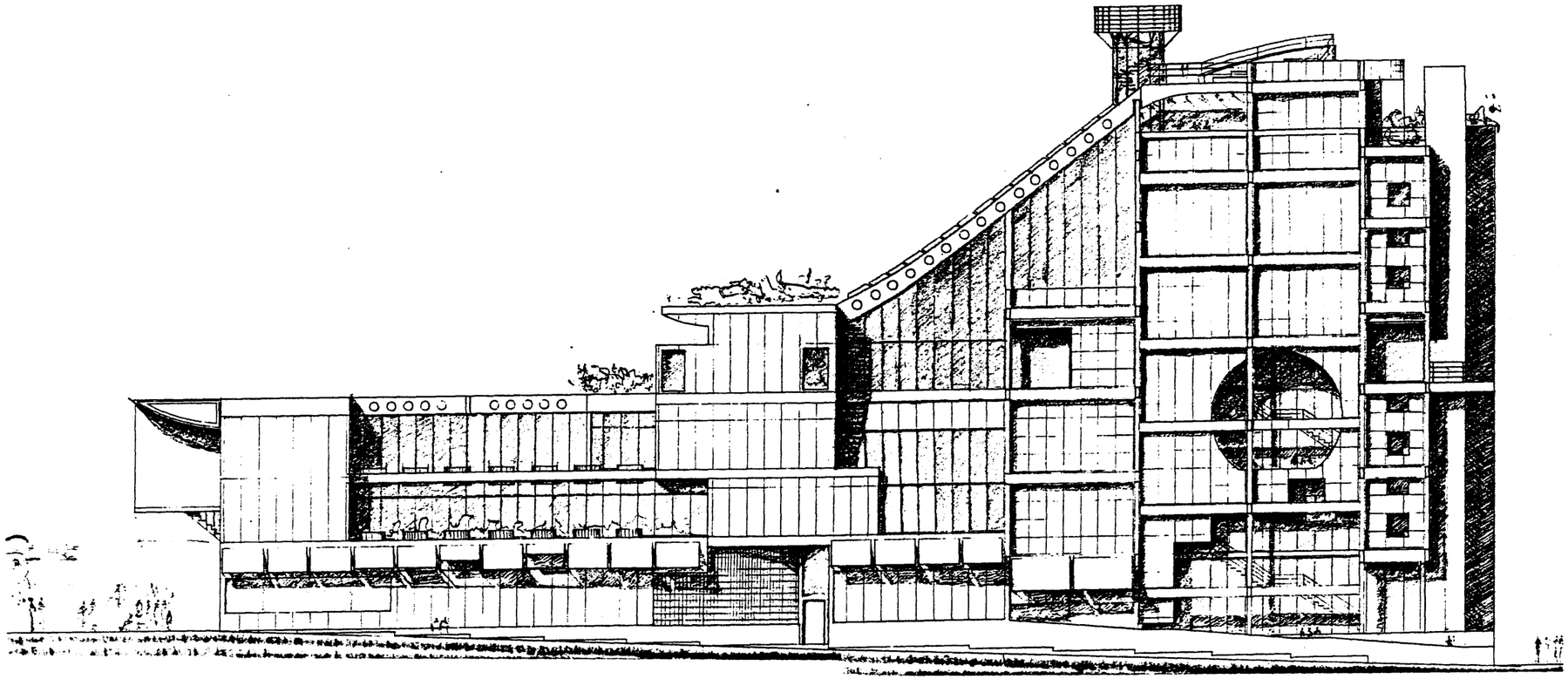

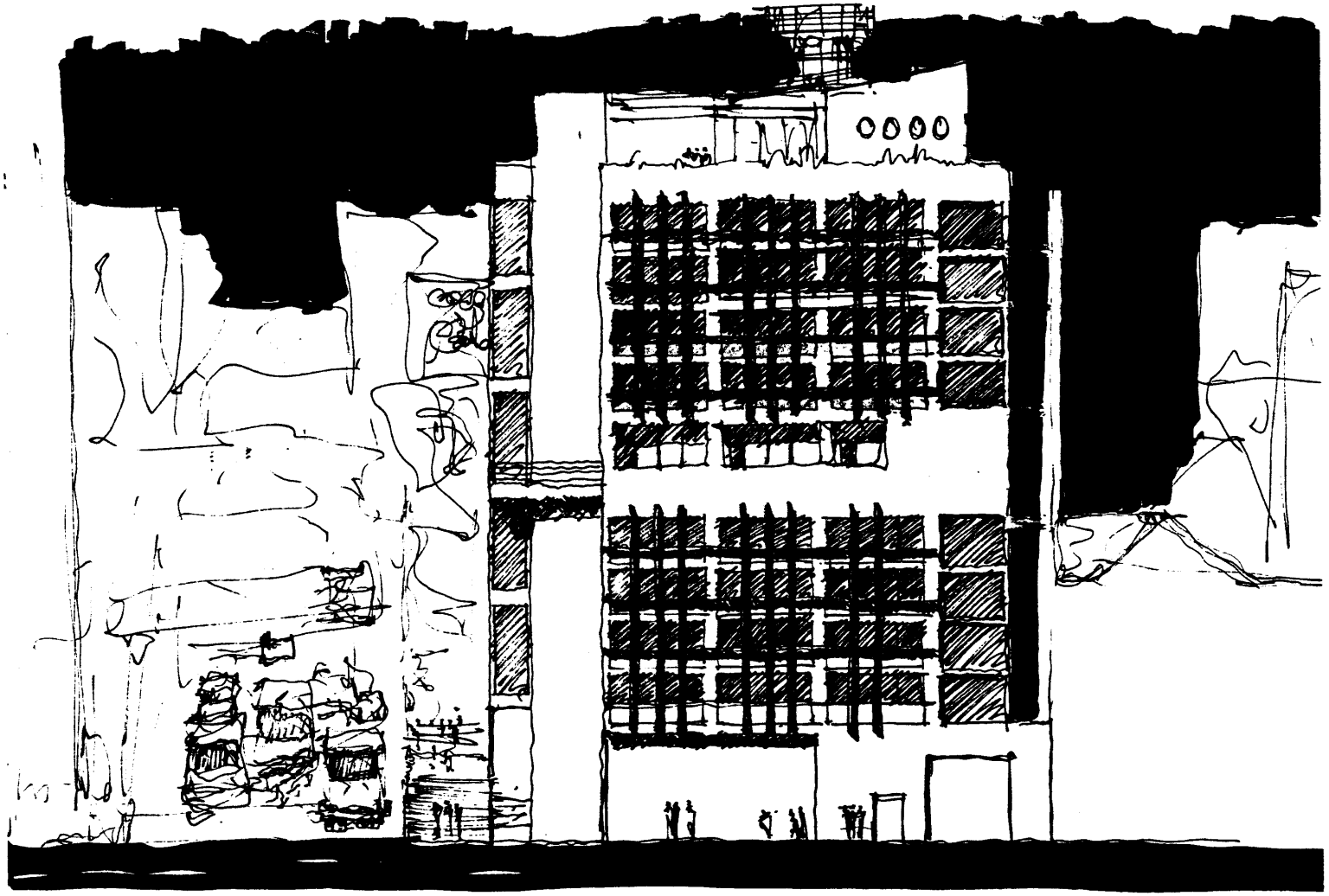

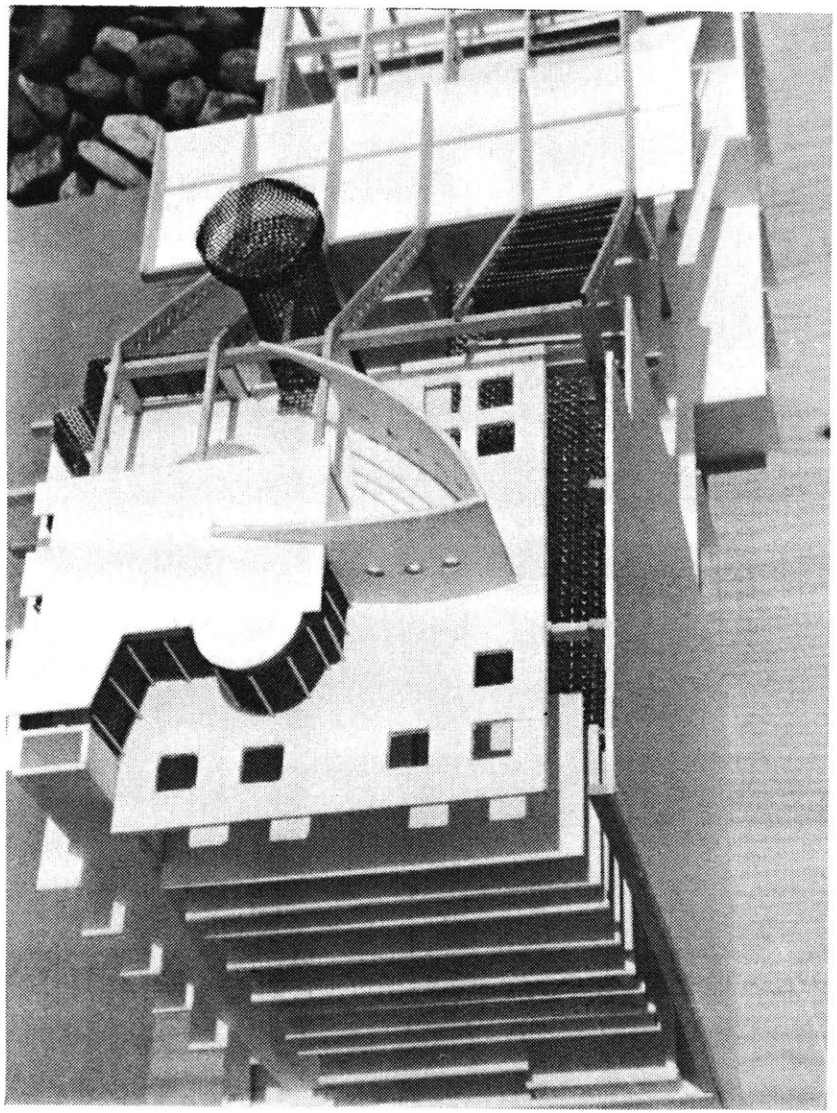

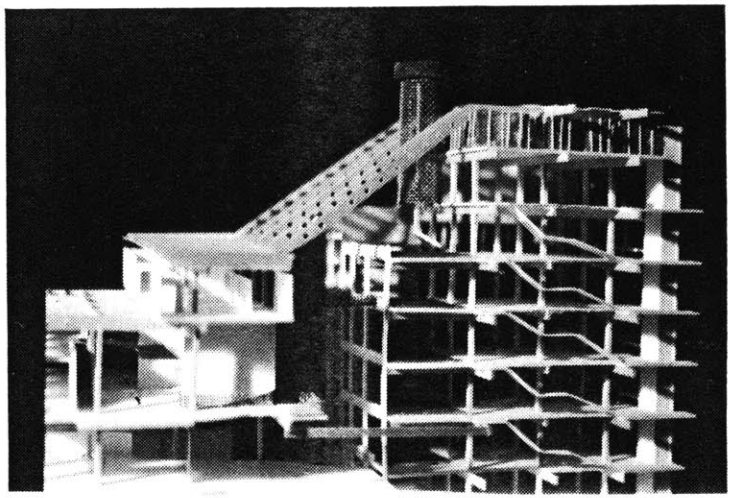

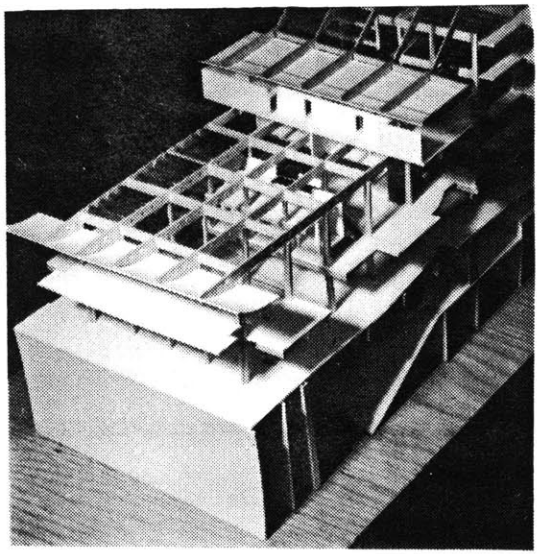

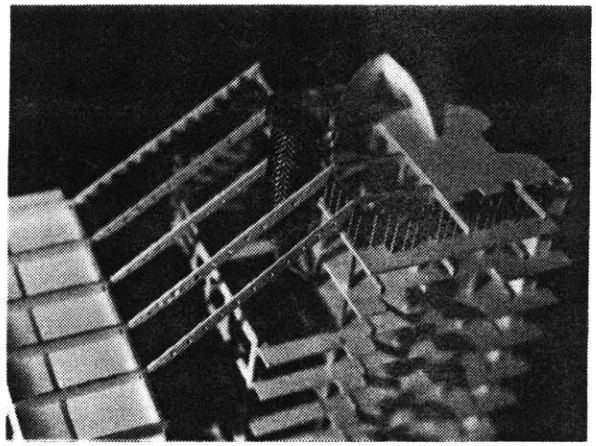

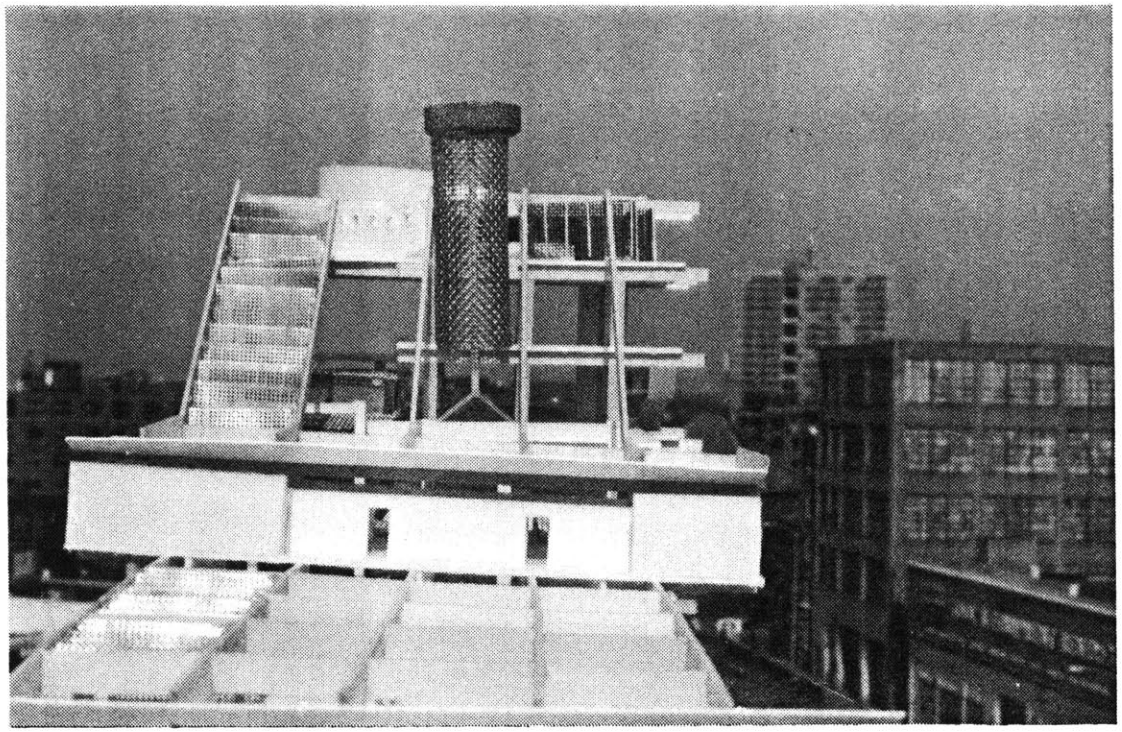

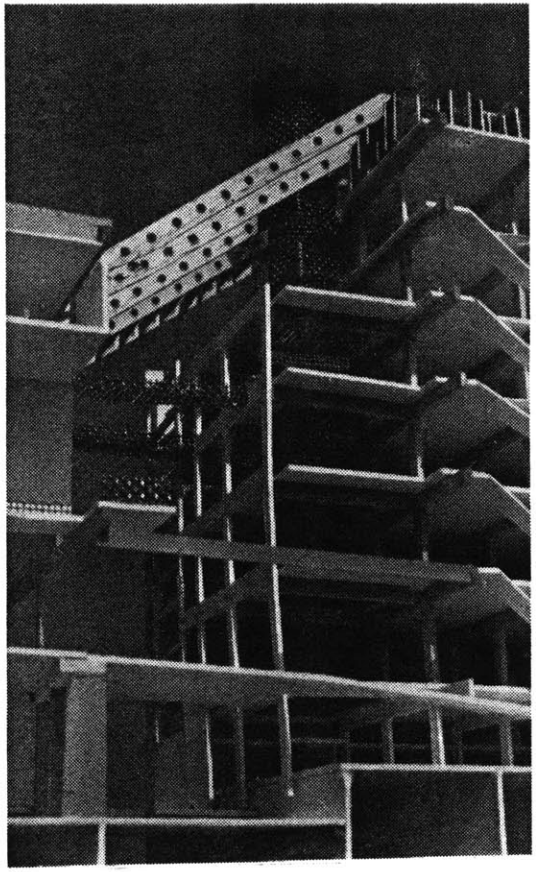

