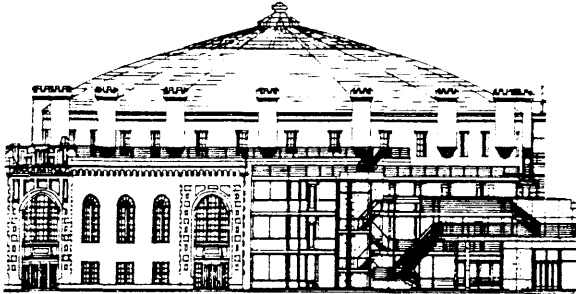
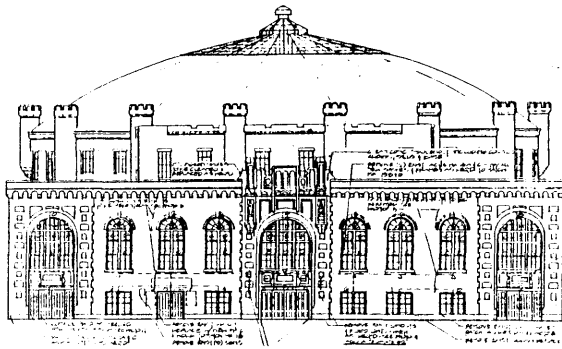


Rooted in Time and Place:
A housing complex in South End,
Boston

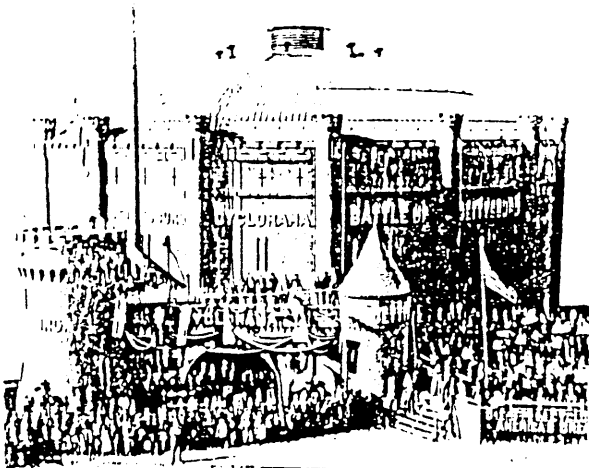
by
Chiong C. Lin
Bachelor of Science in Art & Design
Massachusetts Institute of Technology
Cambridge, Massachusetts, 1986



the Cyclorama
future



present



past

SUBMITTED TO THE DEPARTMENT OF
ARCHITECTURE IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS OF THE DEGREE
MASTER OF ARCHITECTURE AT THE
MASSACHUSETTS INSTITUTE OF
TECHNOLOGY
February, 1990

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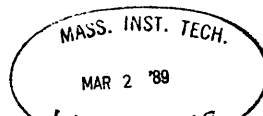
Chiong C. Lin
Department of Architecture
19 October, 1989

Certified by

Fernando Domeyko
Lecturer
Thesis Supervisor

Accepted by

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Abstract

Rooted in Time and Place:
A housing complex in South End,
Boston

by
Chiong C. Lin

*Submitted to the Department of Architecture
on 19 October, 1989 in partial fulfillment of the
requirements for the Degree of Master of
Architecture.*

The intention of this thesis is to design an urban housing project which relies upon visual cues sited in the South End for its development. The site also provides the programmatic framework which consists of housing, restaurant, retail and cafe sitting area, music school and auditorium, art gallery and public access, private interior streets and community plaza, parking, and service. My interest in doing this study sprang from a sense of our present era being dominated by trends which discourage the practice of architecture as Architecture. The specific Architecture to which I refer is one which is "rooted in time and place," a key phrase from the 1986 thesis of MIT alumnus Robert Maulden, *TECTONICS IN ARCHITECTURE, From the Physical to the Meta-Physical*. From the universal philosophies of Heidegger and Maulden, the modern ideas of Tadao Ando and Gunter Behnisch and the historical, vernacular precedent of Cordoba, Spain, a design project evolves with special attention paid to the role of "the wall" in the urban context.

i

*Thesis Supervisor: Fernando Domeyko
Title: Lecturer*



Acknowledgements

I wish to thank these people for their moral support and encouragement: Wendy, Ken, Brent, Santonio, Teresa, Charlene, John, Simon, the Cyclorama studio---as well as those who helped to put it together: Allison, Scott, Jonathan, Chin, C.F., Chan, Leslie, Kirk, Angela, and especially Don Knerr.

iii

Union Plaza

center of culture in South End but also a place where housing and parking is badly needed. especially as nearby Washington Street is marked for urban development.

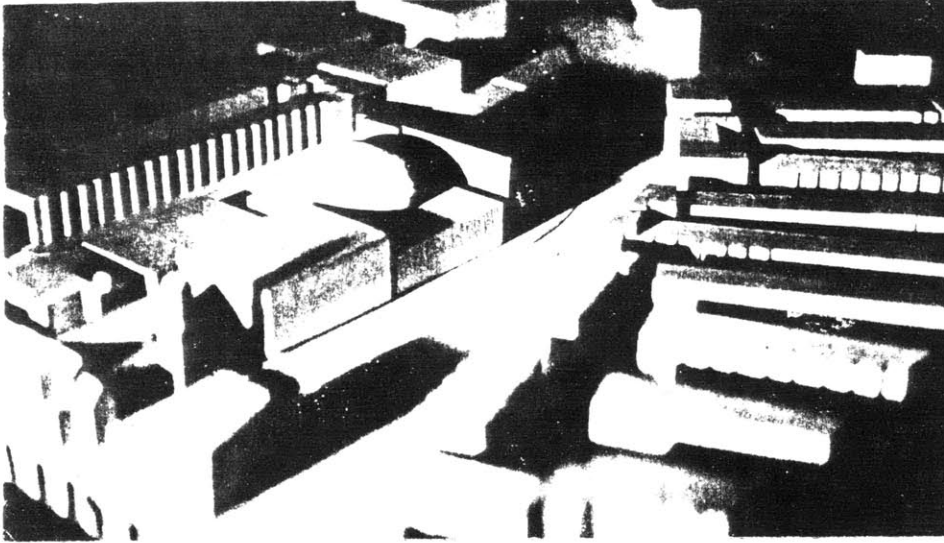


Thank you, Nishan Bichajian, for teaching me to draw and for watching out for my best interest.

Thanks to Jim Axley for his time and his insights.

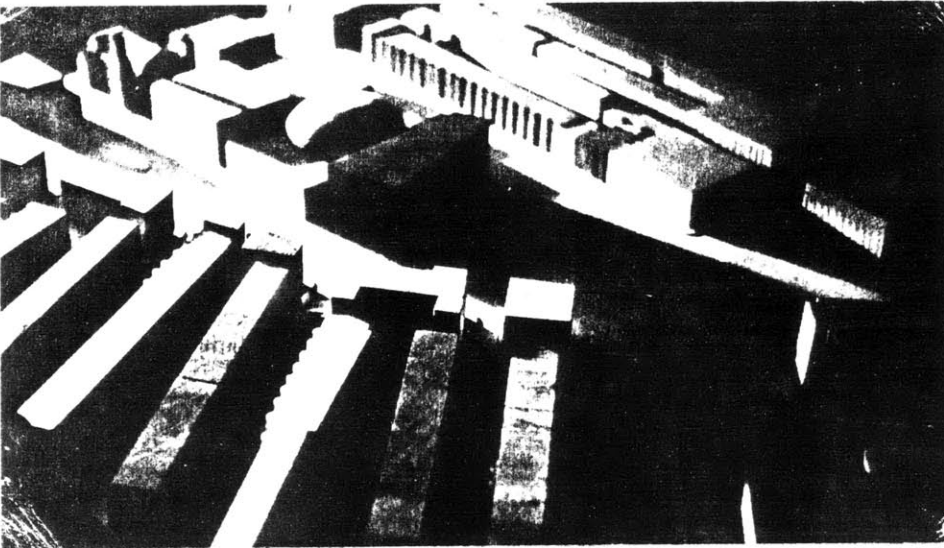
Special thanks goes to Fernando Domeyko for many years of his teaching, criticism, insights, architectural discipline, and friendship.

I feel deep gratitude towards my parents for their unselfish love and support and who gave me this chance for higher education.

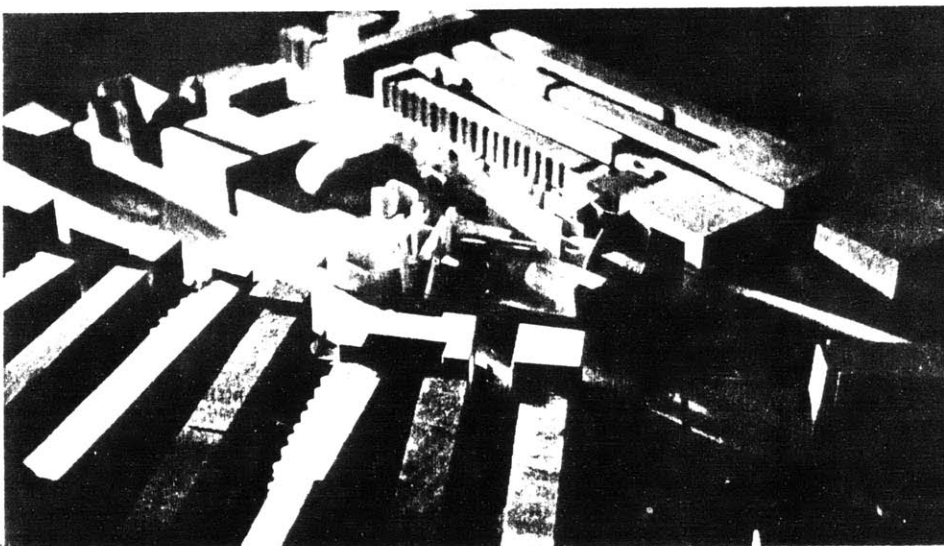


As the sun sets in the west, the 70'-0" theater casts long shadows onto the site. The first step in the design process was to remove the theater to let the light through.

The shadows cast are balanced by the sunlit vertical planes---thus, the notion of the wall as an organizational element in conjunction with light is formed.



Fingering streets against the major orientation of the city is also a strong visual element. The experience at the end of each is a stop at a wall.



Sketch model attempts to catch the many nuances that this site has to offer such as the presence of a strong circular form, triangular spaces, and directional streets.

Preface

material/anecdotal/historical

This thesis is a continuation and a synthesis of the ideas and the interests which I developed while at MIT. One of the sensibilities which I developed was a sense of the abstract from drawing classes with Nishan Bichajian. He helped me to make sense of the abstract three-dimensional form-making from which a resolved architectural design can derive. This for me has always prevented stale decision-making by presenting me with options. From design studios I learned the unique disciplinary skills and systematic ordering devices of "built form" which have ever since encouraged me to make associations between material and use, structure and use, sizes and use. Throughout my time at MIT I have felt there has been a personal need to associate a more universal, poetic meaning to architecture.

v

For me, the work of Tadao Ando filled a gap. Though at times I find the results too ascetic, I respect the strength of his sure decisions and his philosophy about the relationship between living and architecture. He stands for the reduced role of the architect in the architecture so as not to intrude upon the inhabitants. His argument is for the reduced

vi role of architecture to enhance man's traditional relationship to nature which has been obscured by consumerism. He succeeds with a modern interpretation of the urban living environment which has roots in the Japanese culture.

Between college degrees, several classmates and I, under the guidance of Fernando Domeyko, did a study of the vernacular spatial sequences of Cordoba, Spain. We made many discoveries about the relationships of houses to courtyard, and about movement, light, water, walls, and their interrelationships. Though we had hoped to project our learning into a modern project, we had neither the time nor the opportunity. As this thesis began to take form as a project on housing, plazas, and public space in South End, many familiar ideas from Cordoba about light, walls, water, and continuous three-dimensional movement were finally realized in my design.

The attraction of designing housing for a thesis is that housing in itself is already a universal and poetic issue, deeply intrinsic to the notion of architecture as design around life. Meeting today's housing needs is to

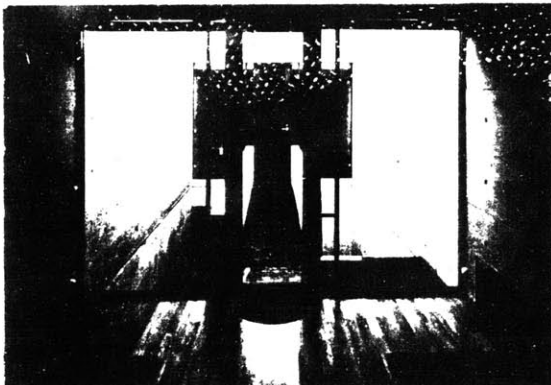
understand today's manifold lifestyles. It is therefore not a surprise that many MIT design theses are about refining housing design. Mine differs in that I have chosen a visual approach rather than a systematic approach toward thematic architecture. Fundamentally I agree with the MIT philosophy of creating thoughtful, livable spaces which encourage community relationships. Many books and theses have been written about this, therefore the question here is not what one chooses to do but the specifics of where and how.

My last observation about the development of this thesis is to point out the importance of my affirmation of Gunter Behnisch's philosophy that architecture should always seek to acknowledge the era in which it is built. In Behnisch's work I find a refreshing directness and freedom of form and construction. It offers an opposing view to much traditional thinking about organizing space but is rooted in a progressive practicality which acknowledges the tradition of architecture as a medium of use. This refers me back to my initial premise that truly modern architecture is rooted in its traditional and universal definition as the

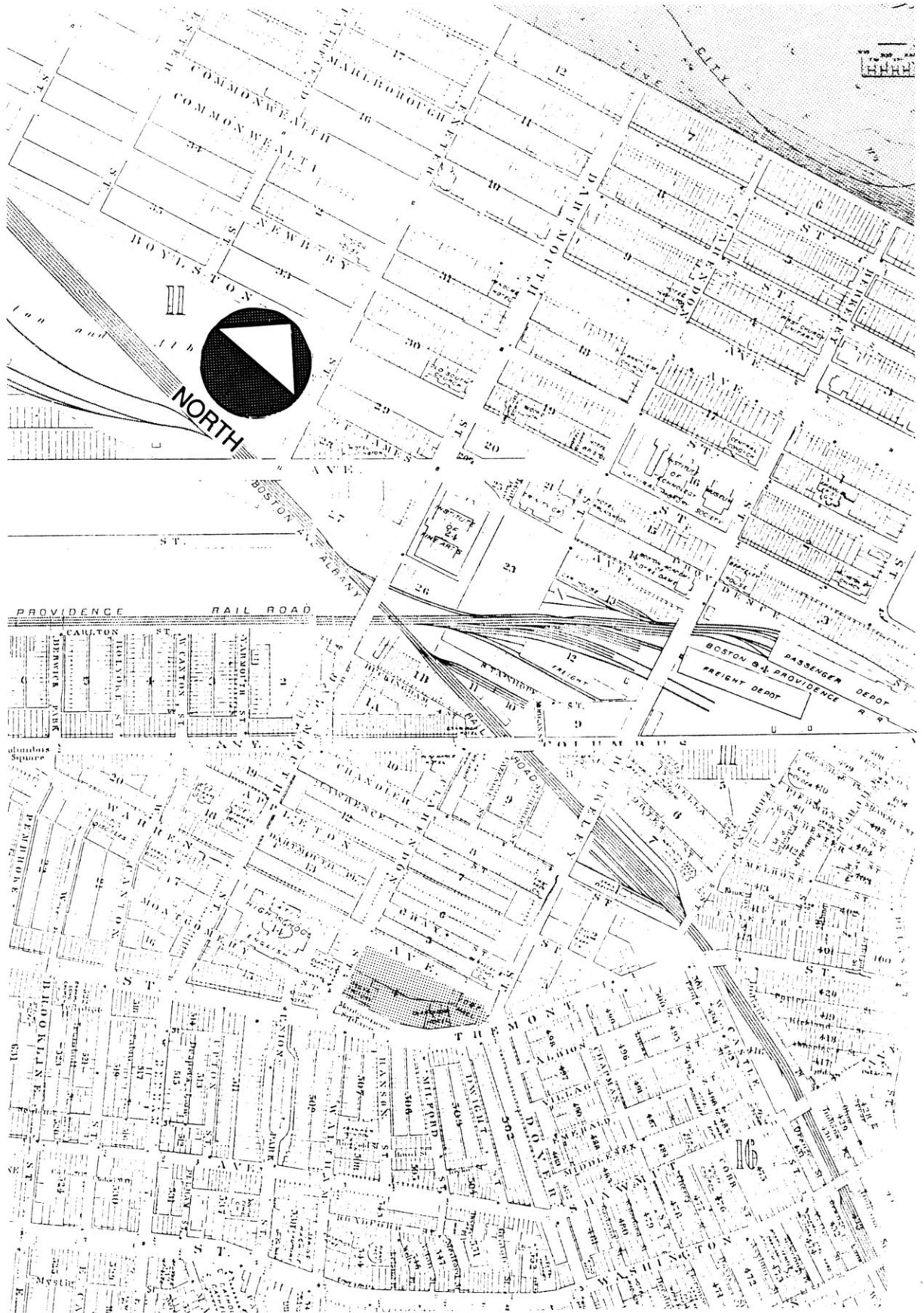
consequence of living and building rather than the product of the architect's intellect.

vii

In summary, I find these stances to be in agreement with many of the stances brought up in Robert Maulden's articulation of tectonic architecture, a term which concisely encapsulates much of the demands that need to be made upon an architect today.



