



THOUGHT AND INVENTION

A STUDY OF ARCHITECTURAL FORM
THROUGH THE PARTICULAR AND THE UNIVERSAL

MICHAEL RITCHIE

Thesis submitted to the faculty of the

Virginia Polytechnic Institute and State University

in partial fulfillment of the requirements for the degree of

MASTER OF ARCHITECTURE

Professor Hans C. Rott
Chairman

Professor William Galloway

Professor Frank Weiner

May 8th, 2007

Blacksburg, VA

Form, Space, Monumentality, Archetype

THOUGHT AND INVENTION

a study of architectural form through
the particular and the universal

Michael Ritchie

abstract

This thesis study investigates the significance of the archetypal images of architecture and the inherent relationship between space, structure, and form. How are space and form defined by architecture? Is form a premeditated thing, and, if so, how is it intuitively understood by the creative process? By studying the models and patterns through which the autonomous language of architecture is communicated, the thesis study attempts to develop an understanding of the nature of form through universal and particular conditions.

Rather than present the study as a completed body of work ending with an objective conclusion, the included images and text represent an ongoing investigation addressing critical architectural ideas including the relationship between form and context and the role of tradition and historical precedent as a deciding factor of modern architecture.

IN MEMORY 4/16/07

FOR MY FAMILY

and

FOR SARAH

THOUGHT AND INVENTION

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ARCHETYPAL IMAGES

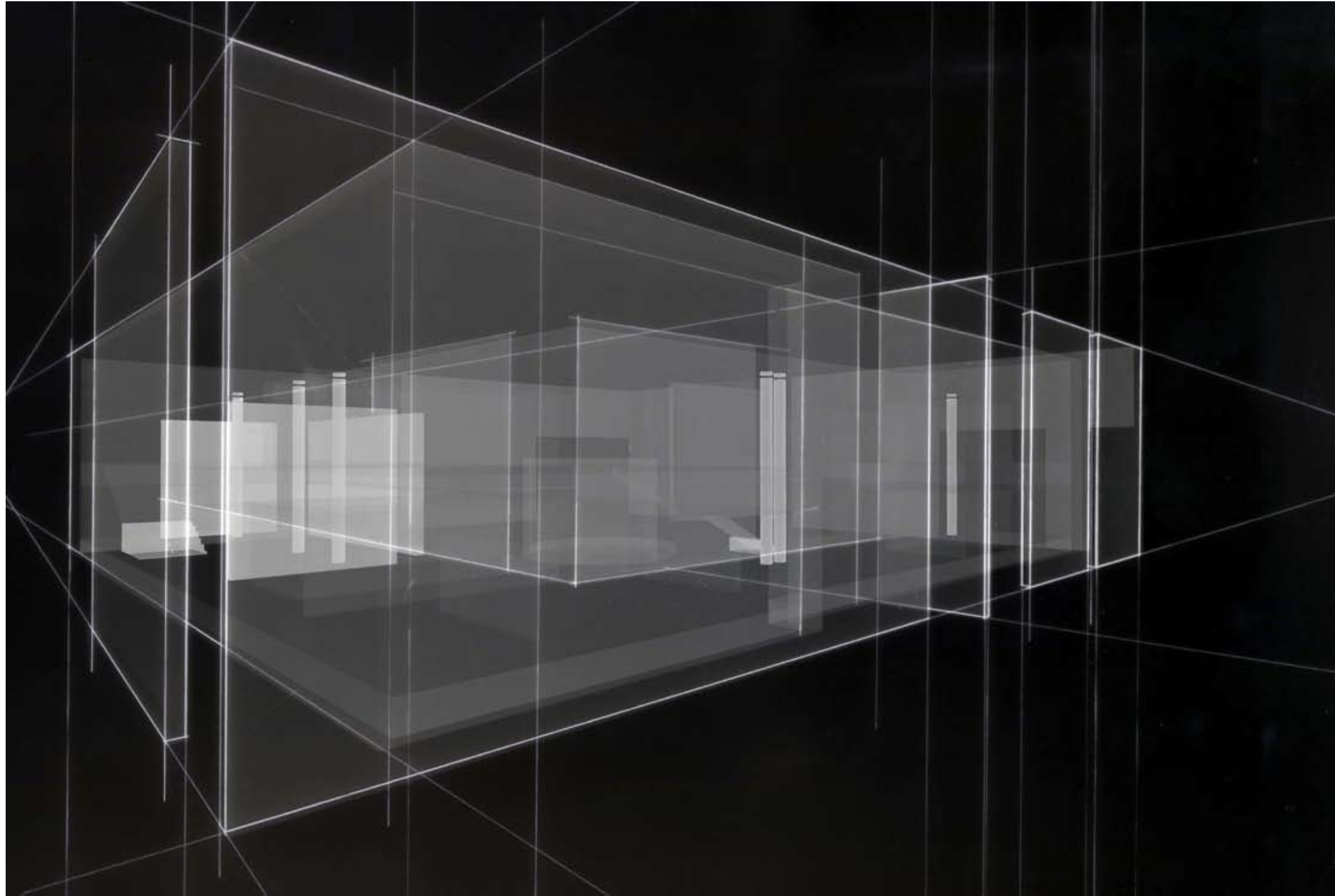
the autonomous language of architecture

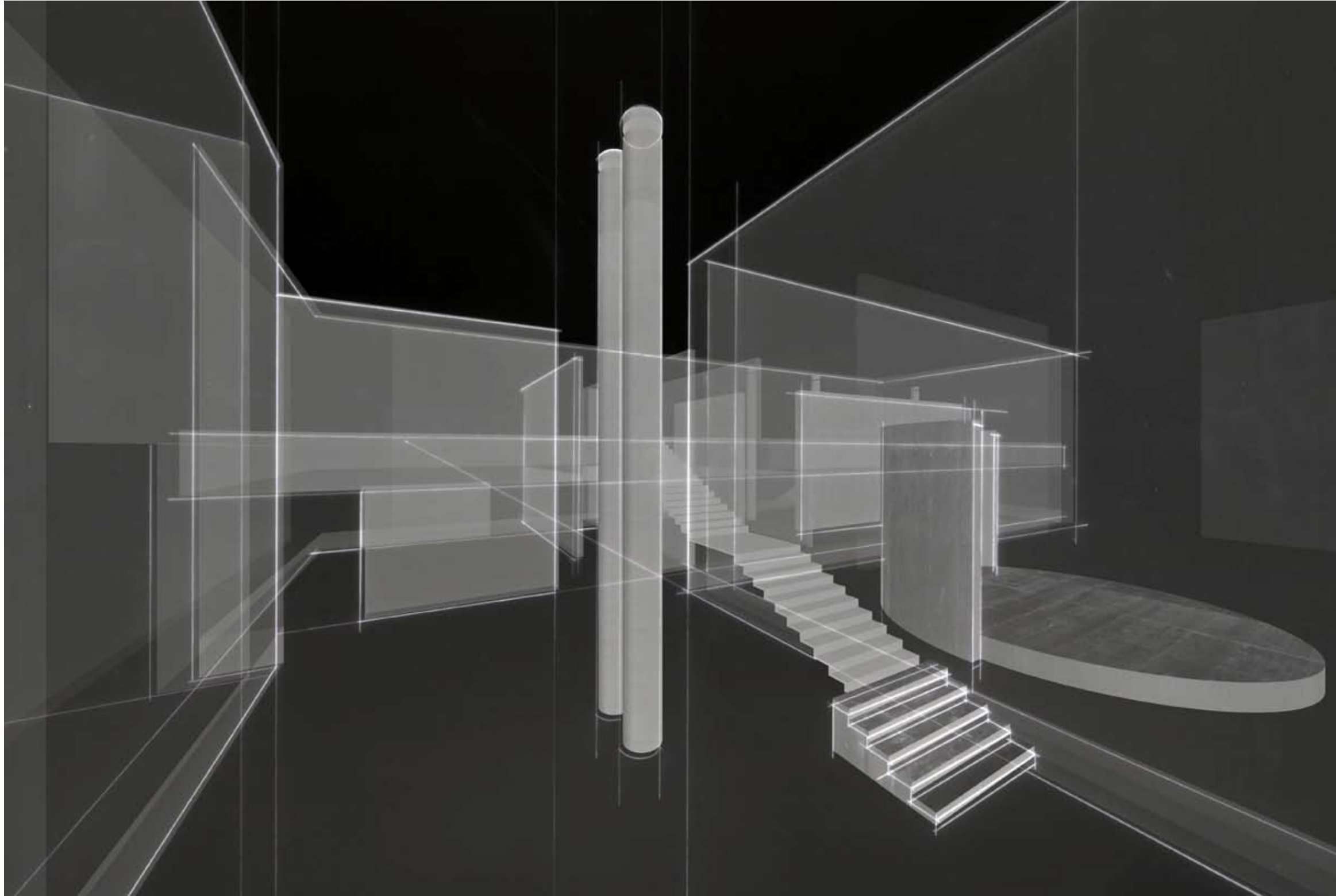
"The loss of the image is a major characteristic of the present environmental crisis. This proposition may not appear convincing to everyone, since we are no longer used to thinking of architecture in terms of images. For too long we have been giving exclusive attention to function and structure. Without images, however, our environment is reduced to a mere spatial container."

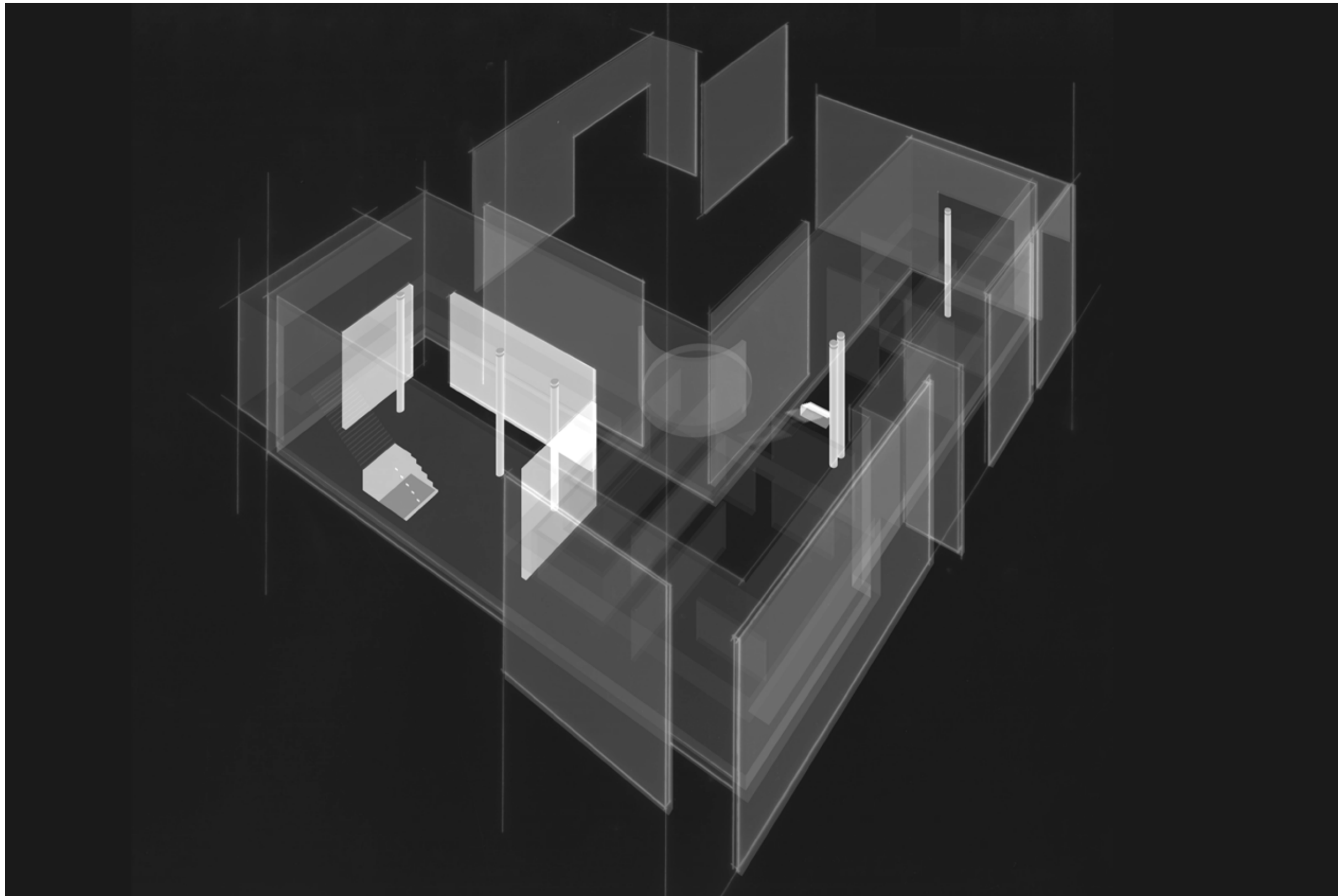
C.N. Schulz, **Principles of Modern Architecture**

The universal forms of architecture exist through the archetypal images which are continually re-shaped and interpreted by architecture. These images construct the language of architecture and allow for an understanding of space through the physical shaping of form. Our understanding of architecture begins here; form takes shape through the rational ordering of abstract space resulting in relationships that can be easily recognized and understood.









ARCHETYPAL IMAGES

the modern ruin

fragment:

a part broken off, detached, or incomplete

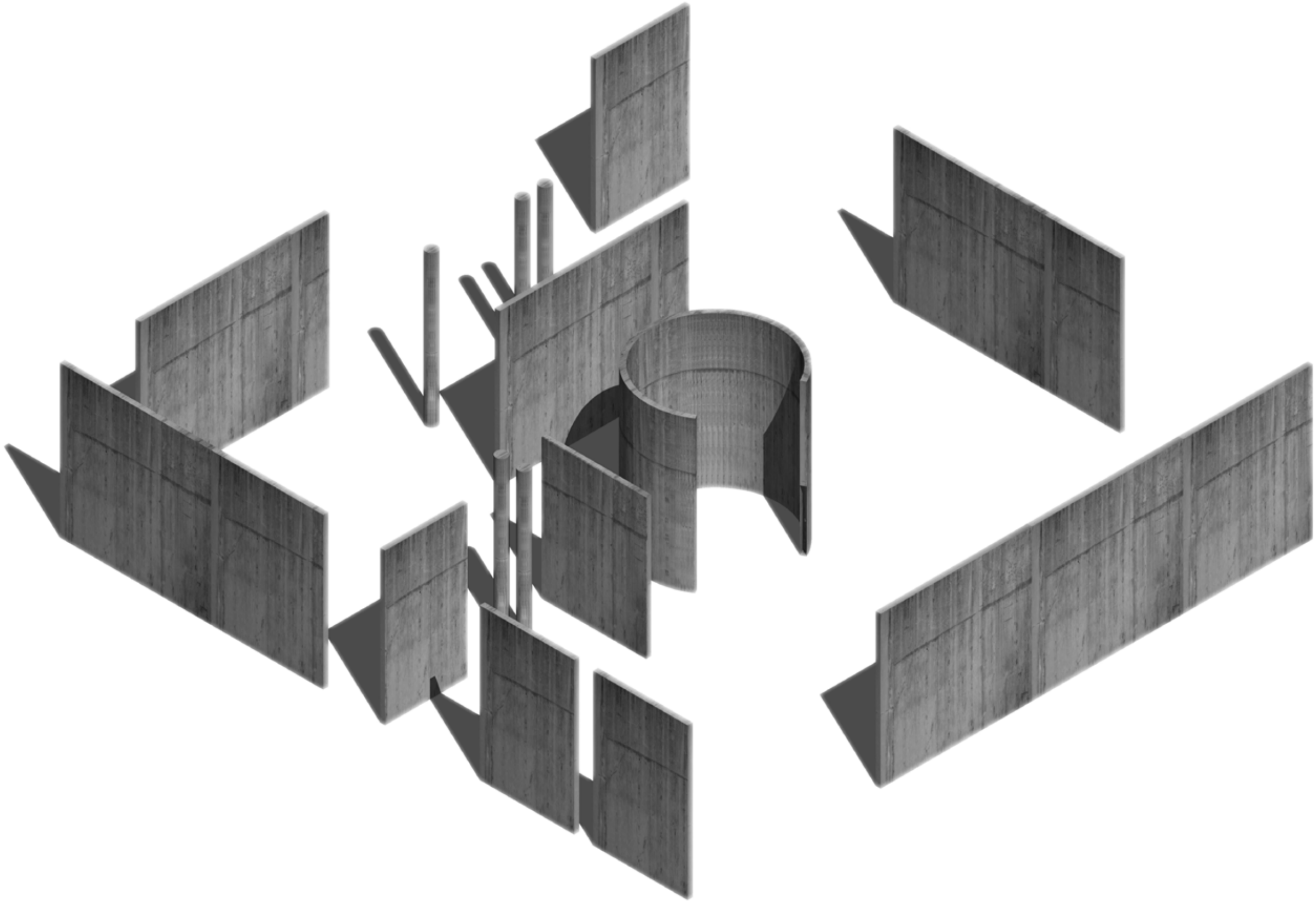
The metaphor of the ruin is realized through the concept of the architectural 'fragment'. Through this idea, the fragments are understood as autonomous elements that have been subtracted, added, rotated, translated, and detached. As a result of the geometric manipulation of these elements, the opportunity exists within each condition to communicate the inherent space-giving qualities. This can be seen in the juxtaposition of space created through the asymmetrical arrangement of parts.



Above - Old Sheldon Church, Sheldon, SC



PARK OF COLUMNS, CHARLESTON MUSEUM



MONUMENTALITY

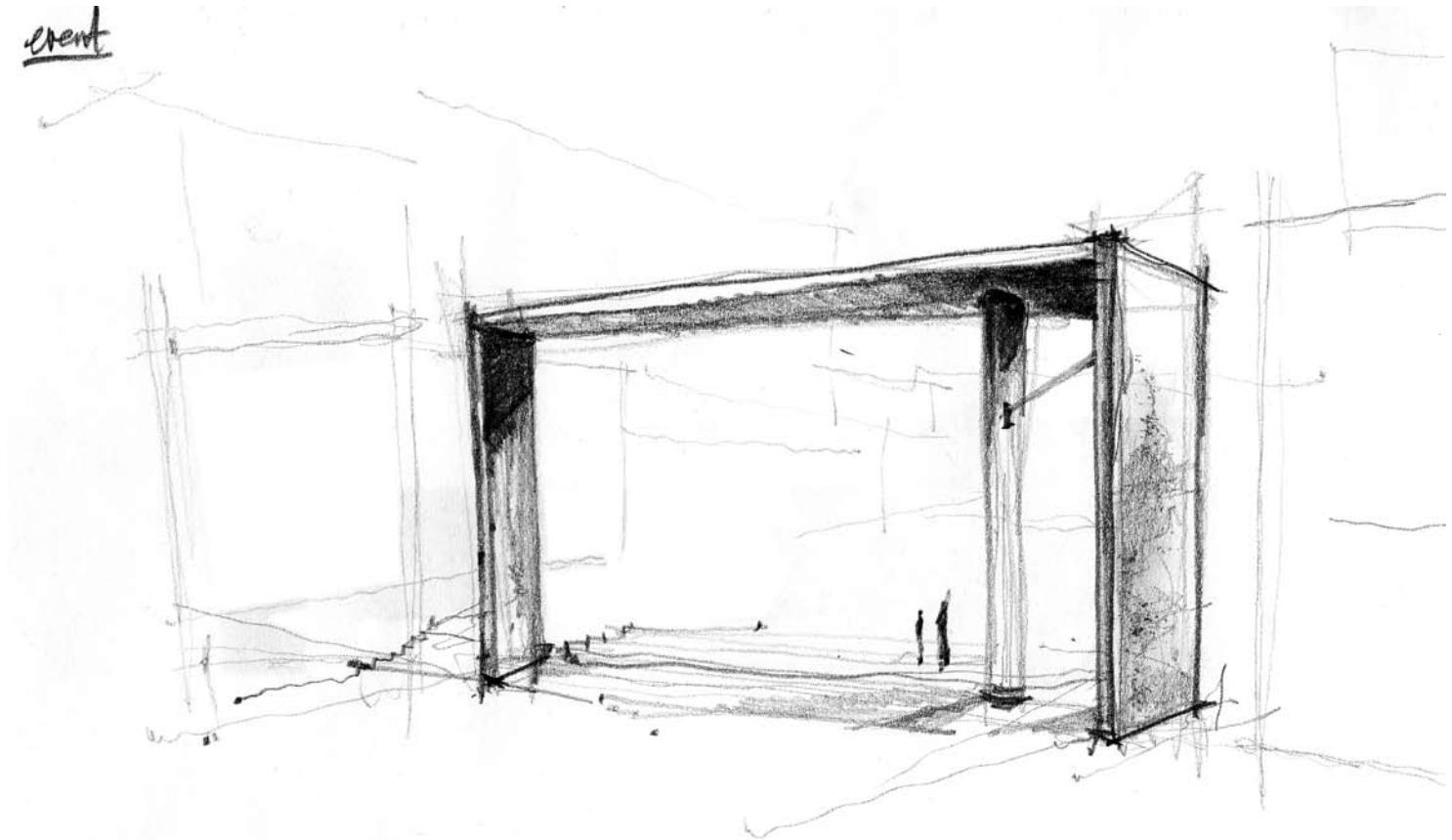
the loss of the recognizable

"Monumentality in architecture may be defined as a quality, a spiritual quality inherent in a structure which conveys the feeling of its eternity, that it cannot be added to or changed."

