

Architecture as Connector to Nature

M.Arch Thesis 2018

Virginia Polytech Institute and State University

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Architecture as Connector to Nature
by Devon Tomaselli

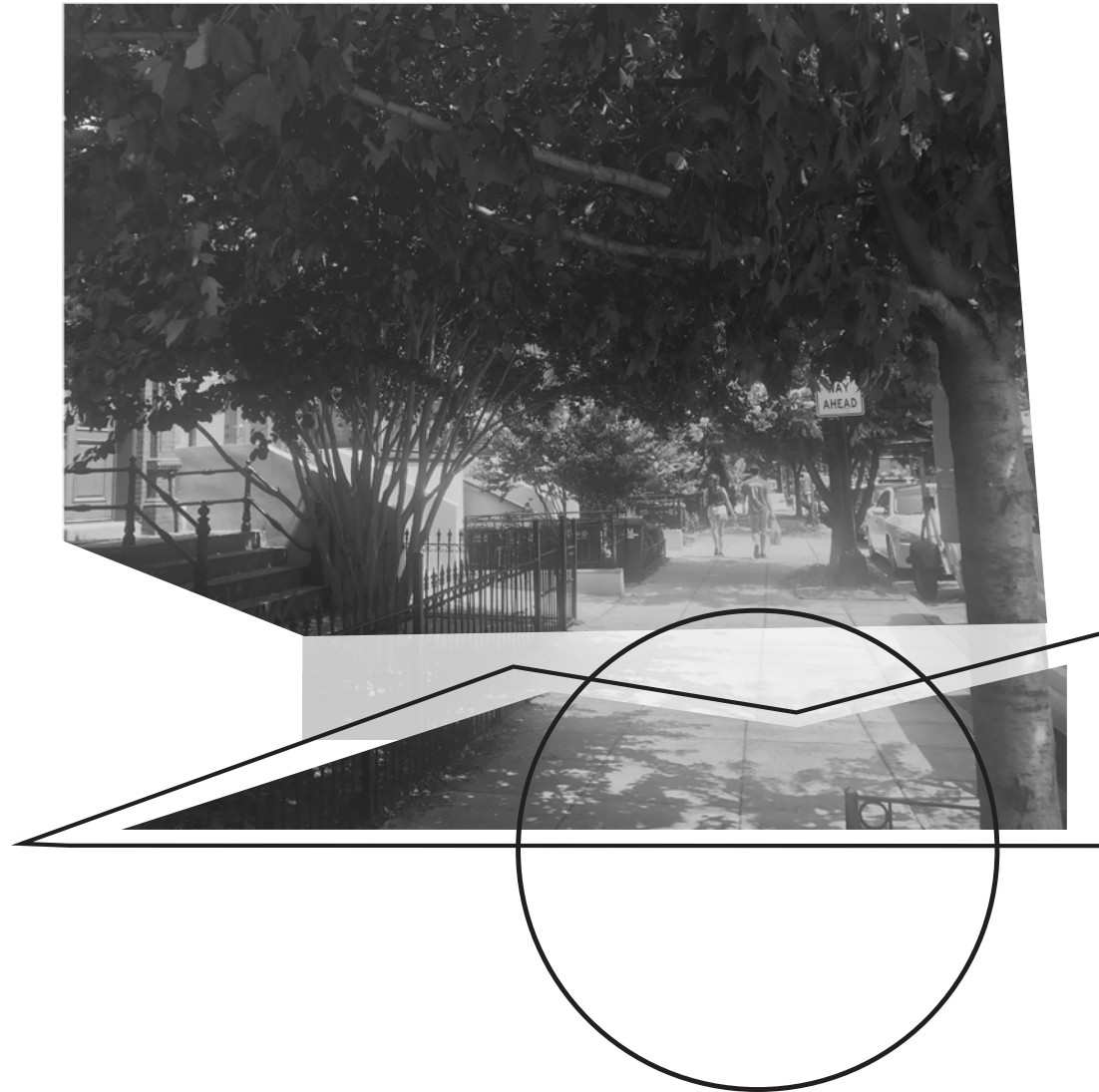
Thesis submitted to the faculty of Virginia Polytechnic
Institute and State University in partial fulfillment of the
requirements for the degree of Master of Architecture in
Architecture

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“Children can now recognize greater than a thousand corporate logos, but fewer than ten plants native to their region.” -Scott D. Sampson

ABSTRACT

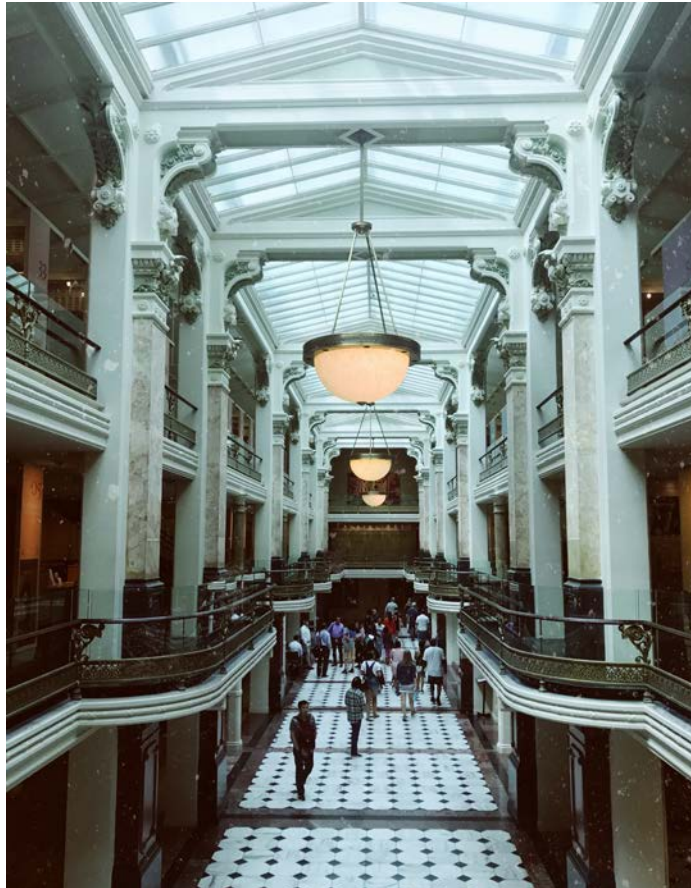
How can architecture connect us to our environments?

Is architecture responsible for connecting its user to their surrounding context? Can our spaces inform us about the world around us? There are numerous ways that humans can feel a connection to nature. But, what ways are more universal than others? What aspects of the natural world cross geographical and cultural boundaries? Perhaps, architecture can connect us to our environments by revealing the universal passing of time through natural daylighting by way of structure, materiality, and texture.

As the primary instrument, daylighting will be used in this body of work to explore time on an hourly and seasonal basis. It will do this by housing two light-sensitive programs, a painting conservatory and gallery space. By pairing these programs together, the architecture will investigate time by comparing and contrasting two user types and their corresponding needs from each program.

Finally, by setting the architecture in the center of a urban block, the thesis can draw upon this high contrast to reinforce the connections it has constructed and made between the user and the natural environment.

With Love



This work is dedicated to my family who has always ignited, inspired, and enhanced my work.

Mom, Dad, Ashley, Jon, and Charlotte, your endless support has allowed even my wildest dreams to become a reality.

This body of work is for you.

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A CONSERVATOR'S PREFERENCE



“Until recently, the received precepts of modern curation practice favored the exclusive use of artificial light in all art galleries. It has perhaps been insufficiently recognized how the encapsulation tends to reduce the artwork to a commodity, since such an environment must conspire to render the work placeless...this is because the local light spectrum is never permitted to play across its surface: here, then, we see how the loss of aura also arises from a relatively static application of universal technology.” -Kenneth Frampton

Northern Light
 Temperature Control
 Humidity Control
 Door Security
 Receiving Vestibule
 Fume Hoods
 Lab Benches
 Wash Stations
 Deionized Water Sink
 Chemical Storage
 Working Storage
 Tool Storage

Painting



Framing



Object



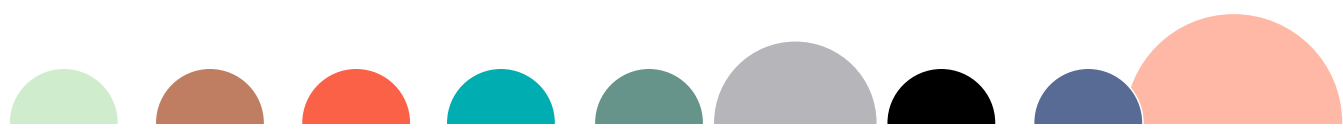
Paper



Book Storage
 Spray Booth
 Imaging Room
 Chemical Shower
 Conference Room
 Office
 Kitchenette
 X-Ray Room
 Freezing Room