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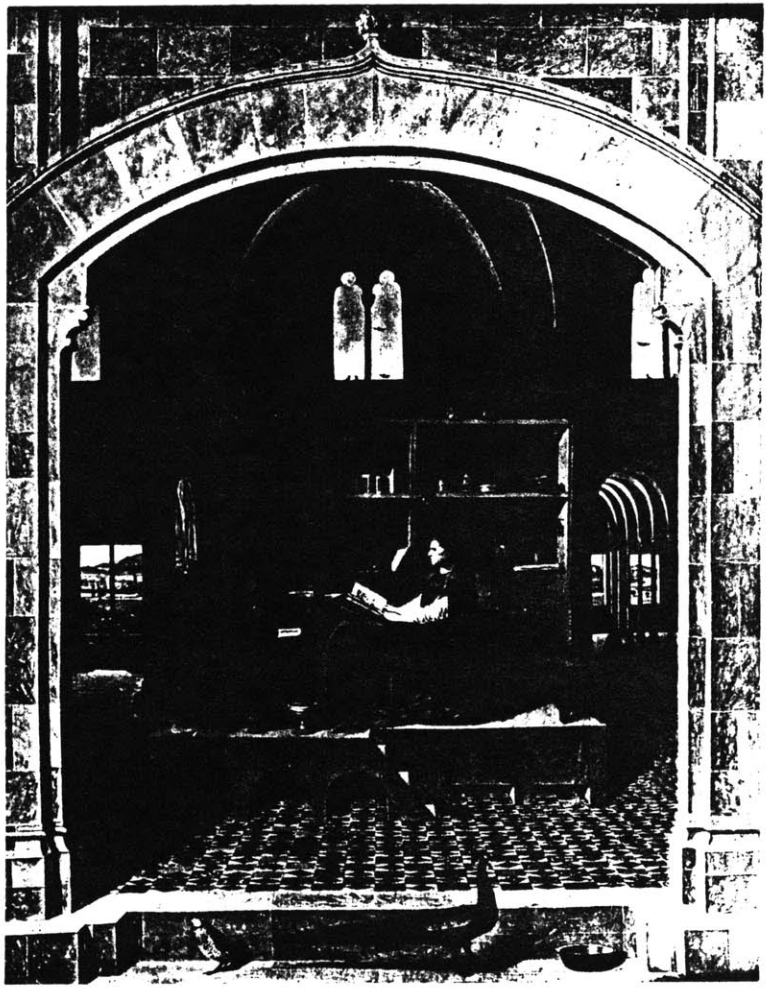


Saint Jerome in his study by Antonello da Messina

Appendix A - On Library Tradition

excerpted from Brawne's Libraries: Architecture and Equipment

A painting by Antonello da Messina of St Jerome in his fourth-century