Louis Kahn, "**Monumentality**"

In architecture, monumentality implies that we expect something more from our buildings than mere "functional" fulfillment.¹ It should be noted that, as it is used here, the term "monumentality" is not limited to describing a building's mere height or physical presence but involves the lasting significance of an architectural image as a desire of architecture.

A need for monumentality in architecture arises from our evident decay of architectural expectations revealed to us by the present state of expected mediocrity. It is apparent that our current built environment often reveals a landscape void of any real significant meaning and value. The thesis project attempts to return the monumental forms and images of the past in an effort to reconcile with loss of meaning in architectural expression.





“Every site contains three places: the physical place with its earth, sunlight, and view; a cultural place, the locus of the traditions of human intervention; and a spiritual place, or that which we would call an evocative presence, which stirs our imaginations and sends us in search of images, memories and analogues. These three aspects of place roughly correspond to body, mind, and spirit.”

W. G. Clark, **Replacement**

How is architecture to contribute to an existing place that has established itself as historically, culturally, and politically significant? The intervention of architecture can serve to strengthen the idea of place by revealing to us the existing qualities within the contextual setting.² As Peter Zumthor states, “Every new work of architecture intervenes in a specific historical situation. It is essential to the quality of the intervention that the new building should embrace qualities that can enter into a meaningful dialogue with the existing situation.”



Above - Peninsula of Charleston, SC
base image provided by:
copyright 2006 Digital Globe
copyright Google Earth 2005

FORM AND CONTEXT

the particular

Site:

Charleston, South Carolina

404 King Street

Program:

The Charleston Center for the Visual Arts

a collection of spaces to support the visual arts community

The site is located at a point of critical transition within the city's historic downtown. This threshold links the historic image of the city south of Calhoun Street to areas of recent building trends and renovations to the north. The proposal is to replace the vacant Charleston County Library building with a collection of spaces intended to support local artists and students in conjunction with displaying permanent and traveling exhibitions.



Above - The old Charleston County Library

FORM AND CONTEXT the perception of place



404 King Street
site of the old Charleston County Library

Historic Marion Square



Elements

Spatial Concept → Relation of the individual elements (vs. intuitive volumes) as the boundaries / limits / relationships of transitions b/w [space] → to support the continuous flow idea. → fluid space

• How are they connected — related → How does Structure inform their relationship. (ENCLOSURE)

• Spatial Complexity through Arrangement.

- Transition
 - boundary
-
- Wall
 - column
 - Stair
 - Roof

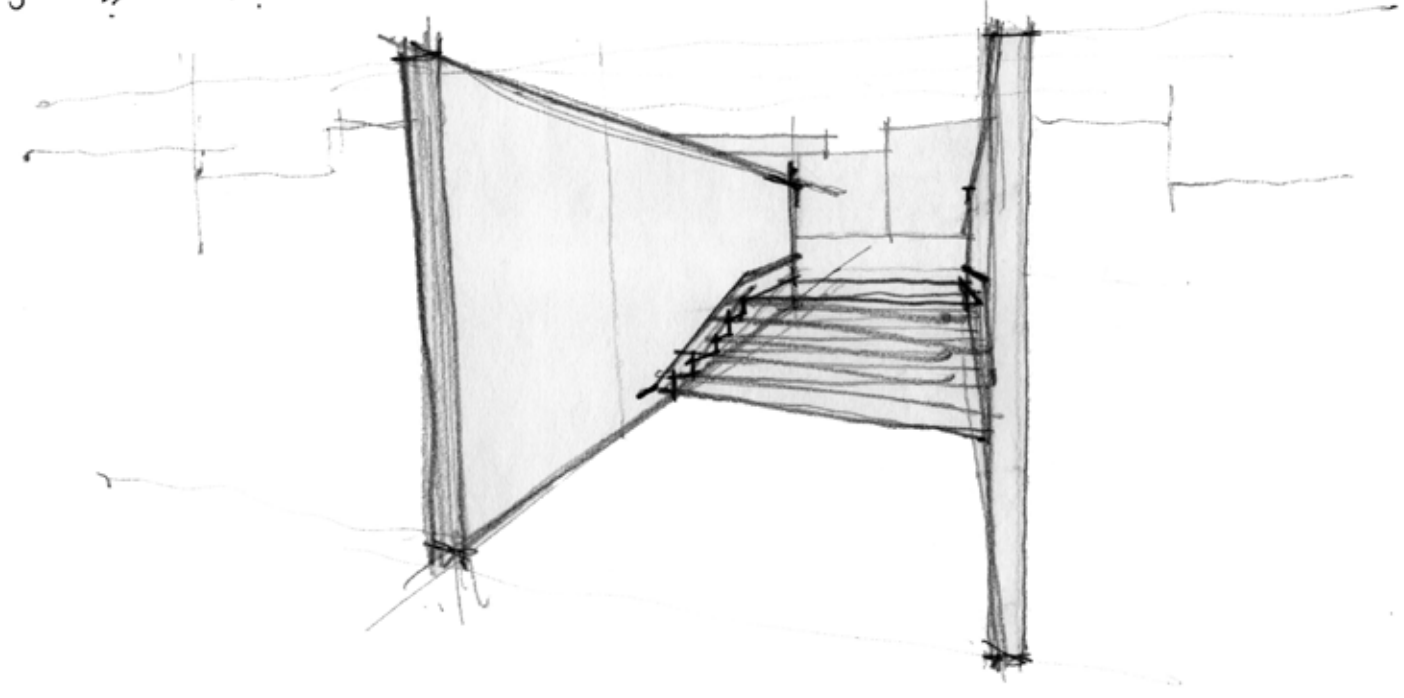
- Change to the Choral Choir.
 - Implied Structure — what could be there? what should be there?
 - Fragment
 - Extension of building structure to ext. → implied space.
 - Excess — delight
- BUILDING AS "EVENT-GENERATOR"
- CONTEXT → INFLUENCE ON FORM
- SOCIAL PROGRAM

Program → guided by the need for a ~~space~~ public space together.

- Also to strengthen the adjacent square.
- Study will be on the impact the ~~new~~ athenaeum has on surrounding streets, square, pedestrian ~~footpaths~~, [scale], movement, culture, history, [education], [informal]

Study

- Walls → of city
- columns
- structure
- Museums & clubs.
- library
- Auditorium



WORKING WITHIN THE LIMITS OF CONTEXT (what are implicit rules?)

↳ Imposing "OUTSIDE CONTEXT" at same time.

- Relationship b/w the (2)
- Can they inform each other.

BOUNDARY

design

↳ Arranged internal by program.

Narrative...

↳ Isolated elements

• Fragments

↳ [This is loaded for me.]

↳ continuous spaces

Column

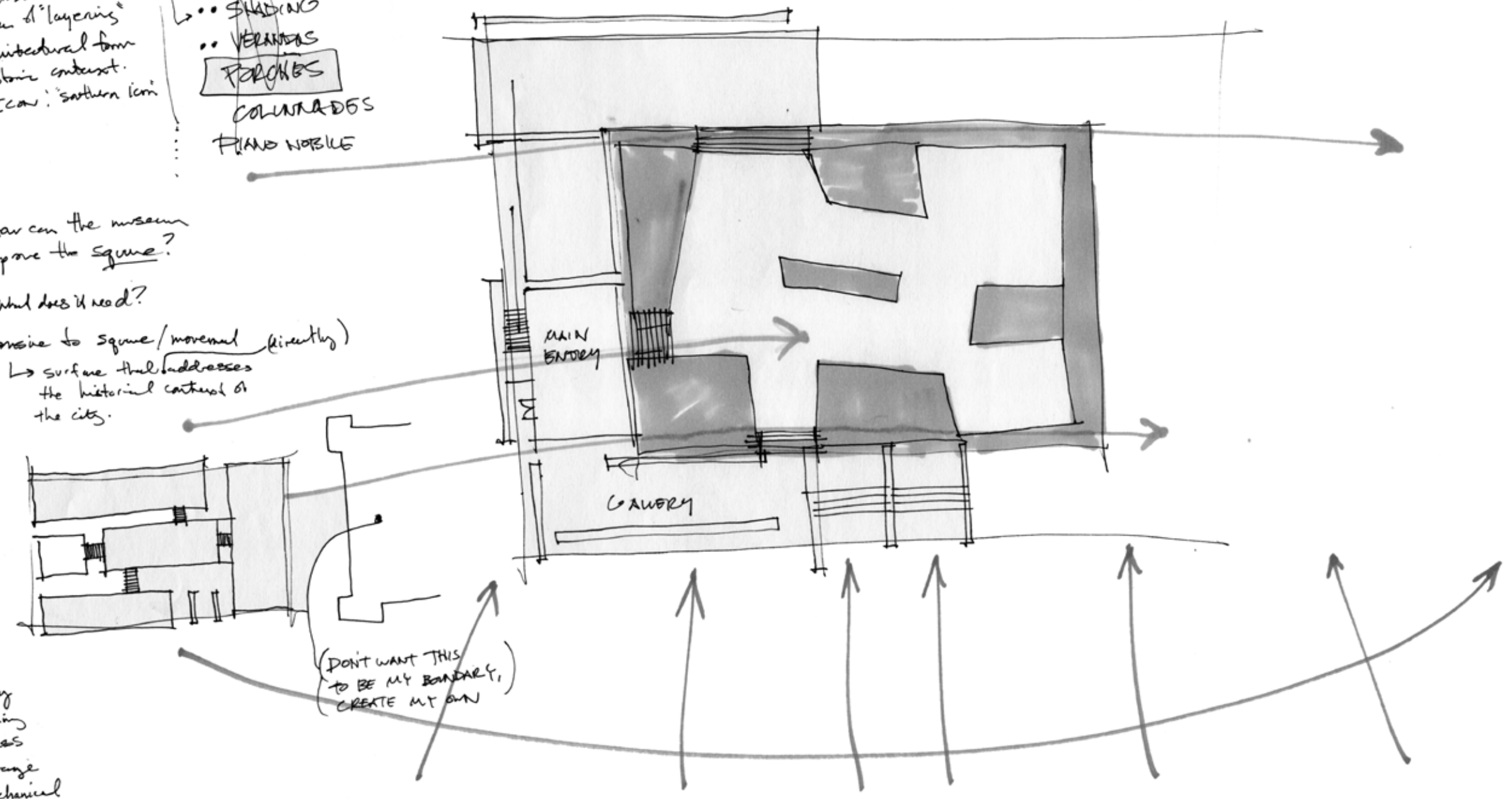
- space delineator
- contributes to the idea of "layering"
- Architectural form historic context.
- Icon: southern icon

- IDENTIFIED ELEMENTS
- EAST - WEST ORIENTATION
 - BREEZES - NATURAL VENT
 - * SUN -> SOUTH FACING -> LIGHT CONTROL
 - COURTYARDS
 - SHADING
 - VERANDAS
 - PERCHES
 - COLUMNADES
 - PLANO NOBILE

- Perception of place.
- Movement
- Filter of light - people - transition - layer
- In-between space / transitional spaces.

How can the museum improve the square?
 ↳ what does it need?

• Responsive to square / movement (directly)
 ↳ surface that addresses the historical context of the city.

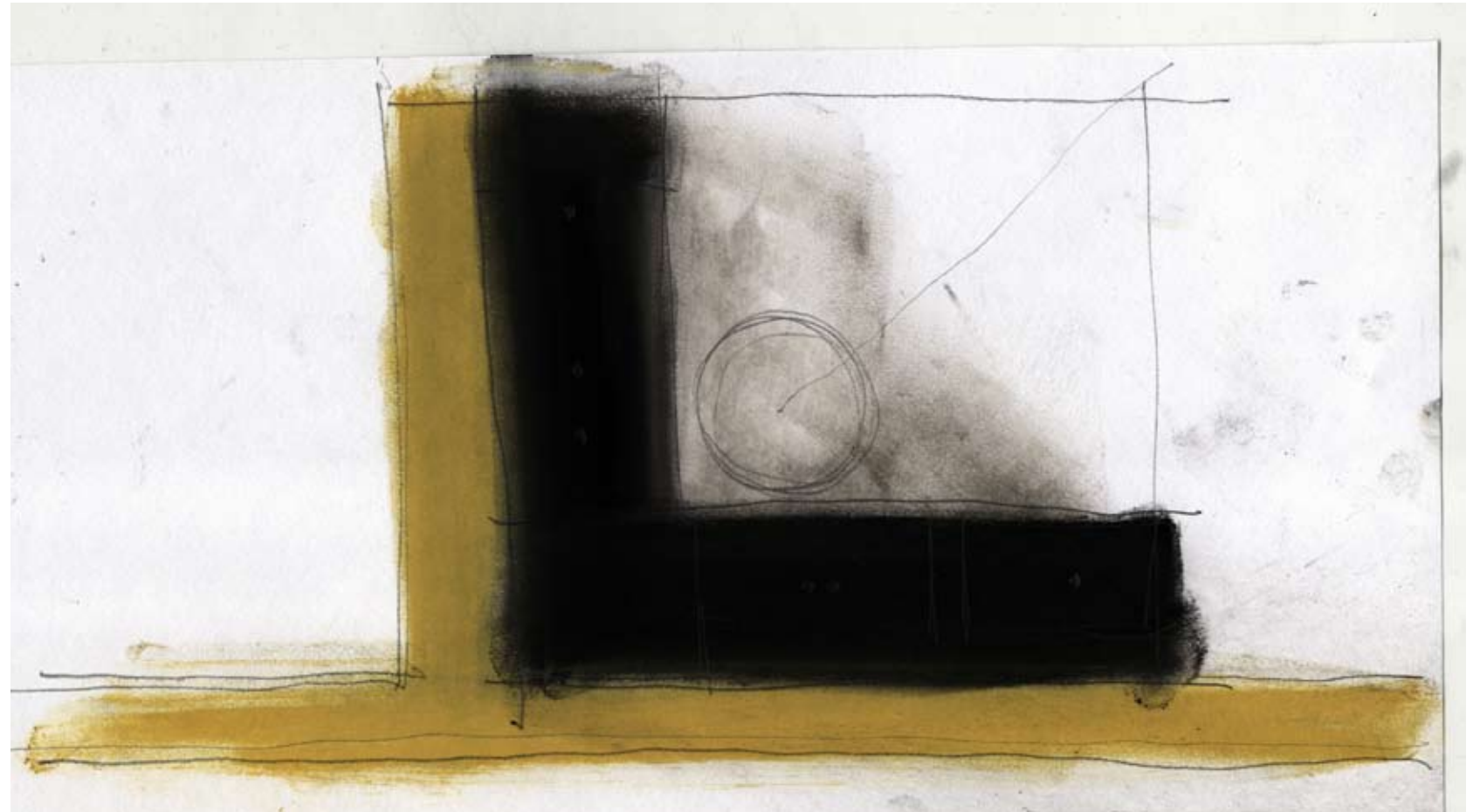


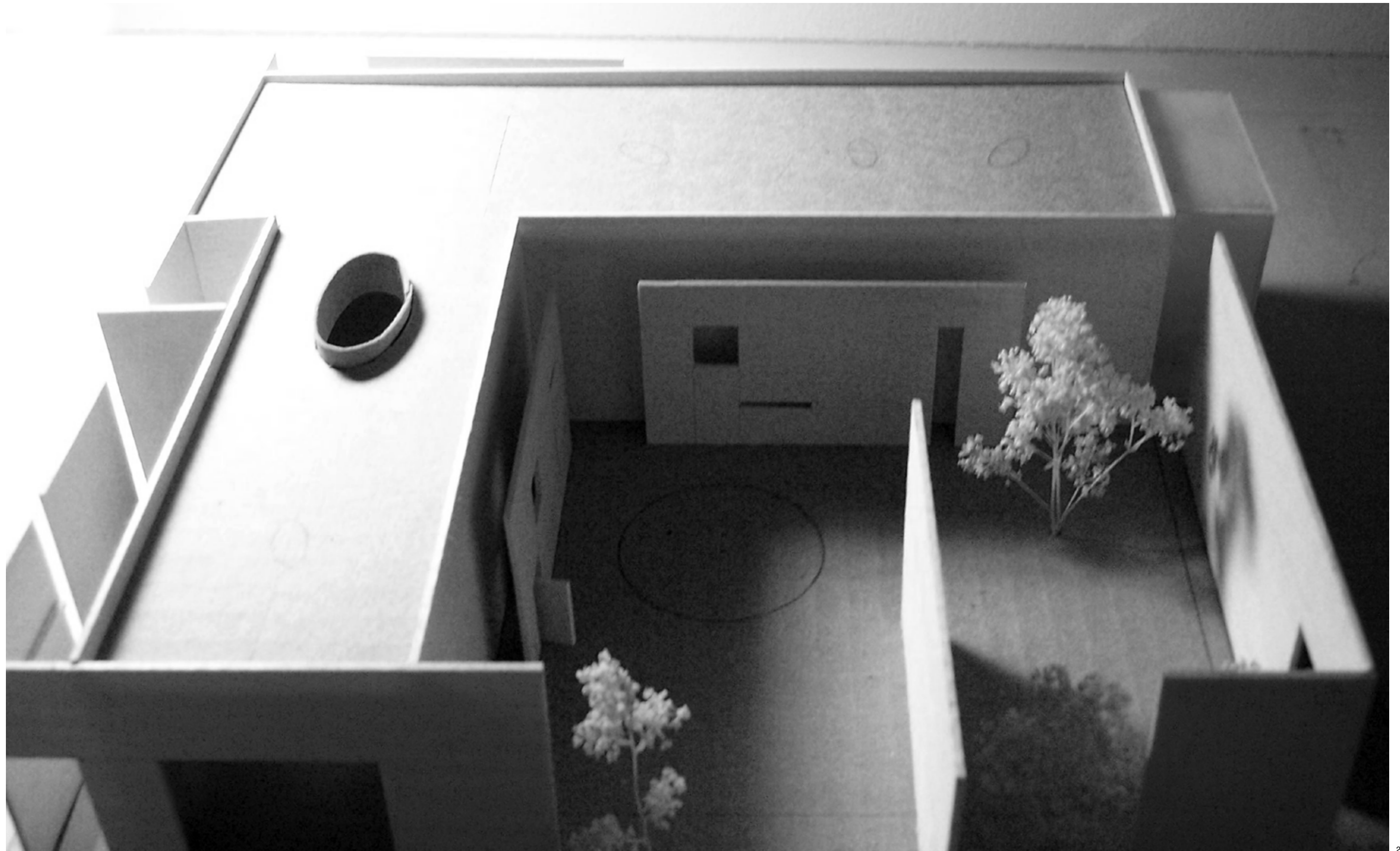
- Entry
- loading
- Egress
- Storage
- Mechanical

FORM AND CONTEXT

geometric construct

The form of the building begins with the image of the city. The building footprint is derived in part from the geometry of the site following the defined edge of the existing city block. The initial form is based on a desire for symmetry and references the classical model of a circle within a square. As the program took shape, portions were subtracted, added, and extruded to appropriately accommodate the site and building functions.