Painting



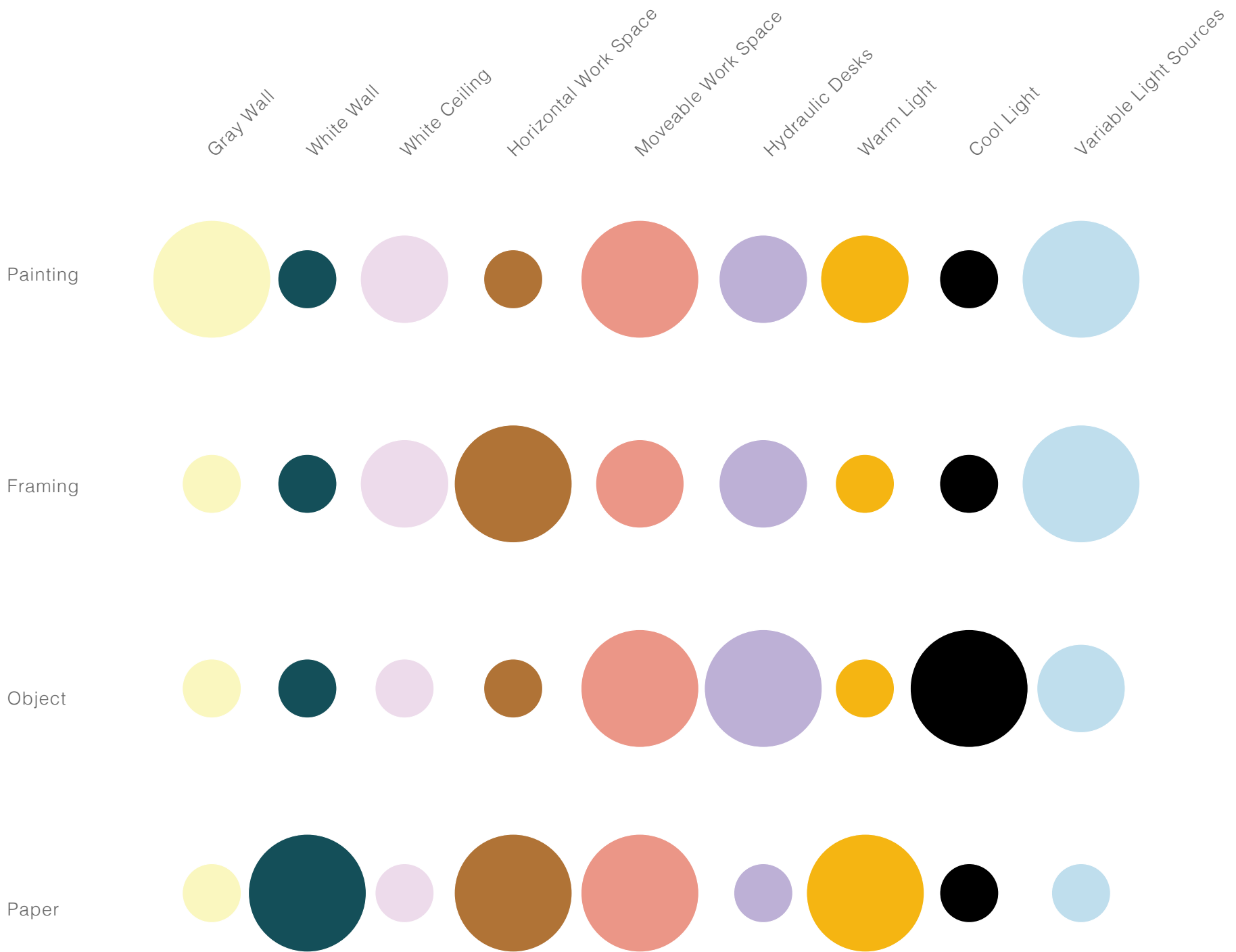
Framing



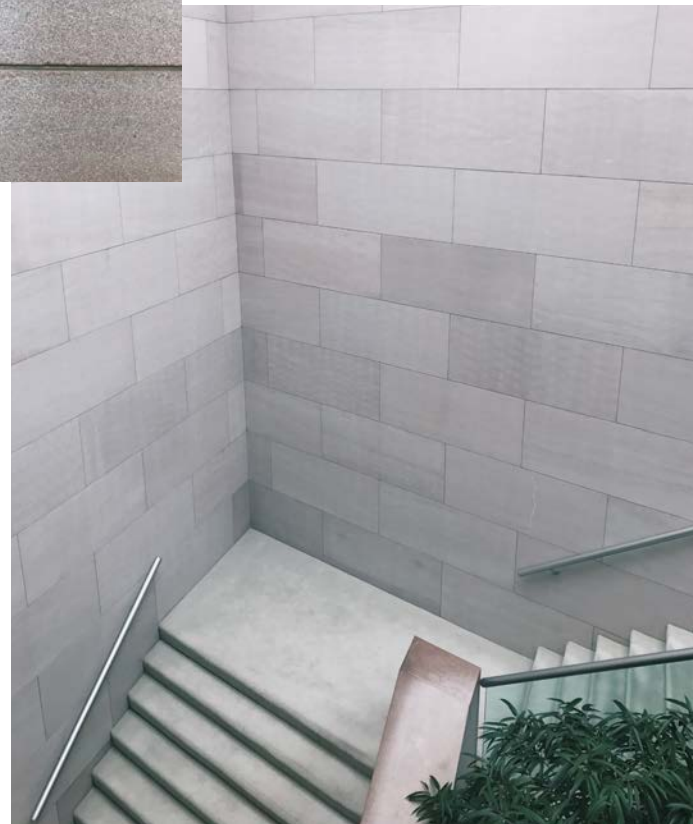
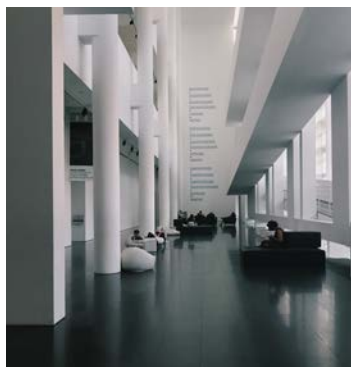
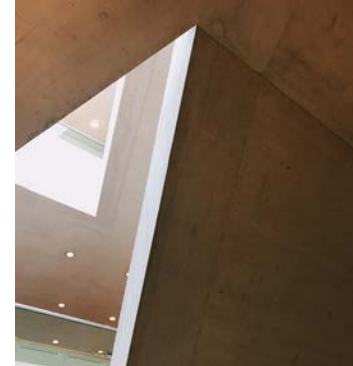
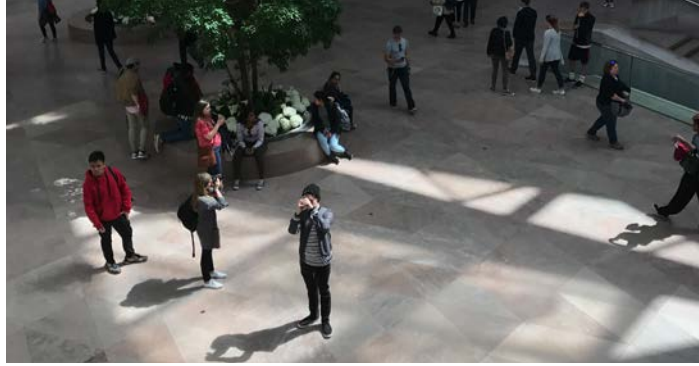
Object



Paper



GALLERY VISITS



“A gallery is a place to suppress distraction” -John Pawson

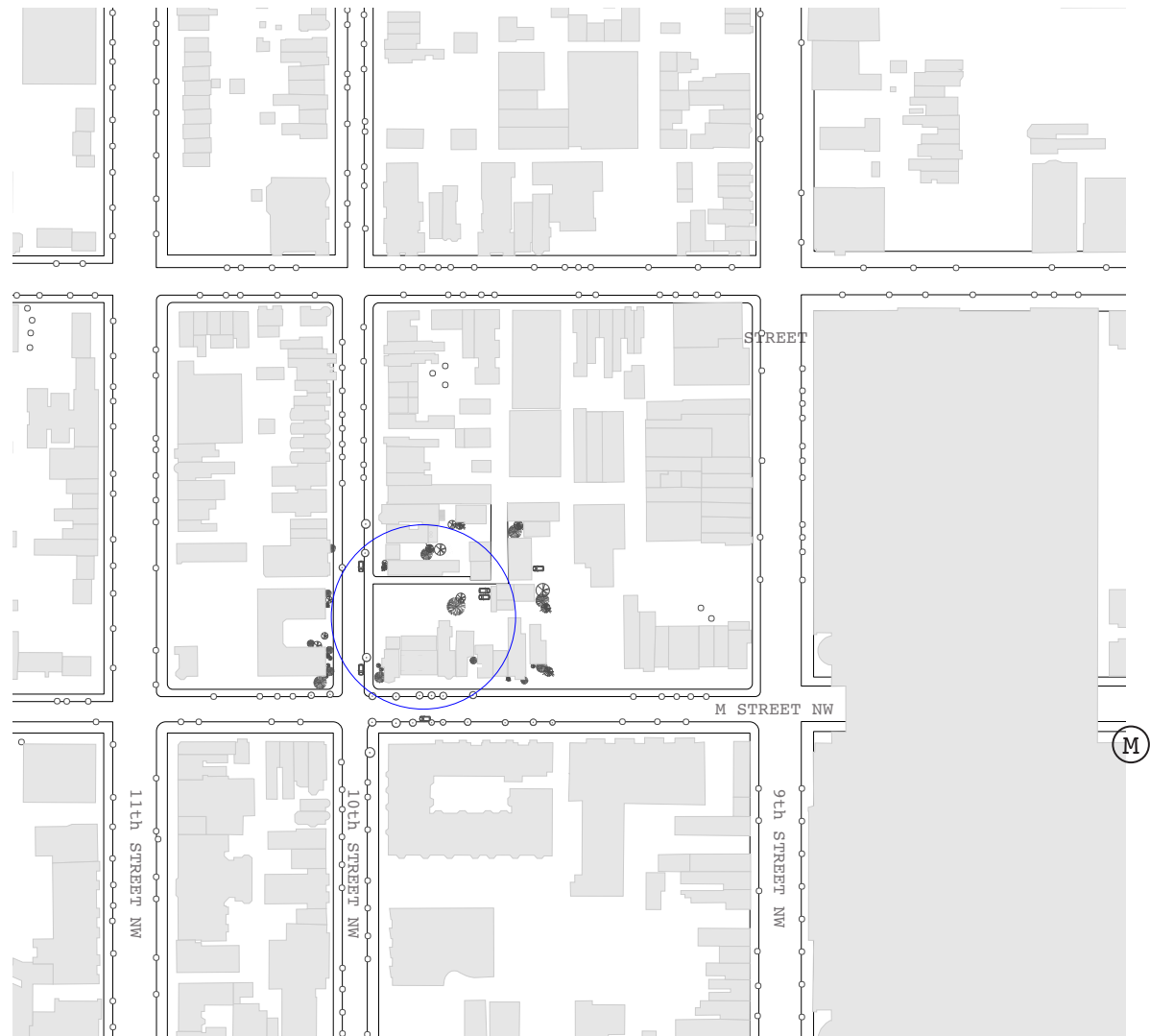
WELCOME TO BLAGDEN ALLEY



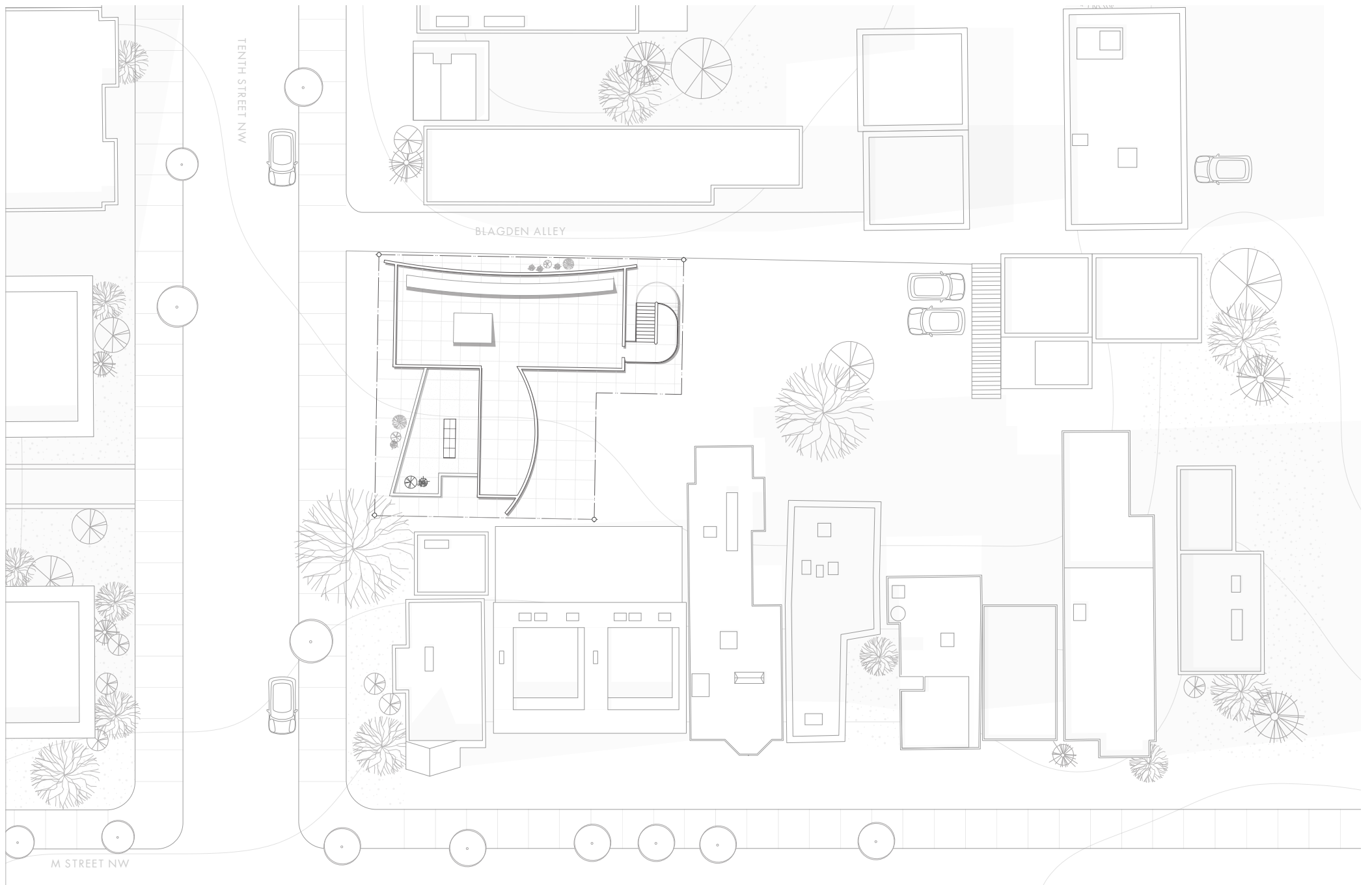
“Architecture isn’t just about creating new buildings,
sometimes it’s about returning what is already there.”
-John pawson



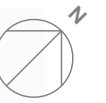
Welcome to the District



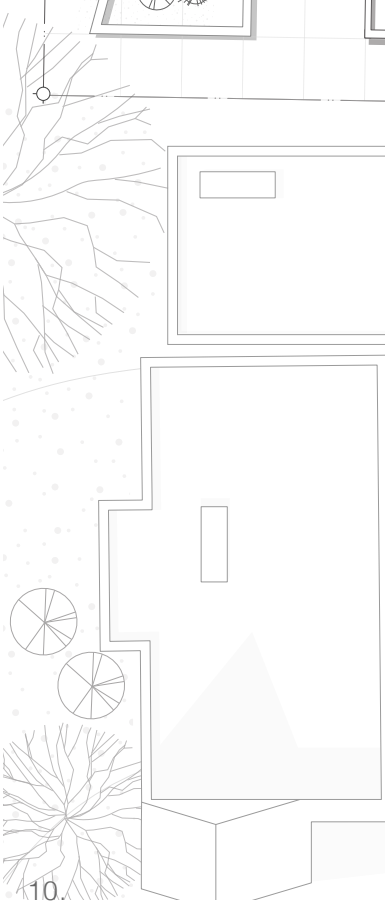
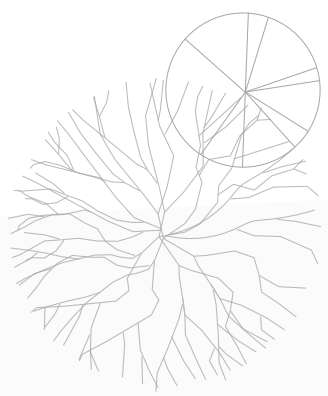
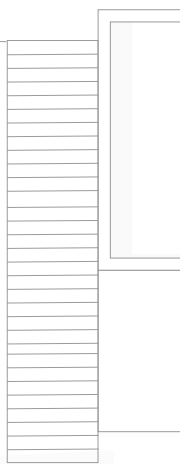
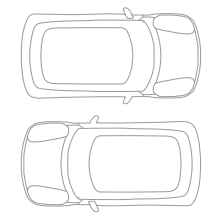
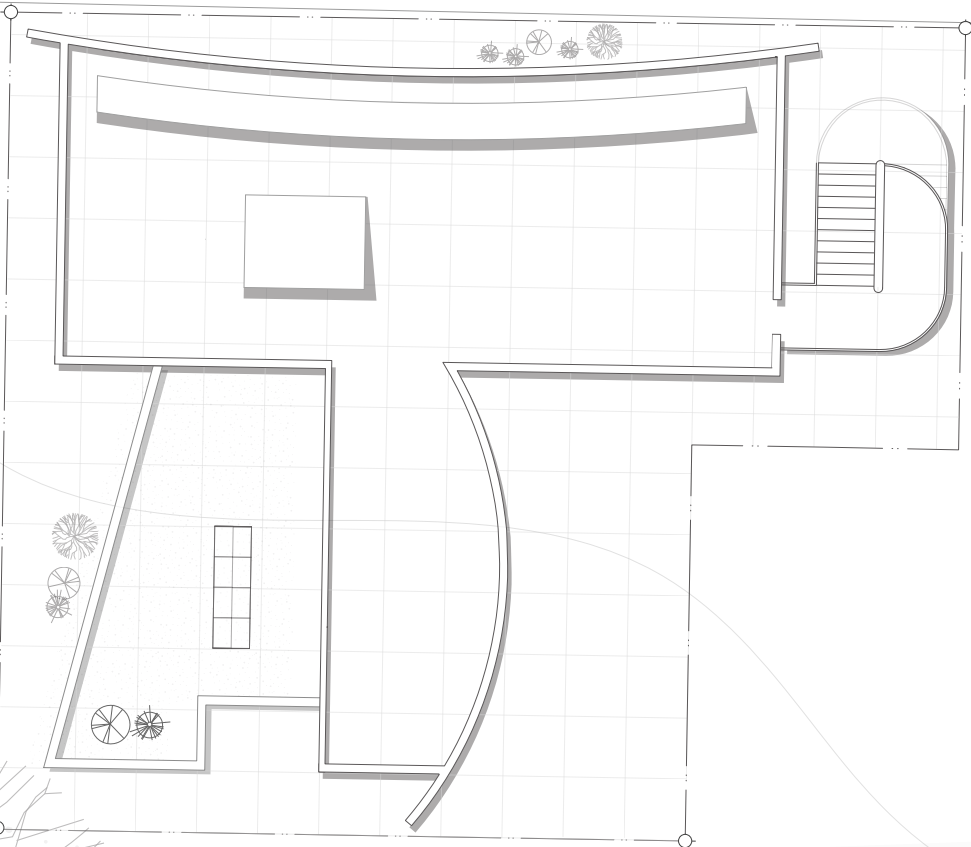
Welcome to Shaw