AD library shown on this page introduces issues of design that must still be addressed today. Although containing only 30 or so volumes -representing much of what was then known- St Jerome's study makes use of a simple scheme for organizing information and suggests how a reader's mind is best able to focus upon it.

The study is a wooden platform with furniture within the larger space of a house. It is raised above a cold tile floor, well-lit and comfortable. It is a private place of study, but at the same time, it is connected with the world beyond the house. Furniture, enclosure, space, light, outlook are all manipulated to aid the communication between the book and the reader. Therefore, the painting is a discourse on the essence of a library: the

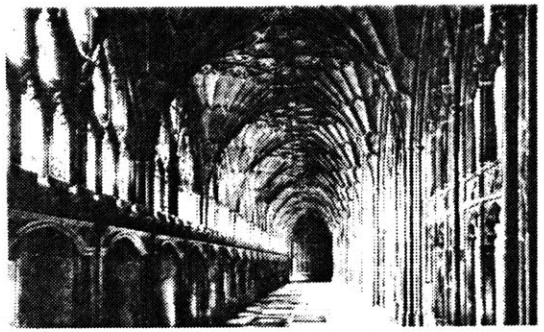
availability of knowledge and the conditions needed to attain it. Of course, as the Antonello's painting reflects monastic period conditions, its value is only conceptual.