*Tadao Ando's
Row House
Sumiyoshi.
Internal. exterior
court brings
light into the
residence in a
bold design
move. which
gives a strong
sense of
"place"*

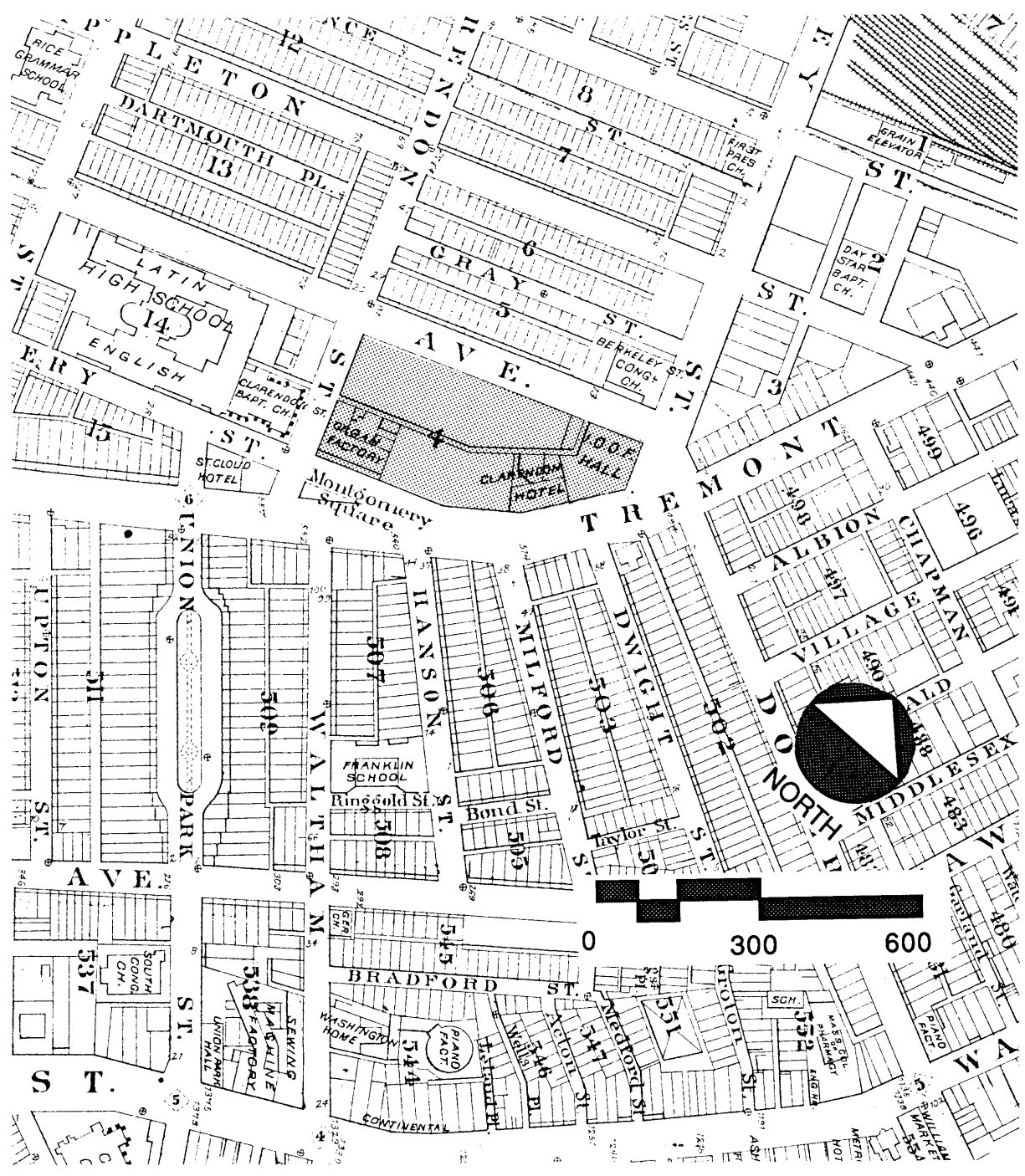


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The main direction of the site is the direction of the river. At the same time the fabric of the city begins to influence its shape.

x



Program

To the south of the site is Union Park which is a private residential park. Part of the design development included the pattern of travelling from private park to public square to private park again so that intrinsic to the design is a pattern which already exists in the city.

Housing

1

One bedroom units
Two bedroom units
Two bedroom units w/ flexible space
Three bedroom corner units
Four bedroom town houses
Lobby
Laundry, Mechanical, Electrical

Interior Streets

Community Plazas

Public Space

Two-story retail
Restaurant
Art gallery/ public access
Cafe/sitting area

Music School

Auditorium
Atrium
Offices
Library
Music rooms

2

Earth is the serving bearer, blossoming and fruiting, spreading out in rock and water, rising up into plant and animal. When we say earth, we are already thinking of the other three along with it, but we give no thought to the simple oneness of the four.

The sky is the vaulting path of the sun, the course of the changing moon, the wandering glitter of the stars, the year's seasons and their changes, the light and dusk of day, the gloom and glow of night, the clemency and inclemency of the weather, drifting clouds and blue depth of the water. When we say sky, we are already thinking of the other three along with it, but we give no thought to the simple oneness of the four.

The divinities are the beckoning messengers of the godhead. Out of the holy sway of the godhead, the god appears in his presence or withdraws into his concealment. When we speak of the divinities, we are already thinking of the other three along with them, but we give no thought to the simple oneness of the four.

The mortals are the human beings. They are called mortals because they can die. To die means to be capable of death as death. Only man dies, and indeed continually, as long as he remains on earth, under the sky, before the divinities. When we speak of mortals, we are already thinking of the other three along with them, but we give no thought to the simple oneness of the four.

Heidegger
on the metaphysical question of "being"
from his book, Basic Writings

Introduction

immaterial/sensibility/universal

What is the meaning of life?

The idea is manifold.

What is the meaning of place?

The idea is manifold.

On the opposite page is a quotation from Heidegger which represents the *inter-consciousness* of a building, that is, the building's relations with historical circumstance (physical, social, political, economical) as opposed to the building's *inner-consciousness*, its intrinsic properties.

If architecture, as I profess, is essentially an expression of the life of a place and if the existence of mortals, as Heidegger says, is a simultaneous expression of "the fourfold", then architecture can not remain one idea unless that idea simultaneously embraces many parts within its simple whole.

The aforementioned quotation is found in Part Two of Robert Maulden's thesis, in which he introduces the notion of tectonics, a study primarily concerned with the inner-consciousness of a building though its roots are embedded in its inter-consciousness.

My written thesis and the design it describes are about the emergence of a building from the place for which it is designed.

3

What is the meaning of place?

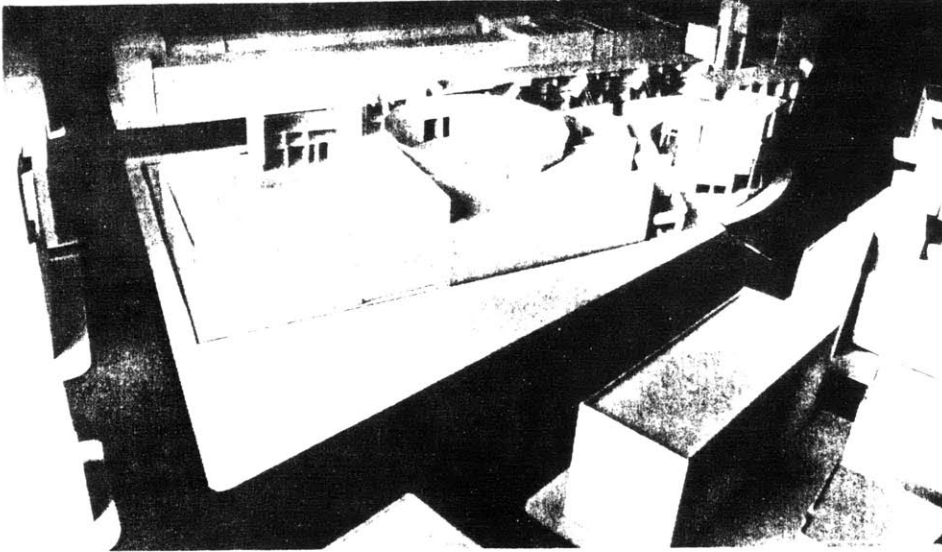
The meaning of place is equivalent to the place itself.

What is the place?

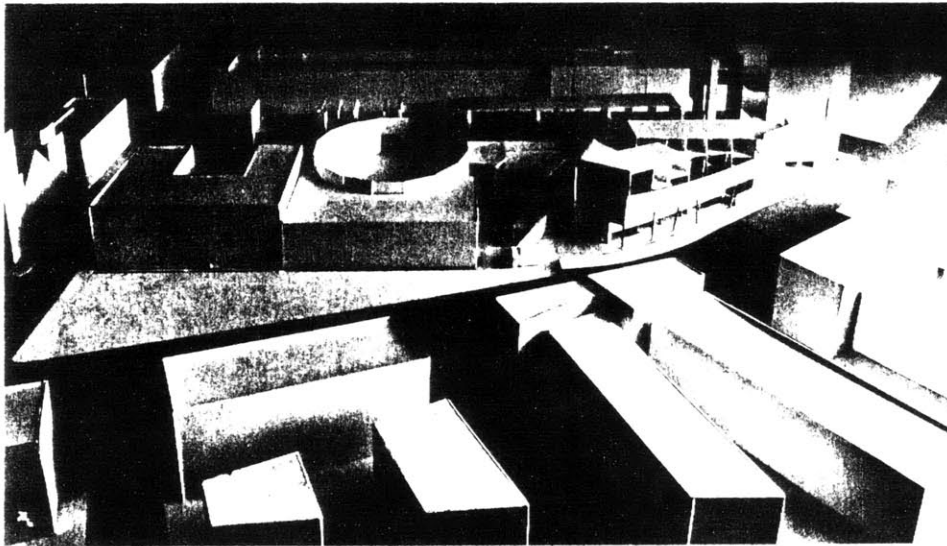
The place is South End, Boston.

The place is manifold.

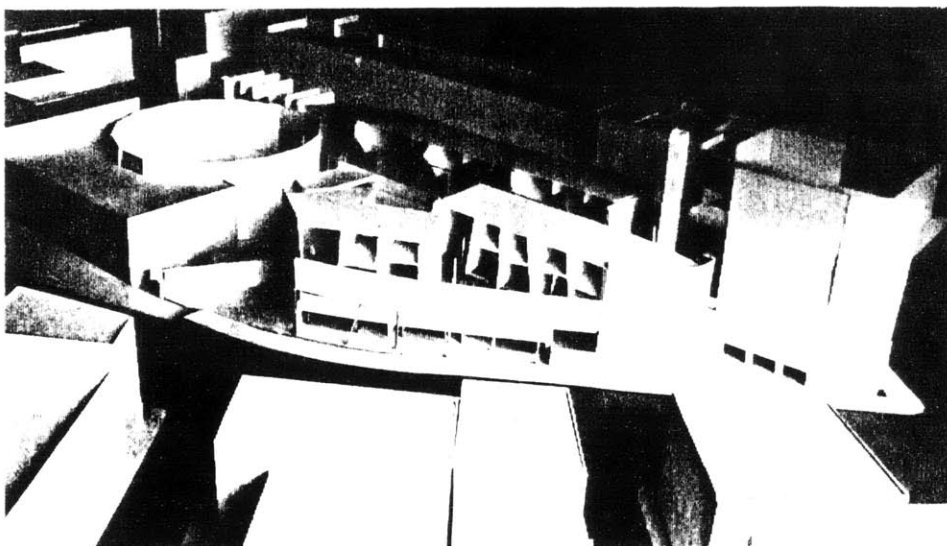
The life is manifold.



Approaching from the South End, one moves from the public Union plaza to the private community plaza. The orientation of the building opens toward the sun to accommodate the light as a design element



The sunrise hits the plane of the tower and lights the end plaza entrance if only for a brief moment.



Double story retail and entrance plazas allow the movement along the fingering streets to continue into the building stopping only when one reaches the wall. The tower anchors the corner in a similar fashion as the existing fabric.

The Written Thesis

framework/rational/contextural

The South End site presents some of the most complex physical conditions and raises some of the most intriguing issues that any urban site could involve. The site is located on a prominent space that serves to introduce the South End to the rest of Boston. Its triangular configuration is molded by two major axes, the direction of the city and the direction of the water. Minor streets finger toward the site.

5

On the same block is an old historic building known as the Cyclorama because of its circular form. Primarily used as an exhibition space, it has also been known to support annual squash tournaments. The other historic building, a massive, unused vaudeville theater has hypothetically been removed to restore sunlight to the site and to reveal the curved, domed exterior of the Cyclorama. This decision relieves the site of an unwelcome mountainous volume and introduces the option of entering the Cyclorama from the completed housing complex.

Its immediate surrounding area includes typical South End rowhouses, art galleries, a church building turned condominium development, a police station, retail, and the

6 Cyclorama. Within the Cyclorama are the Boston Center for the Arts offices, a playhouse, and a community art center.

Further to the southwest beyond Union Plaza are thematic private residential parks, which are set apart from the public life by the narrowing of the entrance drive and corner buildings.

One of the most striking visual nuances in the South End is the play of the Western light against the long walls of its streets from one major axis to the next as it rotates towards sunset. Its length reveals the directionality of the site and the orientation of the larger order of the city. From the two major axes emerge a series of triangular-shaped buildings which mark the shifts in direction. Higher buildings anchor the ends of each of the blocks which finger toward Tremont Street. Approaching Union Plaza from one of the minor streets, one gets a sense of entering a "place" because of the walls which bound, define, and govern the plaza, the reflected light from the wall of the Cyclorama, and the activities around the Cyclorama. This "place" is the center of South End culture.

The proposed housing complex continues the existing framework of uses by including the existing music school that is in the old Boston Ballet building (which for the purpose of this thesis has been removed), an art gallery/public access, and double-story retail with a restaurant at the prominent corner. The core of the program is comprised of housing and housing-related uses. This includes compact one-bedroom and two-bedroom units, some larger family units, parking below, an upper community plaza, and a major interior street above.

The methods of construction and detailing as well as certain sensibilities employed in the design project were found sometimes directly in the works of Tadao Ando and Gunter Behnisch. Both architects' work share a sensibility toward modern material and building which rejects fashion and convenience and pushes at the boundaries of acceptable form. At the same time, both are exceedingly practical in their resolution of space.

Though Ando tends to design pure, austere forms and Behnisch tends towards the

organic, both understand a direct architectural language--direct movement, direct volume, direct use of material, direct building. For example, in Ando's work (*Row House Sumiyoshi*), the wall articulates urban boundary and definitively encloses the interior and the internal outdoor court in a modern urban gesture which reaffirms the traditional Japanese importance of the relationship of man with nature. In Behnisch's work (*Olympic Park*), the continuous, built-up roof exaggeratedly shelters a recreational area. The stances of these architects are the universal understanding that a wall encloses and a roof shelters. These traditional facts are caused to be noticed again by an architectural form which straddles the boundary between architecture and environmental art, by the use of present-day material and original methods of built construction, and by the self-conscious, continuous experience of the larger order of construction in conjunction with site, craft, and use. Though no substantial new theories or metaphors are introduced, the architecture evokes Architecture.

This understanding of Architecture expresses something of Robert Maulden's stance of

architecture as a *thing* which does its own story-telling and the experience of *many* circumstances within *one* concept in Heidegger's fashion of understanding metaphysical being.

Other influential ideas taken from Ando and Behnisch are Ando's idea of a strong relationship of the building to the ground (*Rokka Housing*), his idea of an internal private court (*Row House Sumiyoshi*), Behnisch's philosophy the weaker forces modifying the stronger forces, and his understanding of modern public space being bigger, freer, and more voluminous (*Library of the Catholic University, German National Library*).

The historical precedent for this design project is the vernacular town of Cordoba, Spain; the ideas are referenced from the analyses by Fernando Domeyko. The private houses and public courts are situated together in such a way that access and movement are three-dimensional and continuous and such that all elements--material, immaterial, and framework--are part of a greater whole. As in Ando's work, the wall is a significant, physical presence with specific meaning related to use. In the case of

8 Cordoba, the wall, rather than celebrating the private house in an urban environment as Ando does, celebrates the experience of moving through the town. The walls of Cordoba emphasize horizontal movement rather than gravitational relationship of ground to sky as in Ando's work and its precedent, the architecture of Louis Kahn. The longer walls of Cordoba systematically reflect the direction of public access and the river and the shorter walls, which are *against* the direction of the river serve to bring the water down the slope.

Today Ando embraces the wall as a modern urban gesture sensing the colonnade as an antiquated form. My design project is a reflection of the importance of walls in an urban environment such as one finds in the *historical* precedent of Cordoba, the *universal* precedent of Ando's work, and the *contextual* precedent of South End. The housing complex, that I have designed, projects yet another interpretation of the use walls in an urban environment. Through the use of walls I intend to show how architecture can be a significant reflection of time and of place.

The function of the wall at the larger order is already established in the South End as a reference of the direction of the city and the light. The function of the wall at the local order is the definition of the public plaza. The function at the community order of the housing complex reflects both of the preceding functions and, in addition to those, uncompromisingly separates the public from the private. At the street level it clearly serves to associate the residential to Warren Street, and the retail/cultural to Tremont Street. At the upper level the wall opens to foster relationships of the interior street to the plaza. From there, one can proceed up and experience the Cyclorama as a hill, or down as the water flows as one would traverse a Chinese garden.

Each plaza is connected eventually with an interior street making sense of its cascade of stepped planes. Defined below each plaza, progressively from the lower plaza up, are the art gallery, the auditorium and the stage. Thus the plazas, as well as the walls, have more than one function serving as ground, roof, public path all at once. At the ends of each interior street are small plazas, a thematic element

which repeats on the ground level where the ends of the arcade encounter entrance plazas.

The concrete walls are detached from the floor of the lower plaza to reveal their full height from the ground. The spaces produced by the split can eventually be used to bring water down from the plaza as well as to provide subtle lighting in unilluminated areas and as a compositional contrast to the fullness of the larger skylights which announce major recreational areas. Thus the experience of the walls is intensified by water, light and movement along the staircases.

Essentially, the plaza and the street are reciprocal notions. One brings the earth up, the other brings the light down. They are versions of the universal notion of interior meeting exterior. The associations that one makes are that concrete frames the earth and steel frames the light. Concrete is the experience of the public walk below; steel is the experience of the private walks above.

The grid below is disciplined into a Tartan-like pattern defining axial penetrations into the site similar to that of the existing street pattern,

both of which end at walls. Columns transform into walls next to the staircases so that staircase and wall become a consistent unifying experience of the public space.

Two other major concrete walls separate the music school from the retail. The slack space between forms a public access/art gallery, which guides the public through the site past the two places.

The three walls, in concert, support the upper plaza and create a framework from which the unrelated activities can differ, formally and experientially, yet remain a whole because of the three-dimensional movement through the spaces. Each functional area achieves individualized order, shapes, and sizes. The retail and galleria area are defined by a grid of columns which become walls in the housing above. The music school is defined by practice rooms around a triangular atrium which is juxtaposed beside an auditorium. The housing and parking are linked by the sharing of concrete walls which define four units to every three bays of parking below grade.

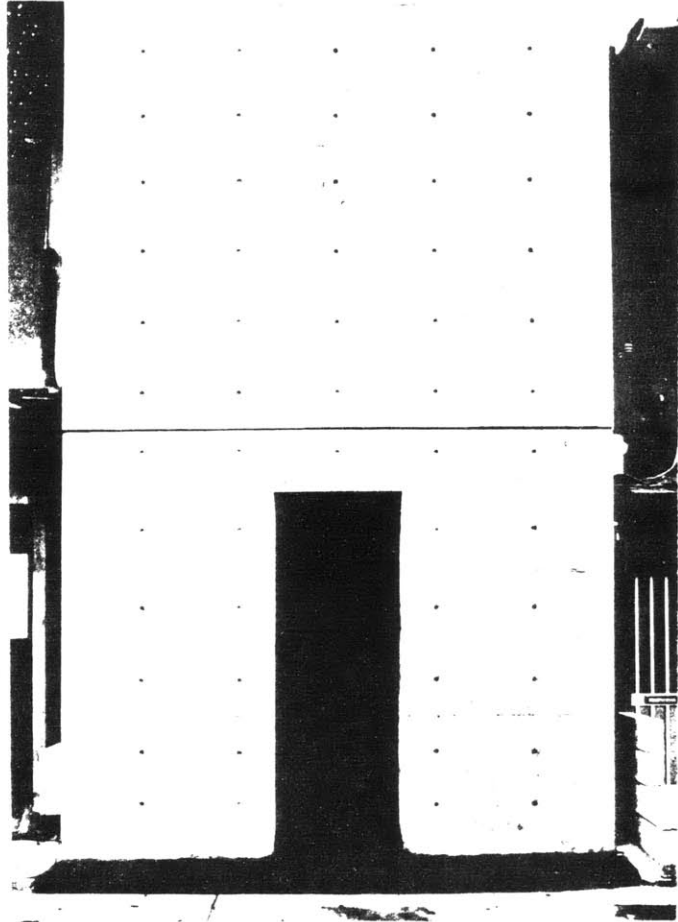
10 The housing is designed as a transformation of the typical rowhouse which in Boston is approximately 20'x40' in plan. The ground floor plan of this housing project is 21'x64'. Thus the lower floor plan had to incorporate an internal court so that light could penetrate onto the deepest part of the house. The rooms around the court become one unique, flexible room into which the private staircase leads. This area can function as a third bedroom for guests or live-in relatives, family room, greenhouse, computer room, or rentable space which altogether reflect the changing and various lifestyles of Bostonians. In an architectural section, one can see the manifold ideas which worked together to form a space where light, structure, material, and use compose themselves in sensible proportion to create a corridor of access and unique experience.