Welcome to Blagden Alley



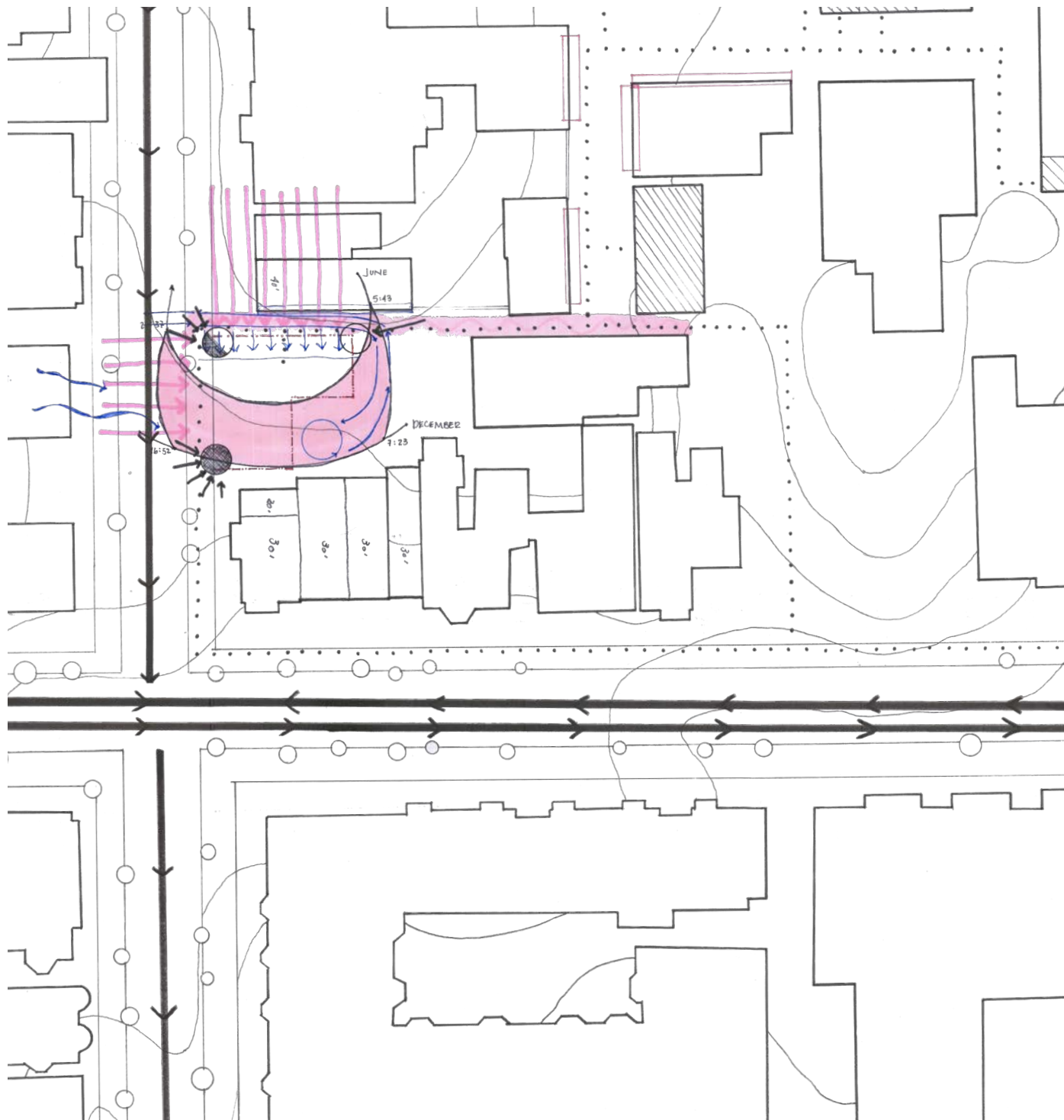
BLAGDEN ALLEY






5 10 15

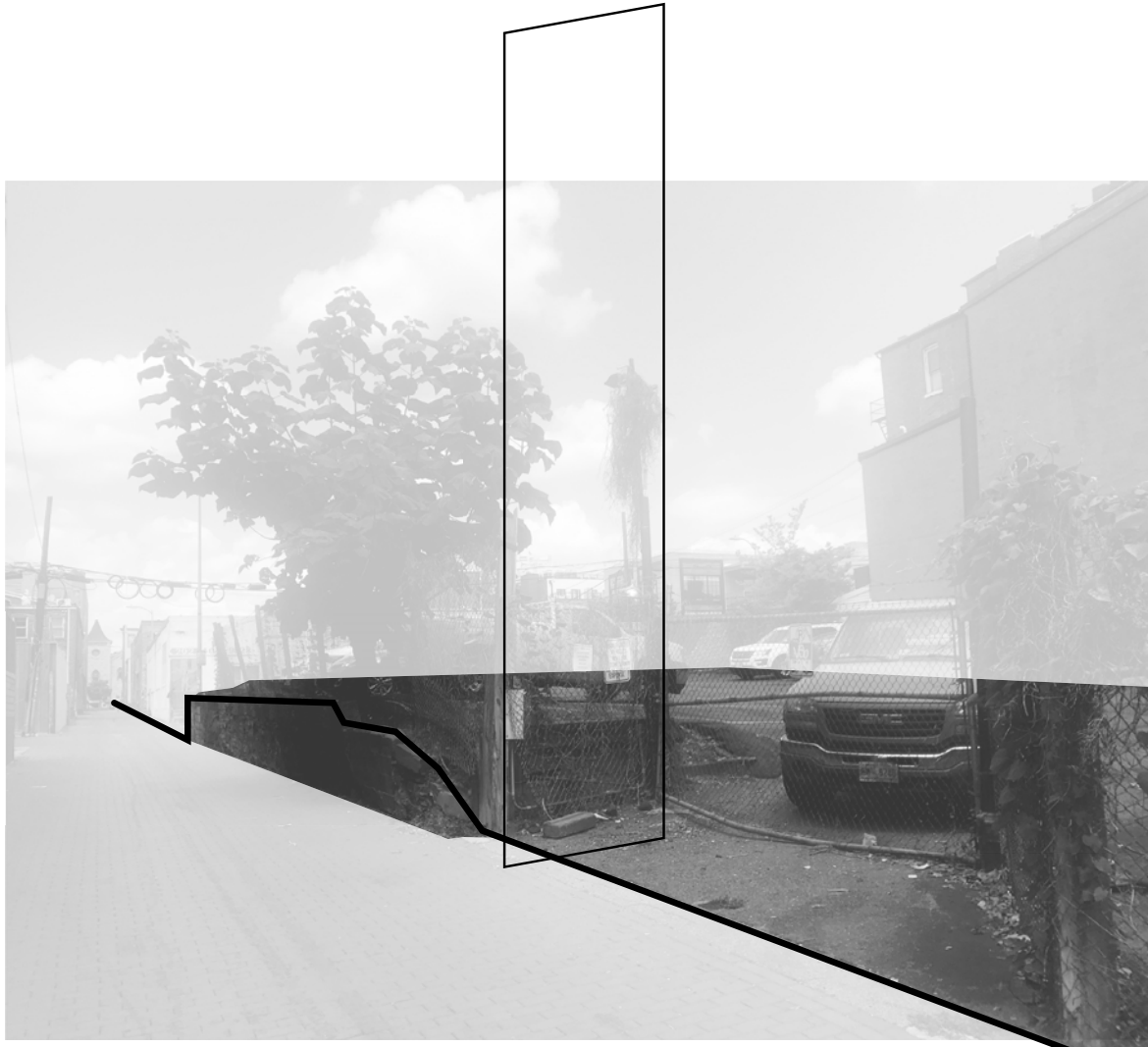


A SITE INTERPRETATION

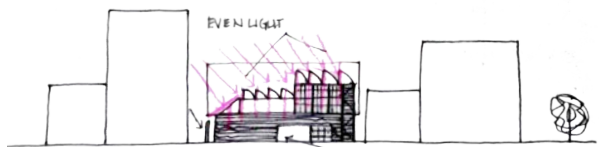
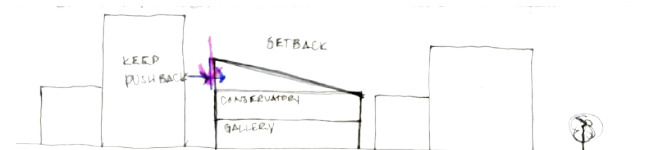
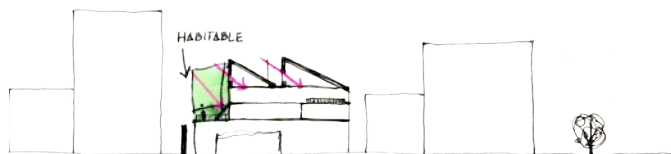
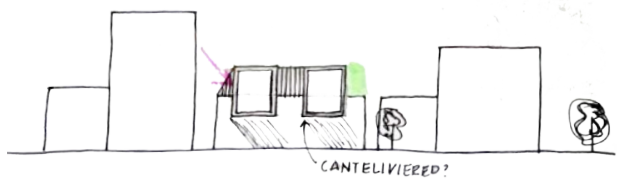
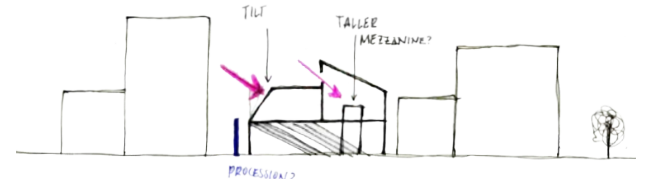
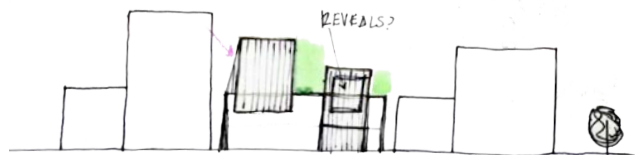
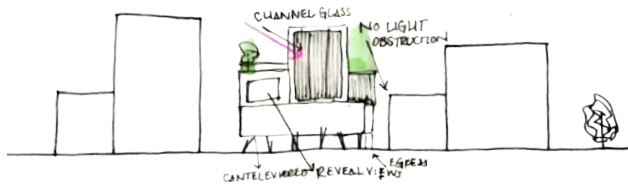
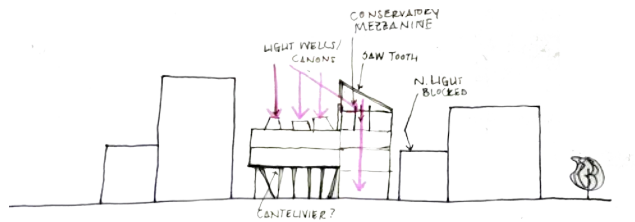
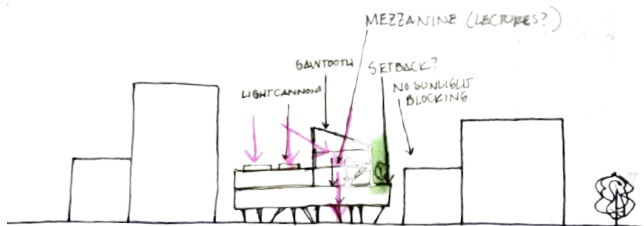
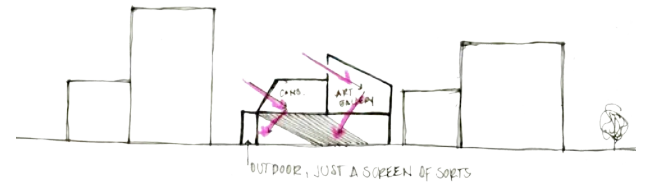
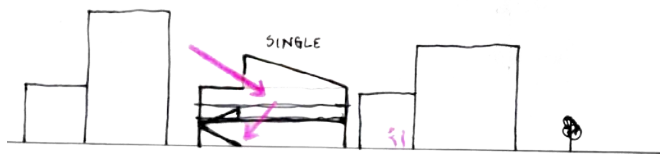
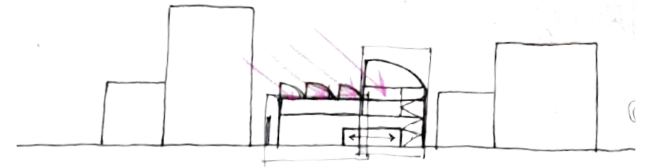
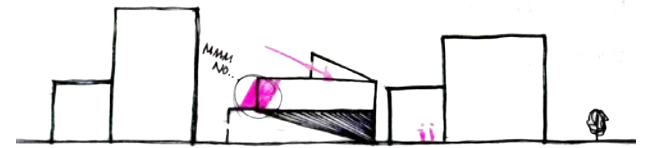
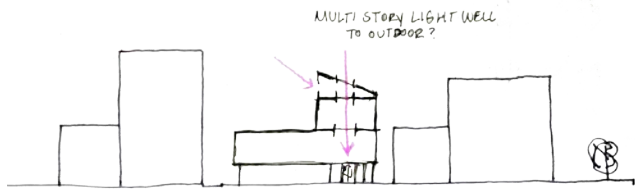