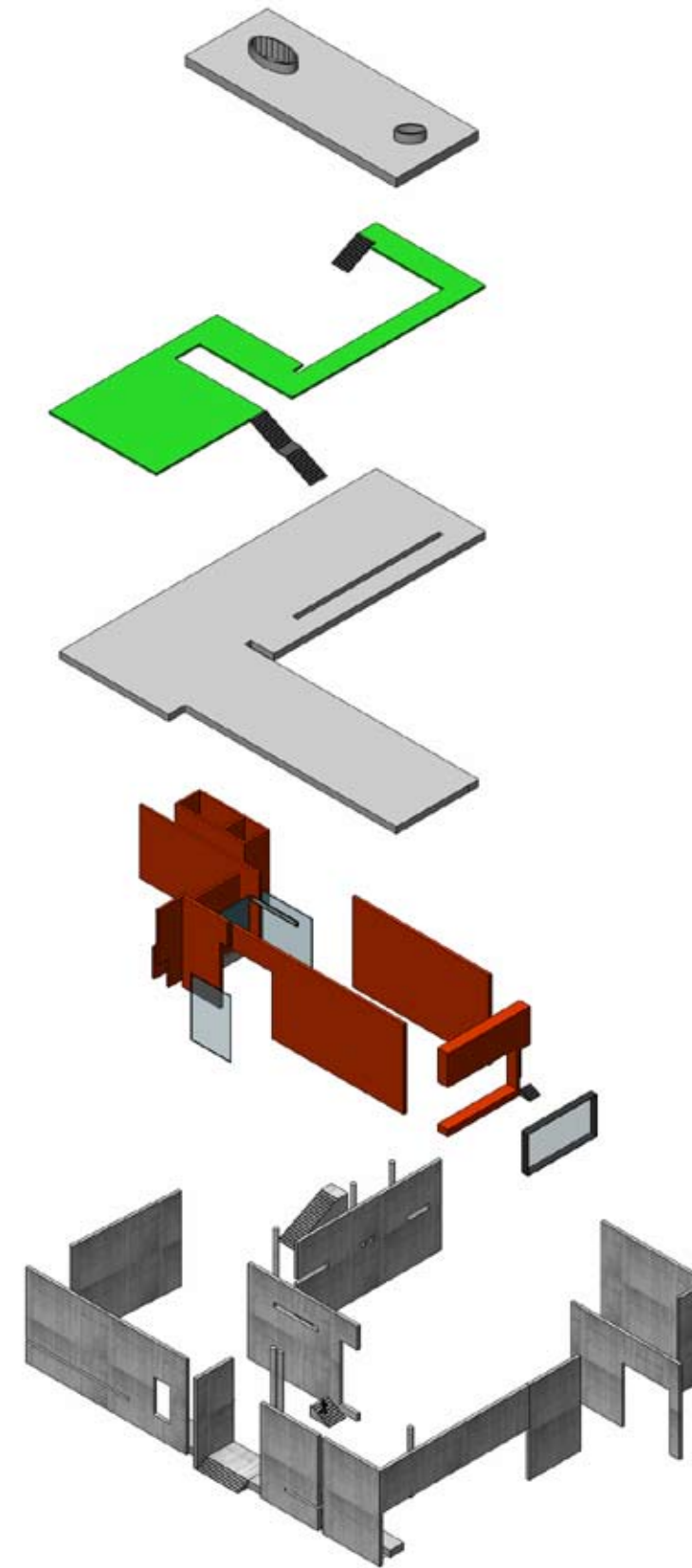
SPACE AND FORM

the complexity of space

“Space is nothing else than the form of all phenomena of the external sense, that is, the subjective condition of the sensibility under which alone external intuition is possible.”

Immanuel Kant, **The Critique of Pure Reason**

Architecture inevitably begins with thoughts of space. These spaces are particular to an ideal situation and though yet unrealized by specific shape, are the first attempts at understanding the nature of form. Space is the precursor to form; it is the uncontained medium through which all material relationships exist. Through the ordering of these abstract spaces we begin to define the boundaries of architectural form.



SPACE AND FORM

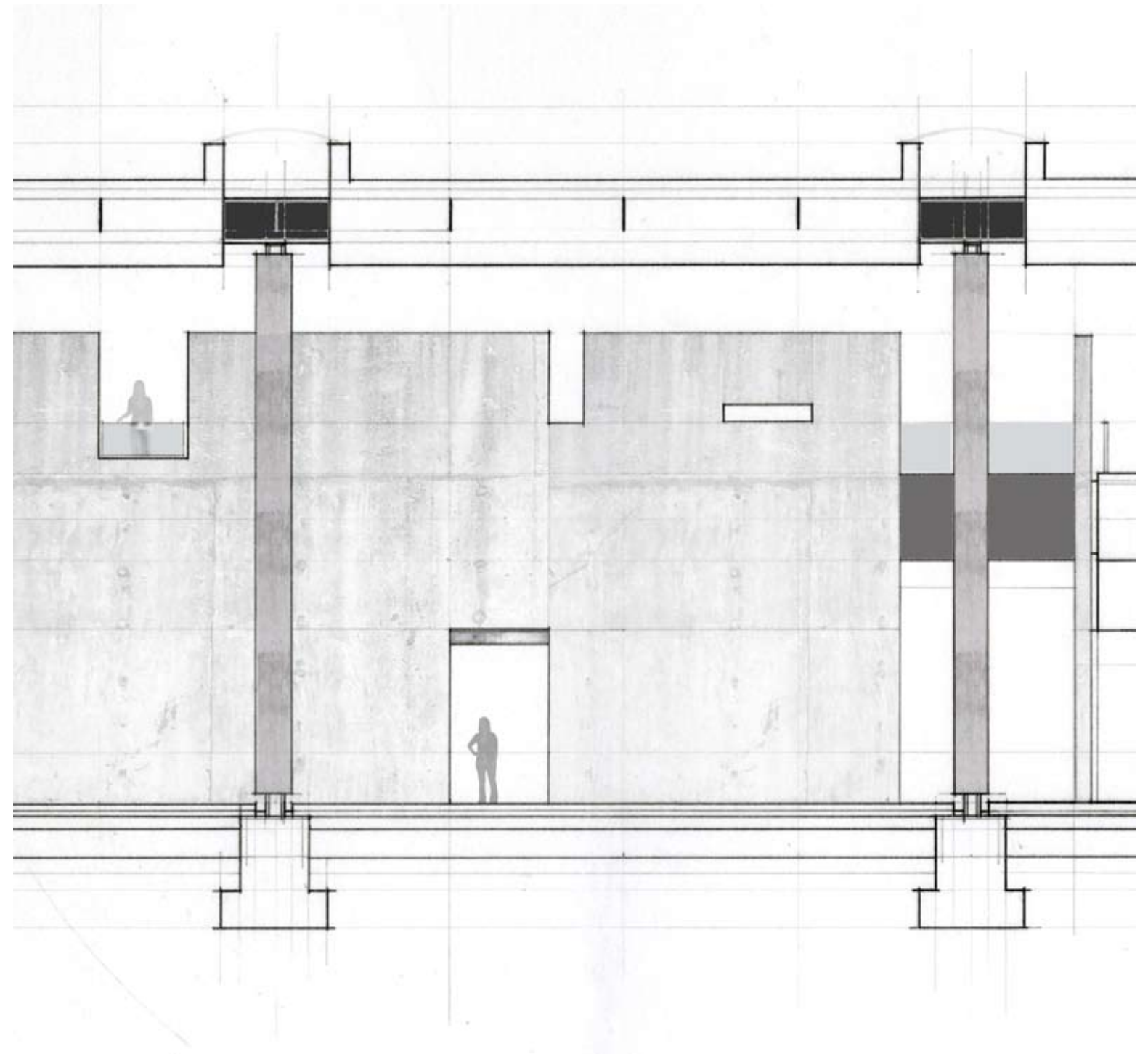
tectonics and the need for expression

"A tectonic experience, however, conveys both a sense of the necessary and freedom. It conveys a sense of the necessary because order is delimited by the form-giving capacity of the materials used."

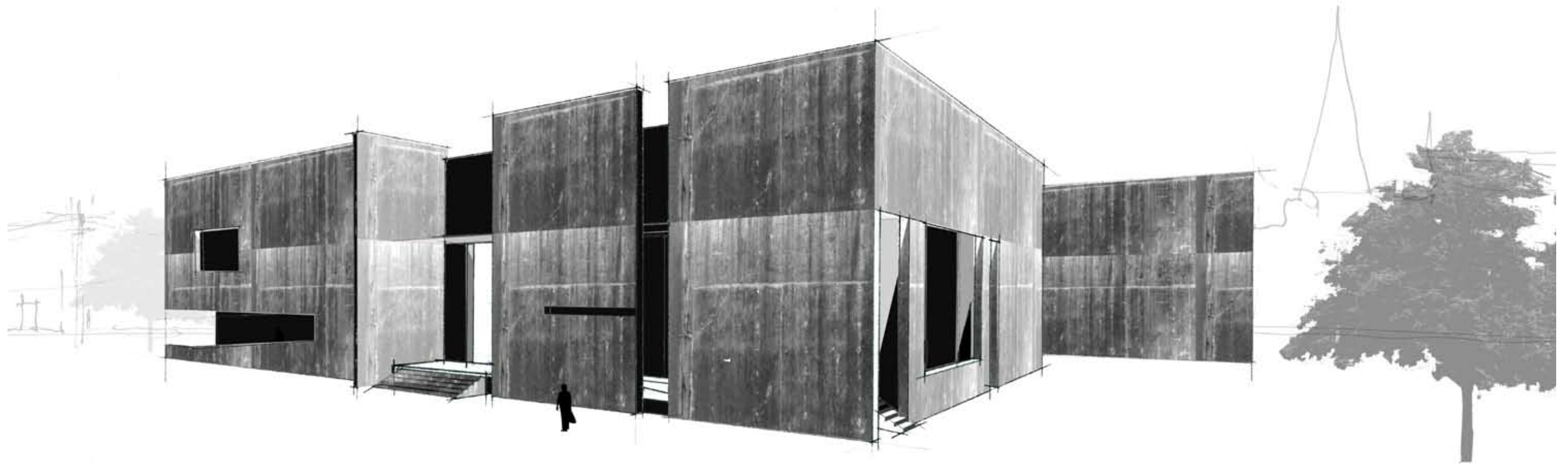
Demetri Poryphyrios, "**Classical Architecture**"

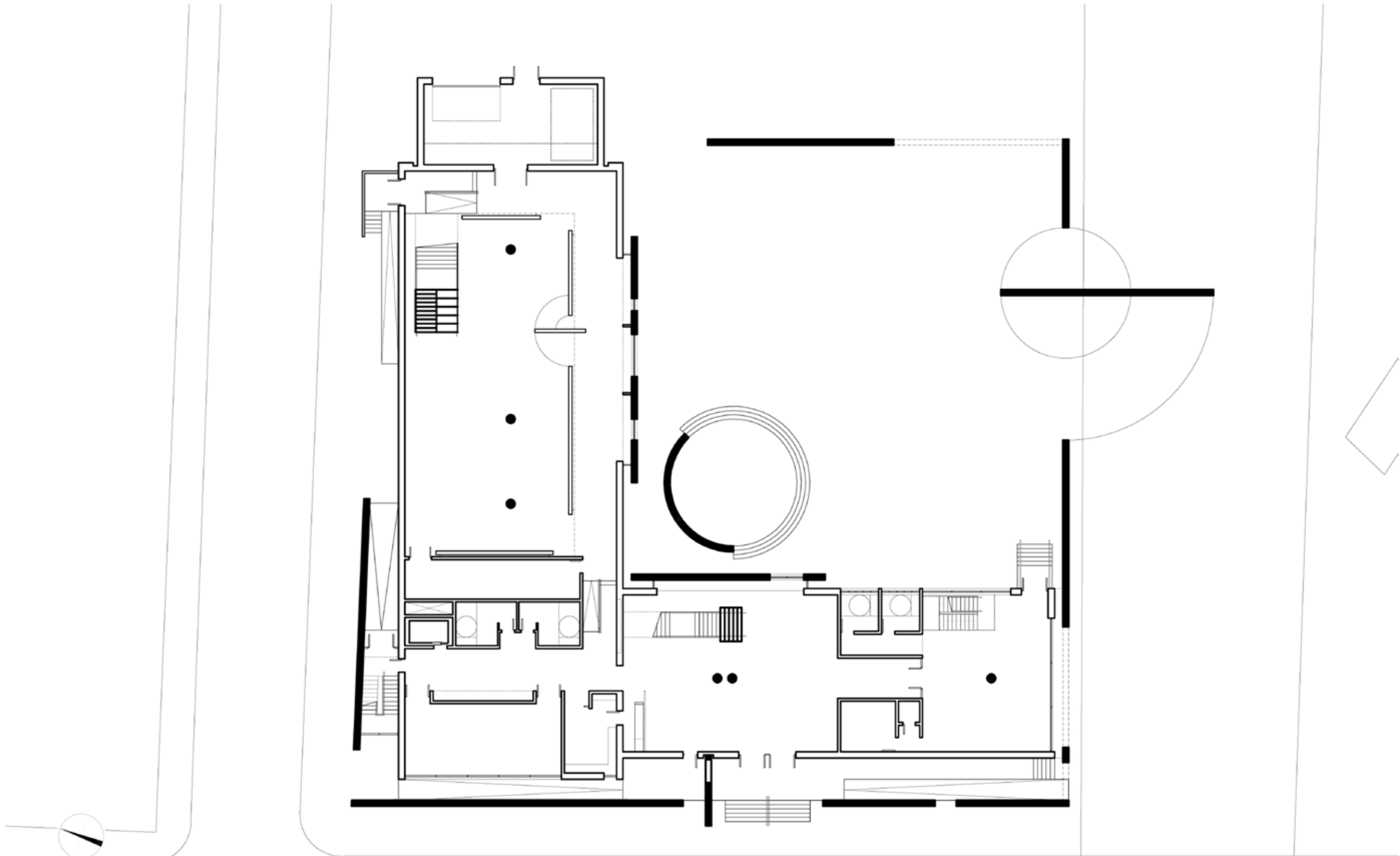
The outward appearance of the building conveys a visual desire for physical permanence. The exterior fragment walls are constructed of cast-in-place concrete. For the remaining enclosure, reinforced concrete masonry cavity walls are used to support the roof structure consisting of steel beams and skylights.

Throughout the building, the expression of structure is communicated as a way to inform the space. The placement of columns within the building coincides with a series of roof-top elliptical skylights. At these moments, natural light is introduced as a way to heighten the visual experience of the column-beam intersection.