In the five-story section, the upper two floors are a two-bedroom unit, the middle floor is a one-bedroom unit, and the lower two floors are a two-bedroom unit. Two major walls line up for plumbing purposes. In general the bathroom and closets cores are centralized, but a secondary access passes through from

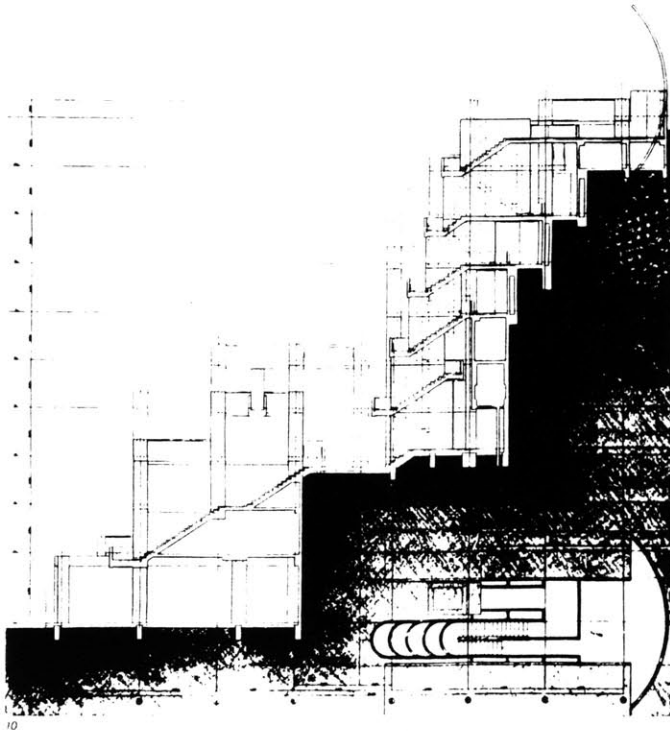
bedroom to bedroom to allow options of movement and to create internal circulation. All of the rowhouses are simply and systematically divided, in the long direction, into a 7'-0" service corridor and the remaining living spaces.

The units are small, easily maintained, and reflect the needs of a younger population who make a large proportion of the Boston area. Larger families can be accommodated in the two triangular unit types found at the beginning of the site or in the three-story townhouses in the detached group at the end.

In summary, the walls serve to unite, separate, guide, support, and frame. The end result is a place of life and activity where adults socialize, children play, and musicians perform.

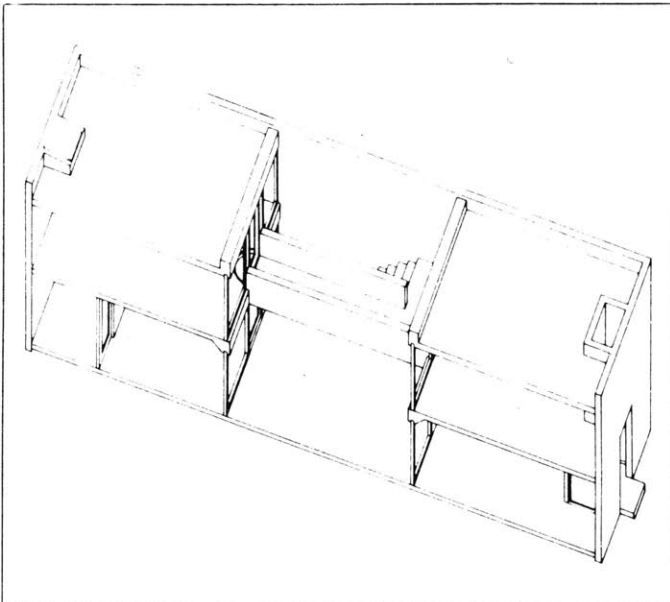


*Tadao Ando's
Row House
Sumiyoshi.uses
the wall to
enclose its
inhabitants as
he rethinks the
notion of living
in an urban
context.*



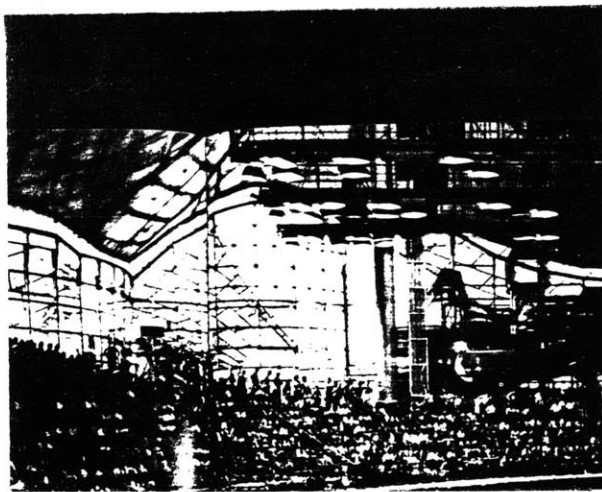
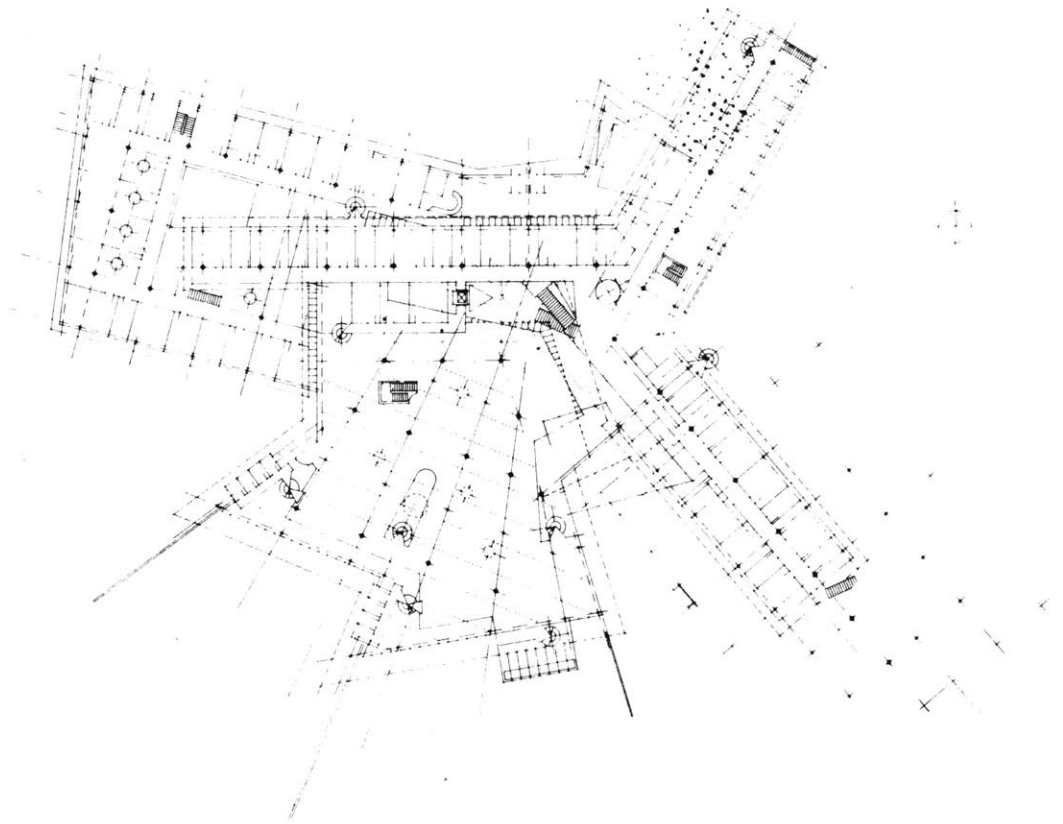
Rokka Housing
firmly
associates the
building to the
ground. The
entire complex
becomes a
three-
dimensional
wall.

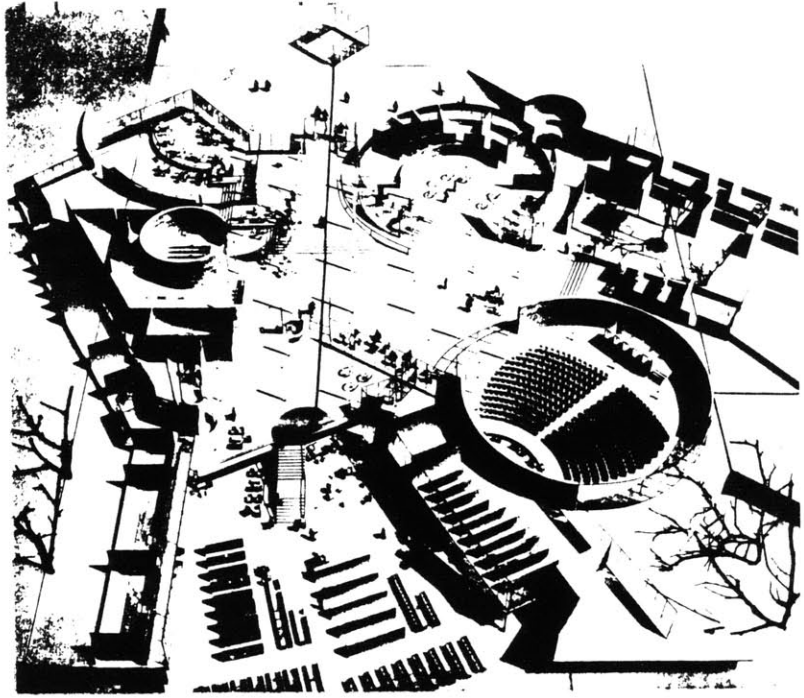
A simple
outdoor court
brings to Row
House
Sumiyoshi
a renewed
relationship with
nature, different
from yet



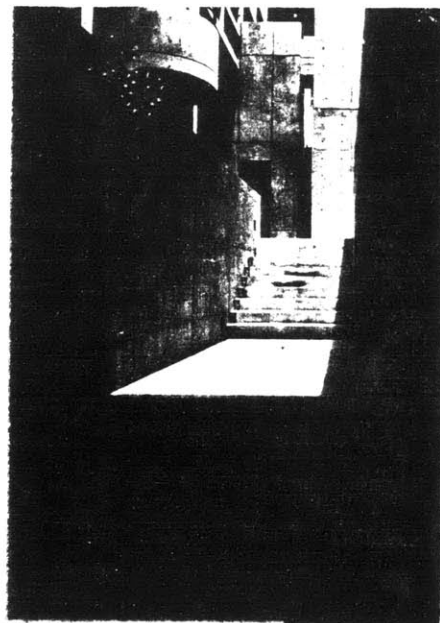
Behnisch's Library of the Catholic University and Olympic Park shows structural and formal freedom in today's technological age.

13





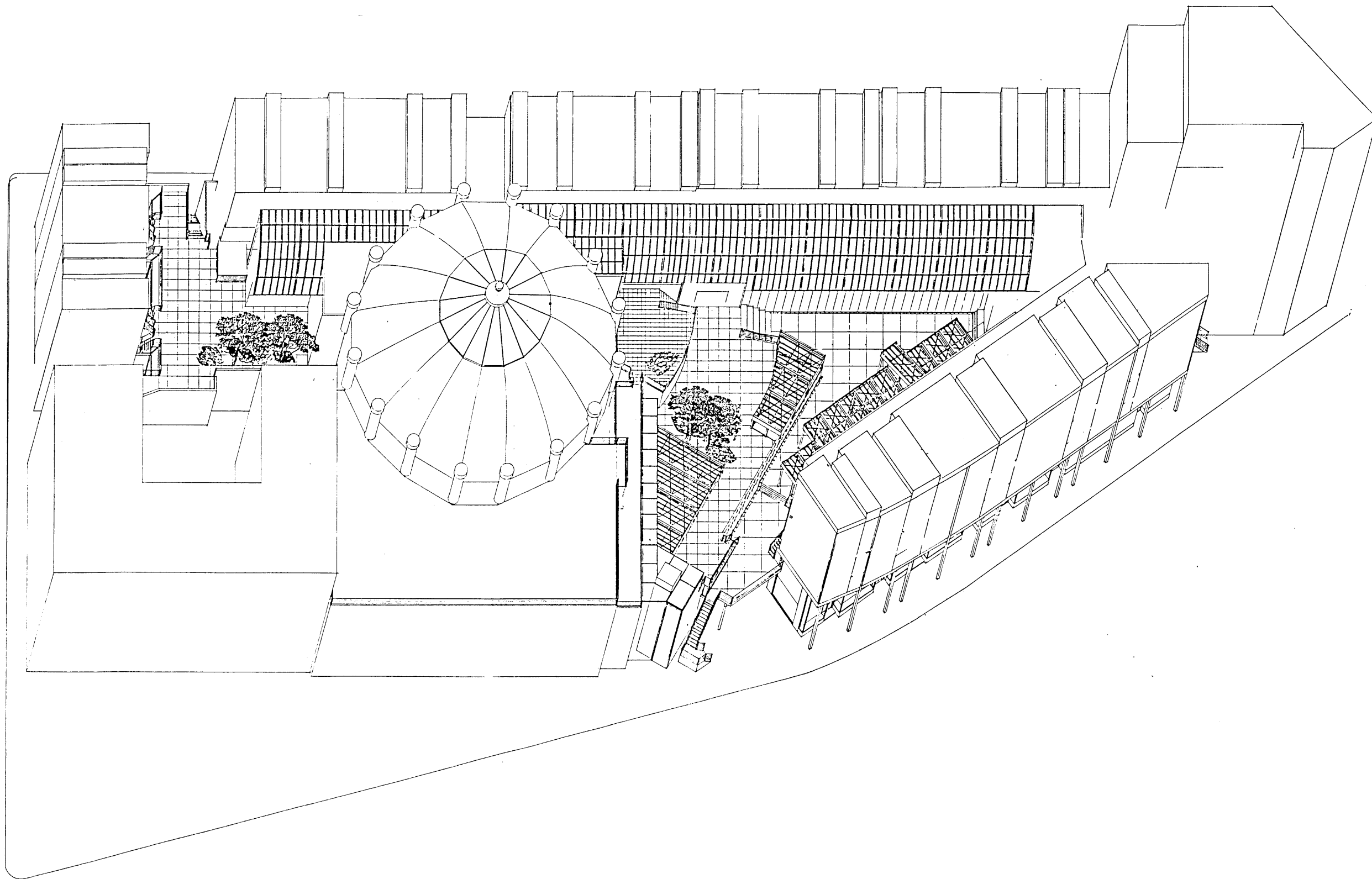
The German National Library---innovative use of the circular form.

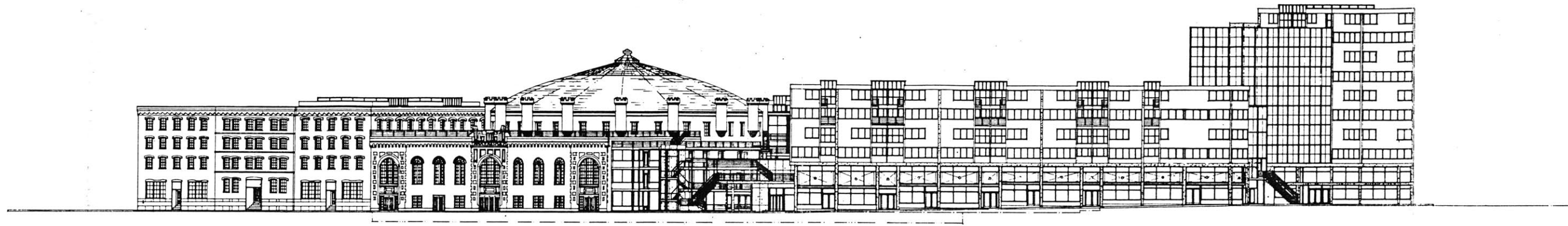


*Staircase, light ,
and crafted
concrete walls
define a "place".
Ando uses the
wall as canvas
and paints with
light.*

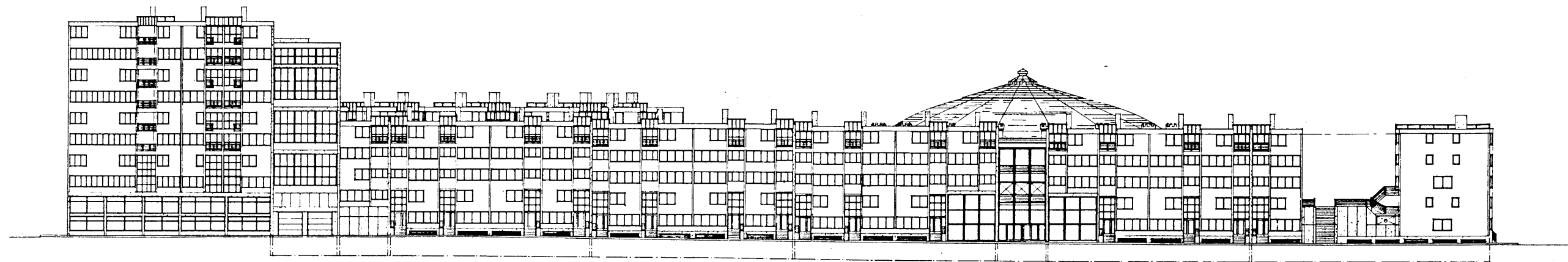
*Corduba, Spain,
a "place much
studied by
Fernando
Domeyko, is
place of three-
dimensional,
continuous
movement,
unplanned but
thoroughly
consistent and
systematic. Yet
the beauty of
the place is not
so much in the
system as in the
sensibility which
is not as easy to
explain but
depends much
upon a weaving
of material,
immaterial, and
framework.*