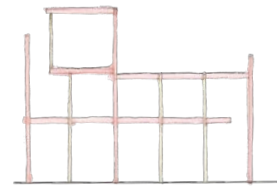
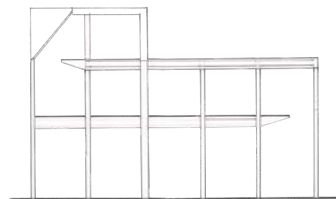
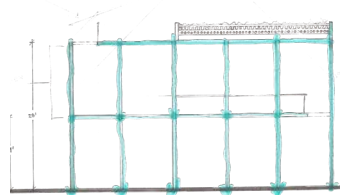
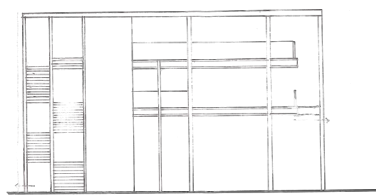
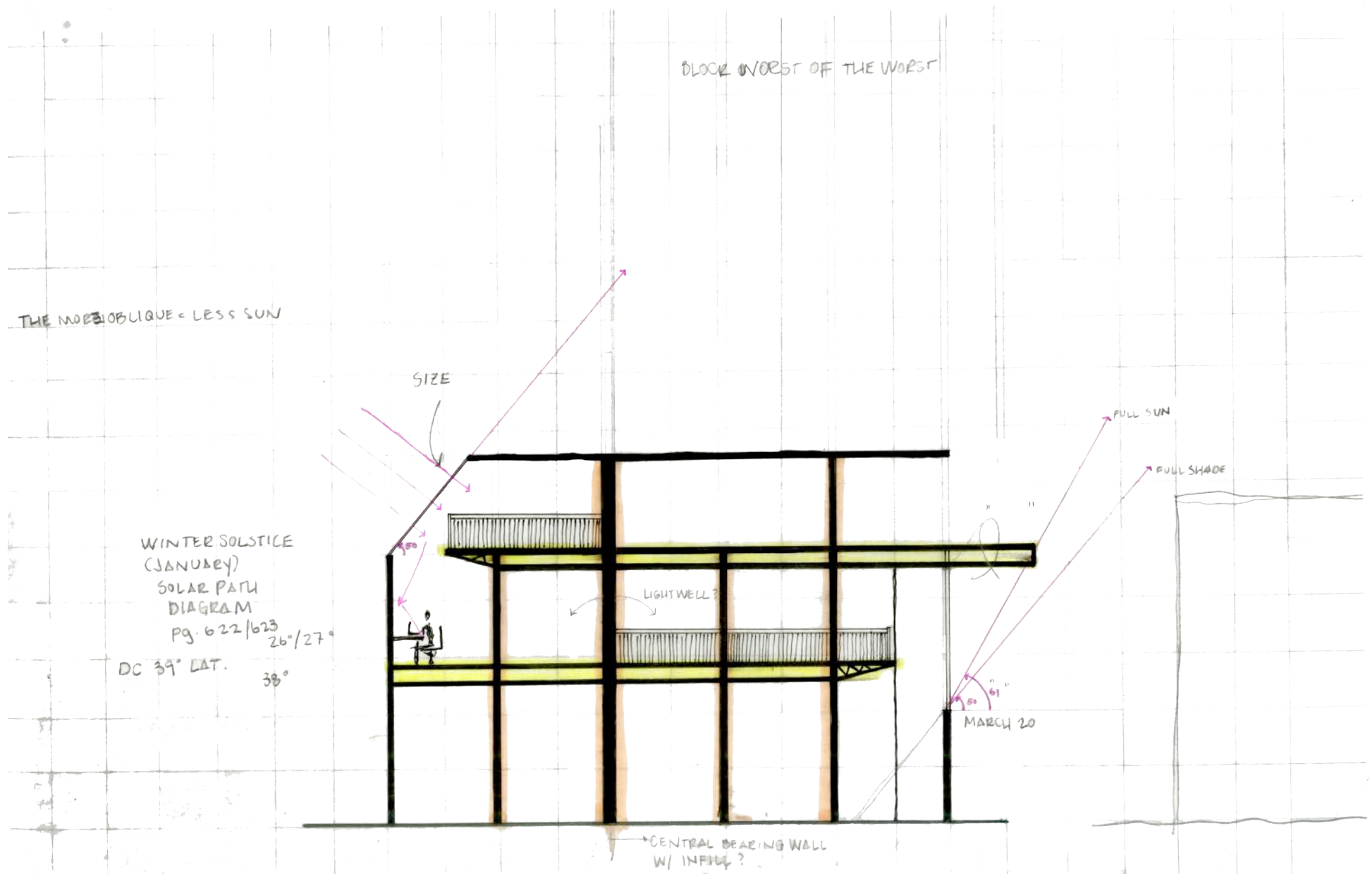
-  mural
-  restaurant
-  pedestrian path

AN EXPLORATION OF SECTION



“Bulldozing to flatten a site leads to placeness”
-kenneth Frampton





A THEORY ON PROPORTION

*In responding our
surroundings, what can we
reveal about "place?"*

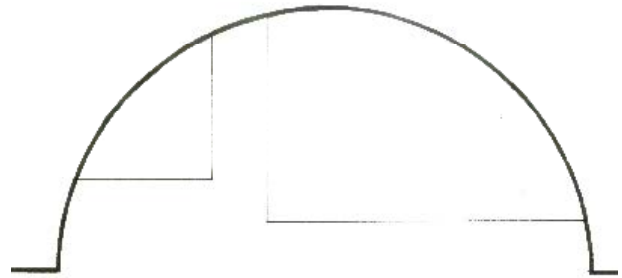
*In responding to our
surroundings, what can we
discover?*



Is architecture responsible for informing us about our
surroundings?

0 1 1/2 2 5

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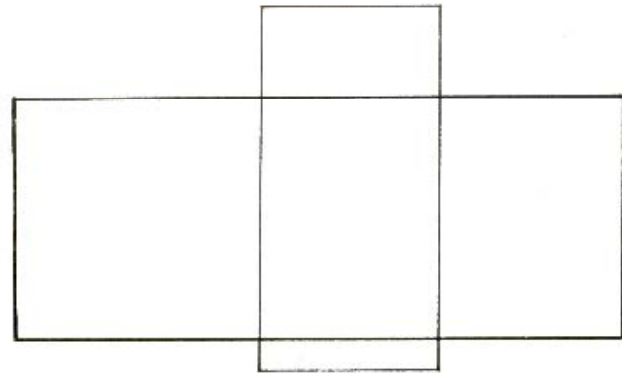
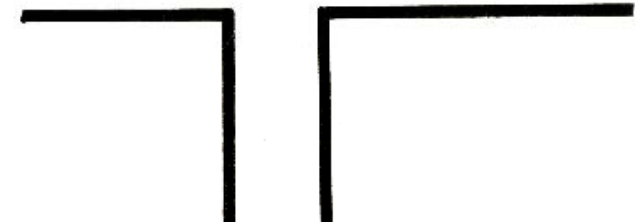
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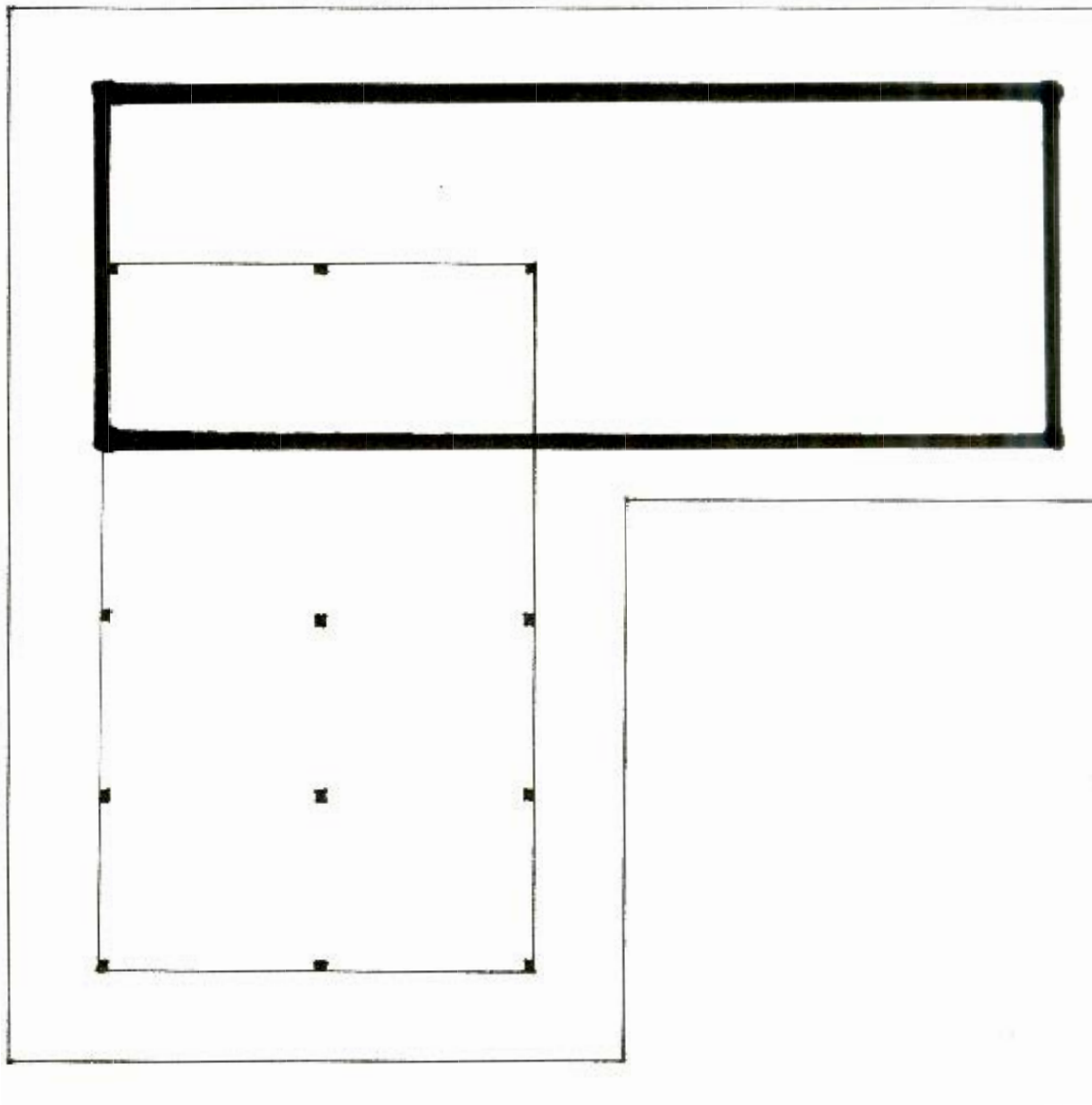