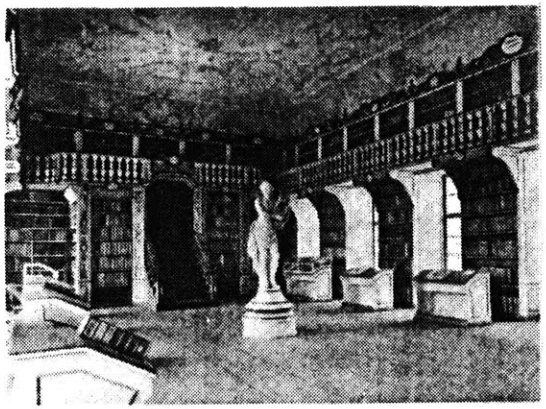
Historical Sequence: two traditions

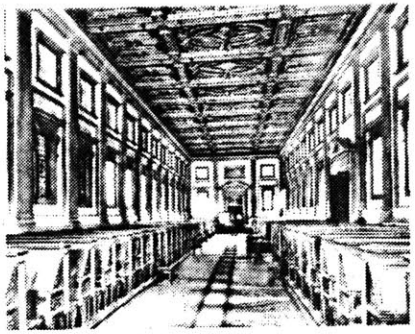
Two distinct traditions occur in the 8-century span between the library of Ptolemy II, circa 111 BC, and Michelangelo's Biblioteca Laurenziana in 1524:

Single room, few books. Roman colonial prototype with an emphasis on books and a room in which to house them. Book and space become one Architecture. Readers use open space in middle, as in the library at Ephesus.

Monastic. Prolonged periods of study in a harsh environment typified by carrels. Main characteristic of reading spaces is a delimited enclosure within the general space, as is the case at Gloucester Cathedral's cloister. This relationship eventually became an architecture intentionally designed - an accumulation of such carrel spaces is found, for example, in Cambridge University: enclosure determined by furniture -



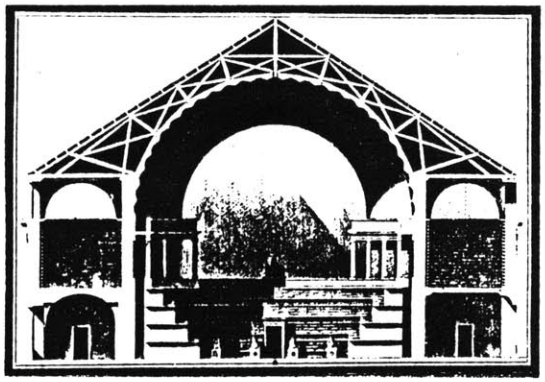


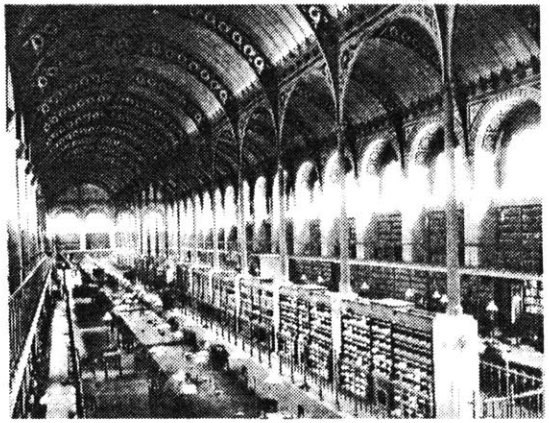


Top Left: Gloucester Cathedral cloister. Late XIV or early XV century

Above: Michelangelo, Biblioteca Laurenziana. Florence, 1529

Left: Freising, Oberbayern, 1732-1738





Above Left: Boulée. 1785-1788. Shrine of Knowledge.
Above: Bibliotheque Saint Genevieve, Paris, 1843-1851. By Henri Labrouste

Left: Bibliotheque Nationale, Paris. Multi-story top-lit stack with floor grating to carry light down. Library

each user has direct access to whole collection. This architecture worked as long as the number of readers was small. The invention of the press and the ensuing proliferation of books brought a return to the Roman library prototype, with books lining the walls, as in Freising library, in Oberbayern.

With a rising number of readers and volumes, the library was separated from larger institutions, such as the university. The first public library was designed in 1774-78. Thus libraries acquired the role of education in general. Boulée's symbolic representation of a library in the shrine of knowledge project had immediate appeal.

The principle of separation of libraries into stack space, reading room and offices was a direct result of the increase of number of books available. An example of the tripartite scheme is Biblioteque Saint Genevieve in Paris.