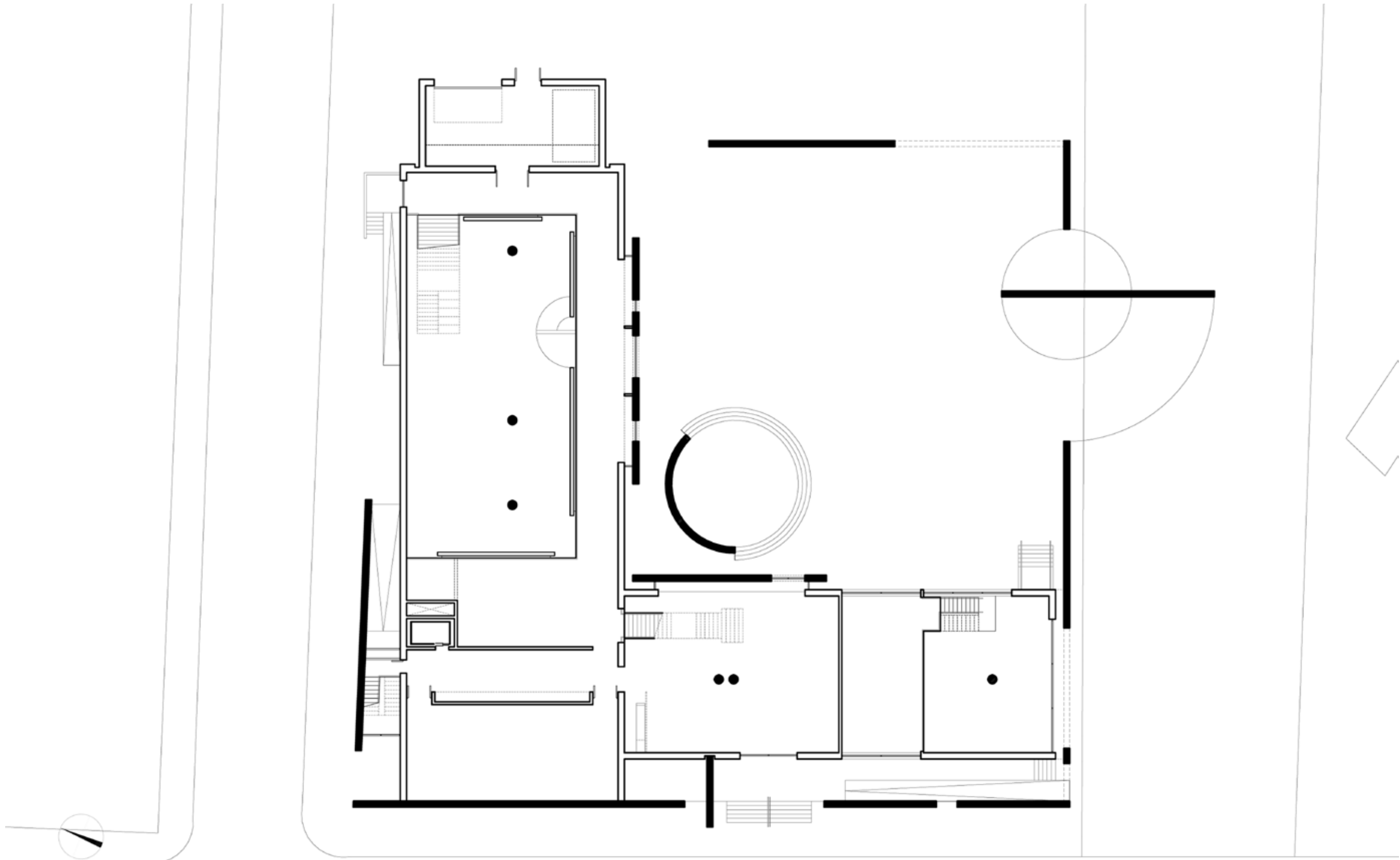


REALIZATIONS

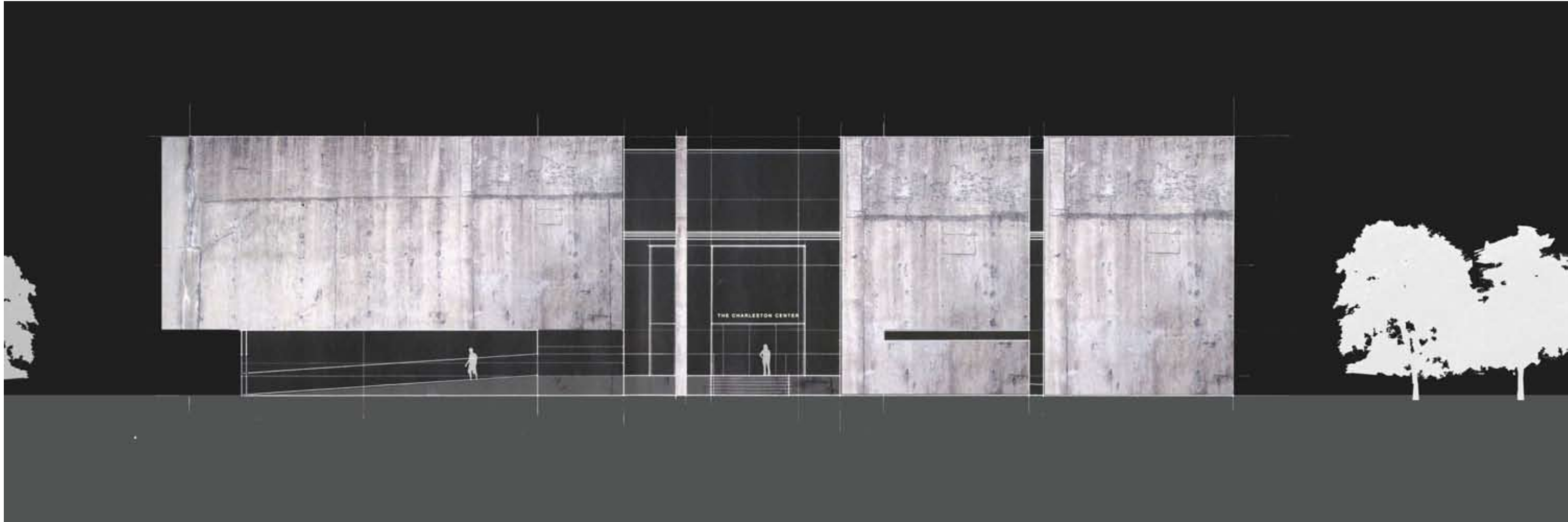


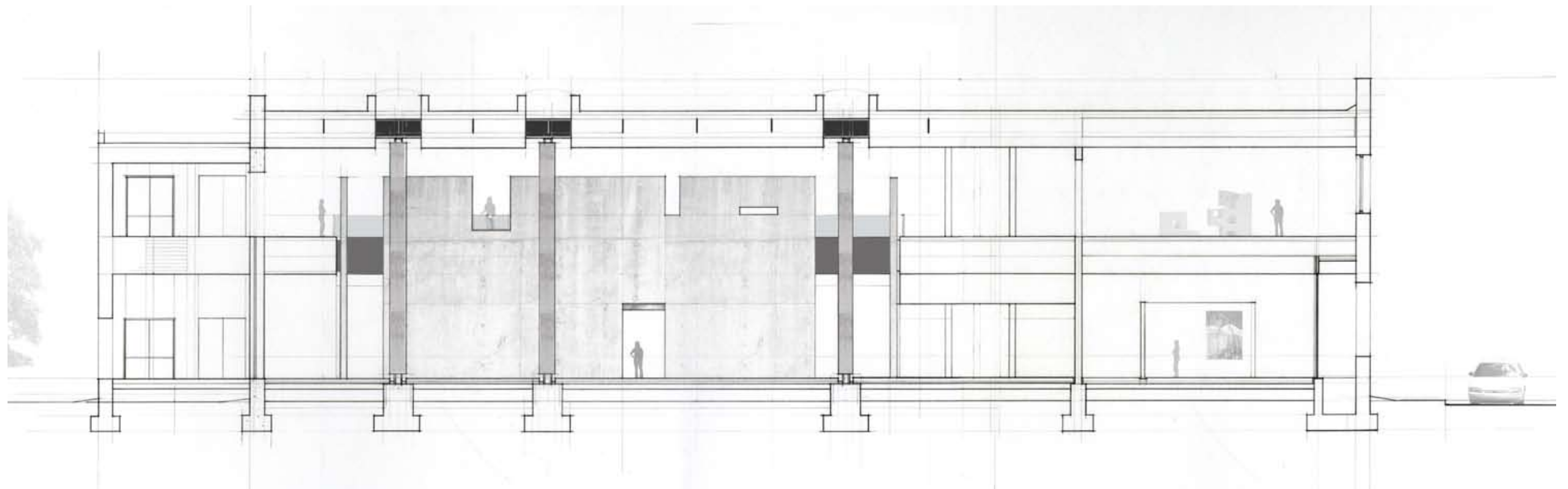


1ST FLOOR BUILDING PLAN

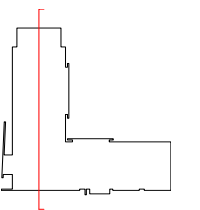


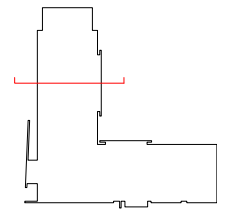
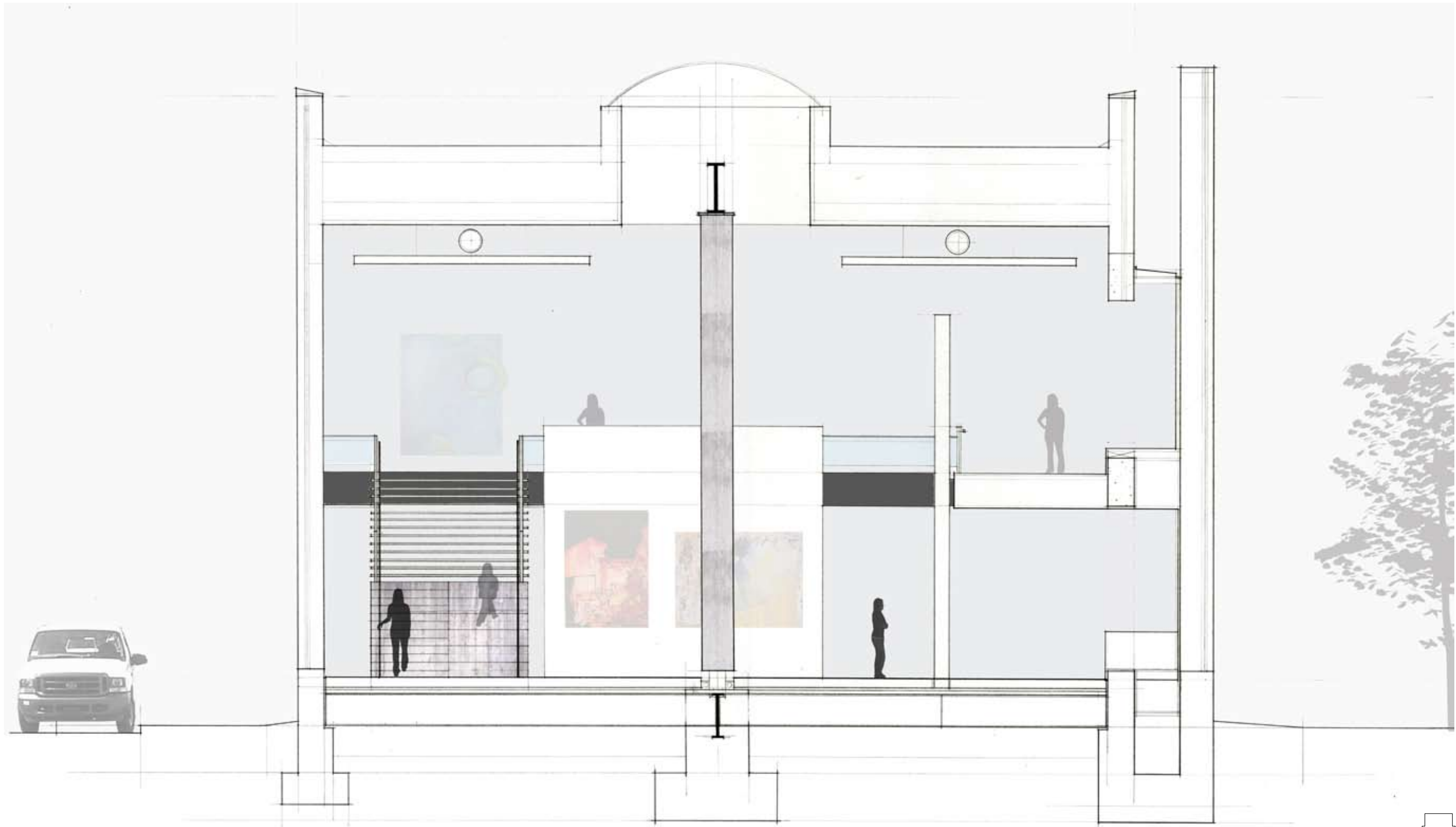
2ND FLOOR BUILDING PLAN





BUILDING SECTION EAST





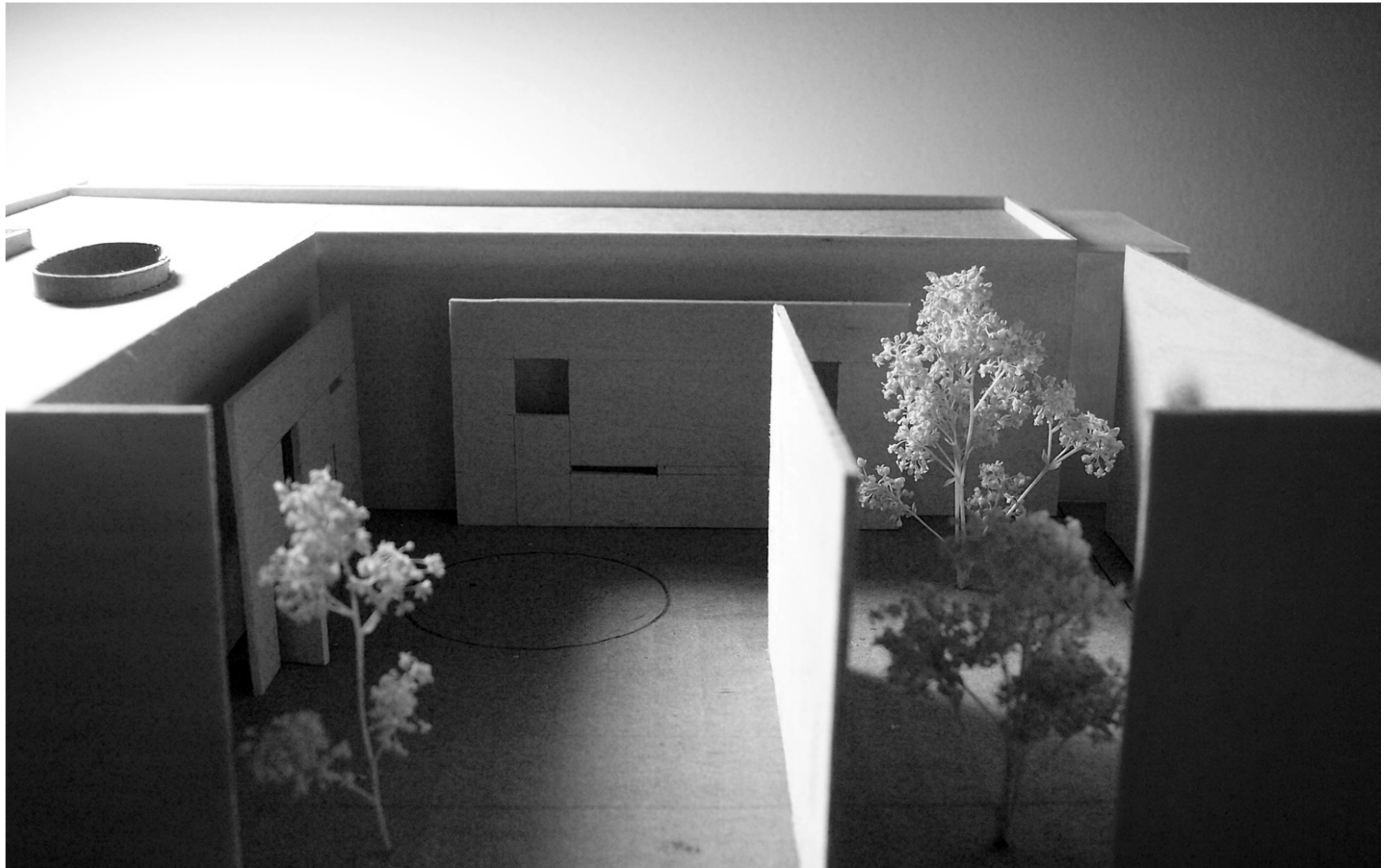


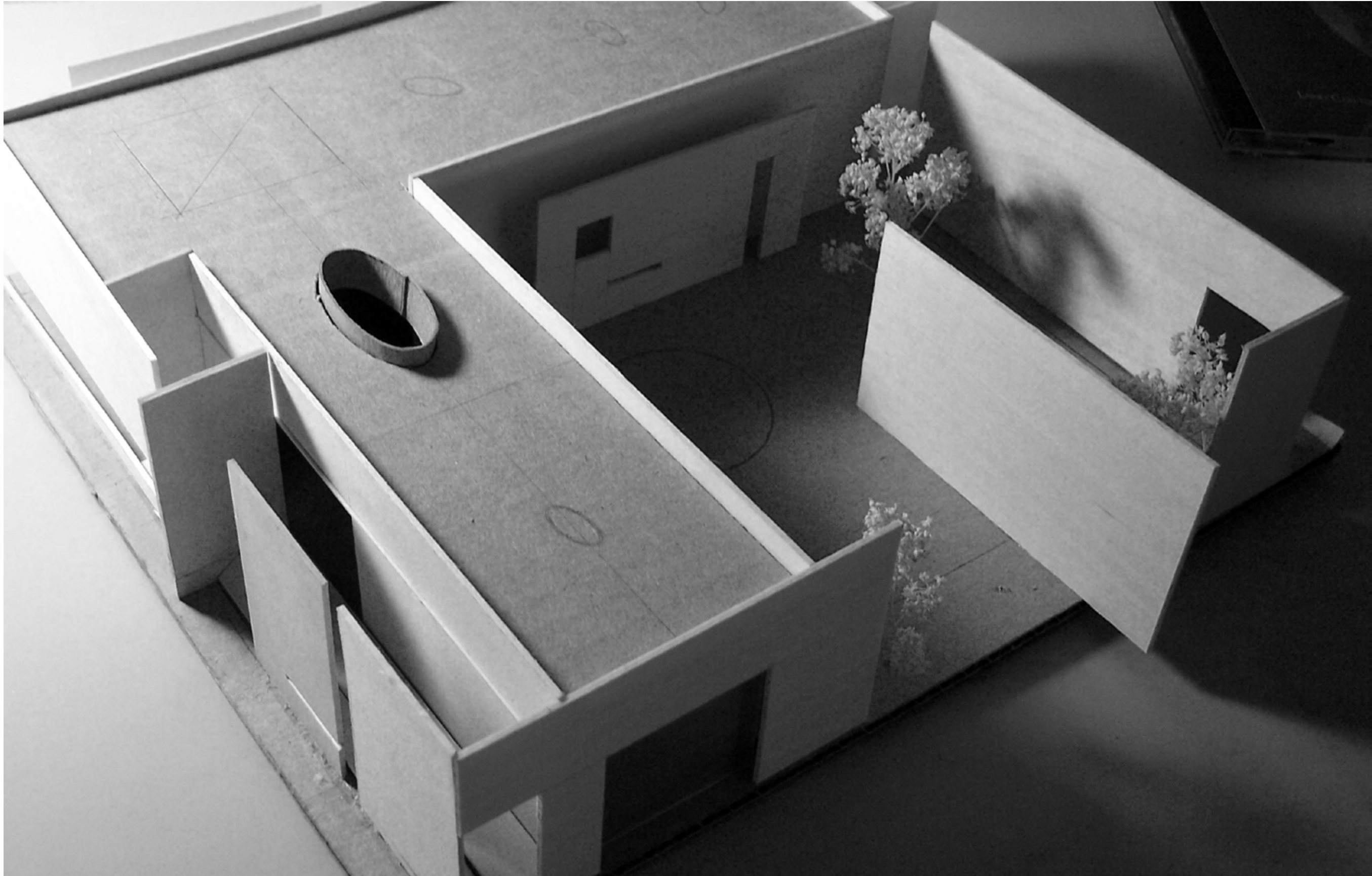
ENTRANCE HALL



EXHIBITION HALL





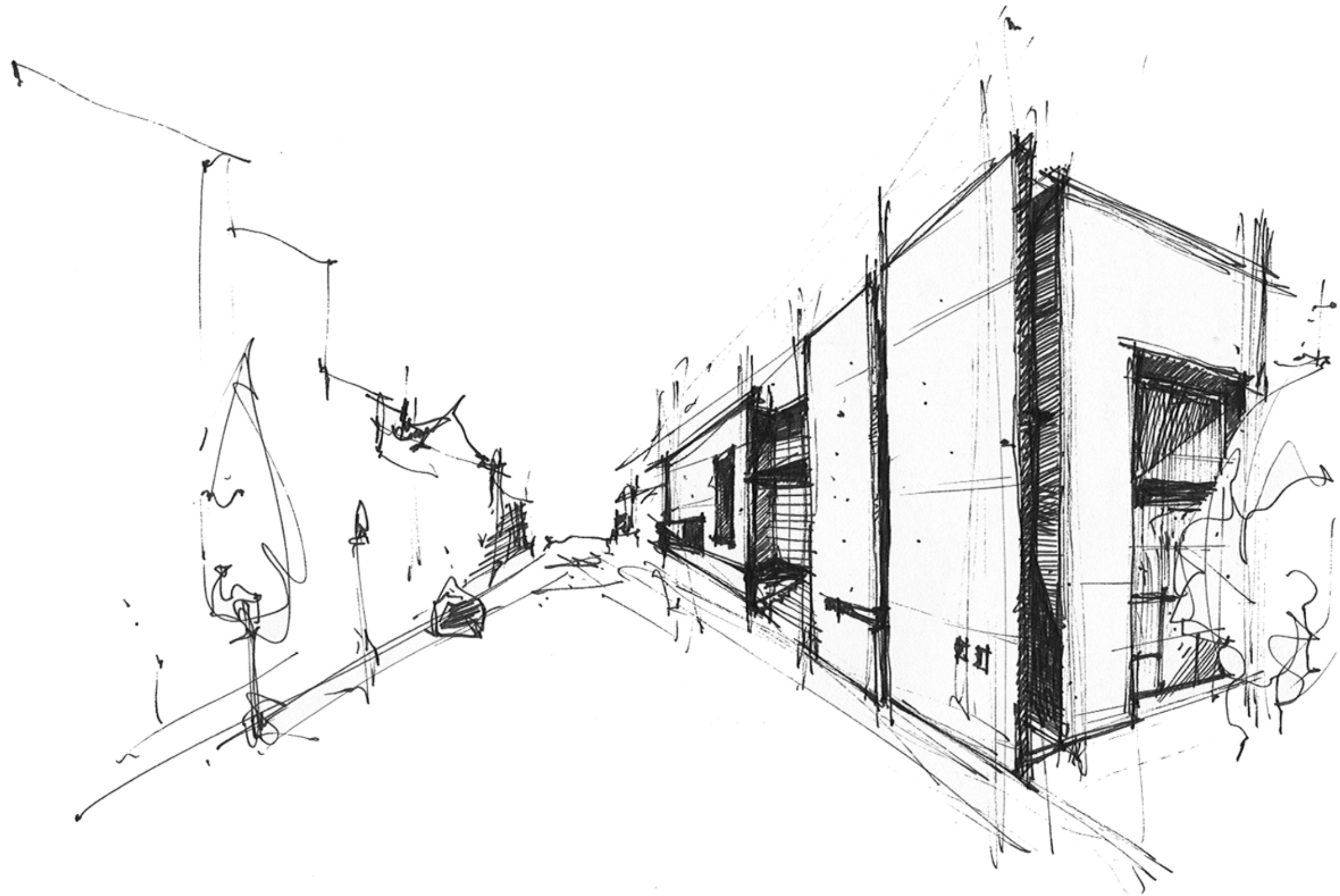


APPENDIX OF IMAGES

SKETCHES

STUDY MODELS

NOTES



A MODERN VERNACULAR

WHAT IS VERNACULAR

Responding to the existing forms of the earth

↳ is this [external] only? CANNOT BE!
 ↳ FORMAL CONDITION → Symbol

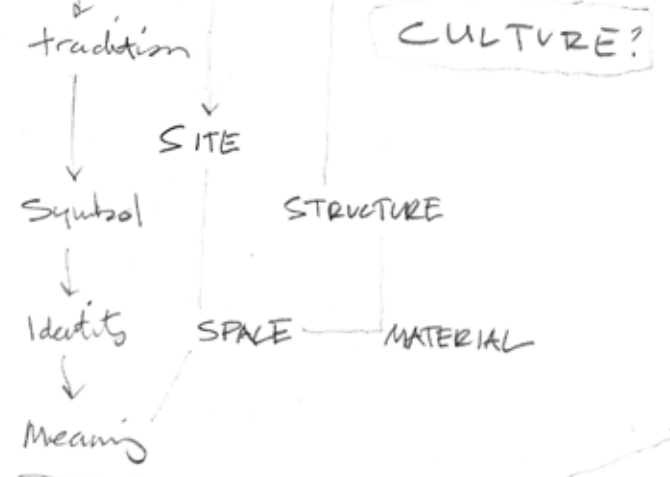
Culture

↳ How is this addressed

Identifiers

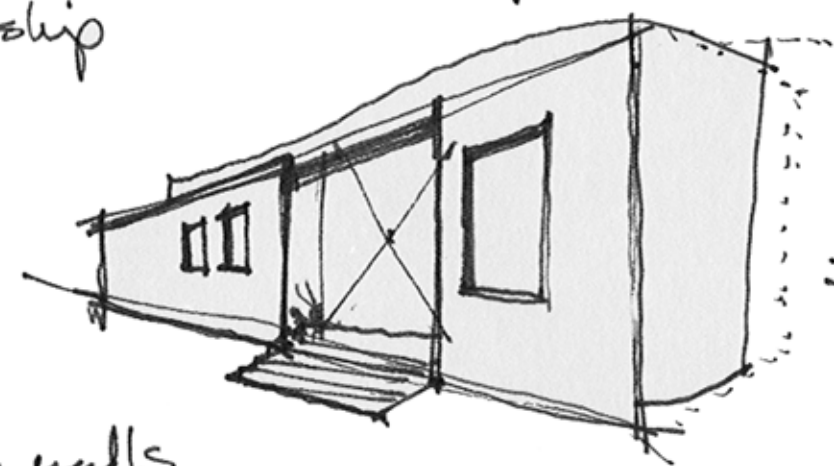
'PLACE' SITE, [SPACE, STRUCTURE, FORM]