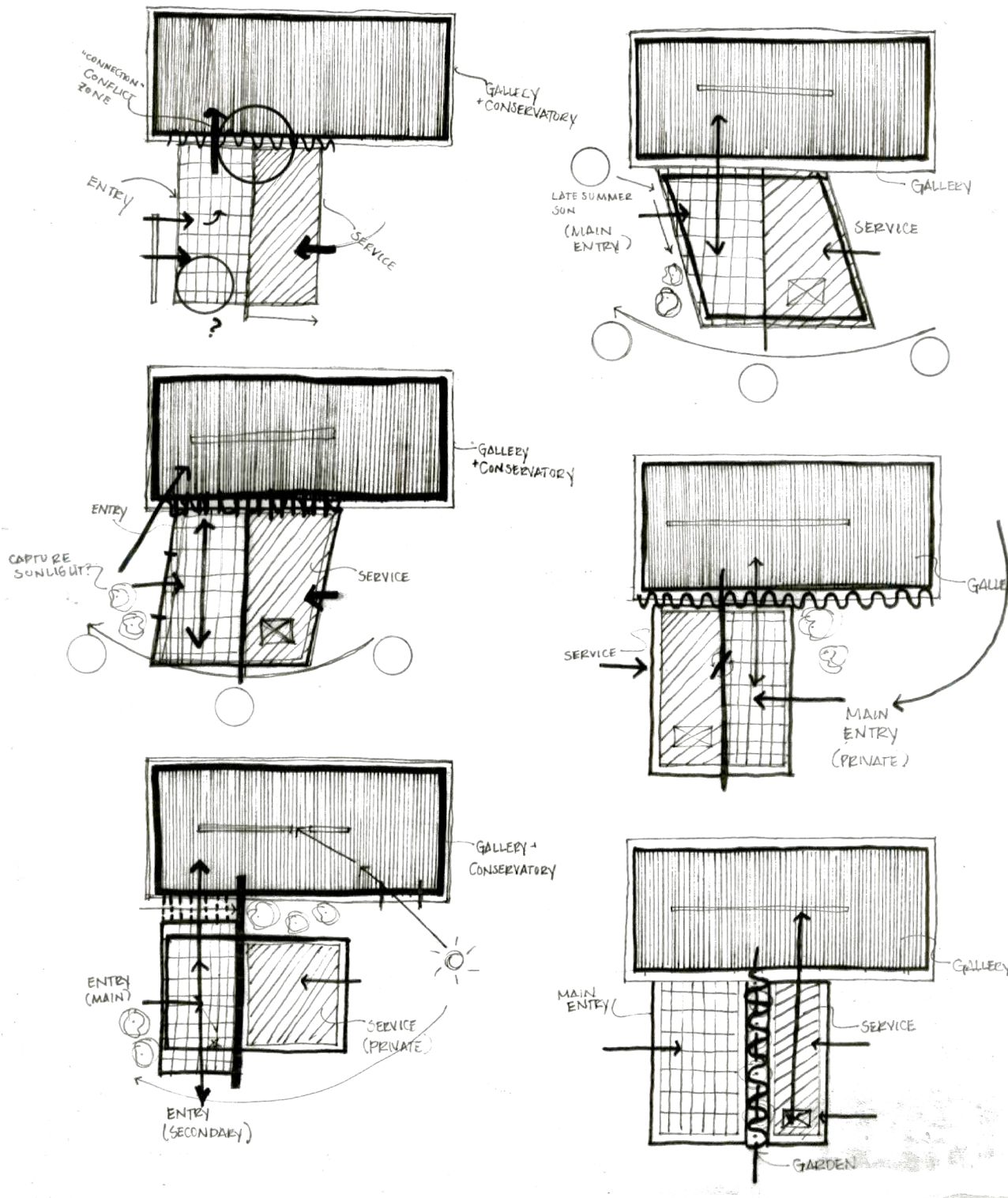
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CONCEPT NO 1: JOINING TWO STRUCTURES





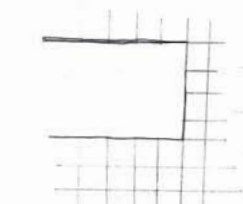
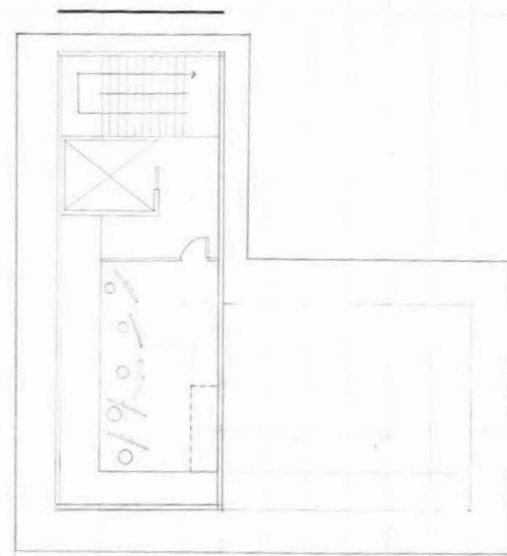
* ORIENTATION IS 50% OF POSITIVE SPACE DESIGN
 IT IS THE MISSION OF MODERN ARCHITECTURE TO CONTROL SPACE IN THE SUN TO BECOME THE AWARENESS OF A LAYER TO BE LIVED



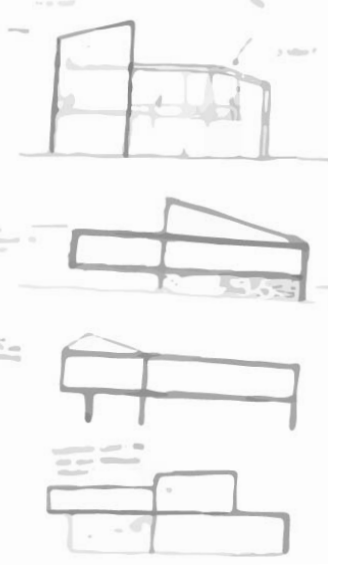
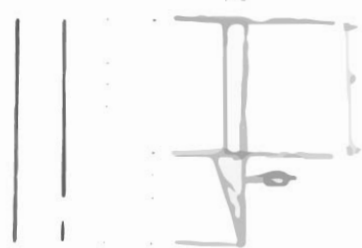
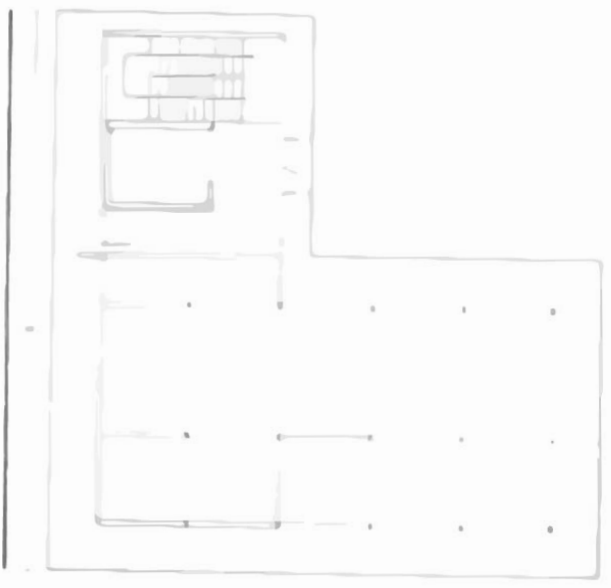
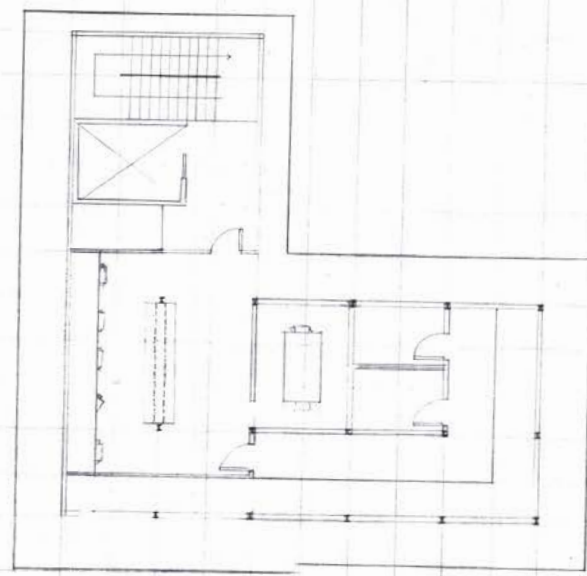
THE LIVING CRISIS OF GLOBAL WARMING MUST PERSUADE US TO RECONSIDER OUR RELATIONSHIP WITH NATURE AND TECHNOLOGY

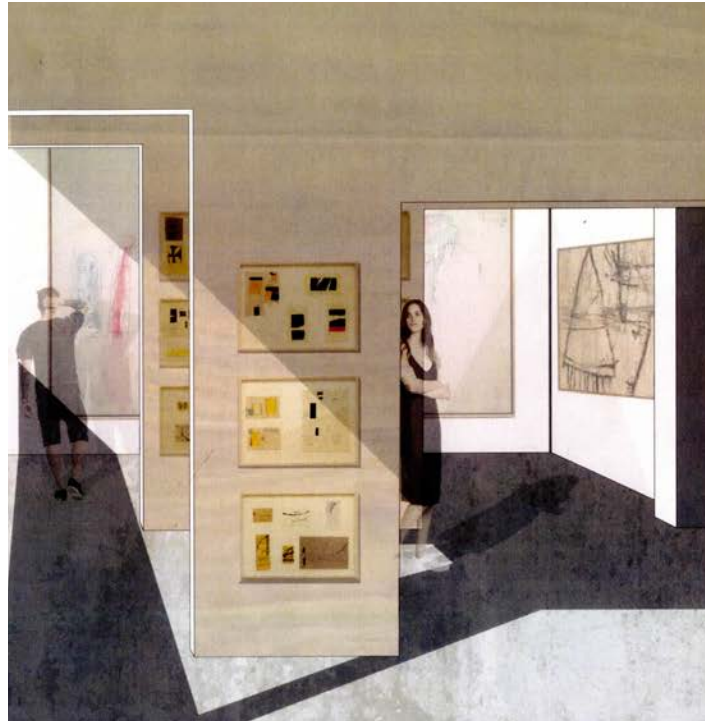
- PERHAPS MOST IMPORTANTLY, THESE ARE THE VIEWS OF SUN IN WINTER
- THE EAST WILL ROTATE AROUND THE SUN BUT THE SUN ROTATES AROUND THE BUILDING (pg. 148 H.C.L.)

WHEN MAKING THE SUNSPACE, THE SLOPE SHOULD BE PERPENDICULAR TO THE SUN IN THE COLDEST PART OF THE YEAR (JAN/FEB/MARCH)