The Thesis Design

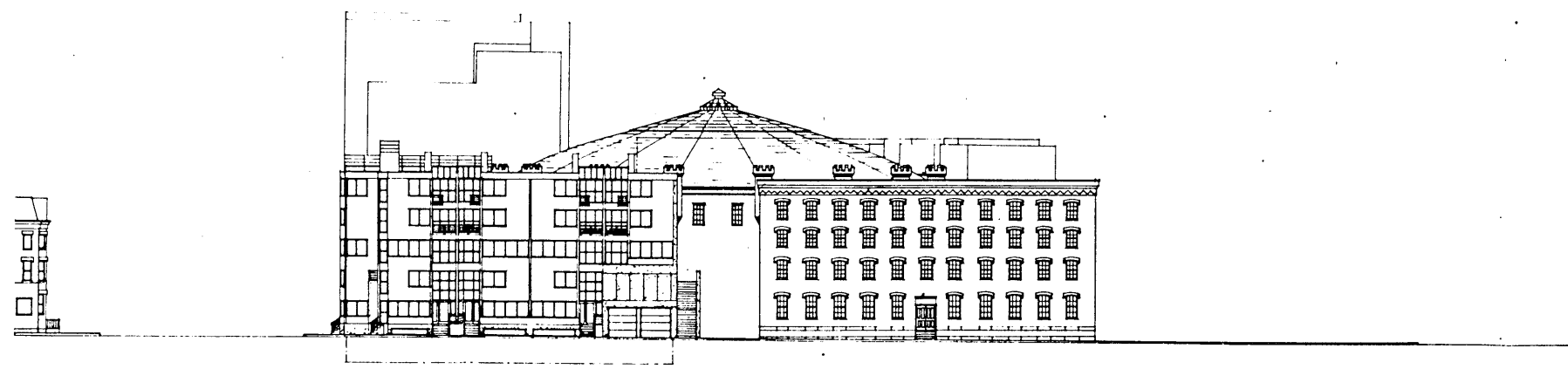




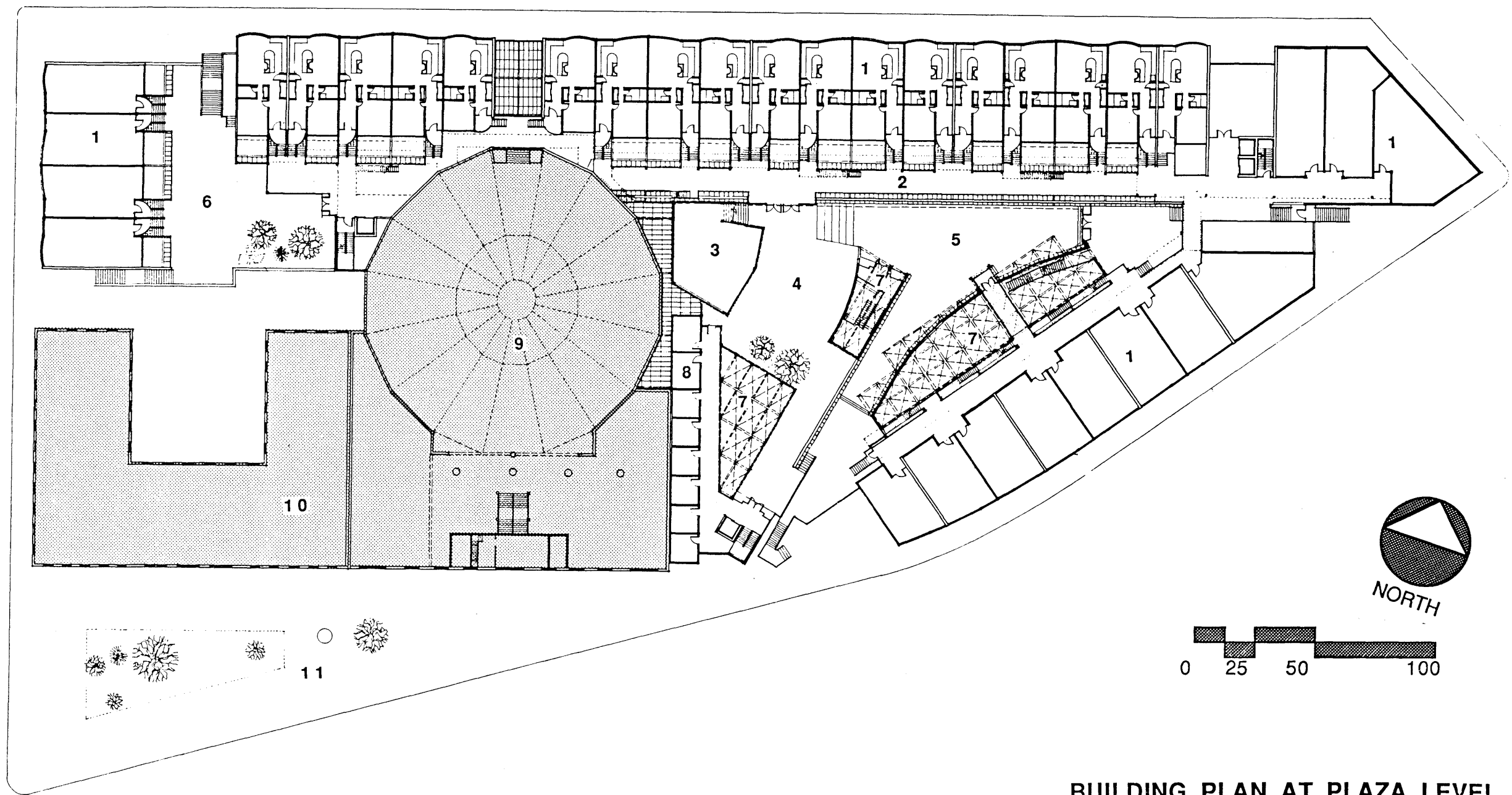
TREMONT STREET ELEVATION



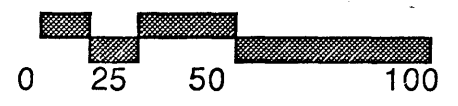
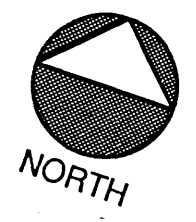
WARREN STREET ELEVATION



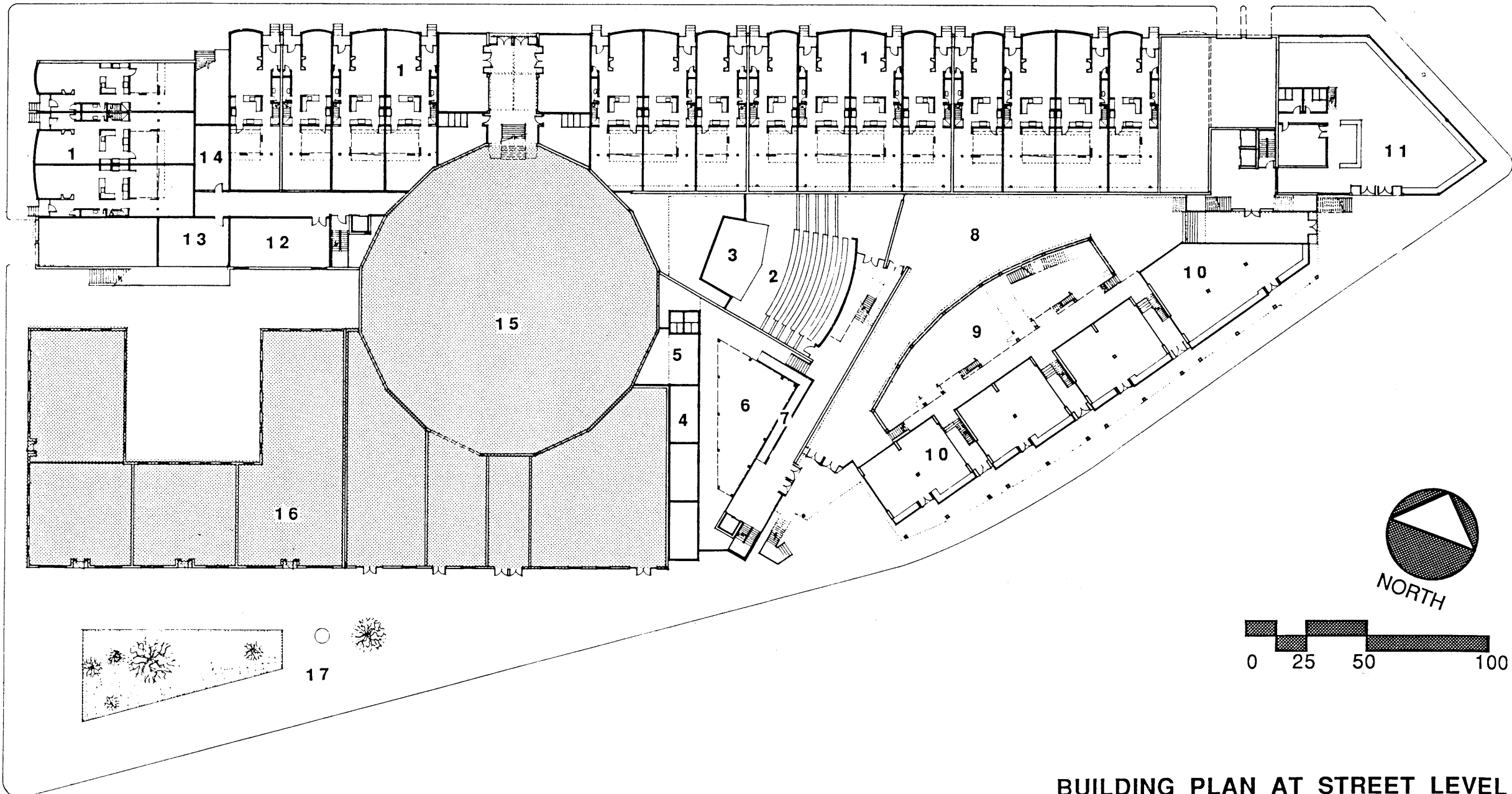
CLARENDON STREET ELEVATION



- 1 housing
- 2 interior street
- 3 upper plaza
- 4 middle plaza
- 5 lower plaza
- 6 end plaza
- 7 skylights
- 8 music practice rooms
- 9 Cyclorama
- 10 existing building
- 11 Union Plaza



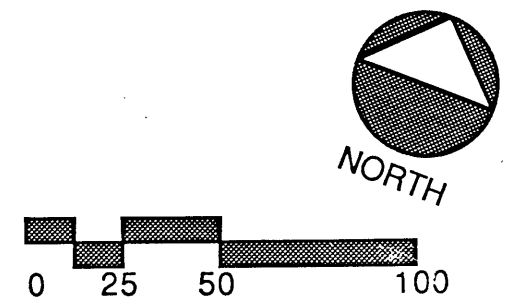
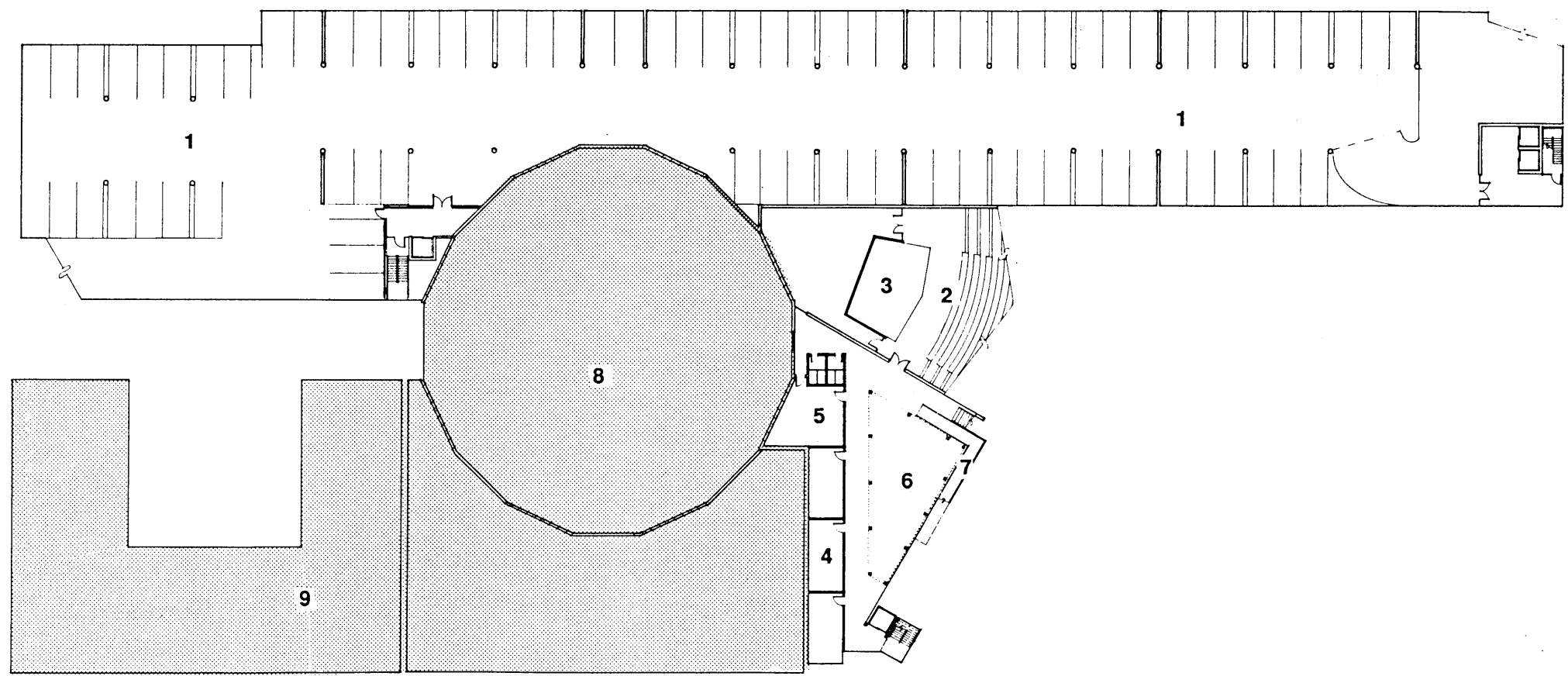
BUILDING PLAN AT PLAZA LEVEL



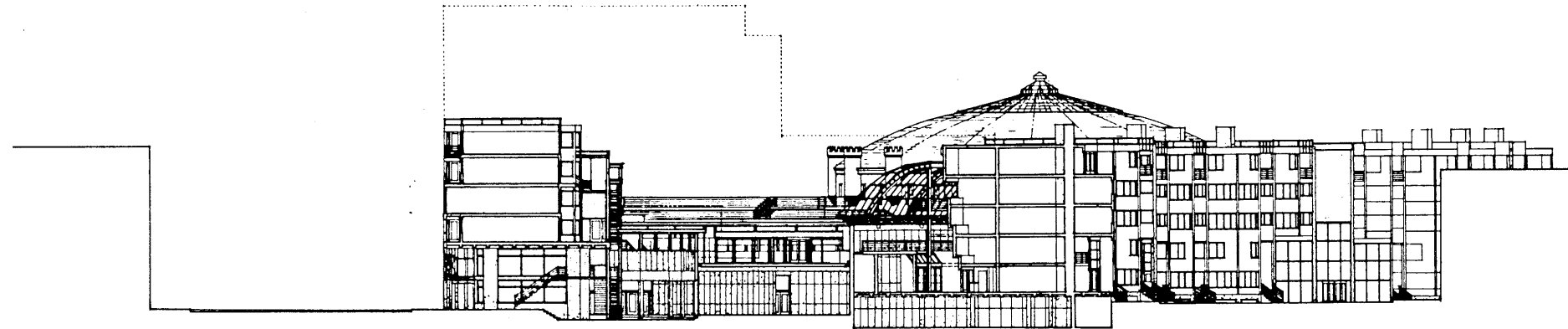
- 1 housing
- 2 music school auditorium
- 3 stage
- 4 offices
- 5 library
- 6 atrium
- 7 ramp
- 8 art gallery/public access
- 9 cafe sitting area
- 10 retail
- 11 restaurant
- 12 laundry
- 13 mechanical
- 14 electrical
- 15 Cyclorama
- 16 existing building
- 17 Union Plaza

BUILDING PLAN AT STREET LEVEL

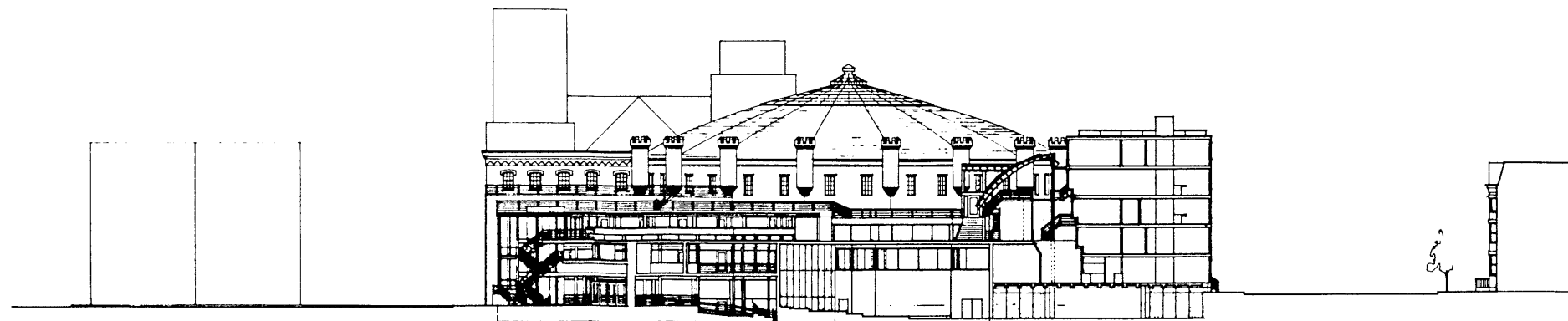
- 1 parking
- 2 music school auditorium
- 3 stage
- 4 offices
- 5 library
- 6 atrium
- 7 ramp
- 8 Cyclorama
- 9 existing building