VERNACULAR FORM

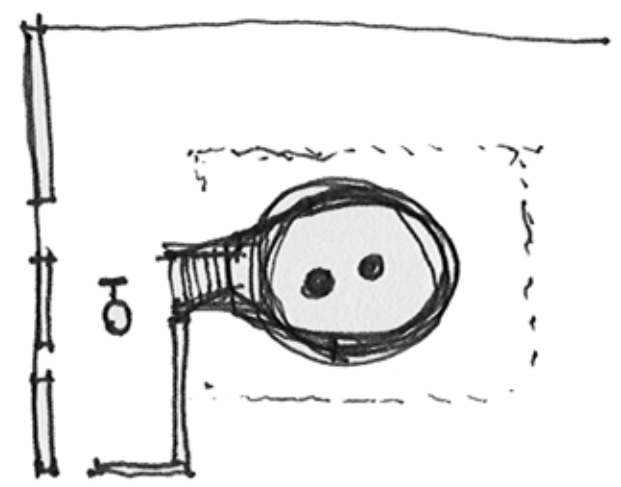


Role of existing buildings to New buildings

critique
 natural and the man-made
 ↳ relationship

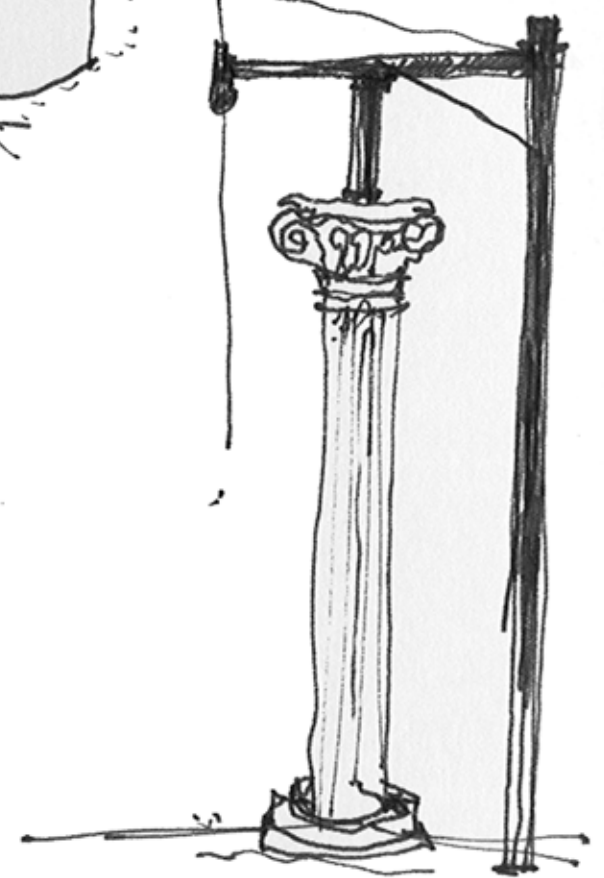


only walls
 and stairs → remain
 ↳ pediments



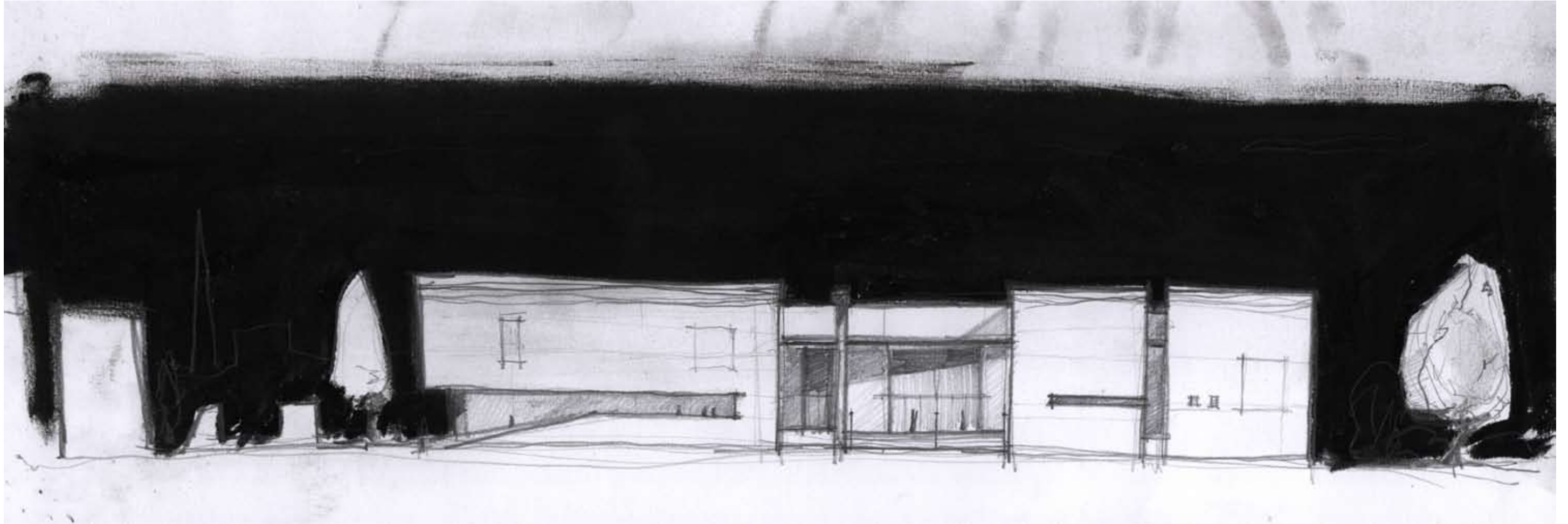
↳ technocratic metropolis

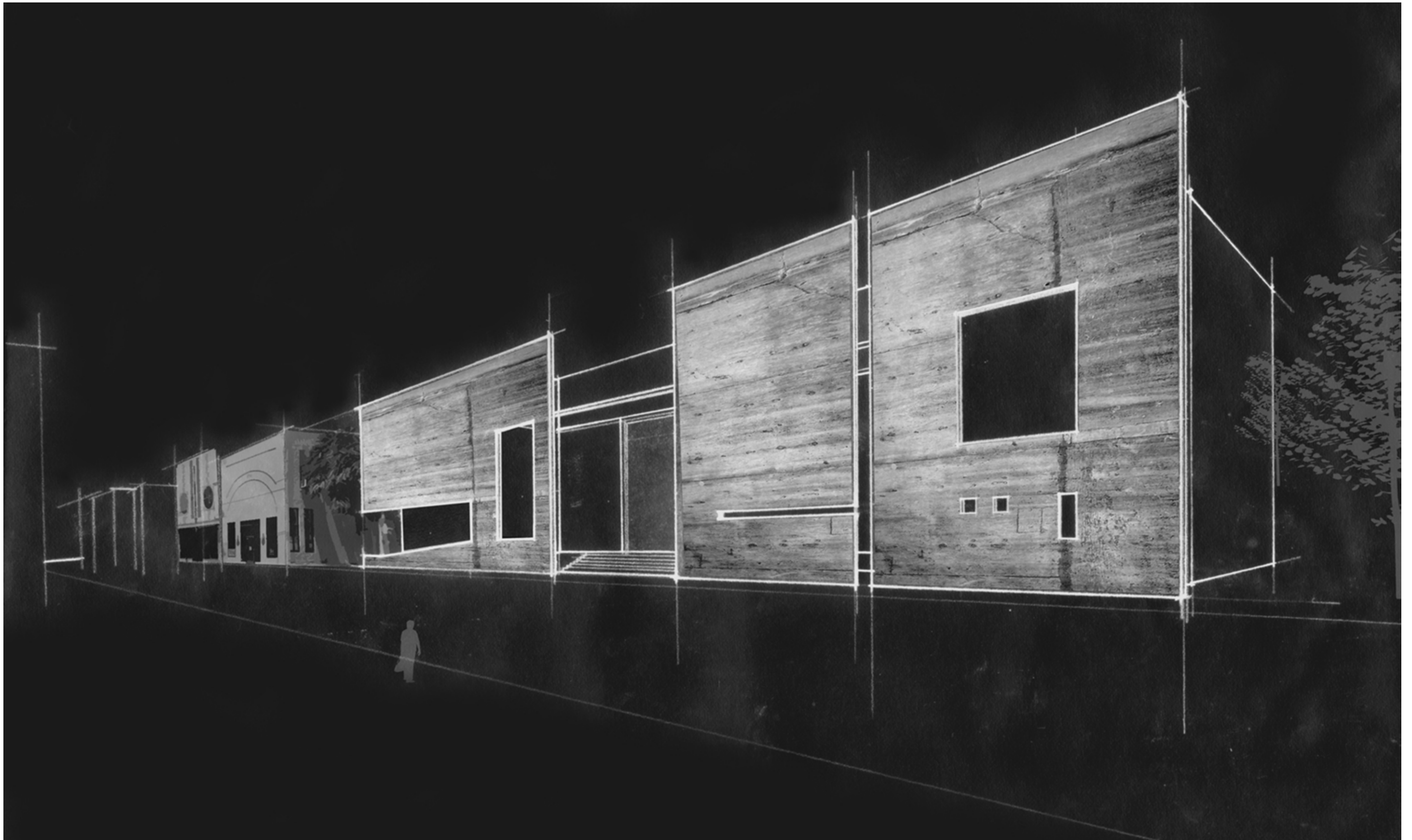
↳ lack of choice
 in movement



Concerns w/ Brochure cities

Schimkowitz (sculptor)





What people get attached to is ^{the Icons} the [symbol] and ornament → what is existing in classical arch that should always be acknowledged is the scale, proportion, tectonic qualities of the wall, column, stair, roof. → elements of Arch.

Classical arch

It does not mean the same thing for us. But the universal qualities inherent in classical forms are.

• Deny the order of the imitation. (surface treatment)

• Rethinking Space in democratic style is a heteronomous imposition on arch → identical universal terms. → appropriate to spiritual function.

"Image of class" → this is what I am reacting to.
"Image of home"

Modern Arch. — Autonomy of the human spirit

How I do relate to class: [Extend the possibilities of the material] → what are the modern possibilities?
 • Scale
 • Proportion
 • Climate
 • Material [honest interpretation]

* I thought illusion was valued — this is shallow, surface understanding by alluding to a copy of a copy.

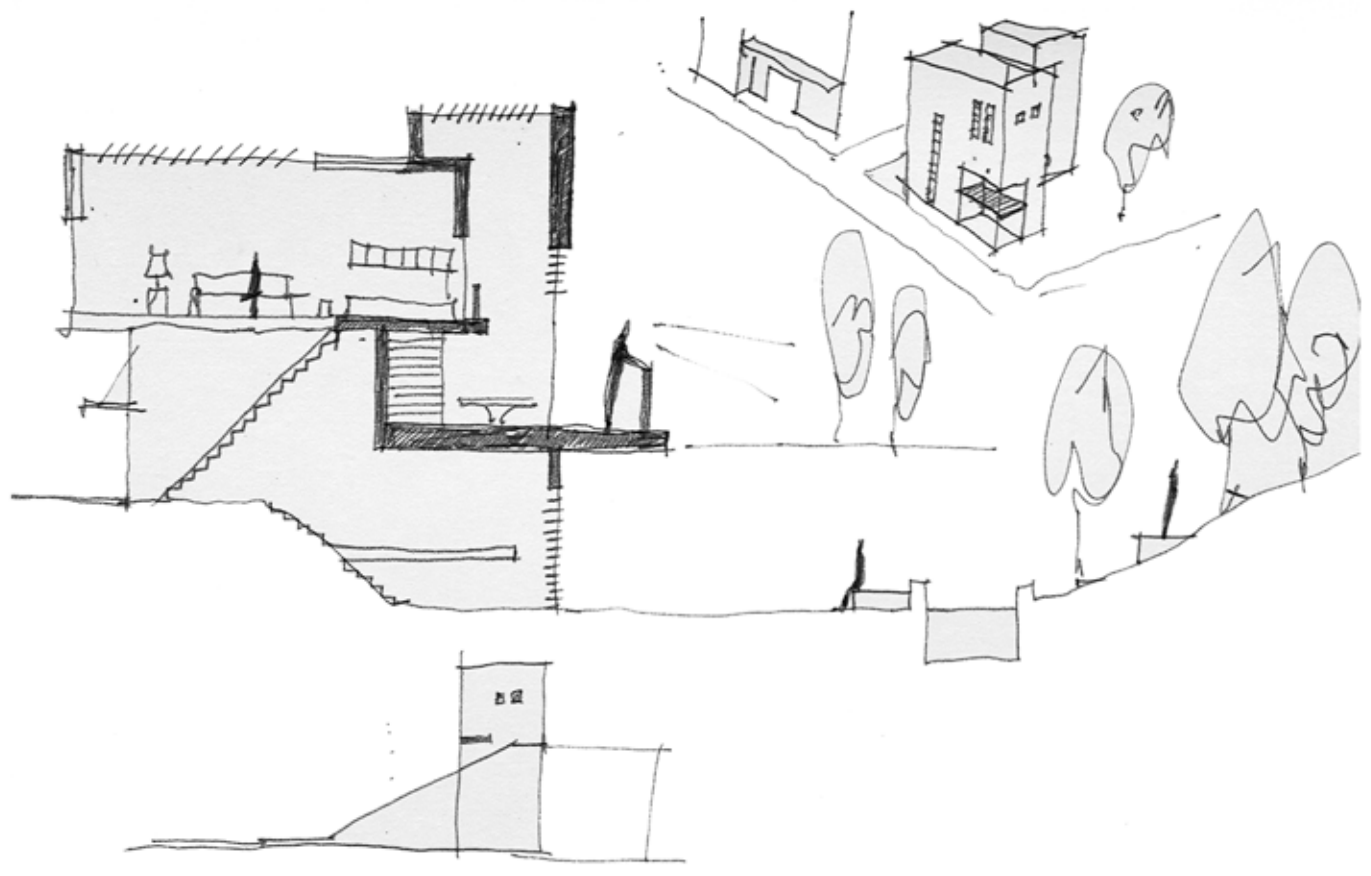
If we allude — be honest — don't allude to "images".

Allude to spirit → universal qualities.
 → Reaction against external images → surface treatment "cast-iron arch."

Dematerialization → material qualities
 Ask Hani about this again. why stone building is not wood construction.



-Semper - 4 elements of arch
 - what does the material want to do?



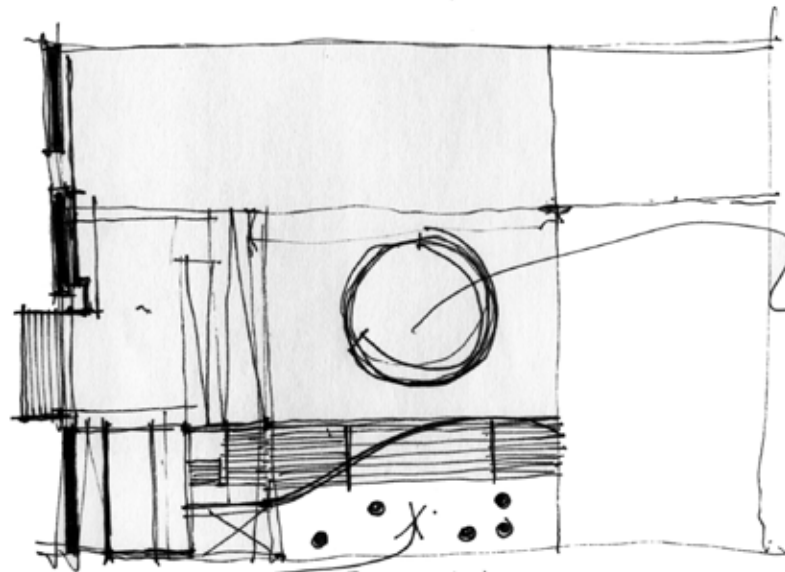
E, TRANSPARENT, PROGRESSIVE

→ Reaction, Response

to the universal (1d ~~order~~ urban continuity rooted in historical context.

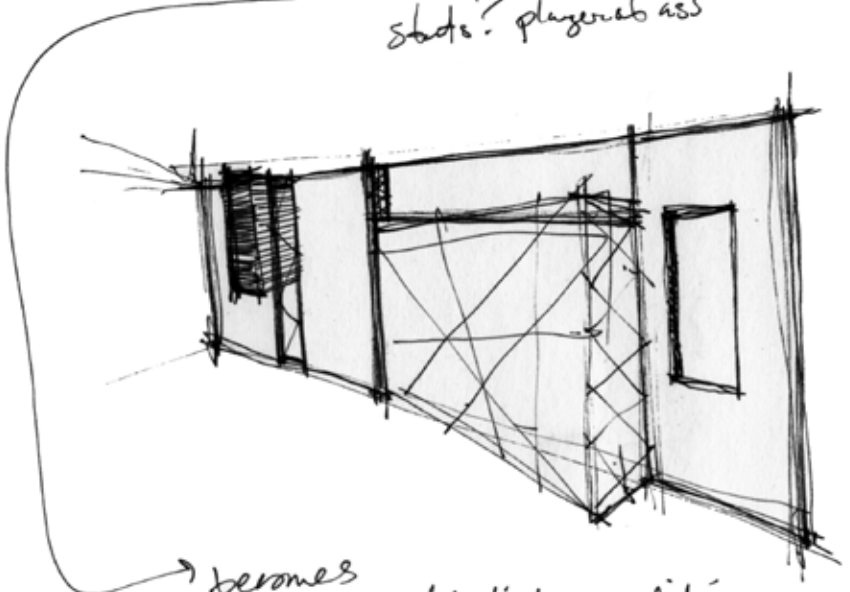


404 KING STREET

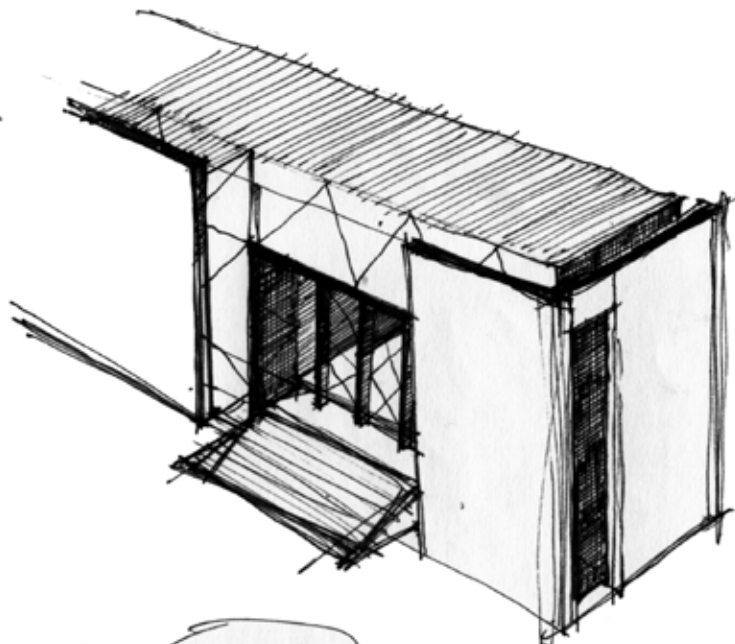


fragment too?

starts? play with ass

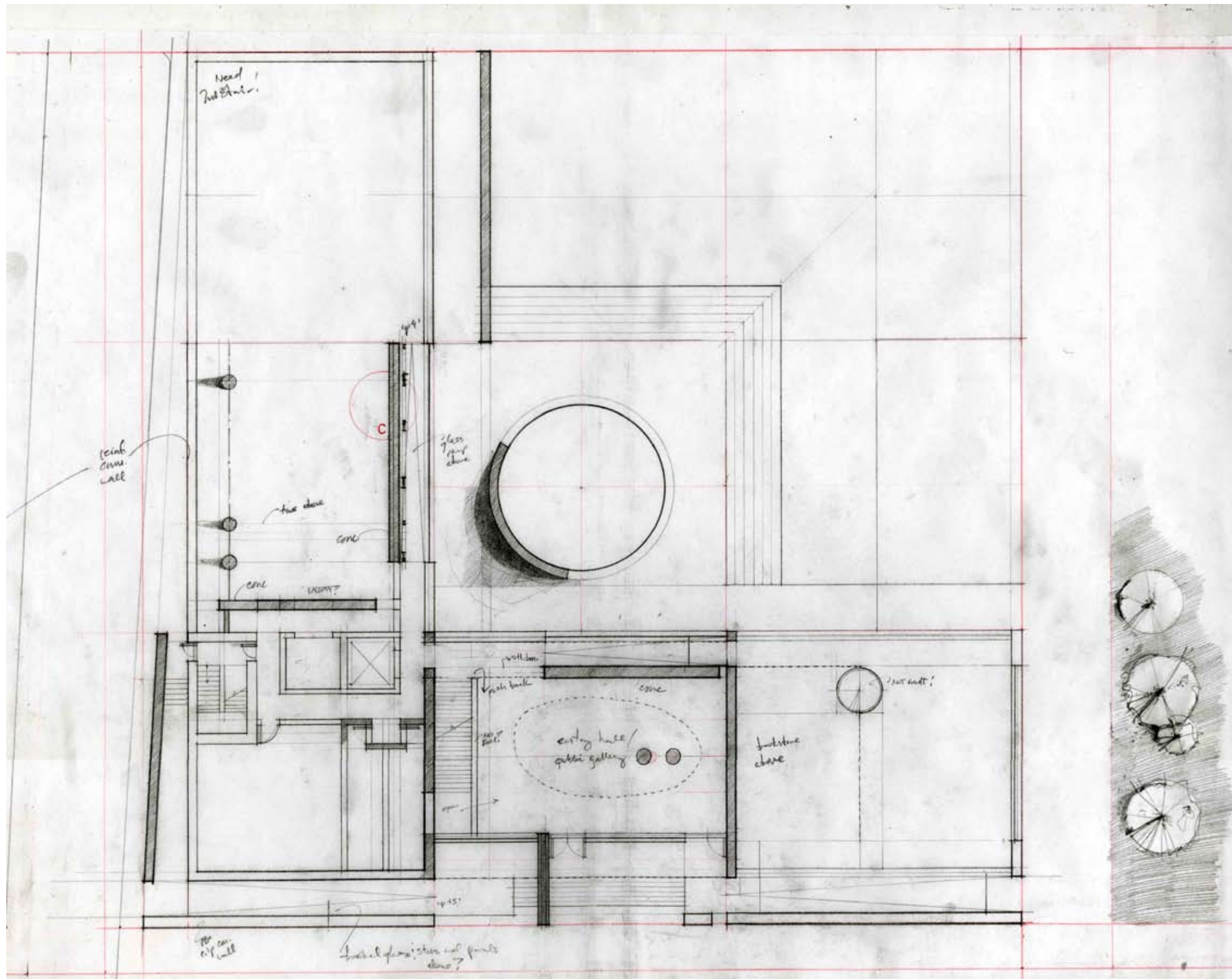


→ becomes bridge accessible link to auditorium (new structure) part of 'new order' steel w/ vegetation