- LEAVE SOME BEAMS EXPOSED
 ↳ TIMBER OR BRCEL

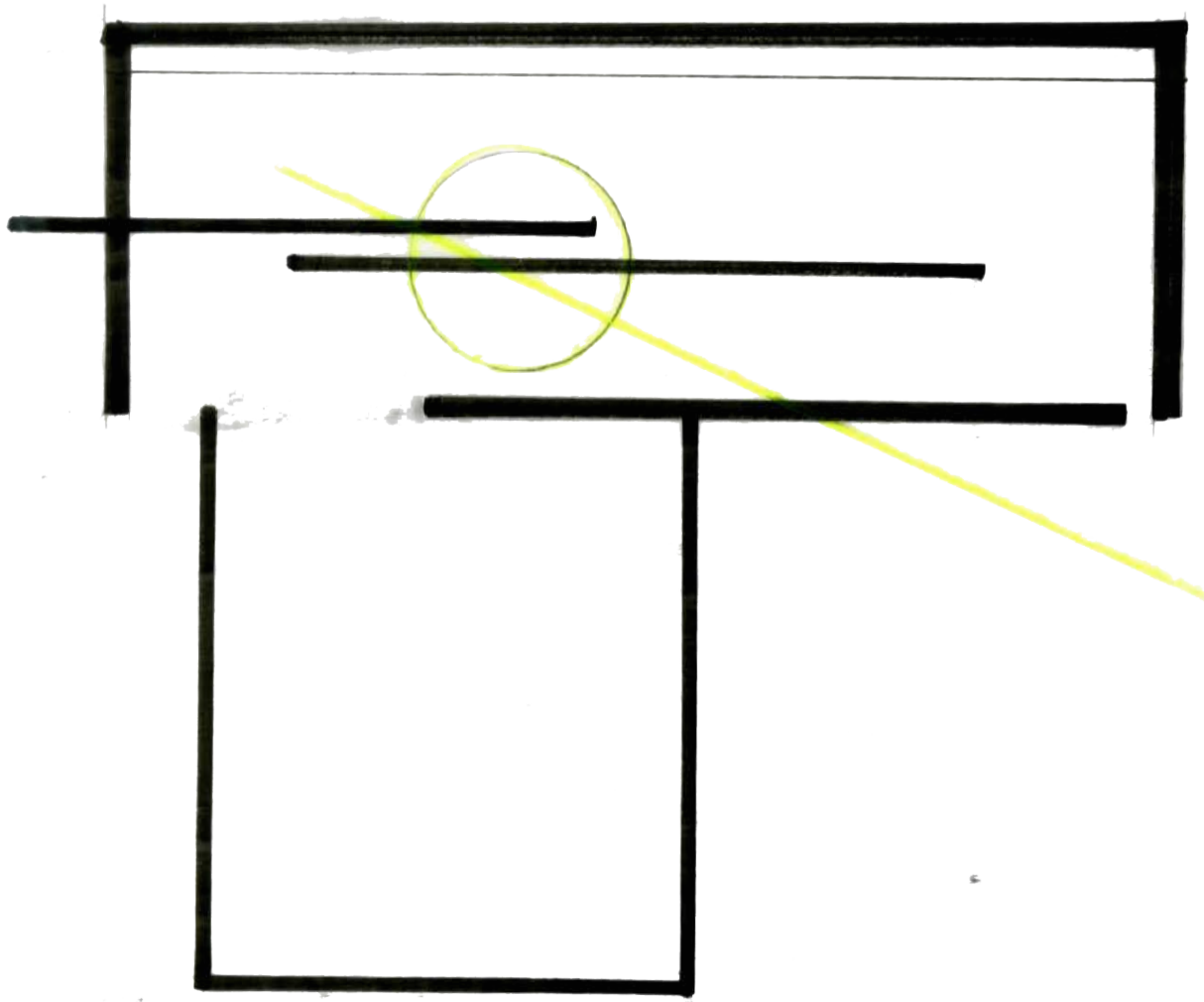


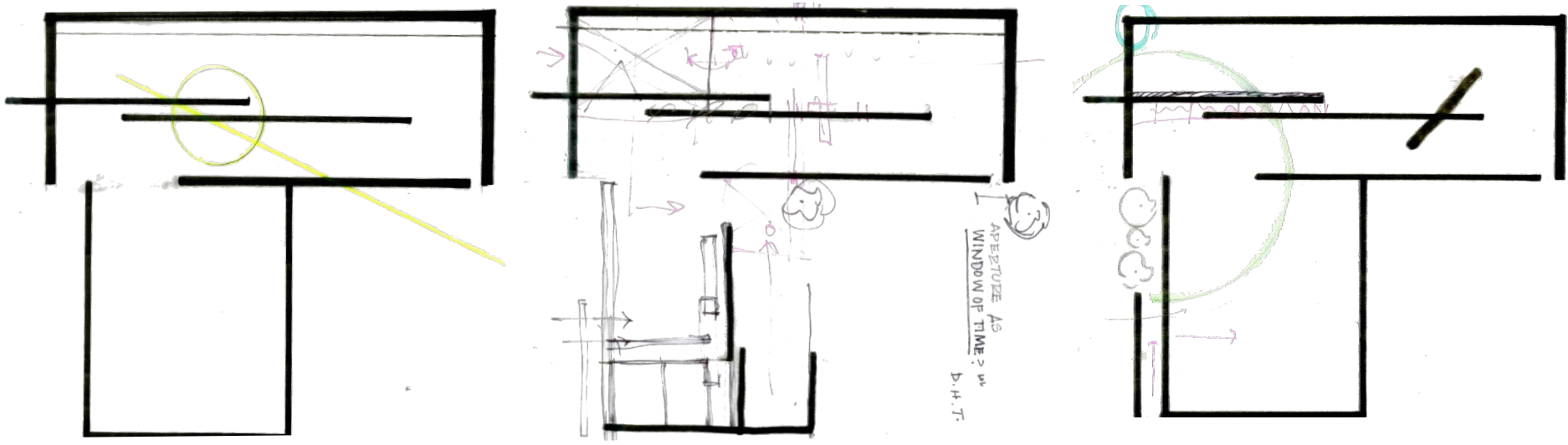


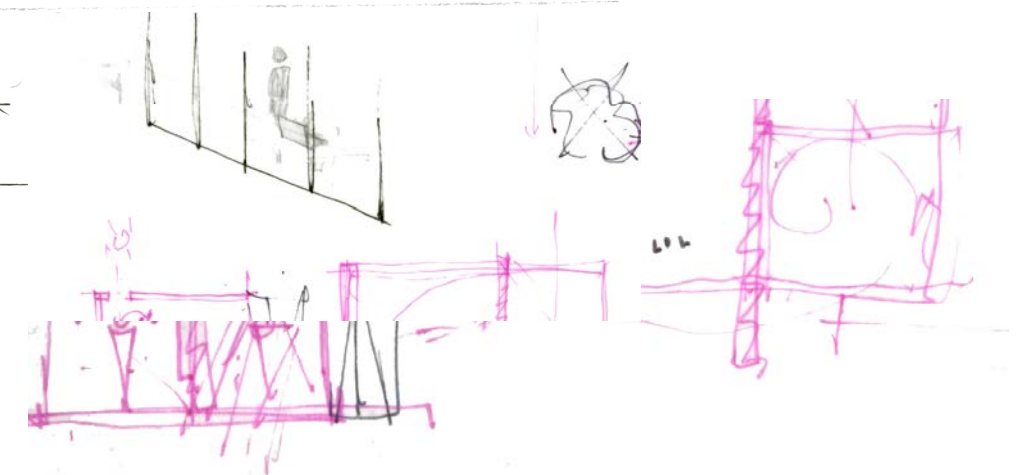
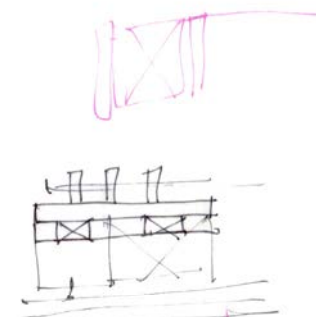
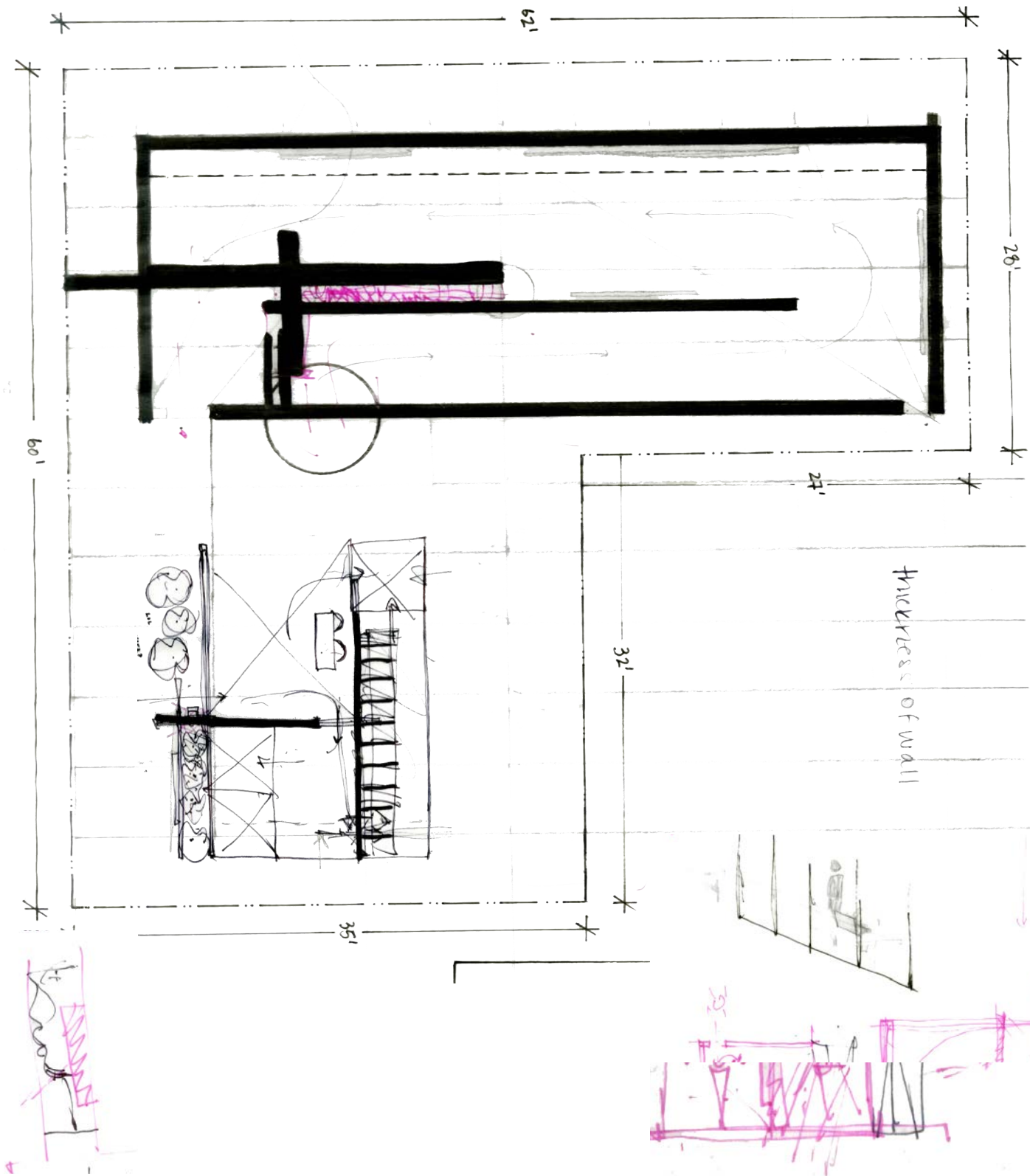
CONCEPT NO 2: AN ARCHITECTURE OF THE WALLS

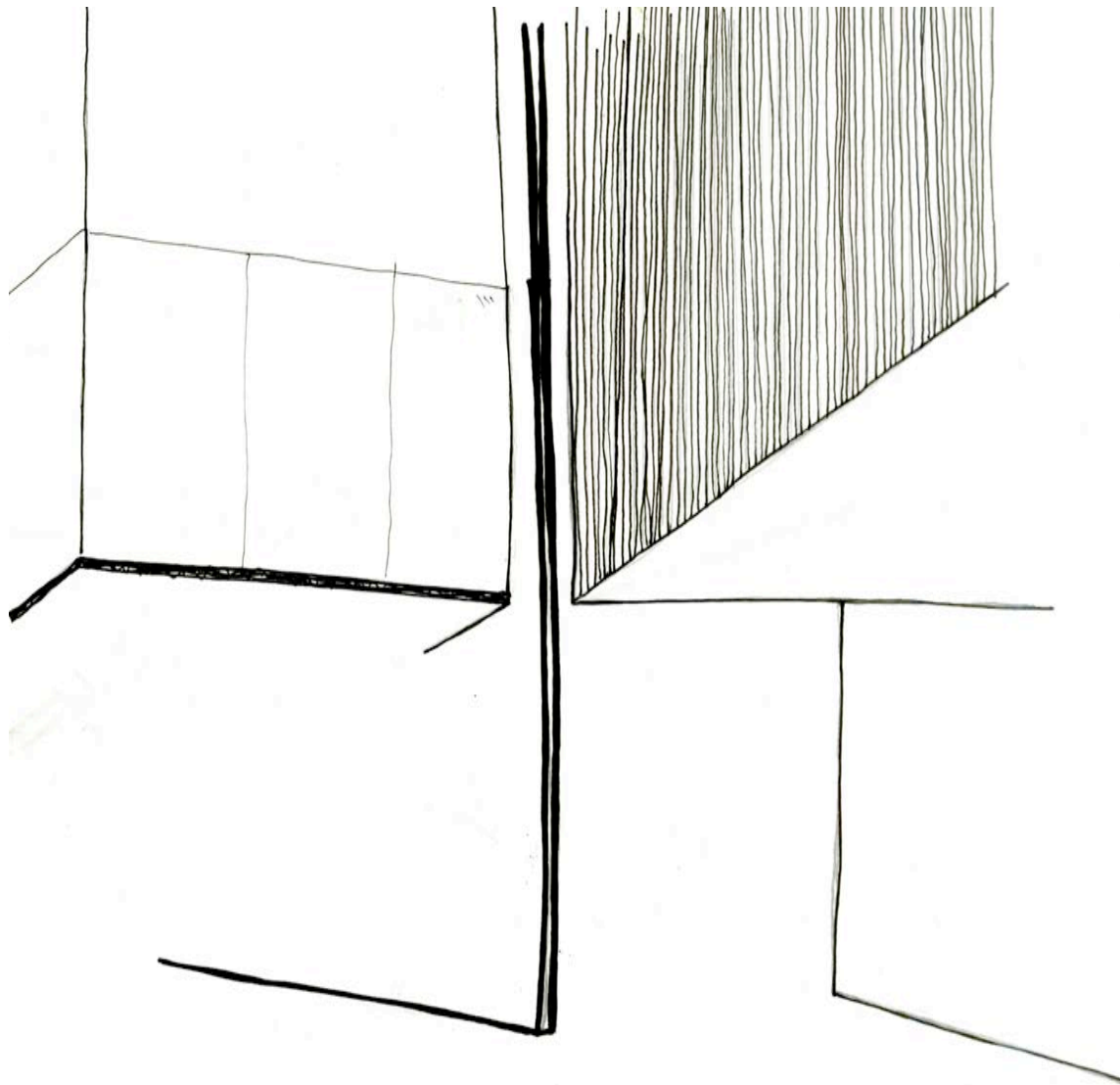
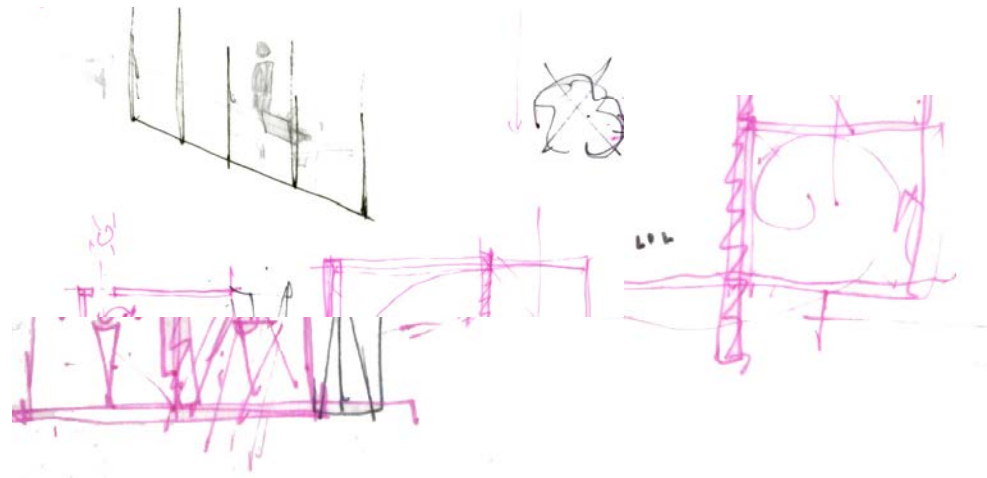