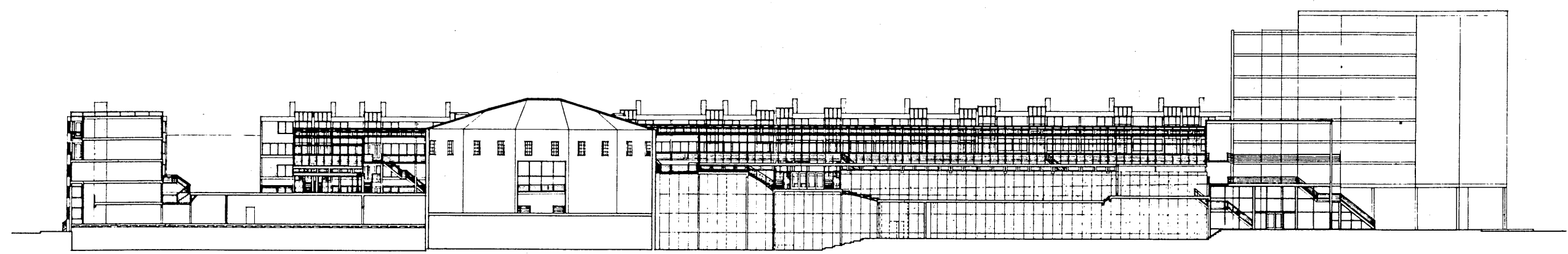
BUILDING PLAN AT PARKING LEVEL



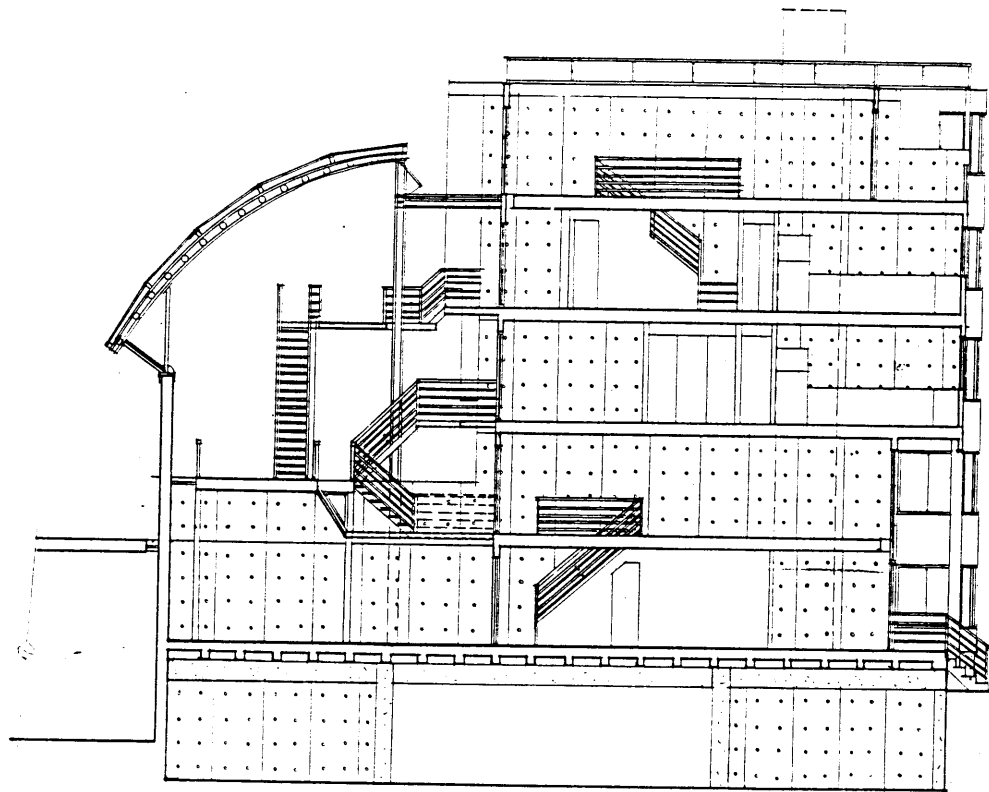
BUILDING SECTION AT ART GALLERY/PUBLIC ACCESS



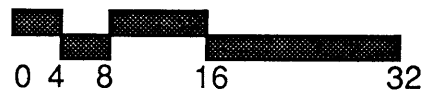
BUILDING SECTION AT MUSIC SCHOOL

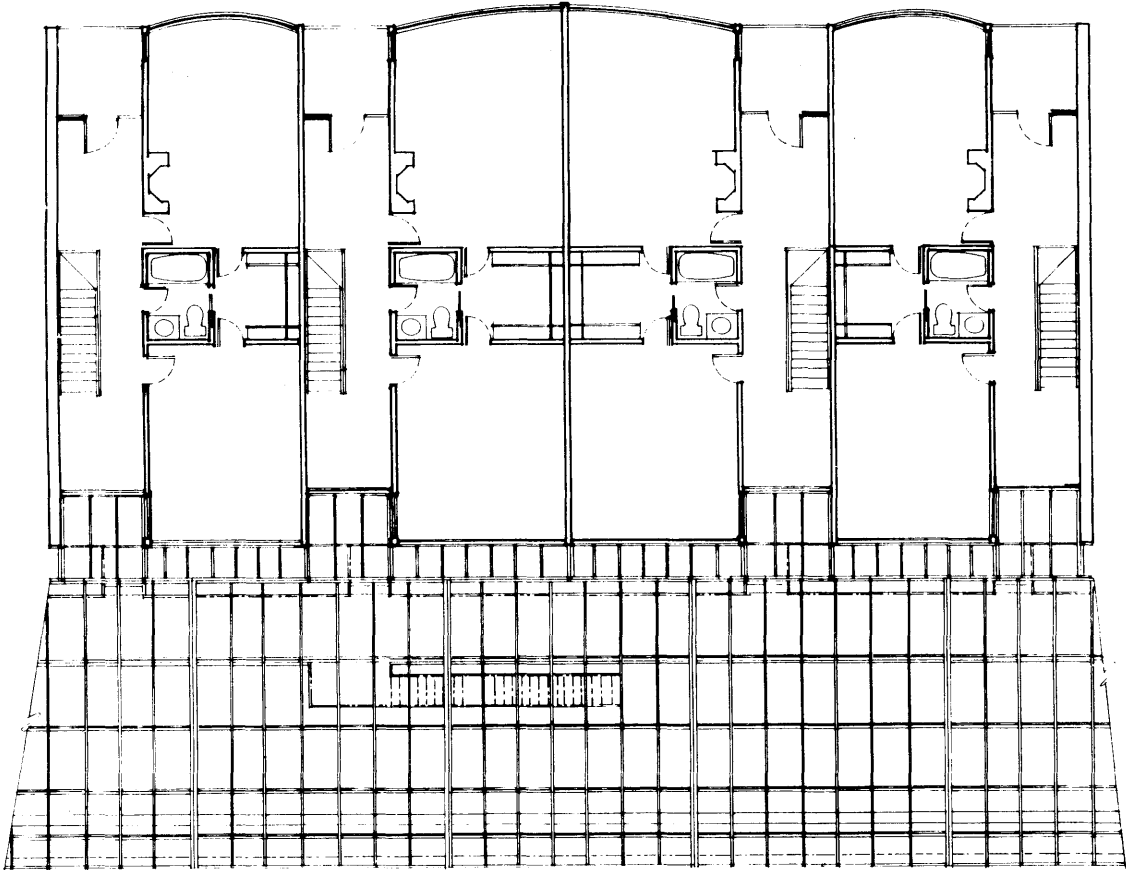


BUILDING SECTION AT WALL



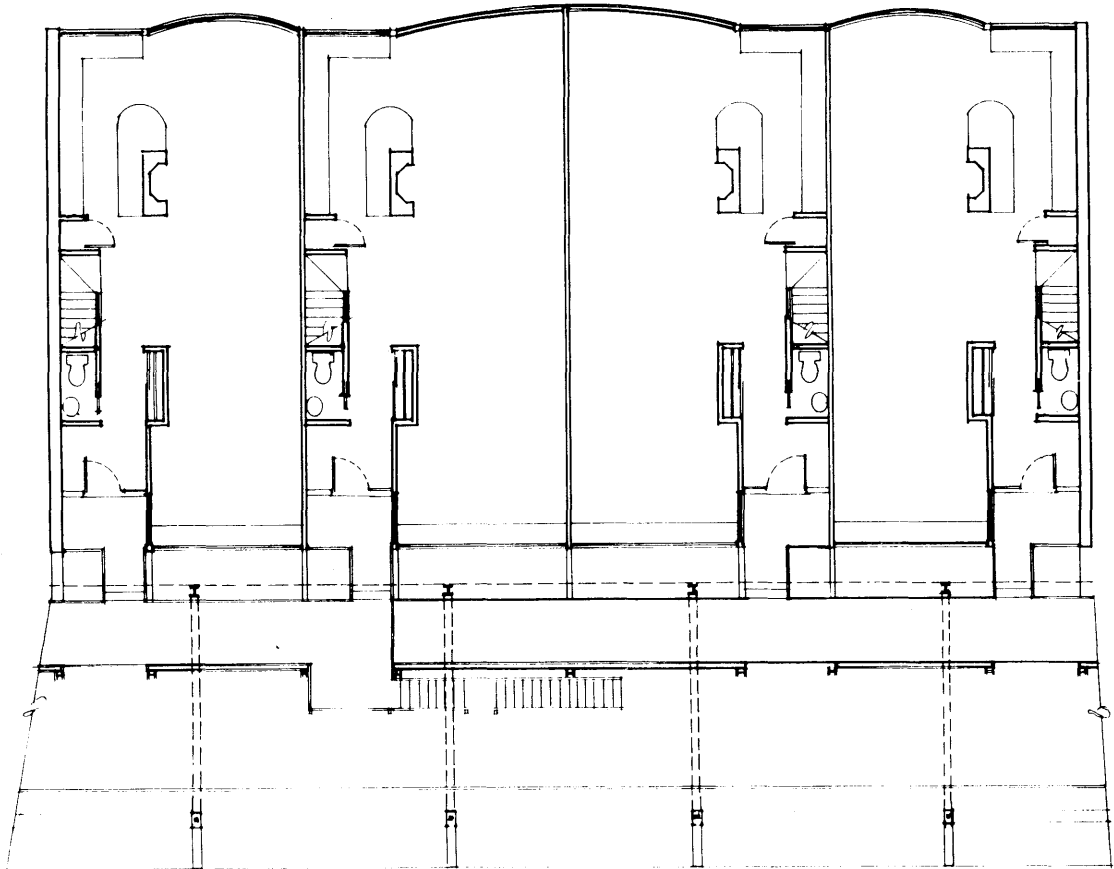
**SECTION AT INTERIOR STREET,
LIGHT COURT, AND HOUSING**





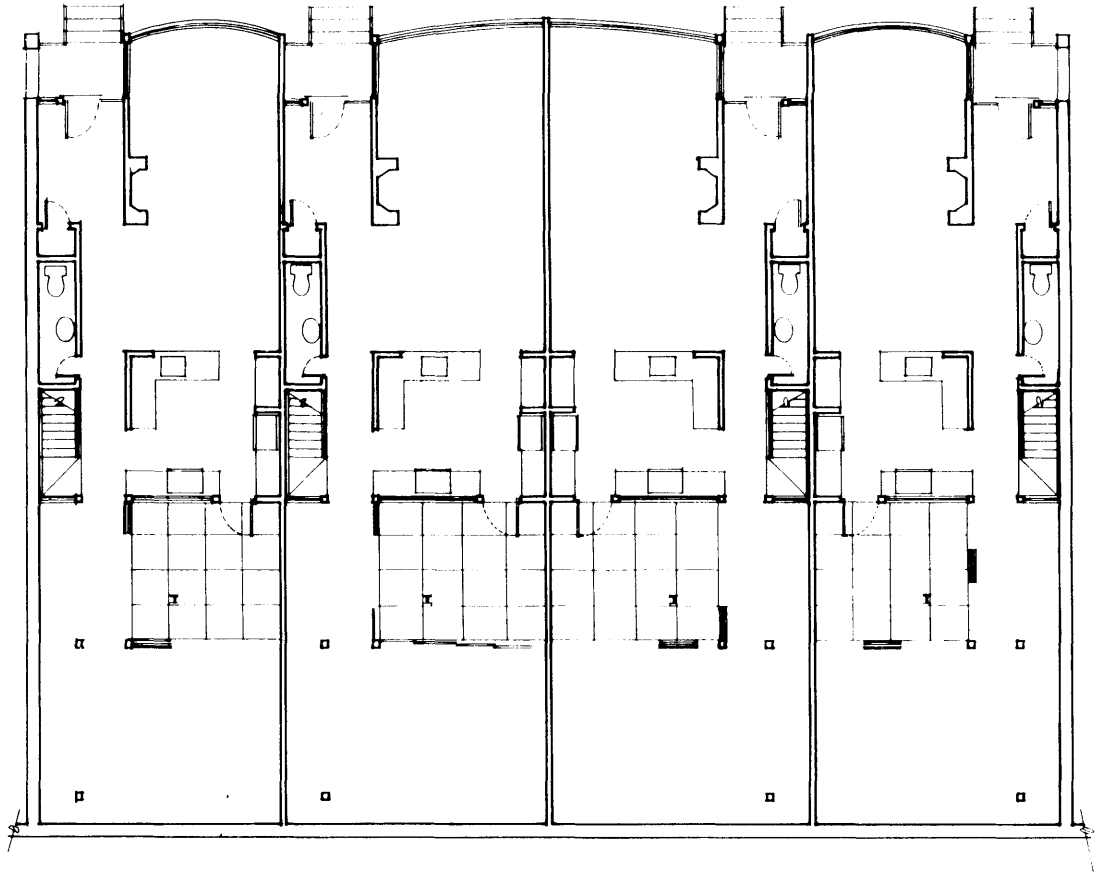
SECOND FLOOR PLAN
UPPER TWO-BEDROOM APARTMENT





FIRST FLOOR PLAN
UPPER TWO-BEDROOM APARTMENT

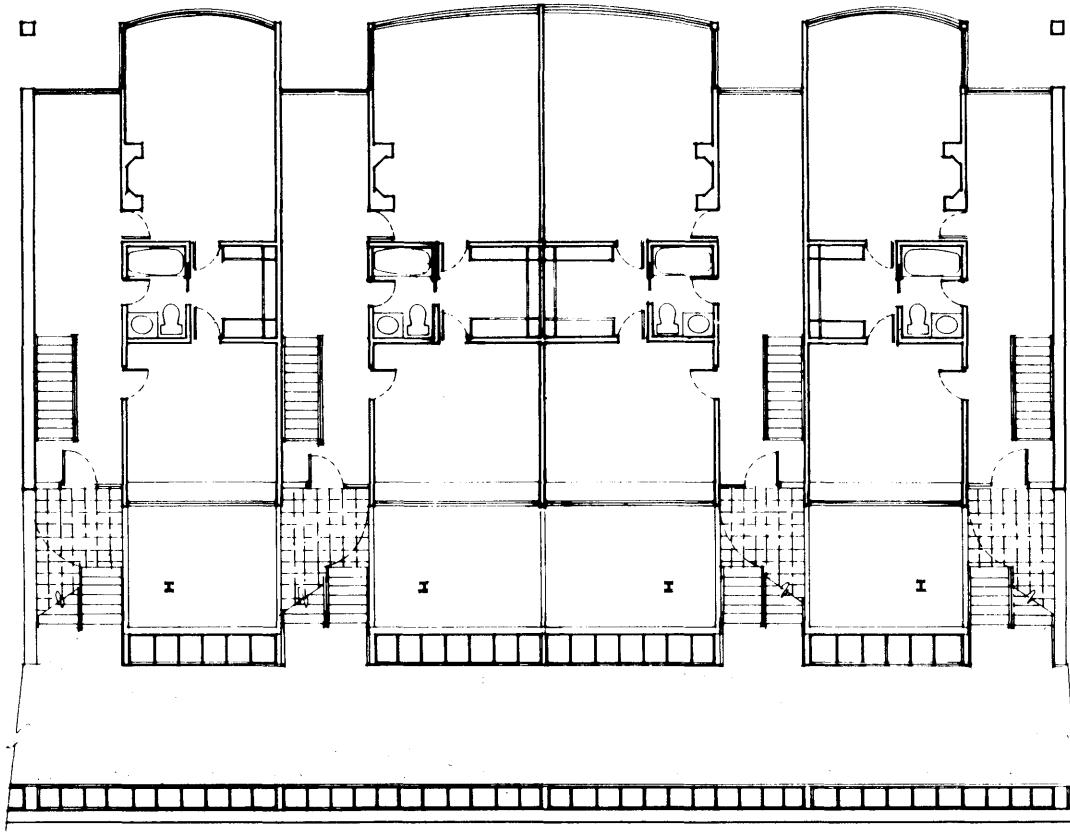




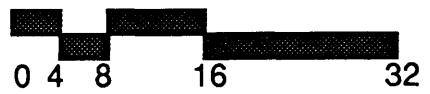
FIRST FLOOR PLAN
LOWER TWO-BEDROOM APARTMENT