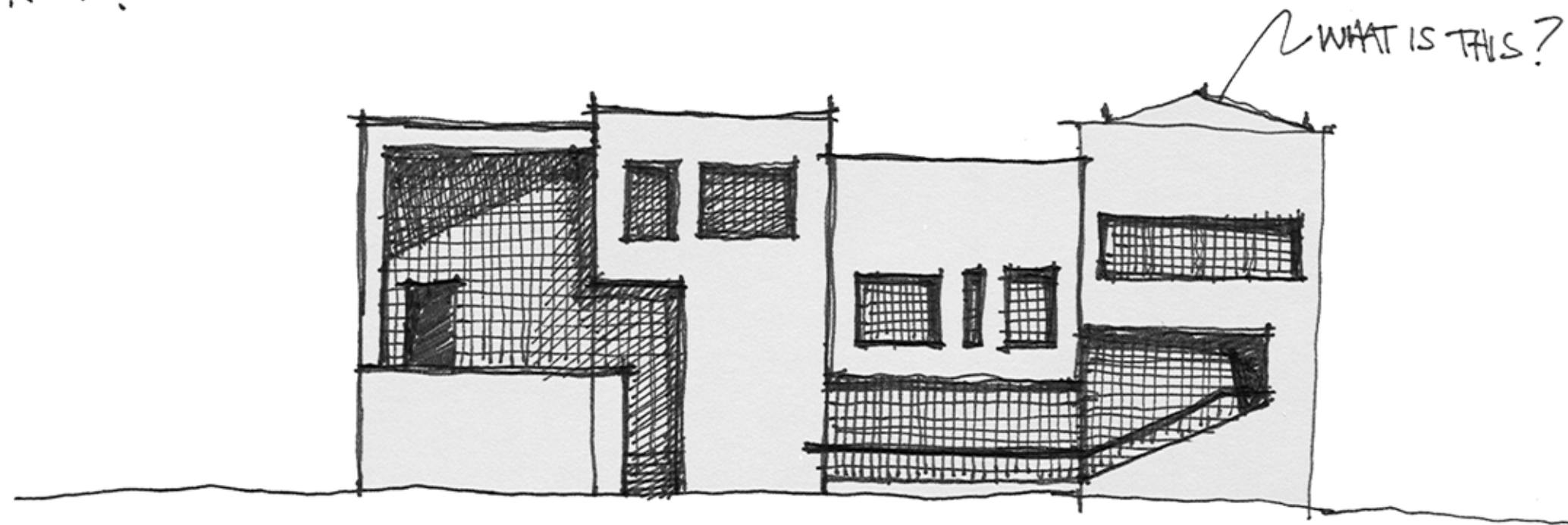
* Show isolated fragments first, then development of impositions

* DIRECTION ORDER
* @ certain places the 2 opposed orders engage each other.



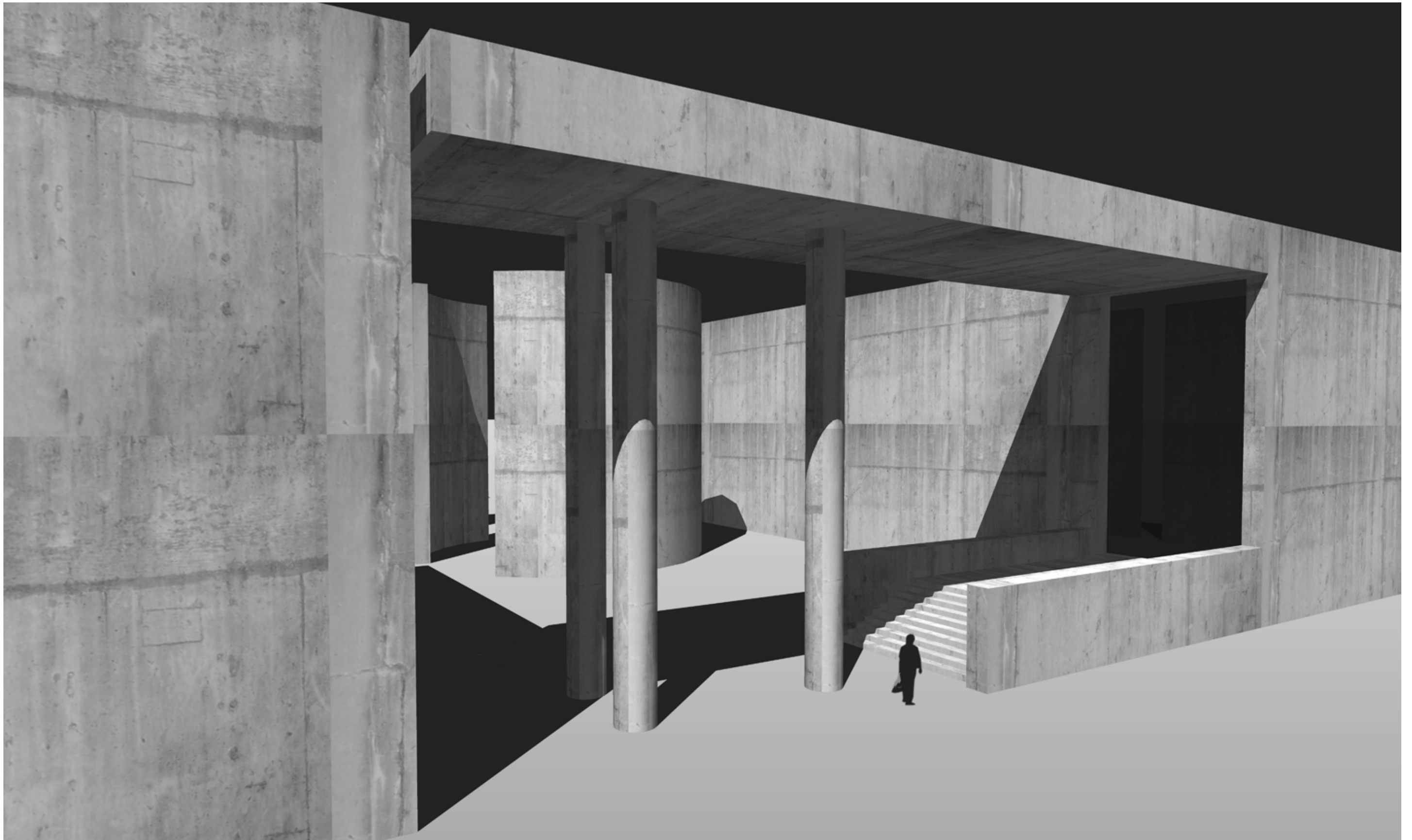
- HARDWARE DETAILS
- WINDOW DETAILS
lites/sash/inset?
- ROOF? DETAIL EXISTING

★ SKETCH THE CITY.



- HOW ARE EXISTING BUILDINGS ORIENTED?
└ WHAT ARE EXISTING PATHS
└ WHAT TYPES OF SPACES ARE CREATED?

★★ → DO EXISTING FENESTRATION LINES MEET?



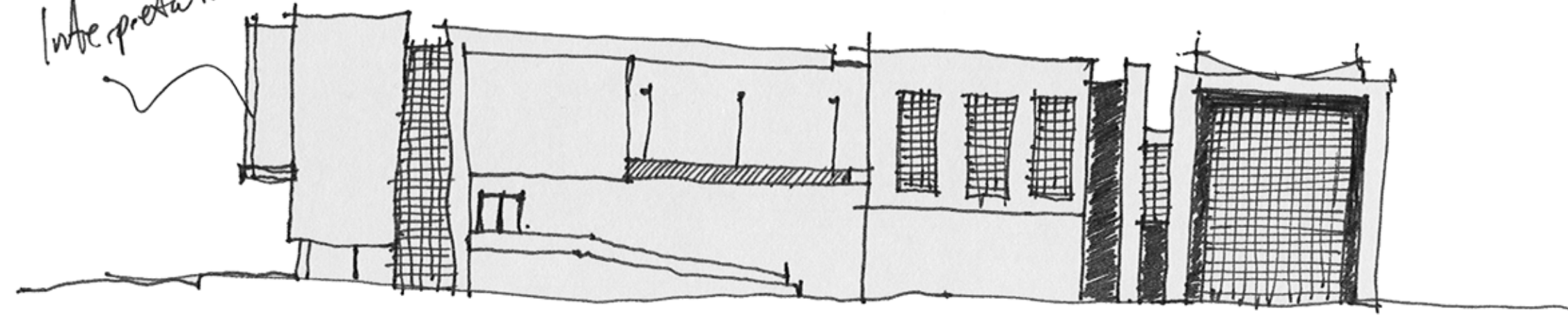
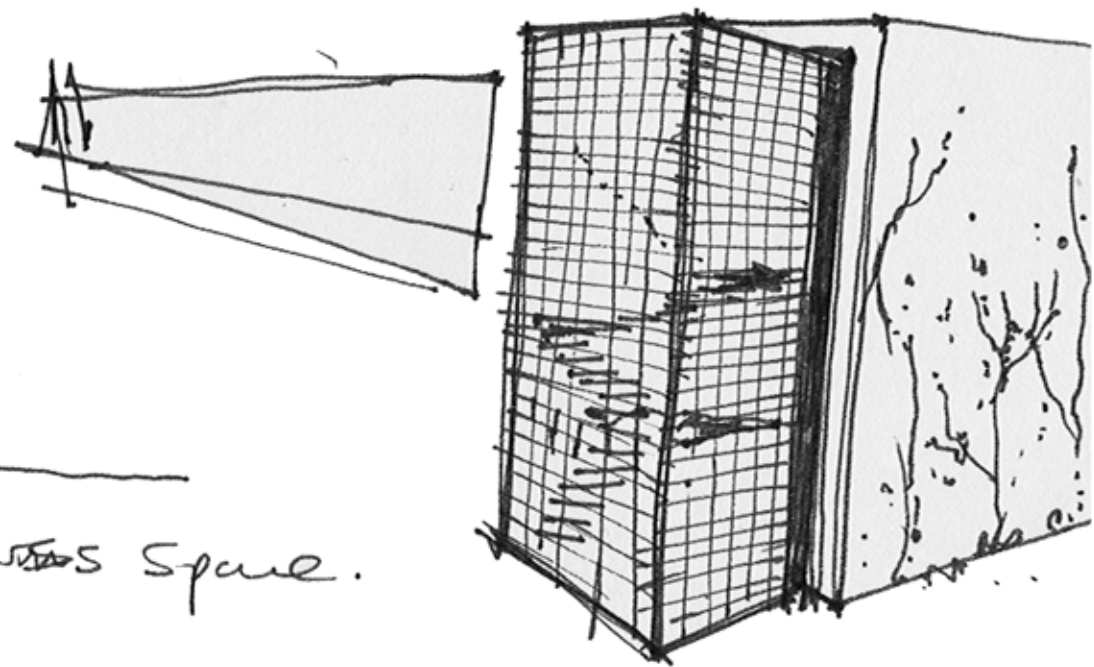
- Porch
- Overhang
- Louver
- Openings (large)
- Courtyard

☆☆ LOOK @ HERZOG & DE MEURON → STREET

☆ De-materialization of exterior? Stucco?

☆ → Structural Interior ~~interior~~ space.

Interpretation of porch

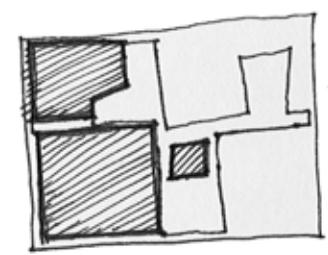


'PLACE' OF CHAS. → RESPONSE TO CITY

- CULTURE
- BUILT FABRIC
- METHODS OF CONSTRUCTION

line, plane, volume
COMPLEXITY

★ WHAT ADDRESSES THE STREET - How DOES IT RESPOND TO 'PLACE'.

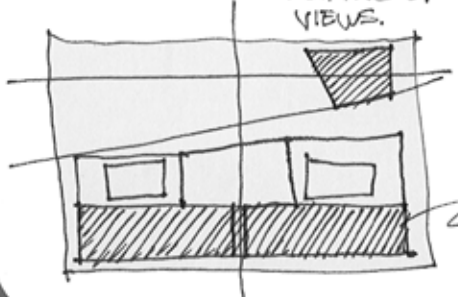


→ ARCHITECTURAL - AESTHETIC ISSUE

REFERENCE:

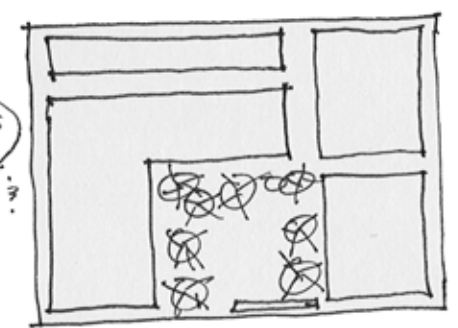
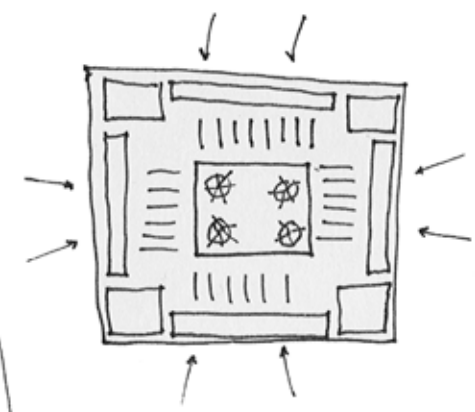
FRED & GINGER → WHAT DOES THIS SAY

VISUAL LINKS - TERMINATION? MAKING OF VIEWS.



COULD BE:

- SERIES OF VOLUMES
- ONE VOLUME



→ OR DOES IT CONNECT RESPONSE TO SEGREGATE

TERMINATION - BARRIER OR LINK



• INDOOR-OUTDOOR SPACES

SPATIAL CONCEPT:

LAYERING

→ Materials
Walls
Openings
Solids/Volume
Voids/outdoors
Views

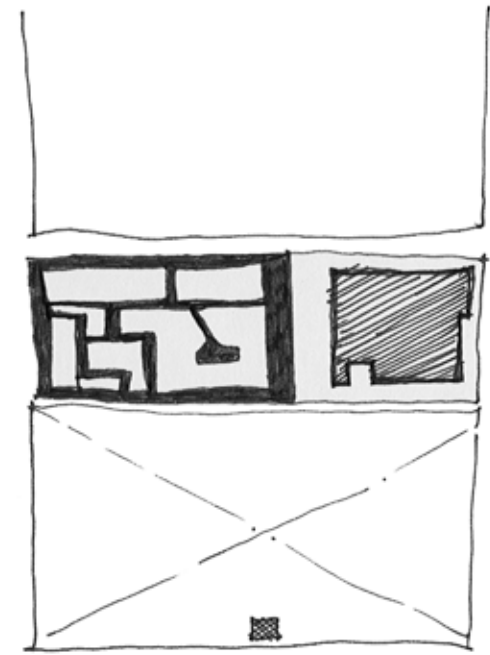
BRING 'PLACE' TO THIS PROJECT.

CASE STUDIES →

VERNAULAR!

- COMMON CONDITIONS -
- ★ . ROOF PITCH
 - ★ . CEILING HEIGHT
 - ★ . COLORS
 - ★ . MATERIALS
 - ★ . COURTYARDS
 - ★ . ENTRANCES
 - ★ . LOUVERS
 - ★ . OVERHANGS
 - ★ . SPACE → COLUMN
 - ★ . SETBACKS
 - ★ . SCREEN WALL
 - ★ . SHADE ★ ★ ★

SPACE → FORM



...DELIGHT...

SITE:
Document Physical, Legal
Imagery

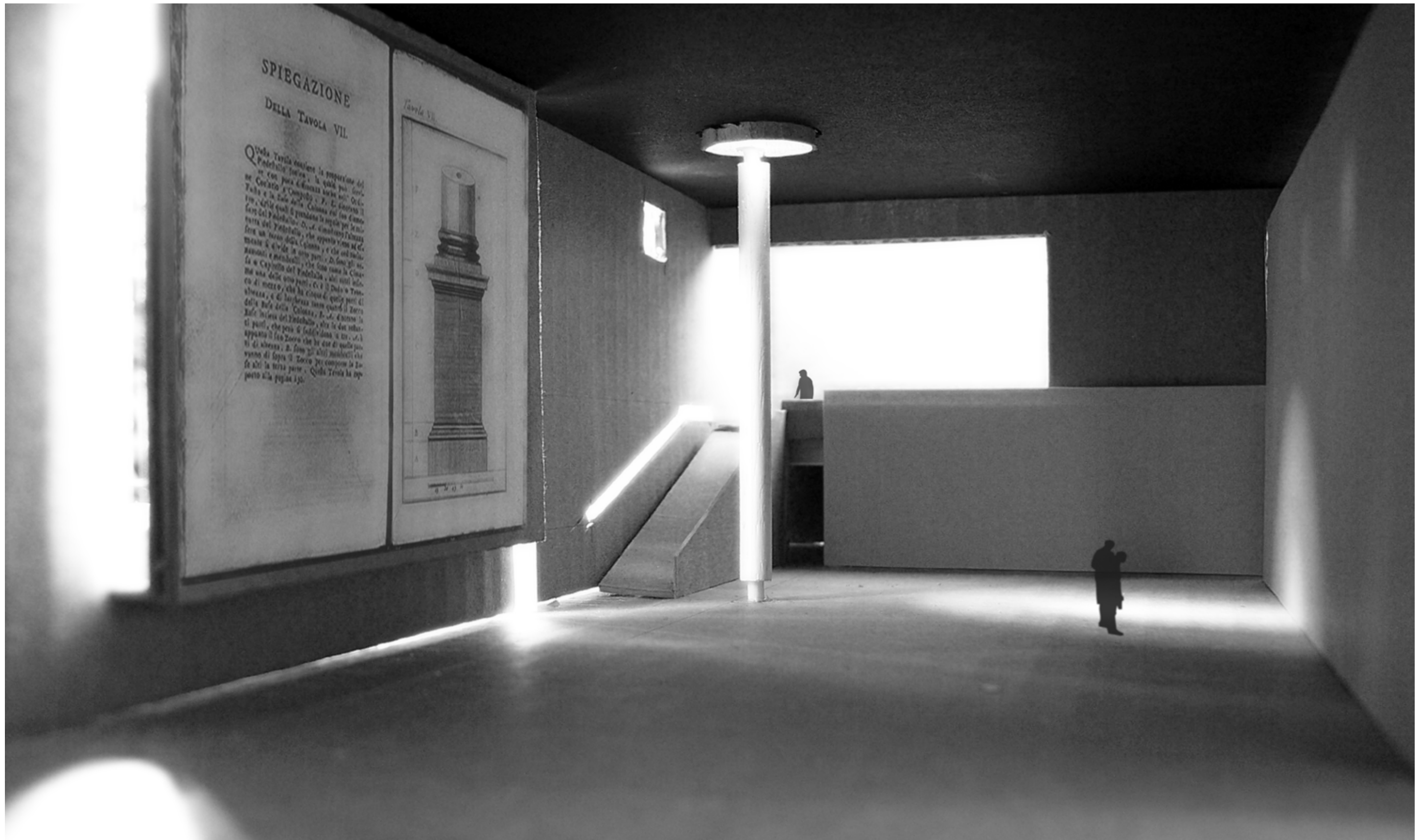
③ ITERATIONS

CONCEPT MODELS:

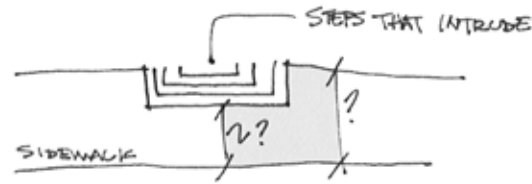
→ spatial diagrams



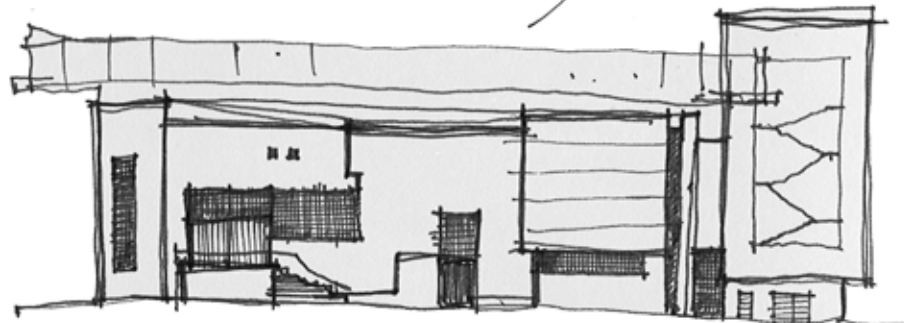
Are the spaces
. Adjacent?
. Stacked?
. Shared?