“A plethora of cultural and social codes reinforce the superiority of art over the everyday, of contemplation over distraction, of sight over the other sense. It appears that architecture is demeaned by its associate with distraction.” - Jonathan Hill

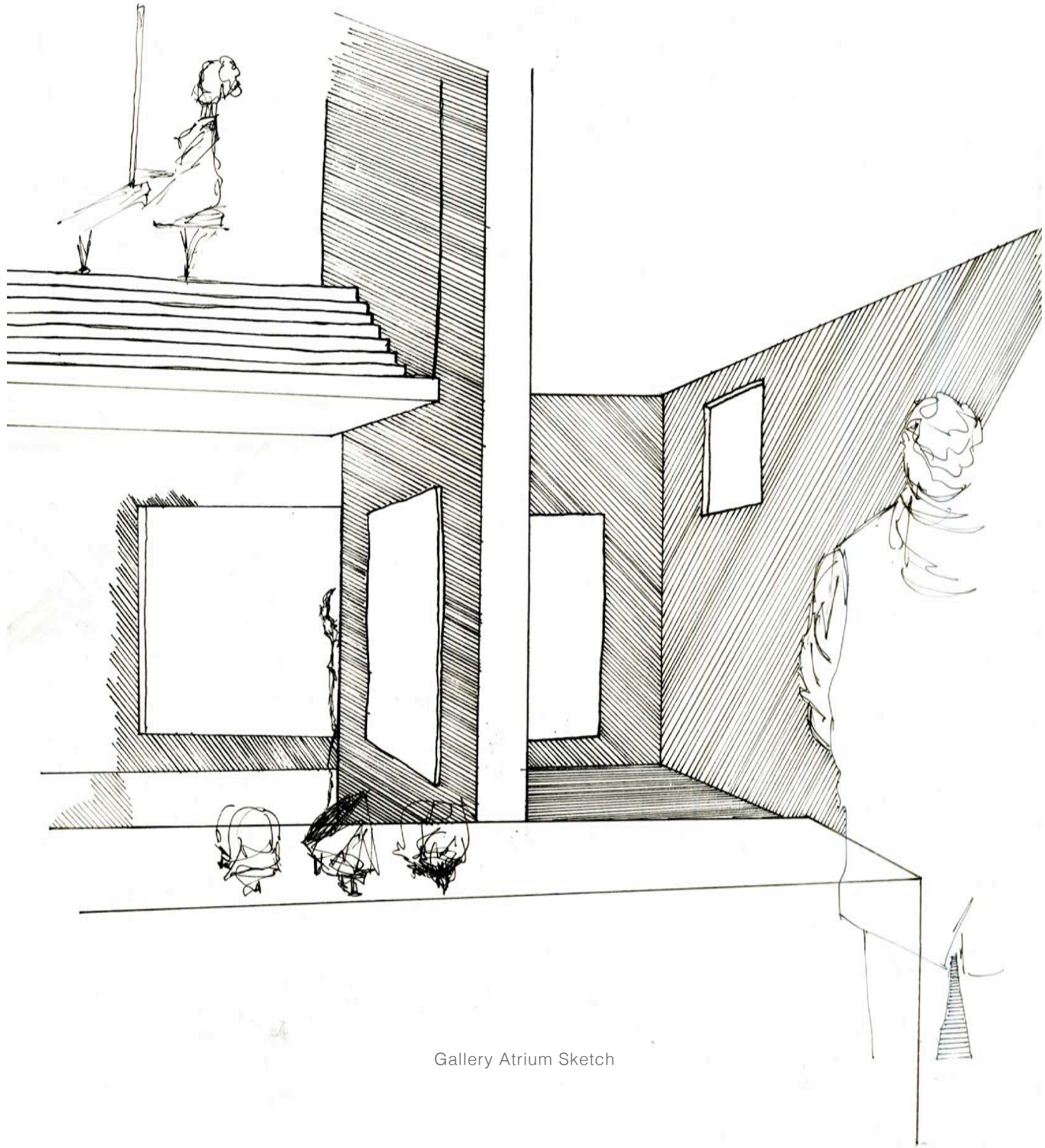






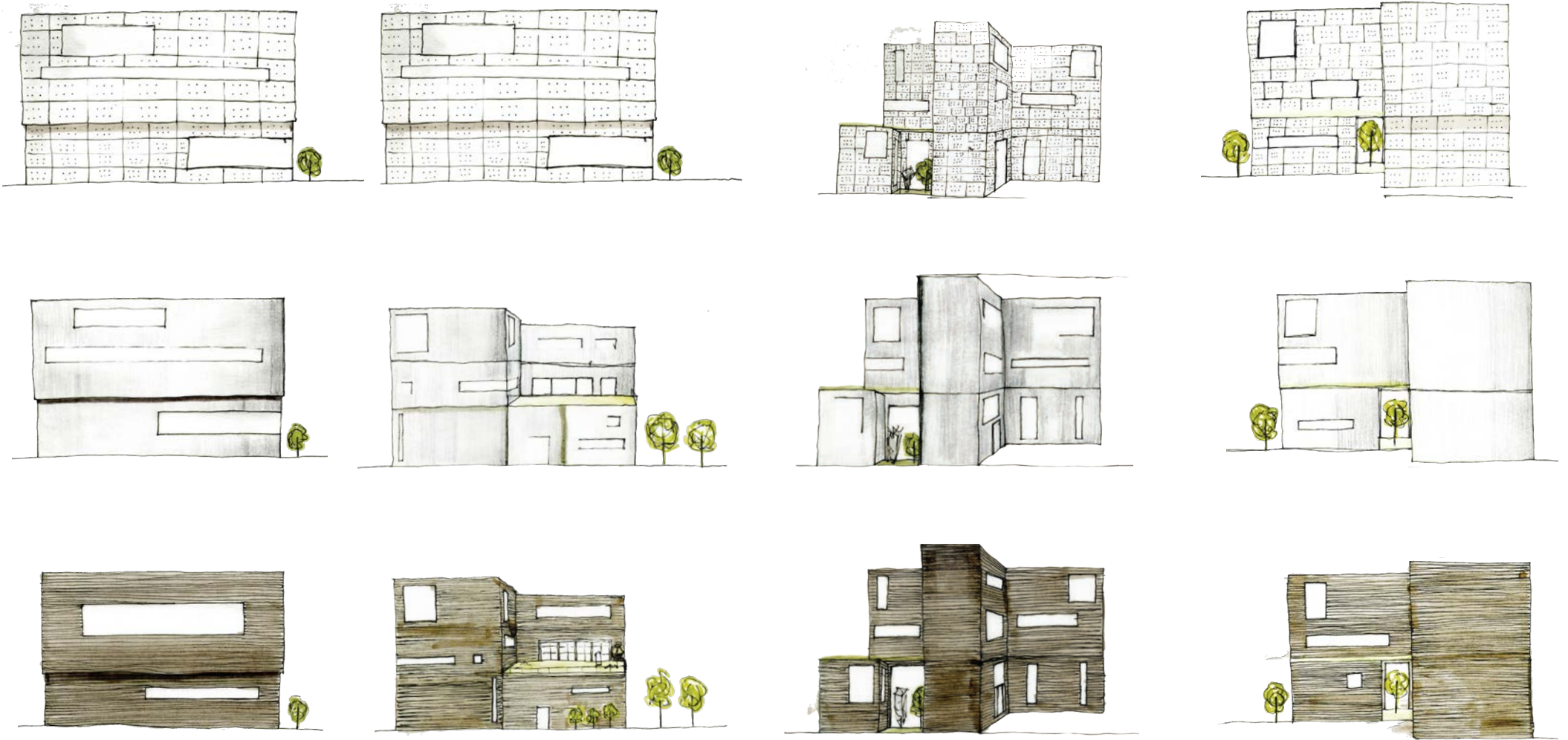


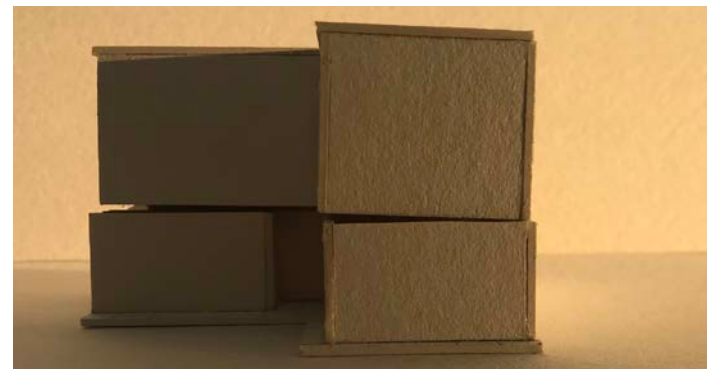
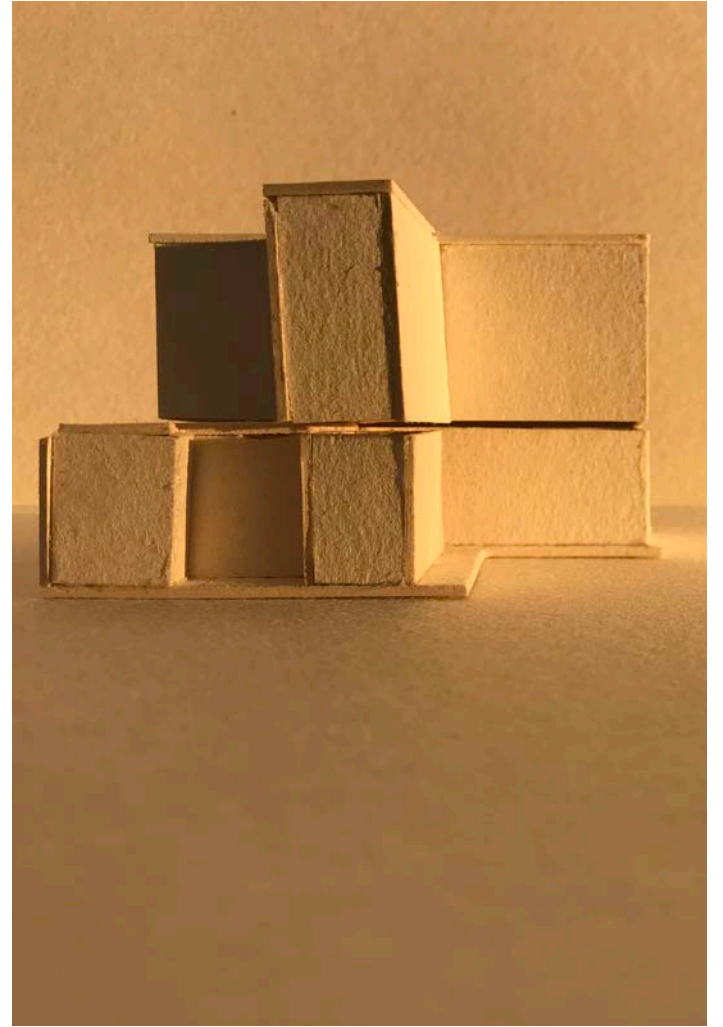
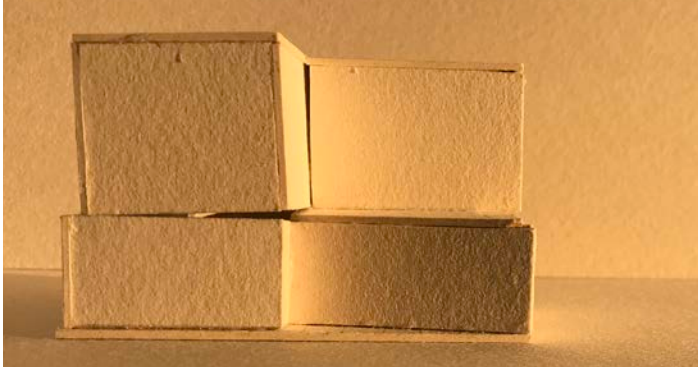
Gallery Atrium Concept