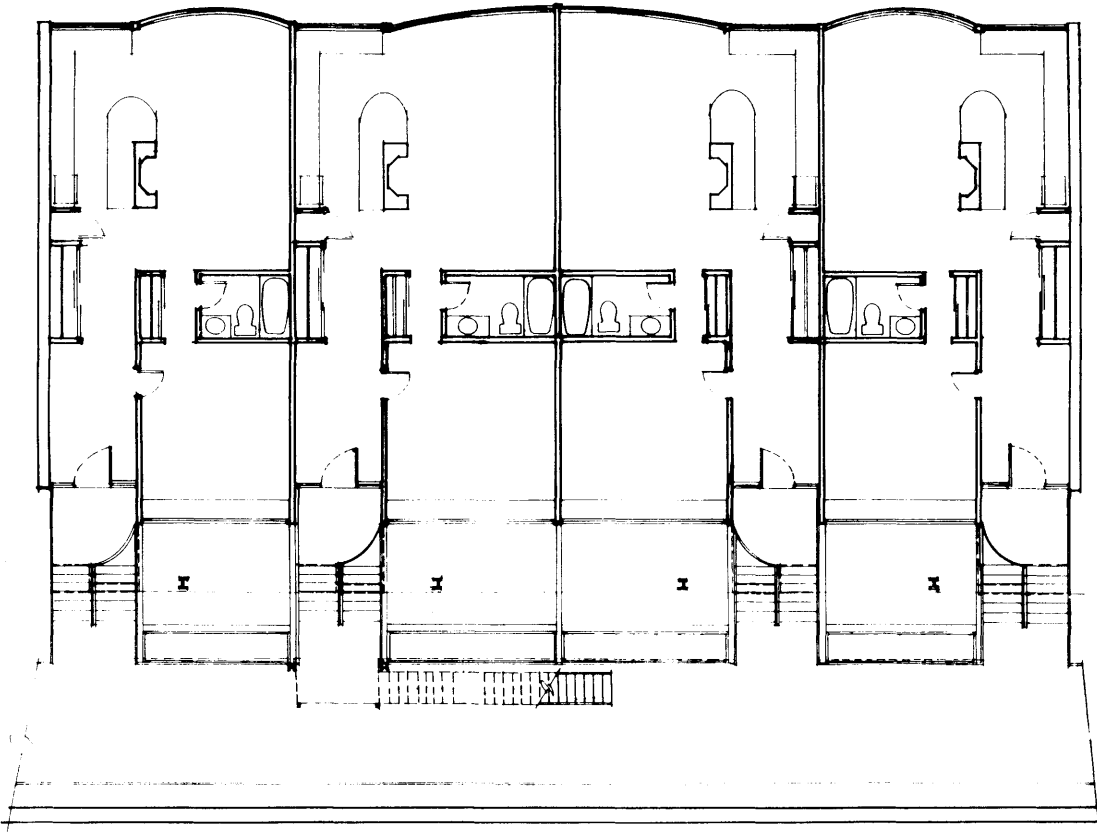


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SECOND FLOOR PLAN
LOWER TWO-BEDROOM APARTMENT

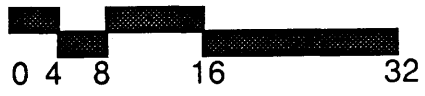




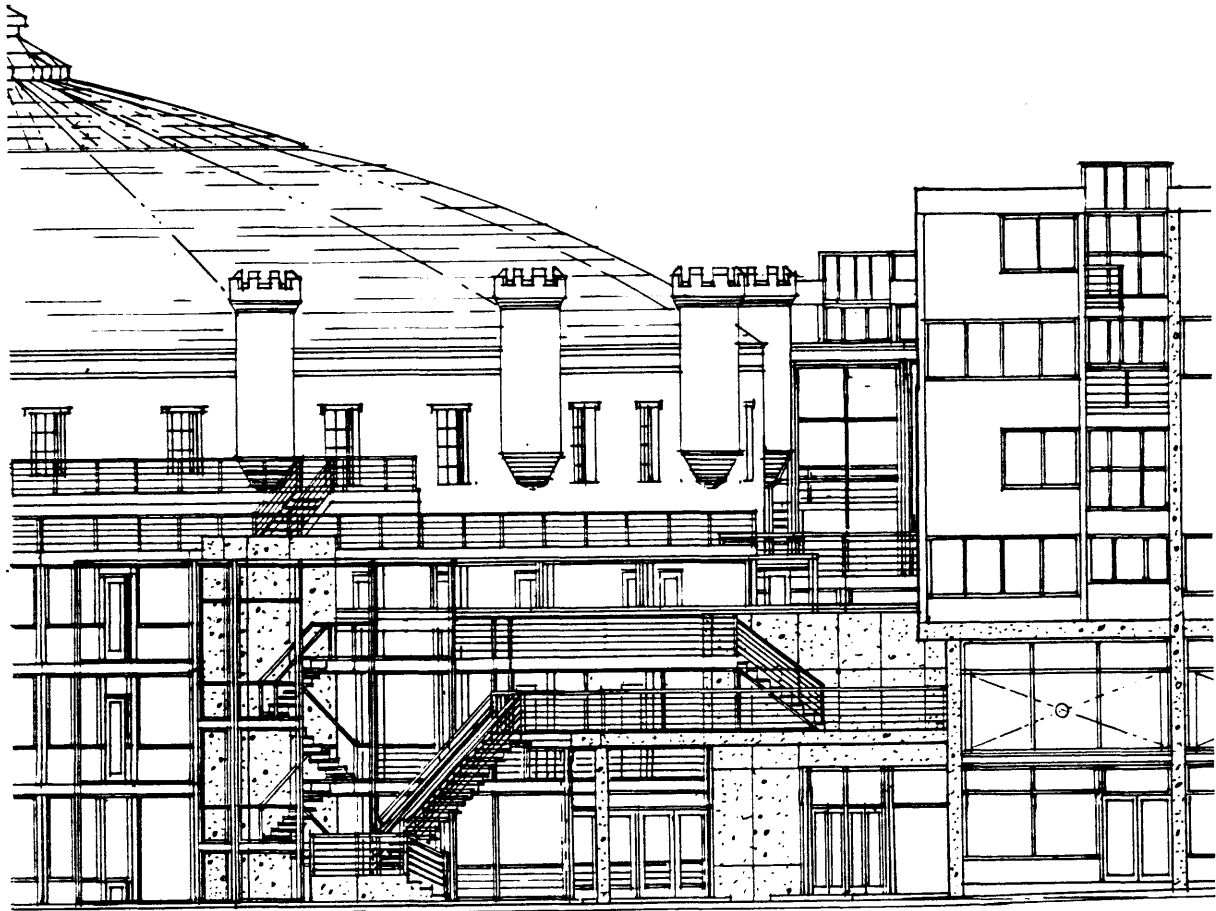
FLOOR PLAN
ONE-BEDROOM APARTMENT



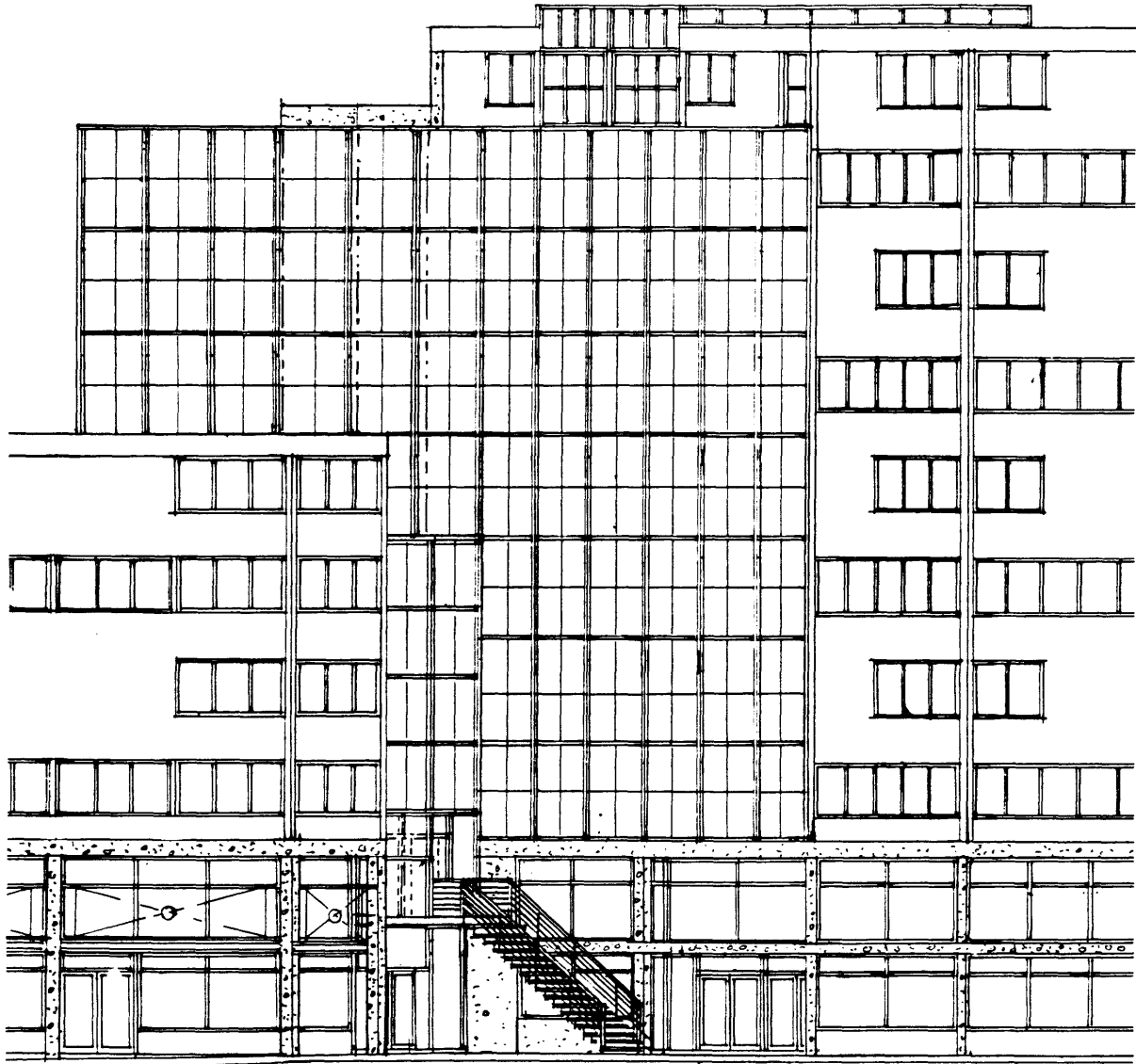
MAIN ENTRANCE PLAZA



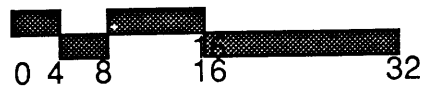
42



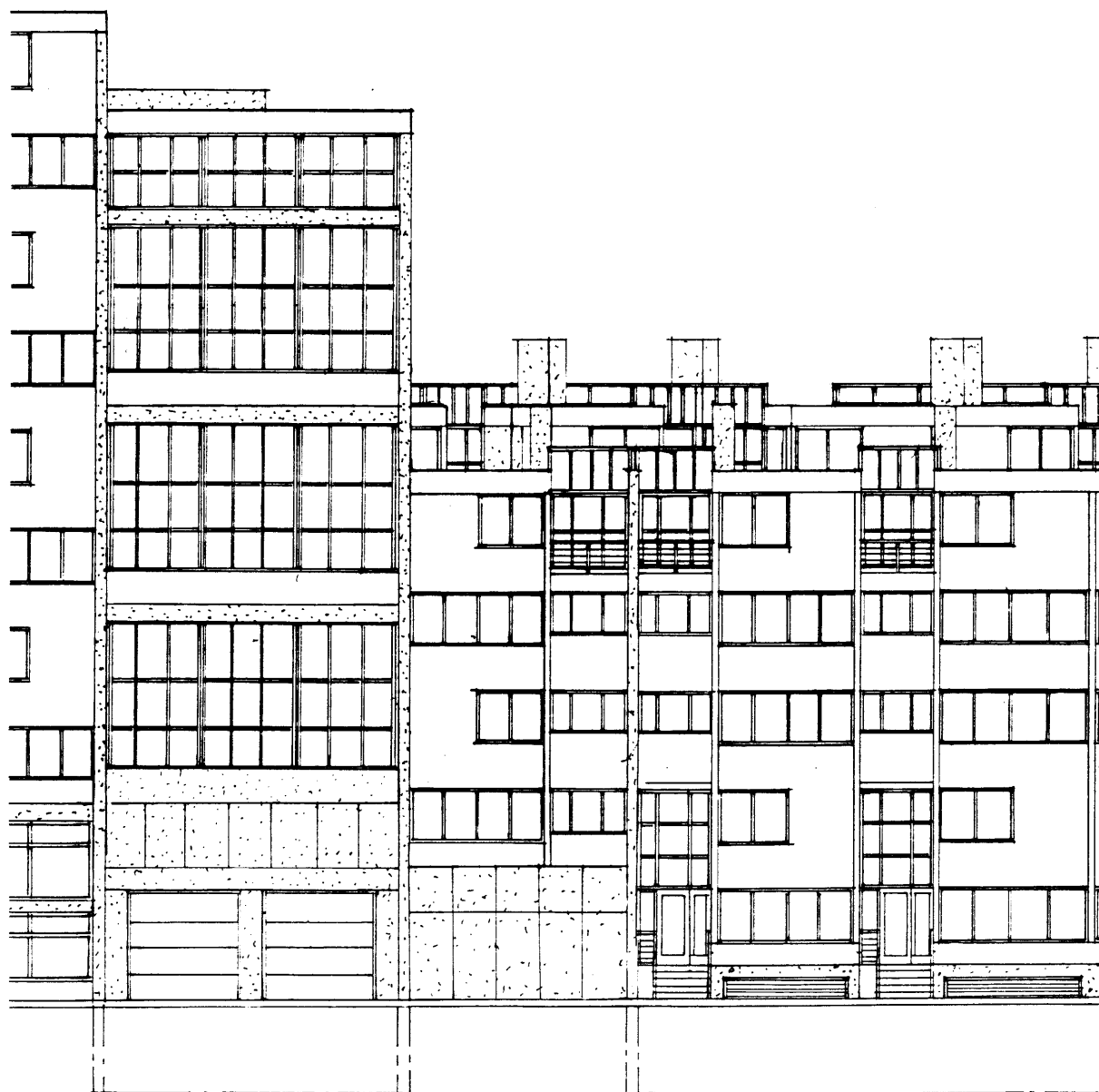
ENTRANCE AT TOWER



TYPICAL WARREN STREET ELEVATION



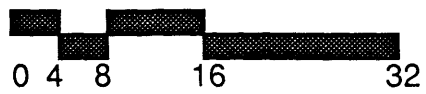
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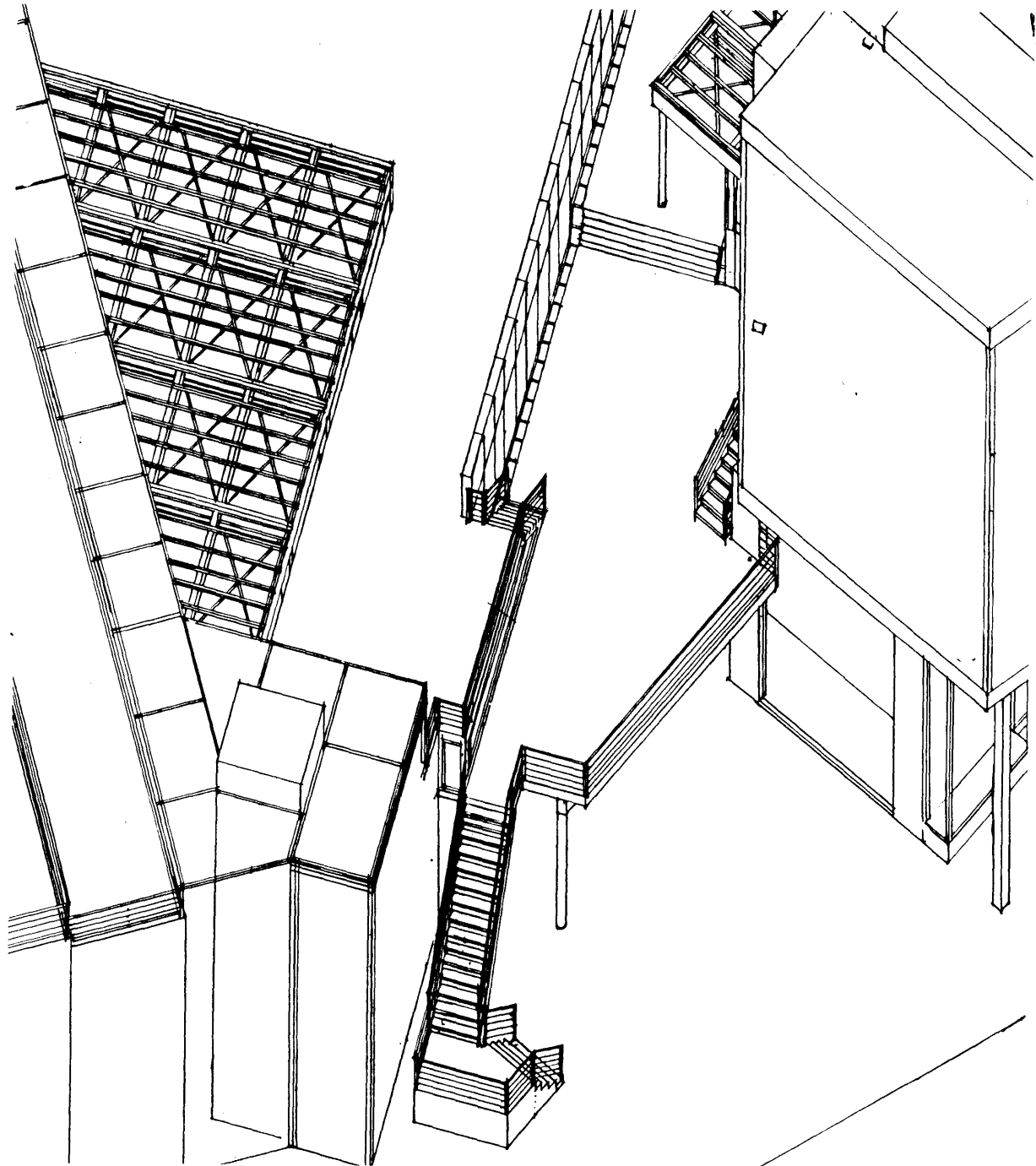
CLARENDON STREET ELEVATION



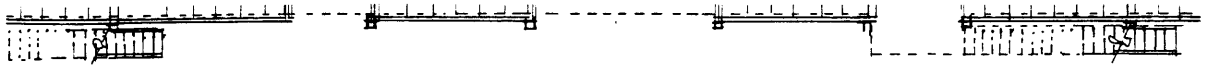
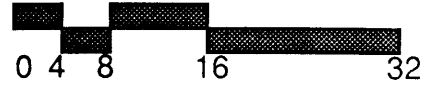
AXONOMETRIC AT MAIN ENTRANCE



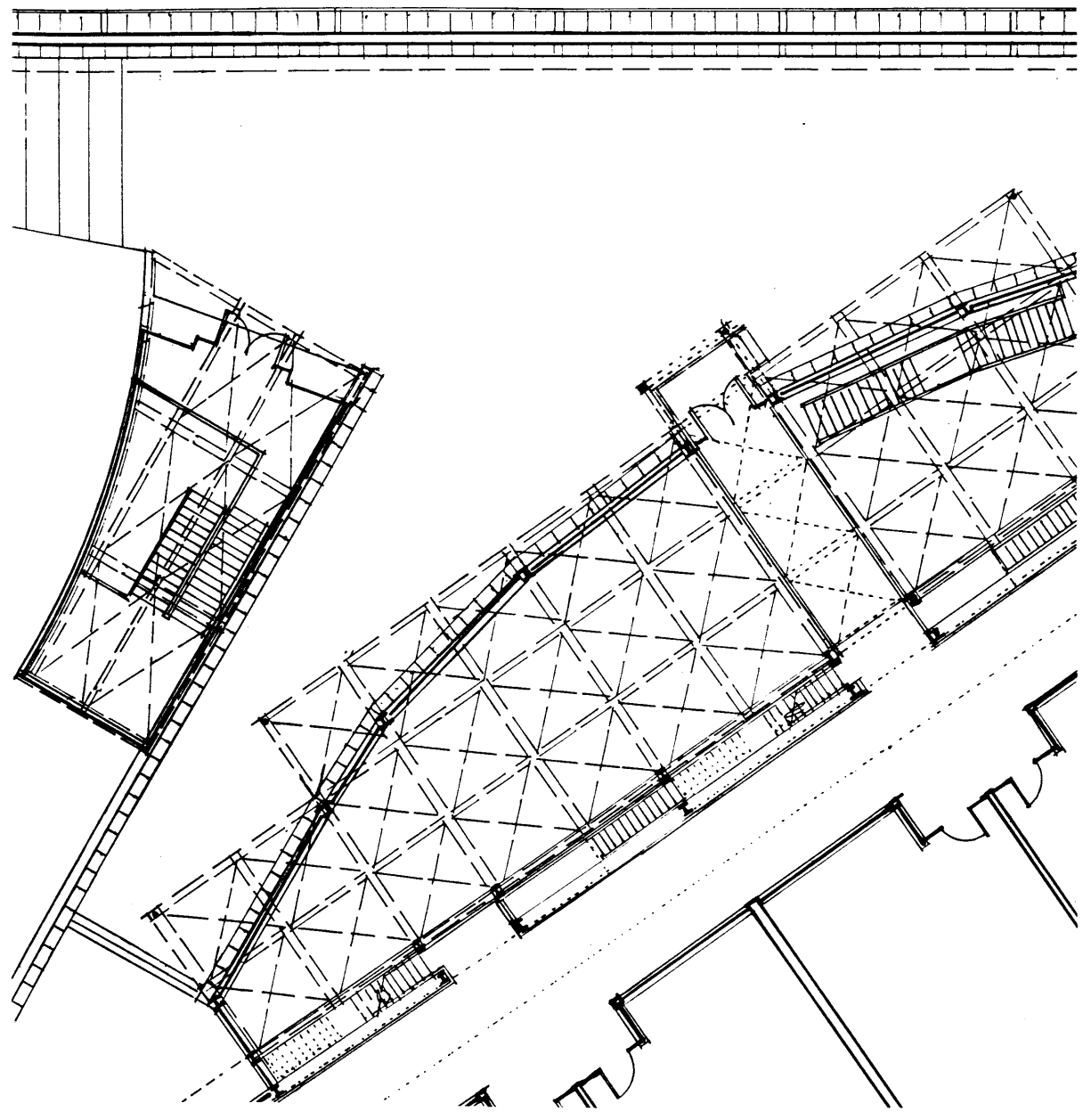
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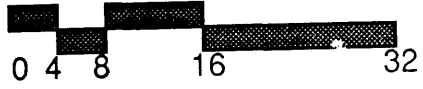
LOWER PLAZA LEVEL