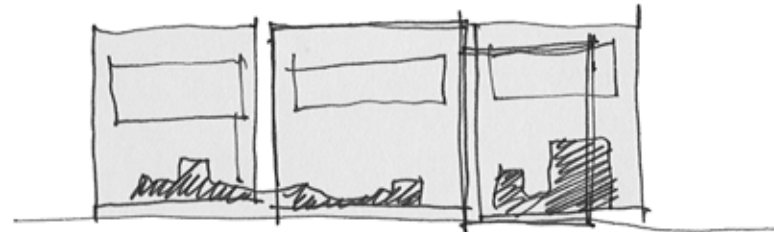
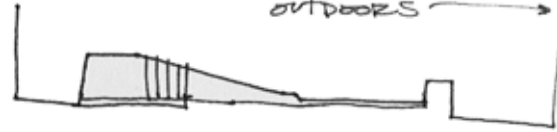
HANS SUGGESTION → IN TALKS ABOUT 'THRESHOLDS'



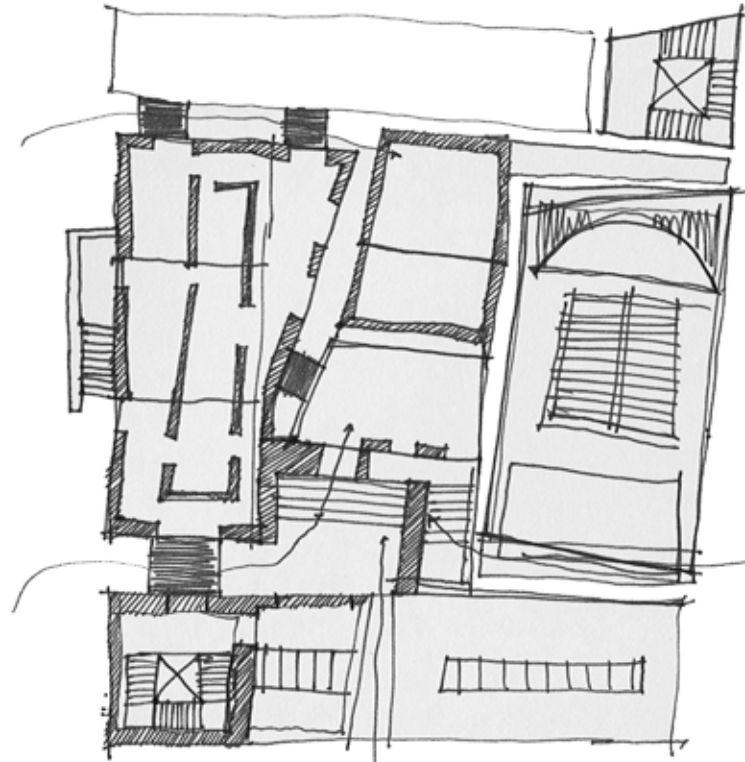
DON'T RELY TOO MUCH ON THIS SKETCH.



... SPACES TO INHABIT OUTDOORS → TO BE.

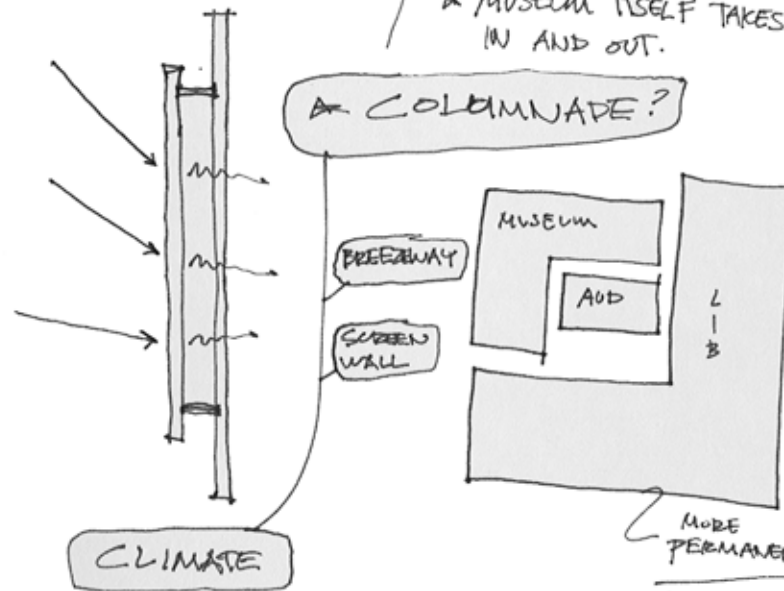


TELL STORIES!



* MUSEUM ITSELF TAKES YOU IN AND OUT.

* COLUMNNADE?



CLIMATE

FREEWAY

SCREEN WALL

MUSEUM

AUD

LIB

MORE PERMANENT

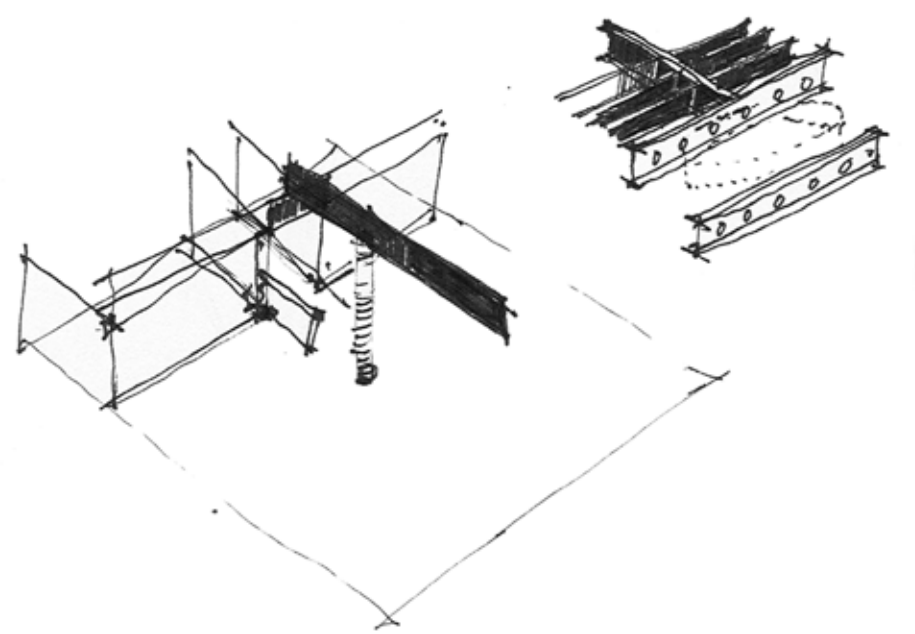
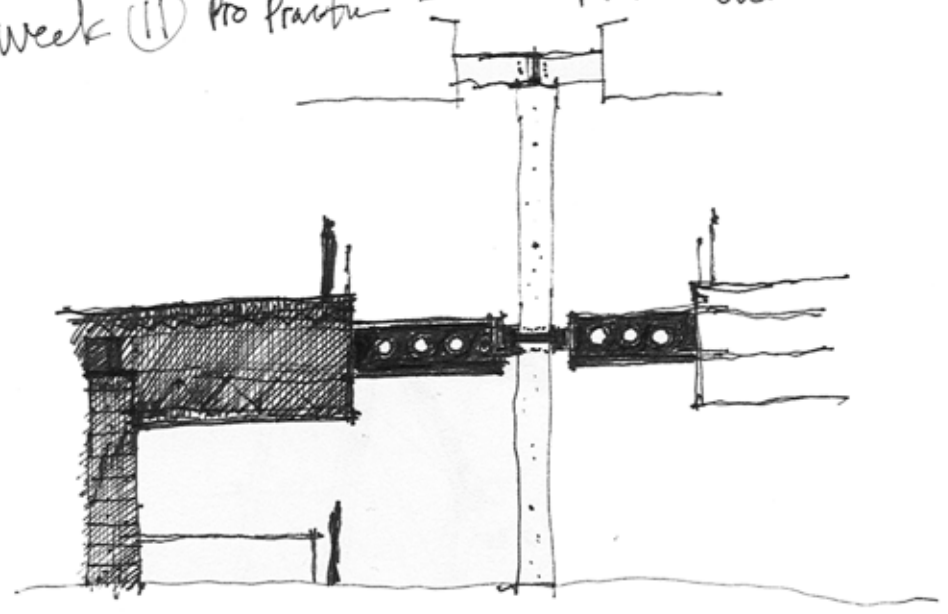
RIGOROUS GEOMETRY

SYMM.

IMMEDIATE RESPONSE TO CHANG.

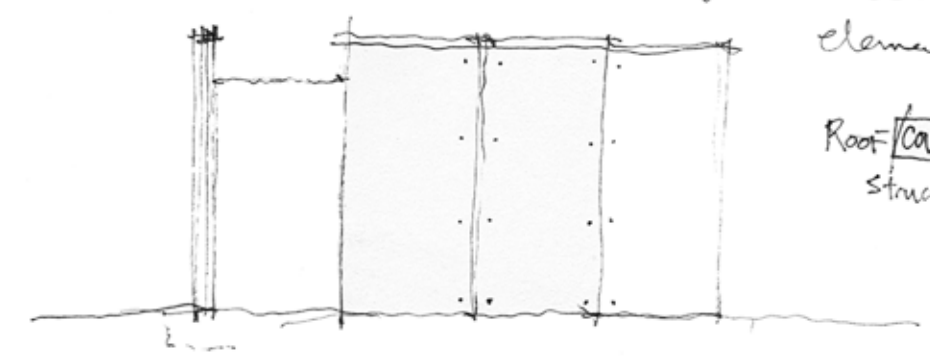
Week 11 Pro Practice

Kathedral



NEW FORM

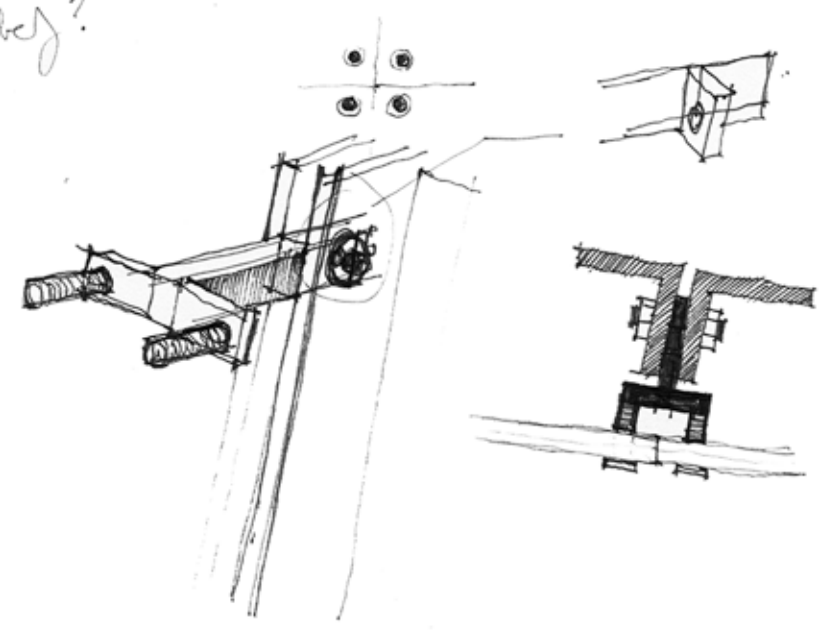
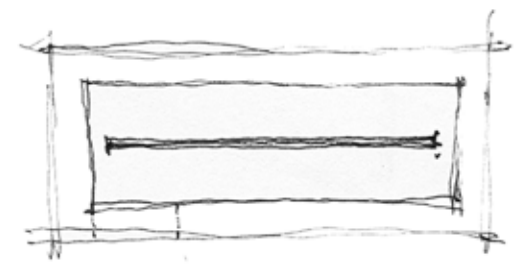
elements → this should be a study of details and elements

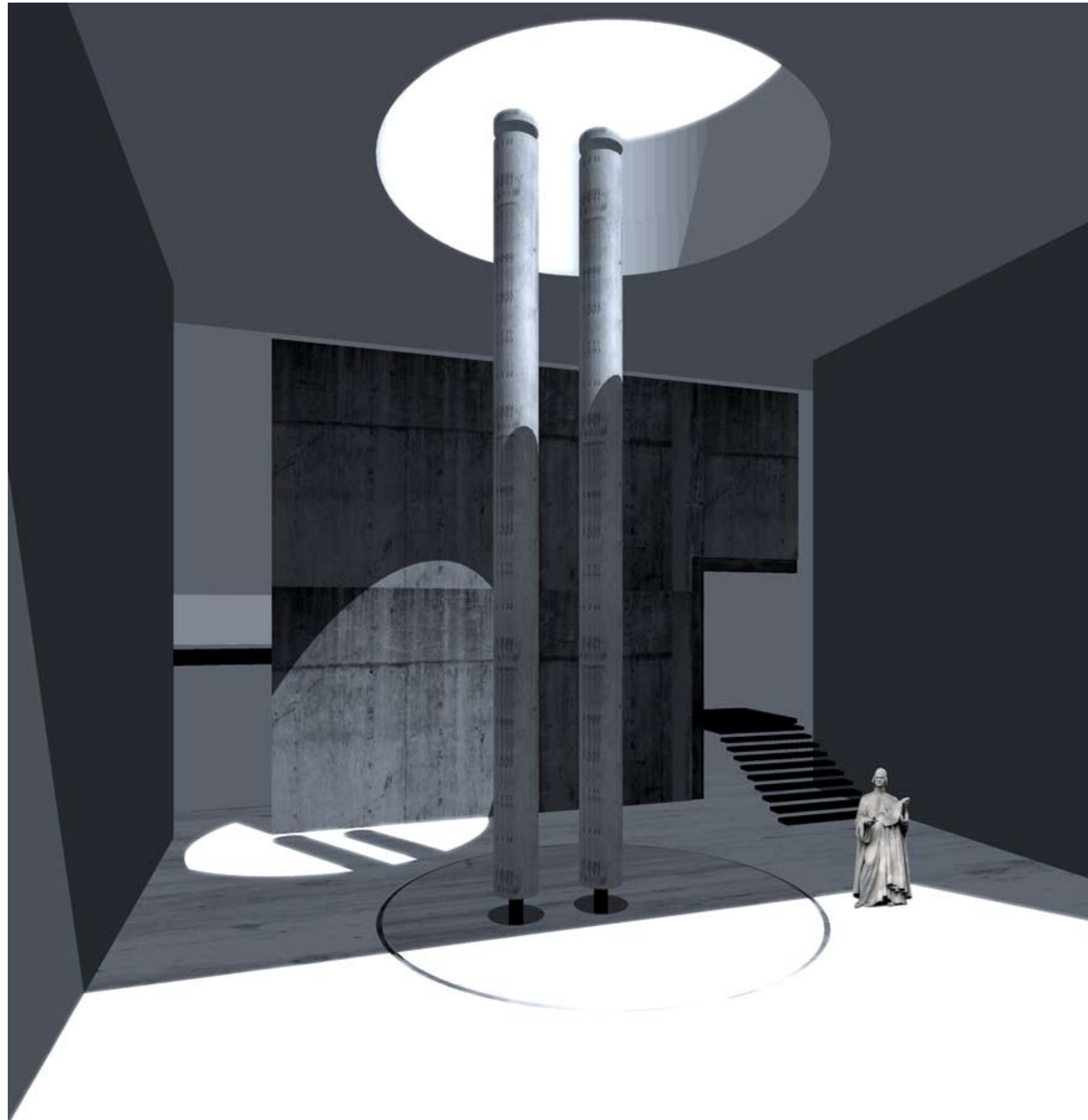


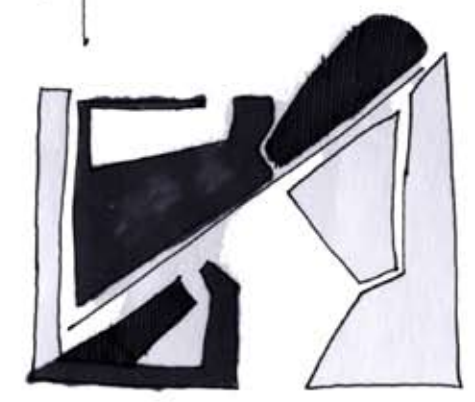
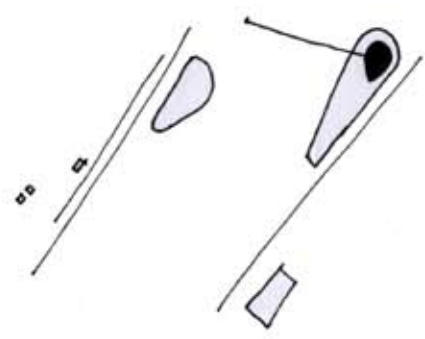
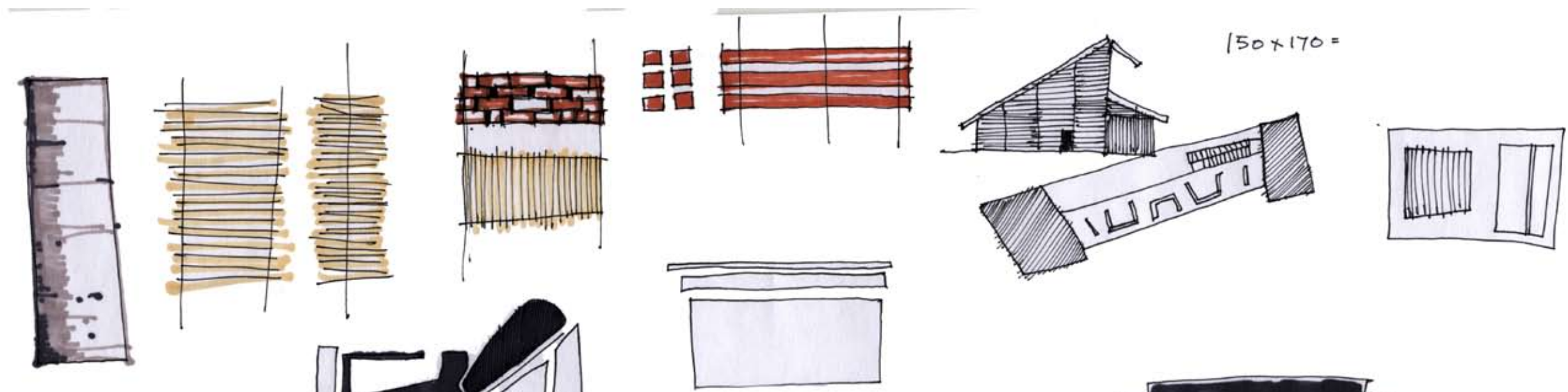
Roof COVERING structure

is this space to be enclosed?

covered completely?



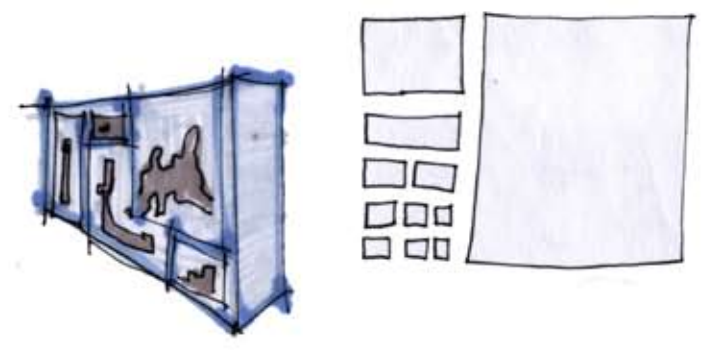
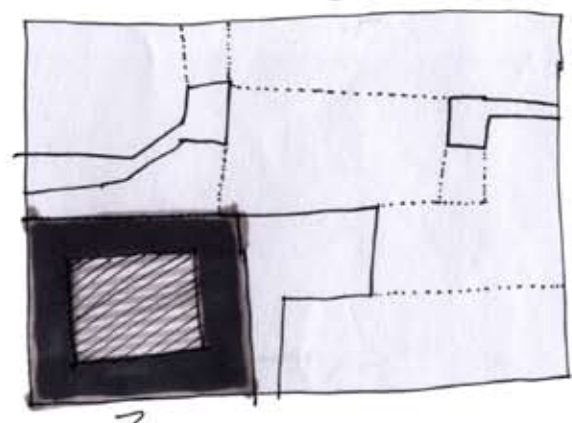
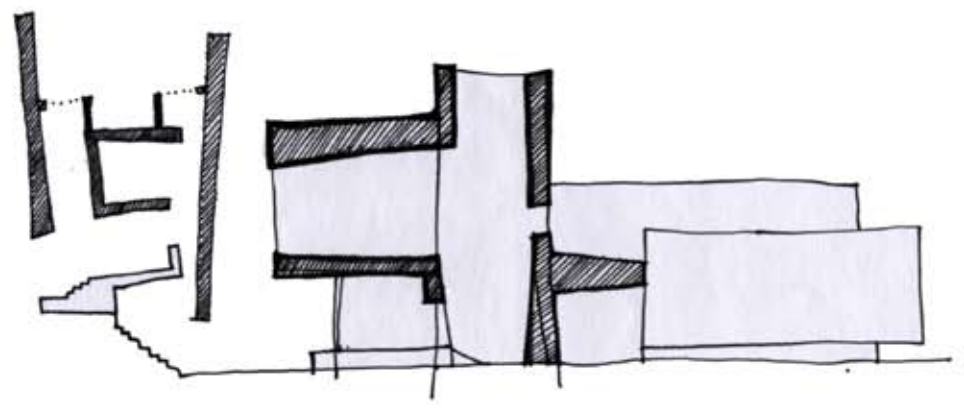




How can the architecture
of the building [realized through Form + Space]
represent the history + settlement of
class. → South?