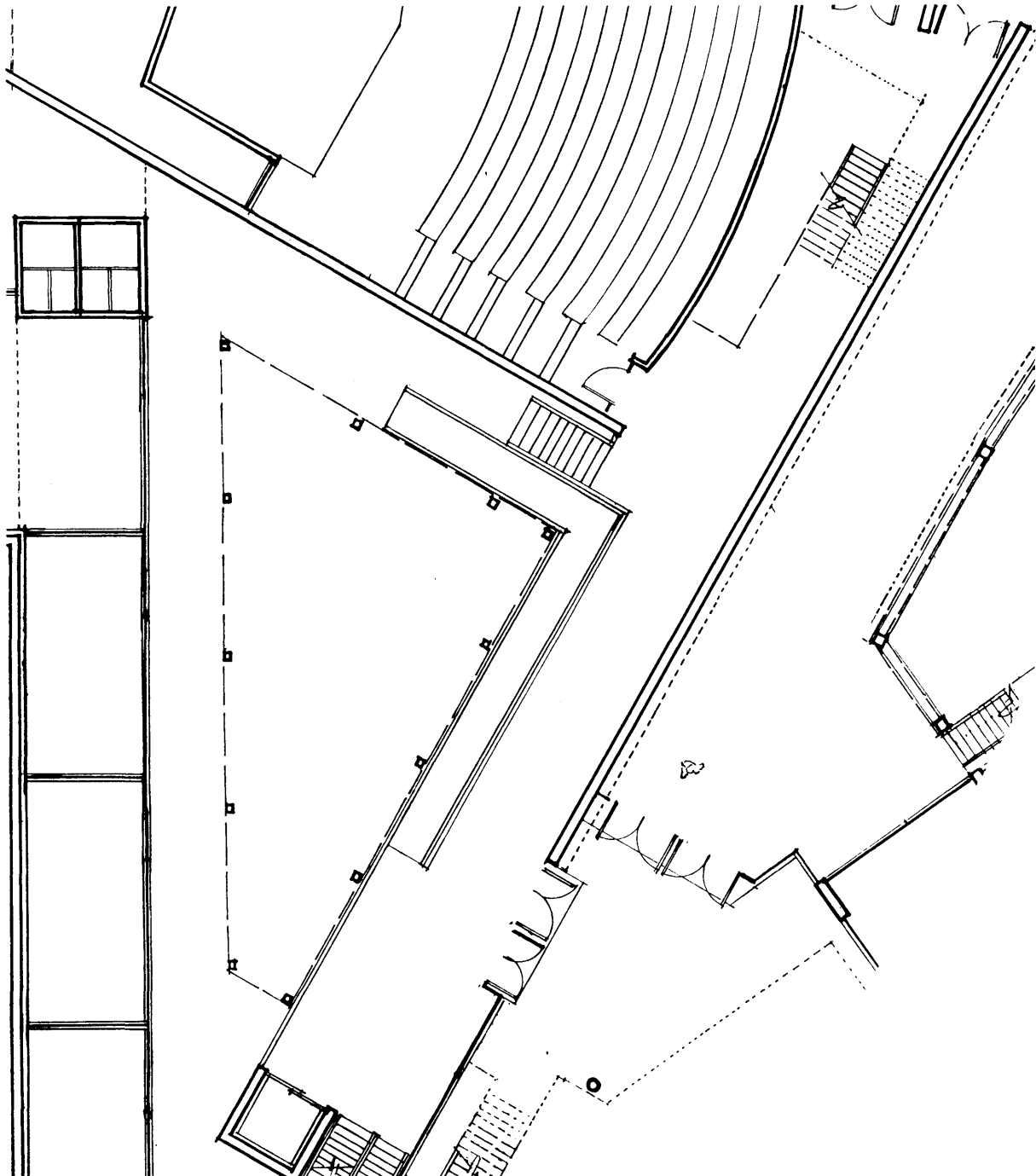
47



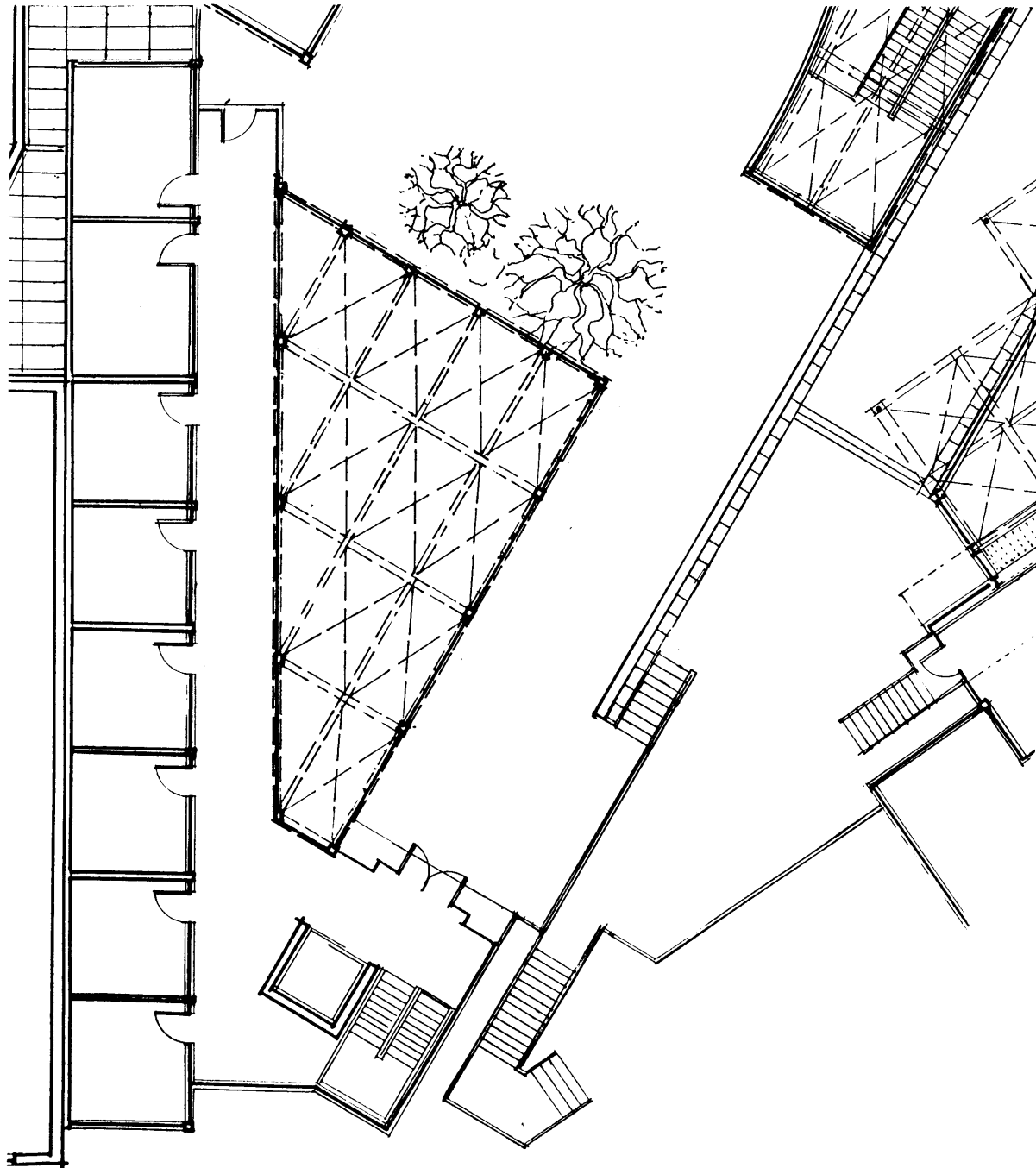
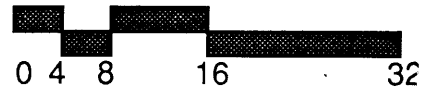
ATRIUM AT MUSIC SCHOOL



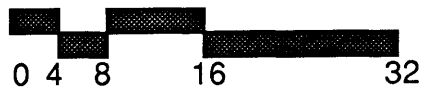
48



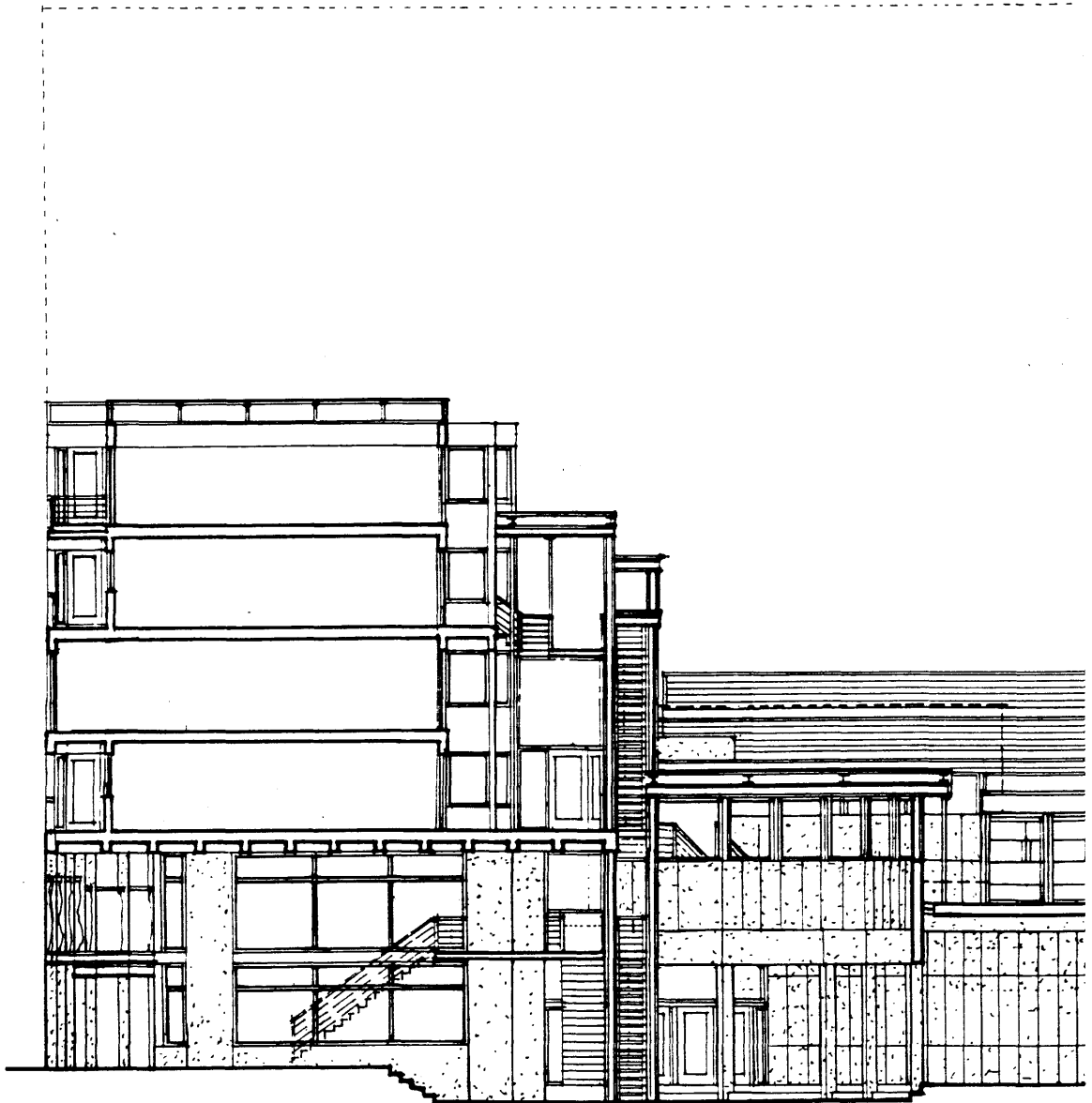
SKYLIGHT AT MUSIC SCHOOL



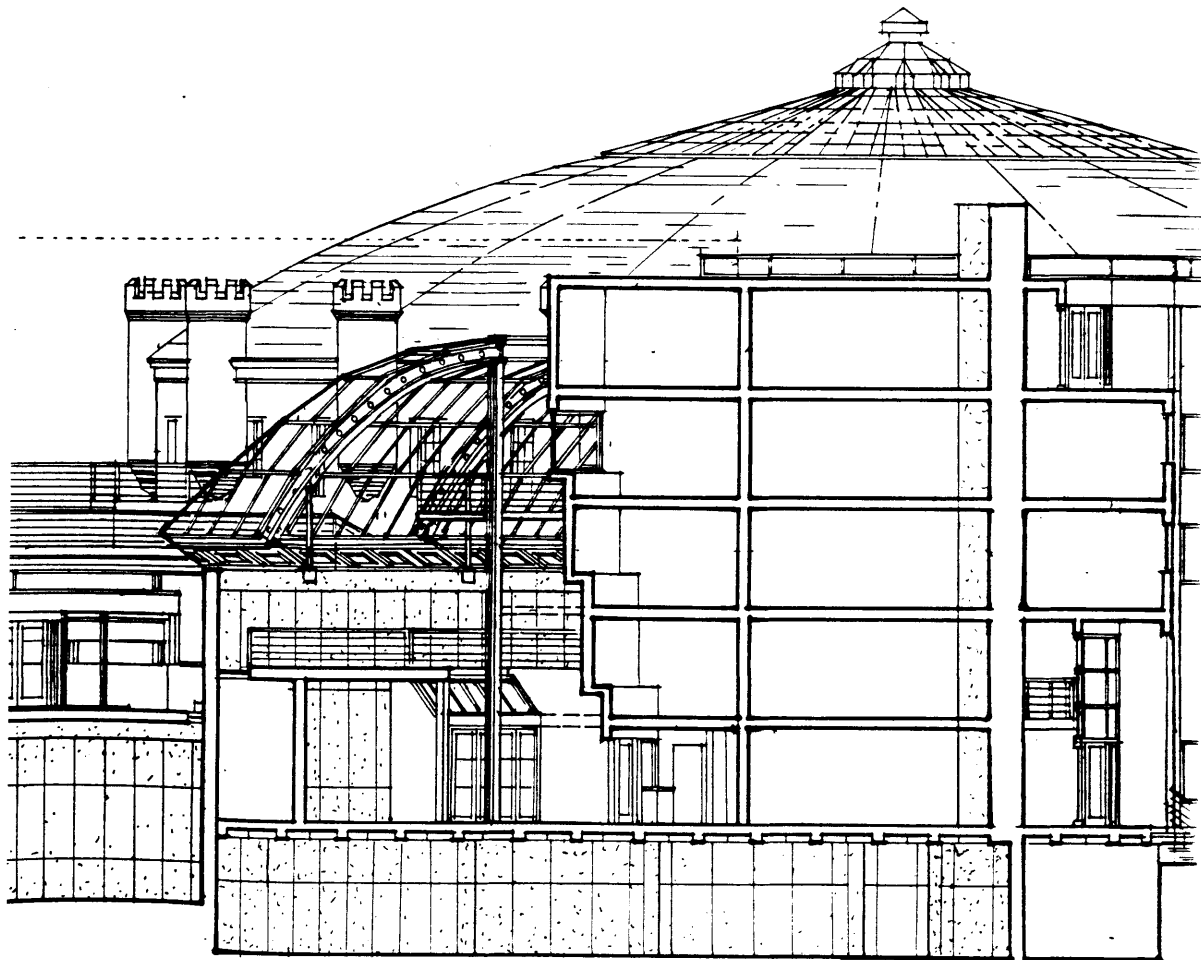
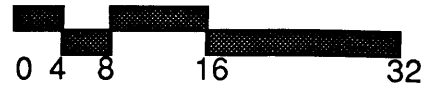
**SECTION AT RETAIL, CAFE SITTING AREA,
AND HOUSING.**



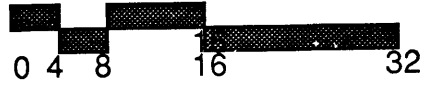
50



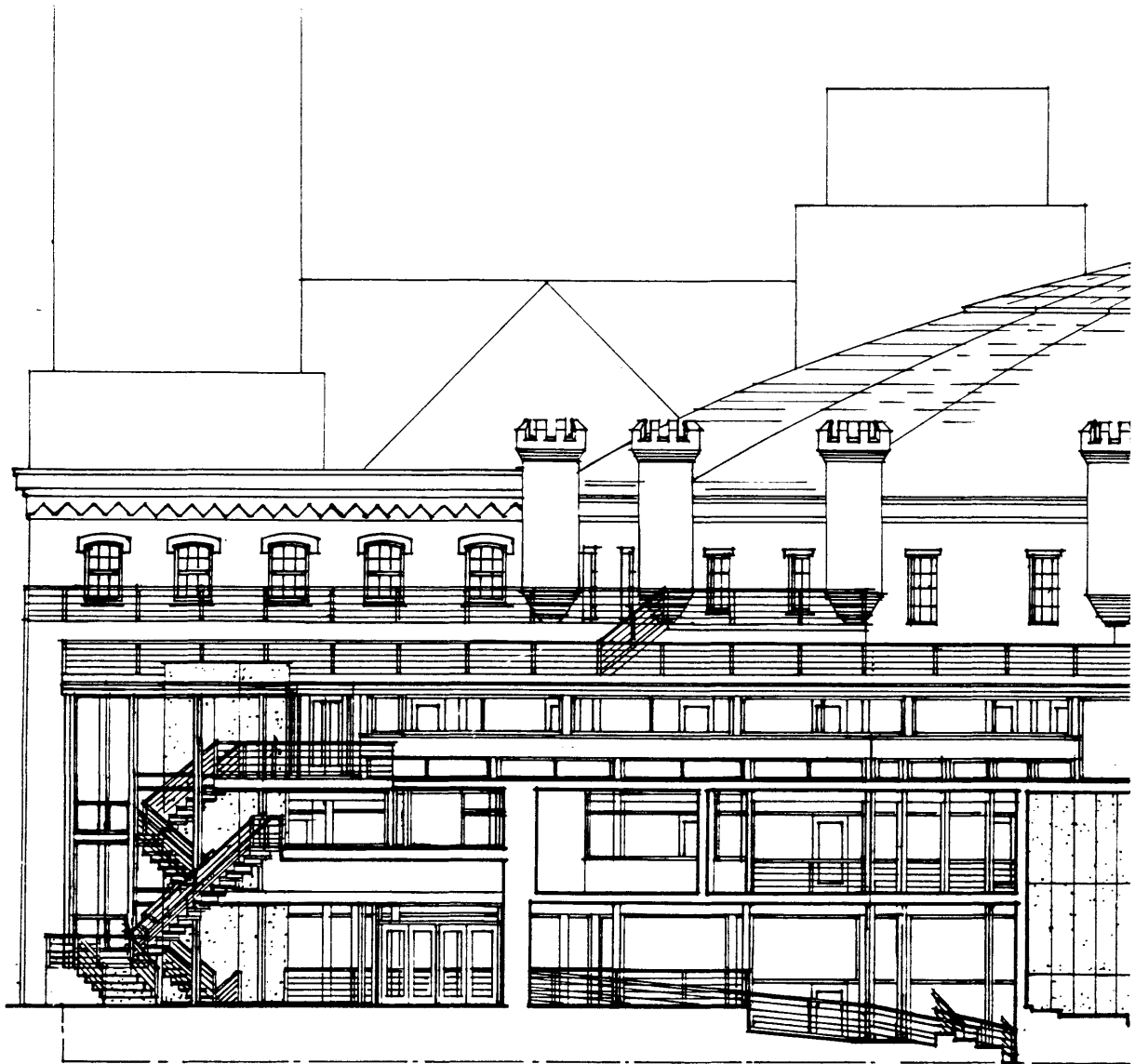
SECTION AT INTERIOR STREET



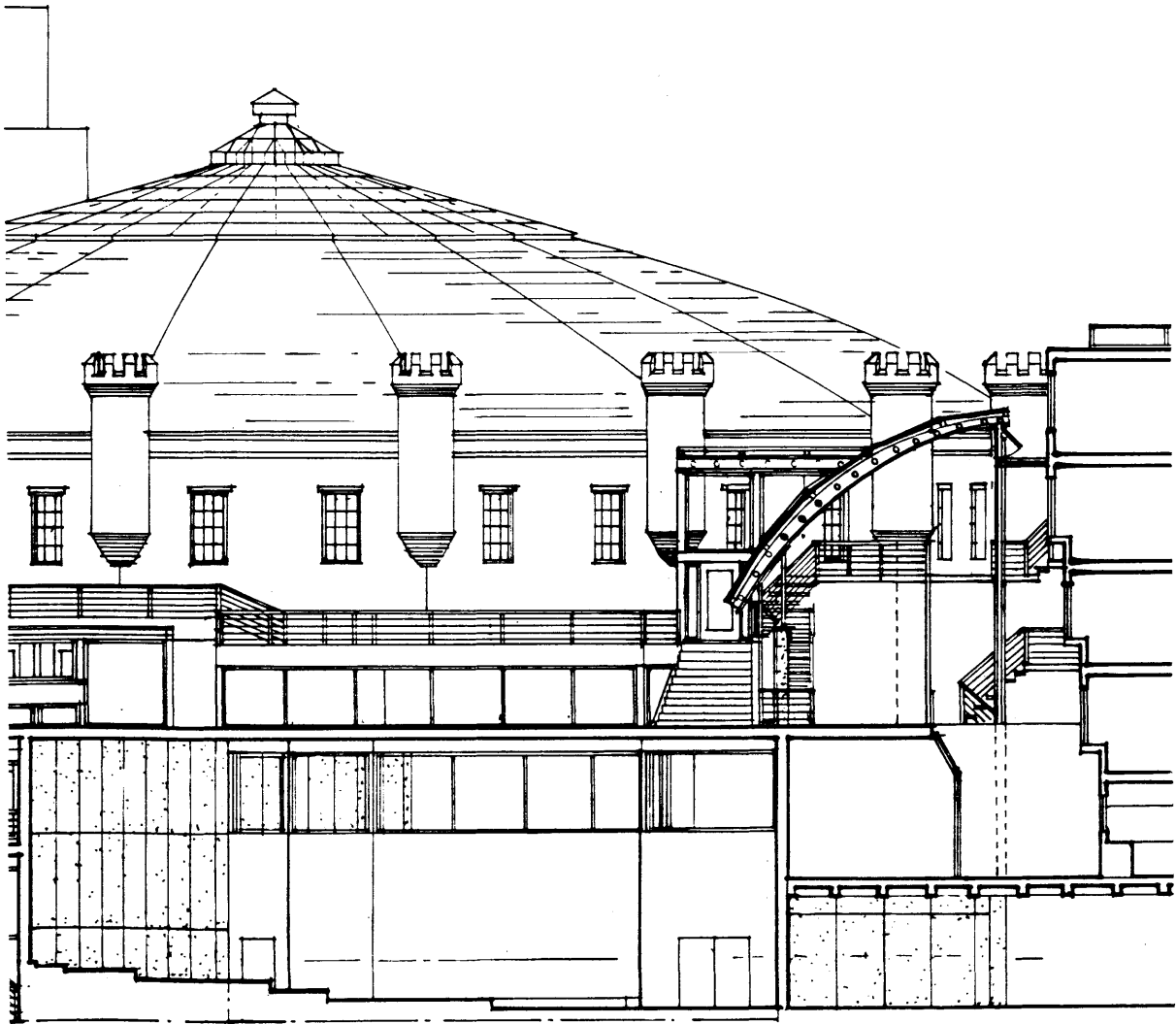
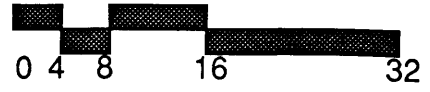
SECTION AT MUSIC SHOOOL



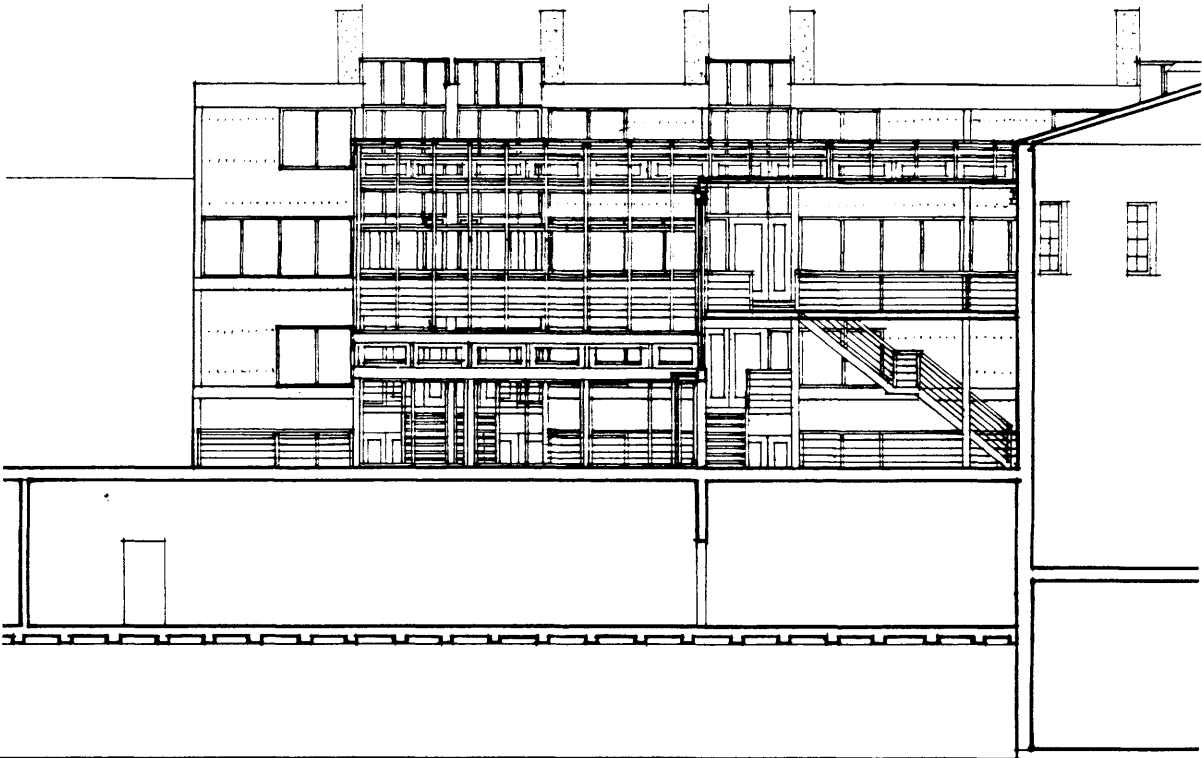
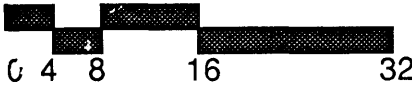
52



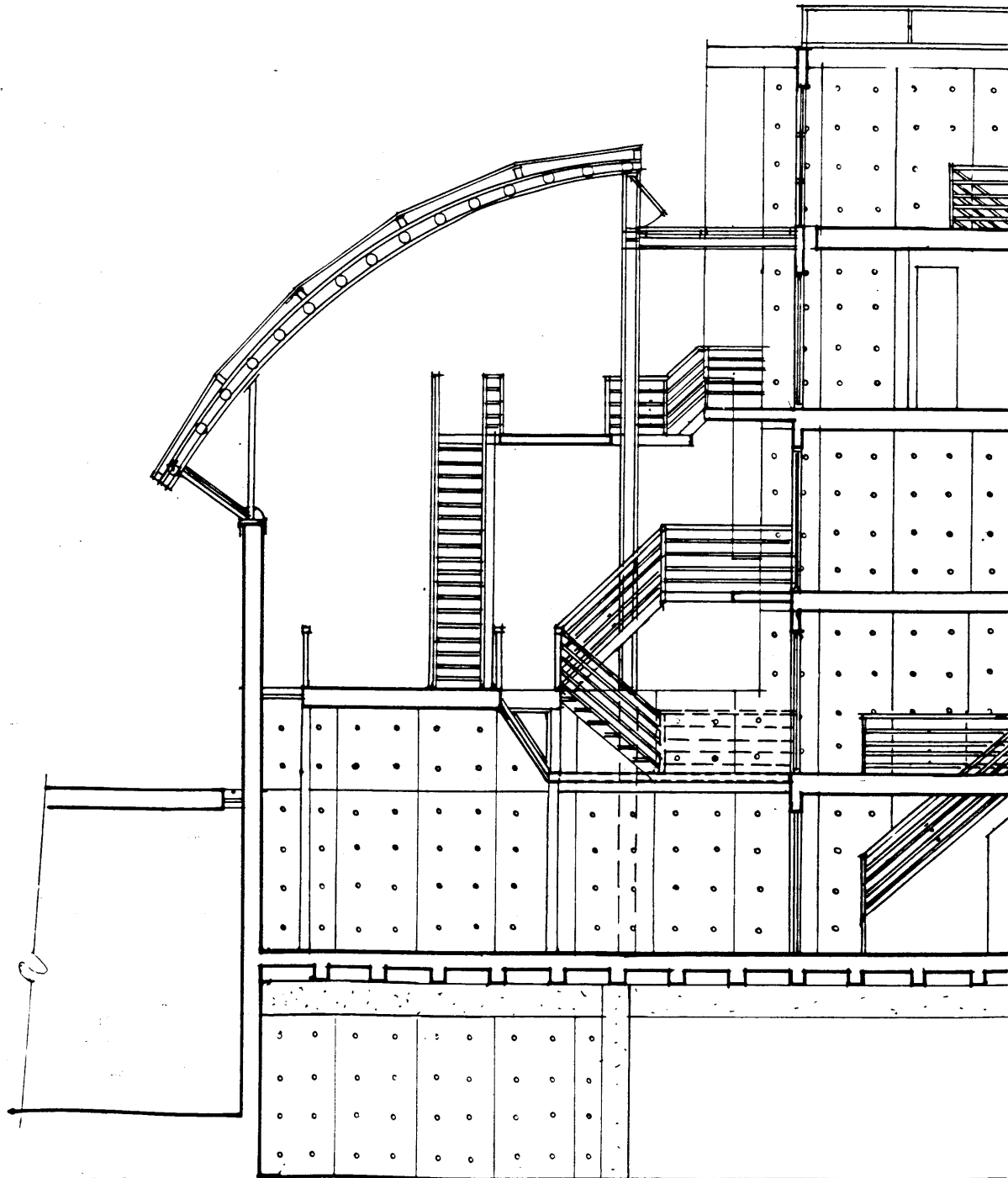
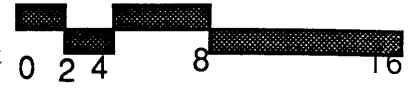
SECTION AT MIDDLE PLAZA



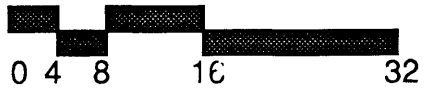
SECTION AT END OF INTERIOR STREET



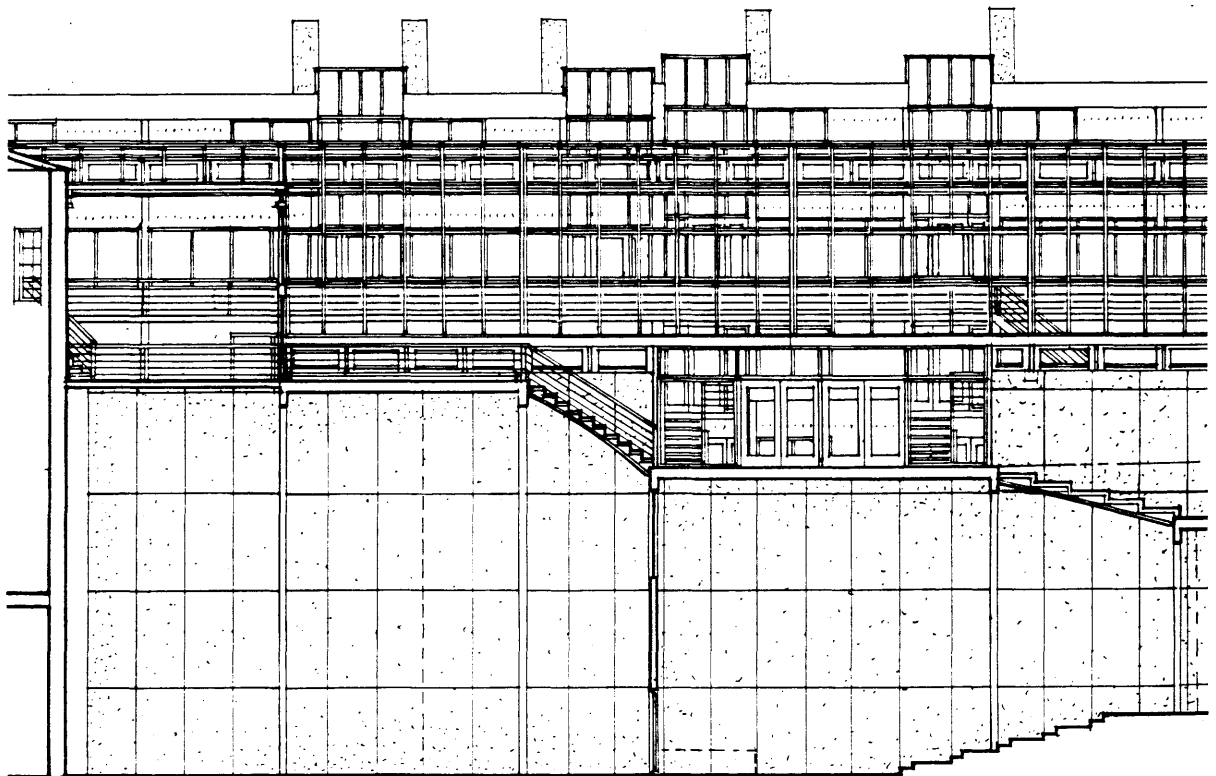
SECTION AT INTERIOR STREET



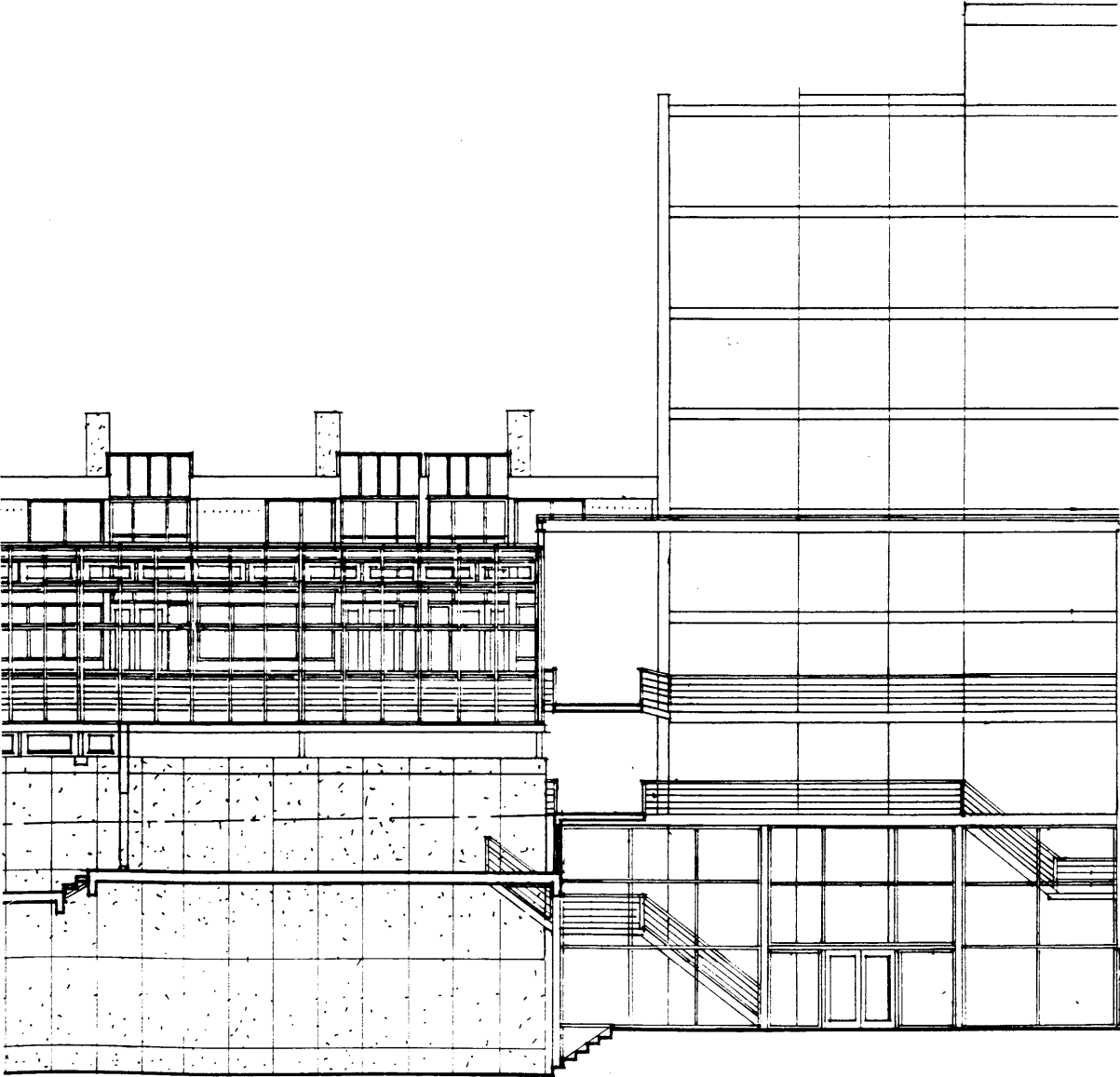
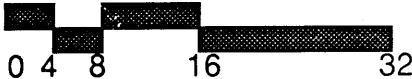
SECTION AT WALL



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SECTION AT TOWER



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