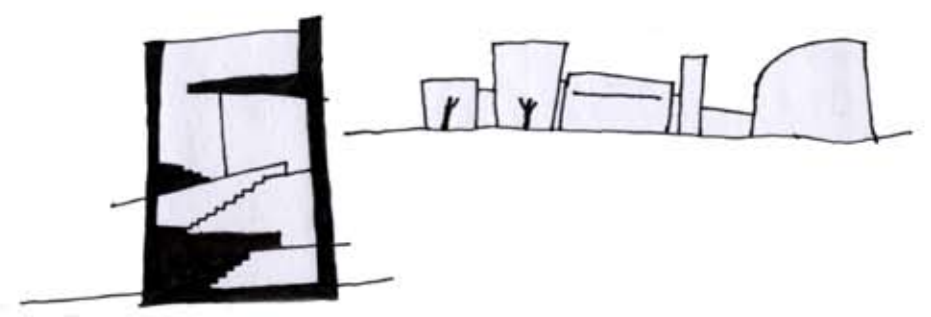
— this word is wrong.

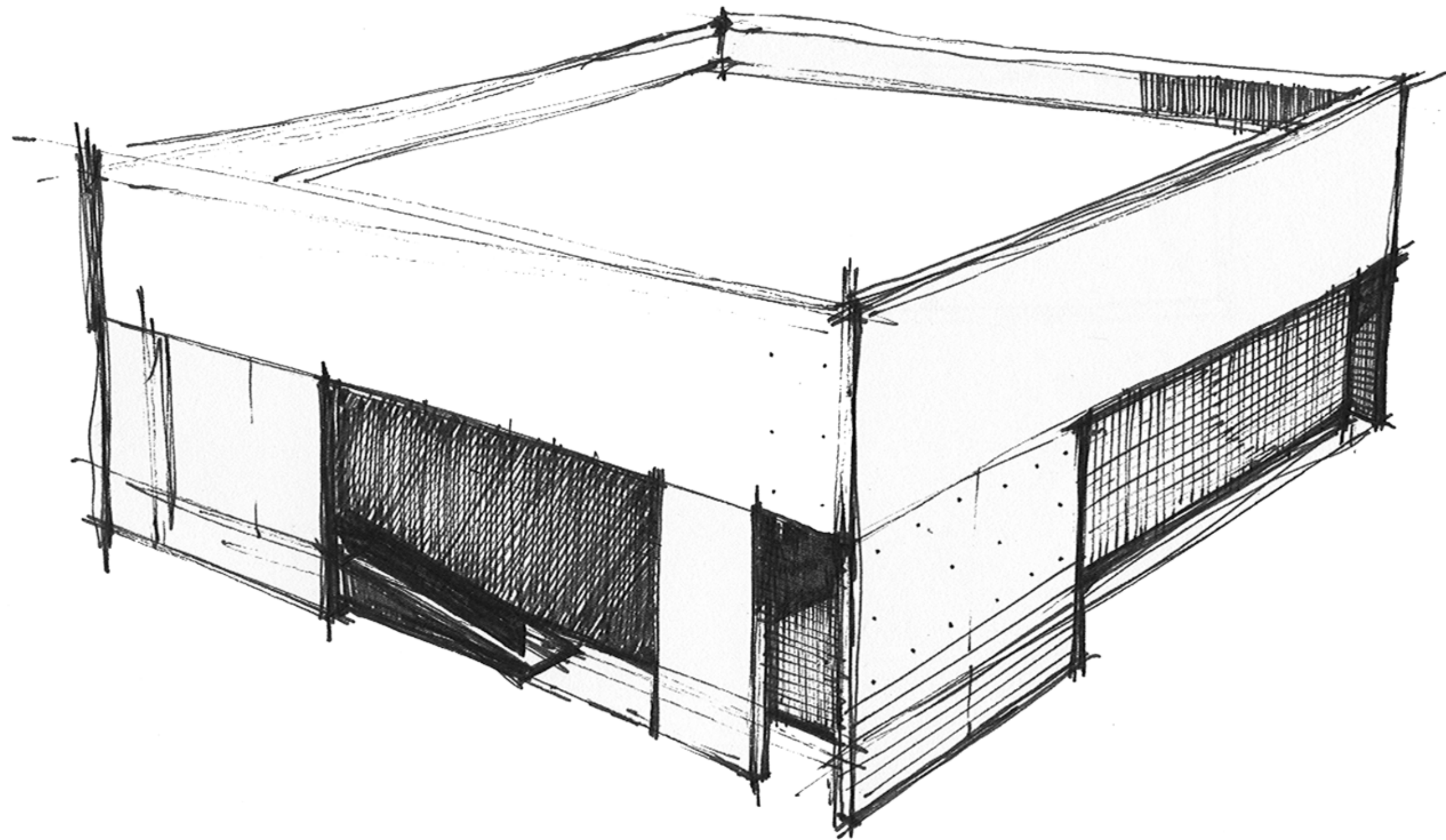
- Response to Place
 - Place as FORM gives
- Atto

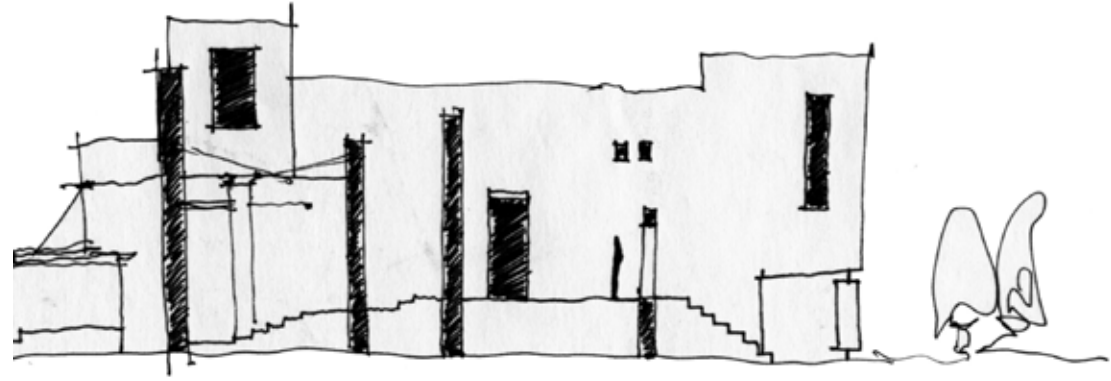
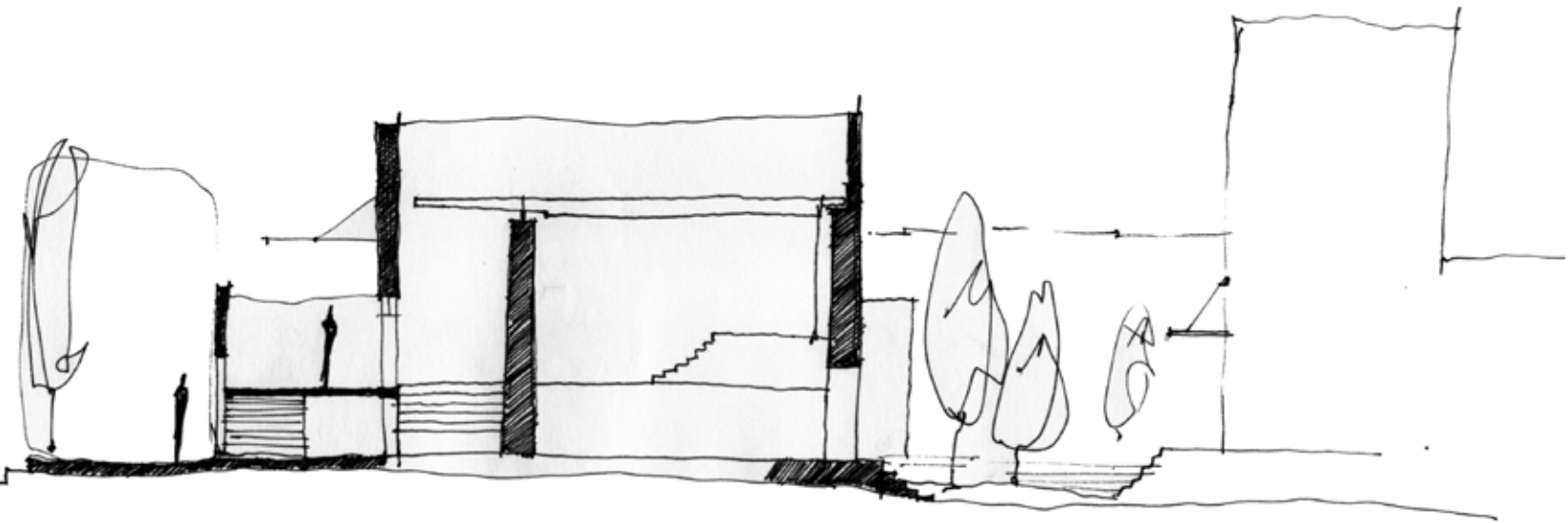
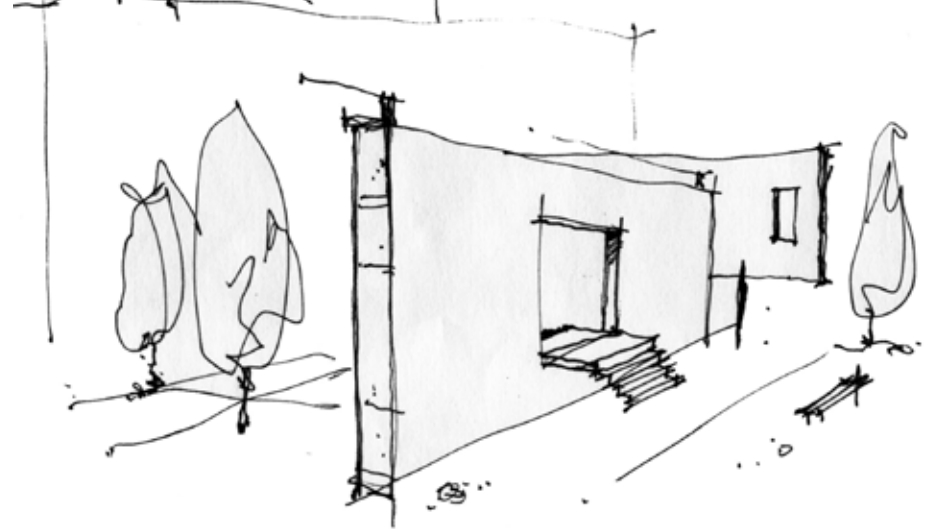
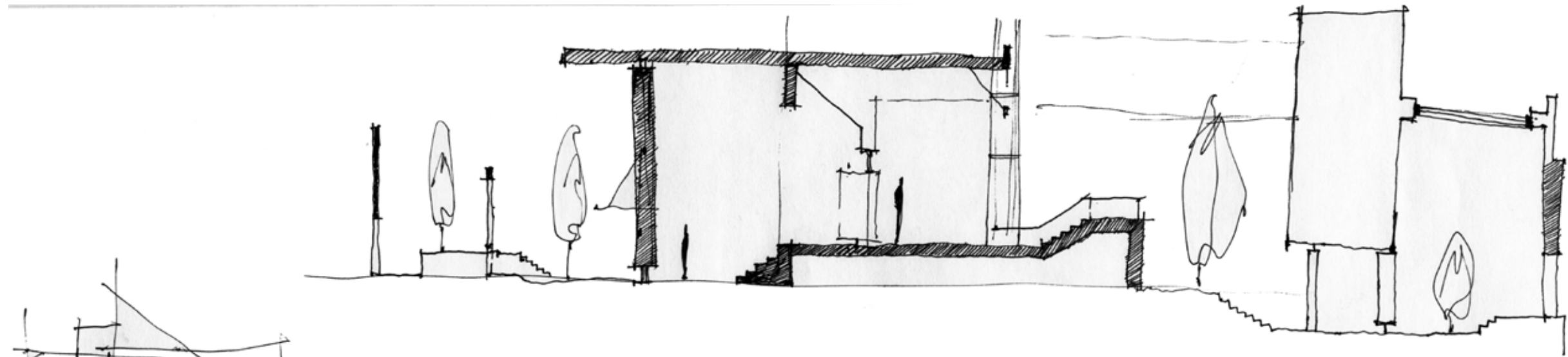


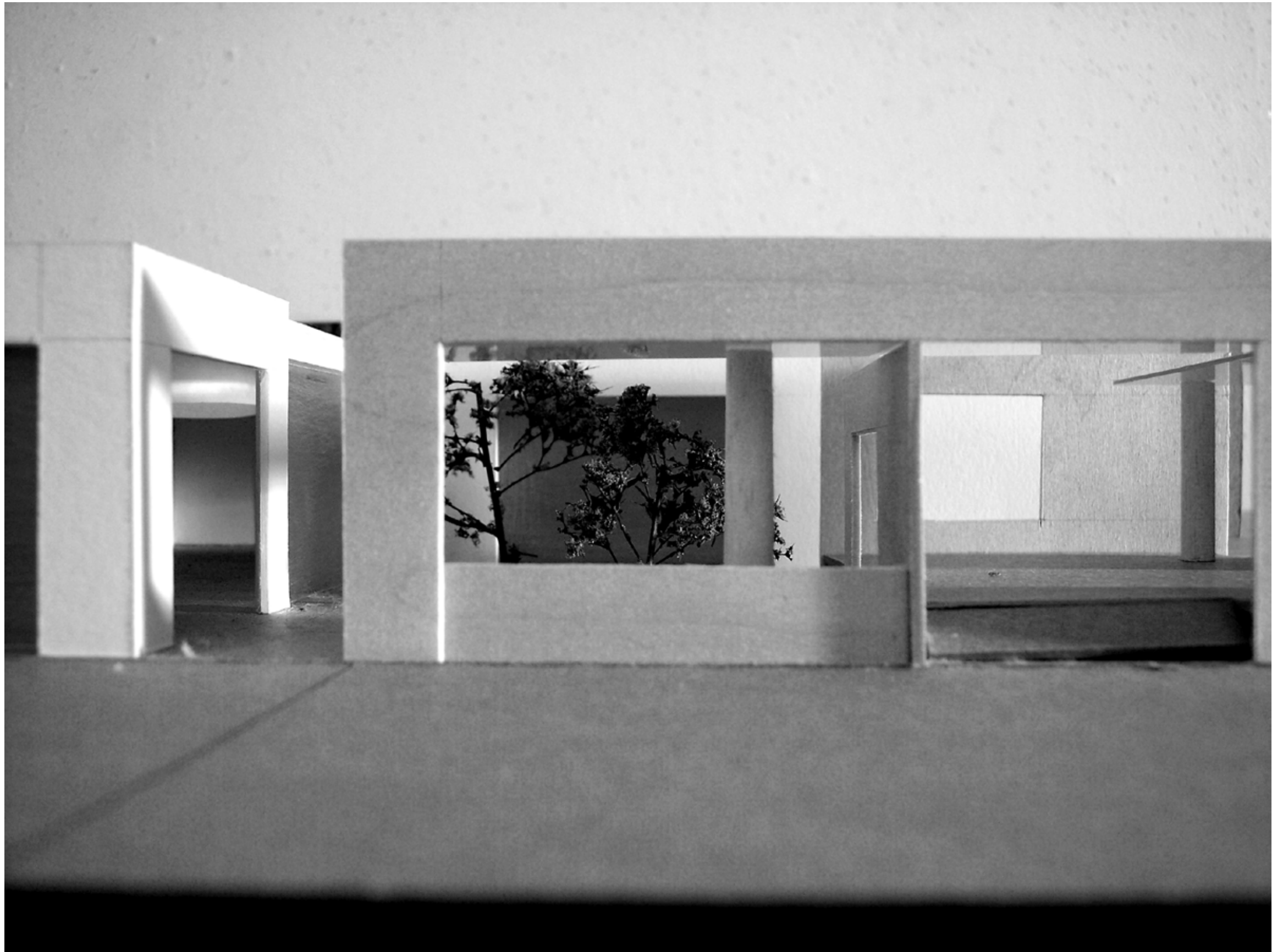
3
ADDRESSES
THE CITY MORE
DIRECTLY

* SCALE OF CITY *

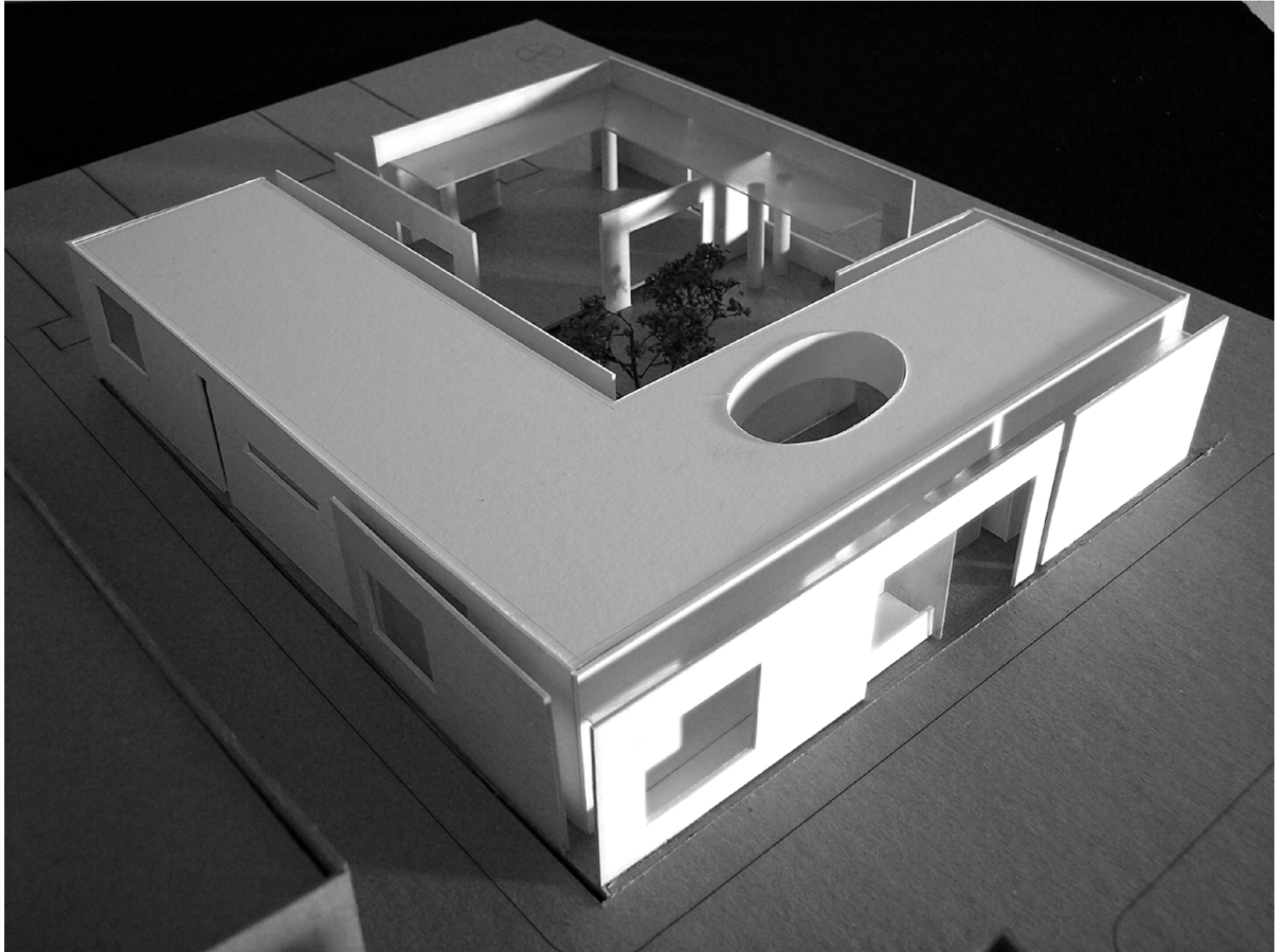












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