Gallery Atrium Sketch

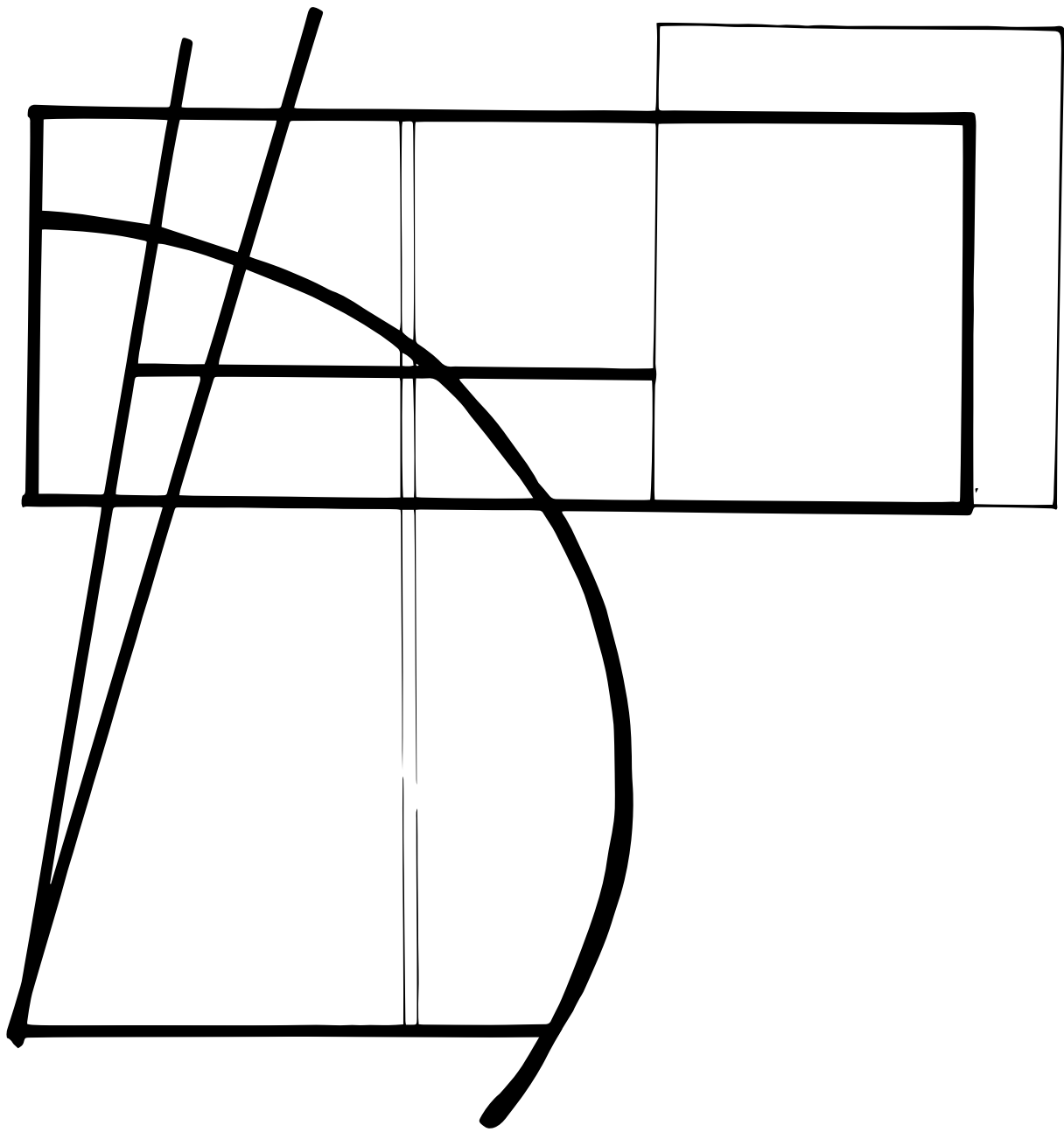
EXTERIOR STUDY

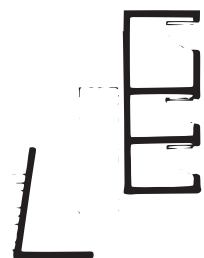
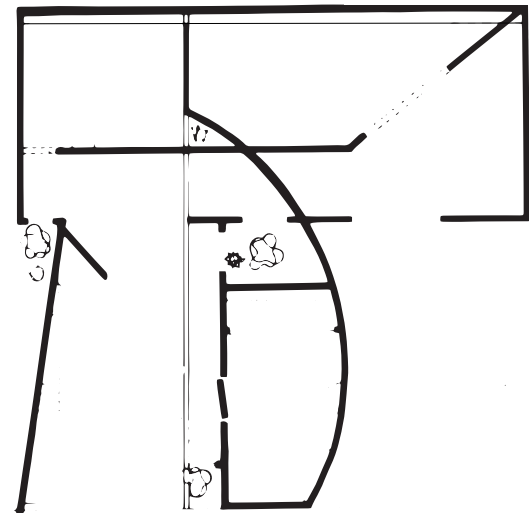
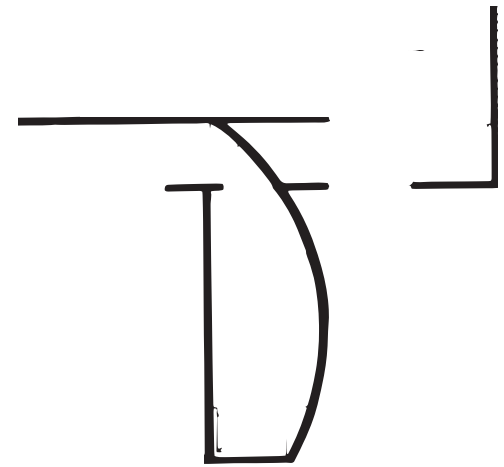
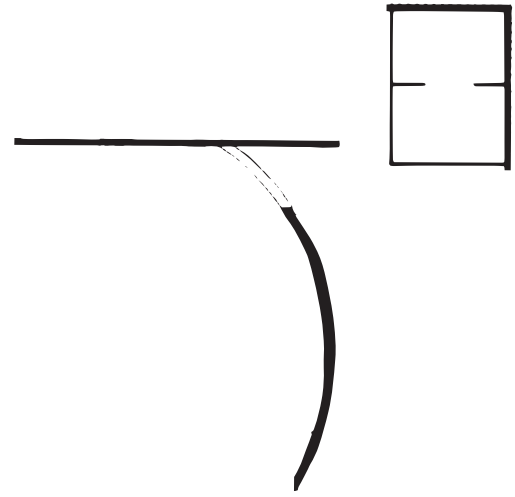
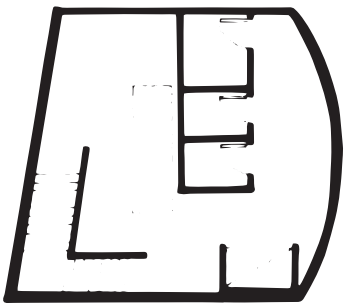
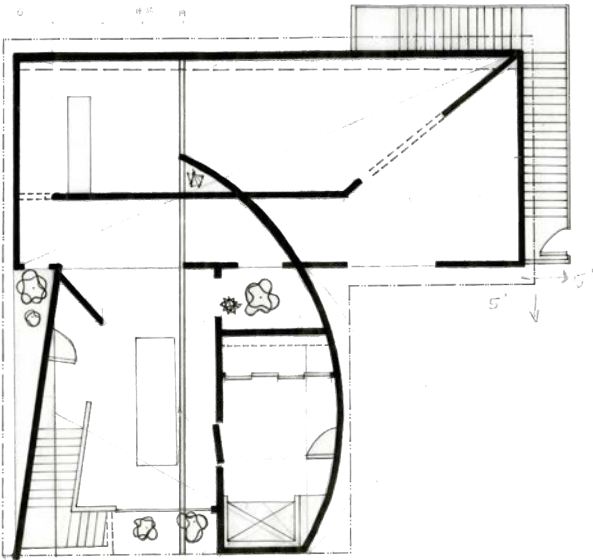
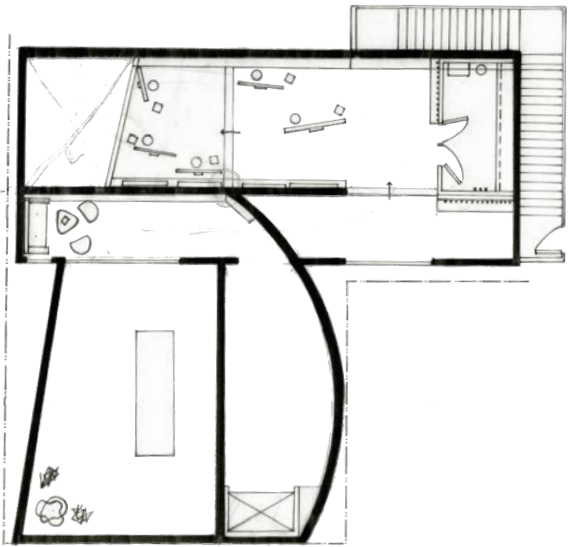
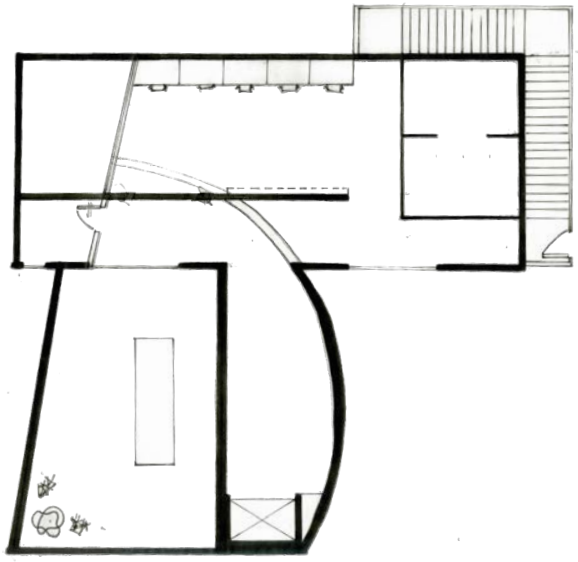




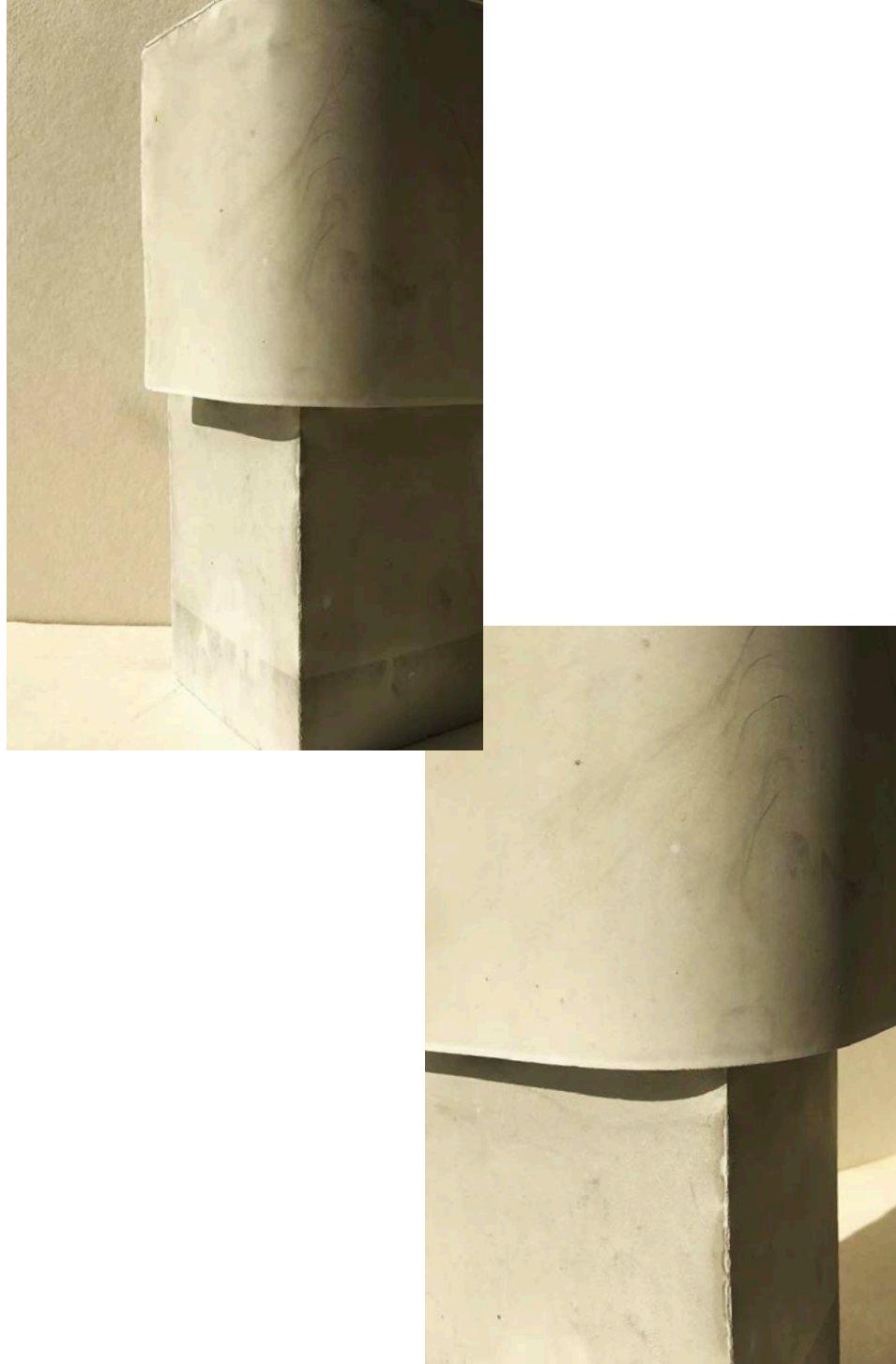
INTRODUCING THE CURVE



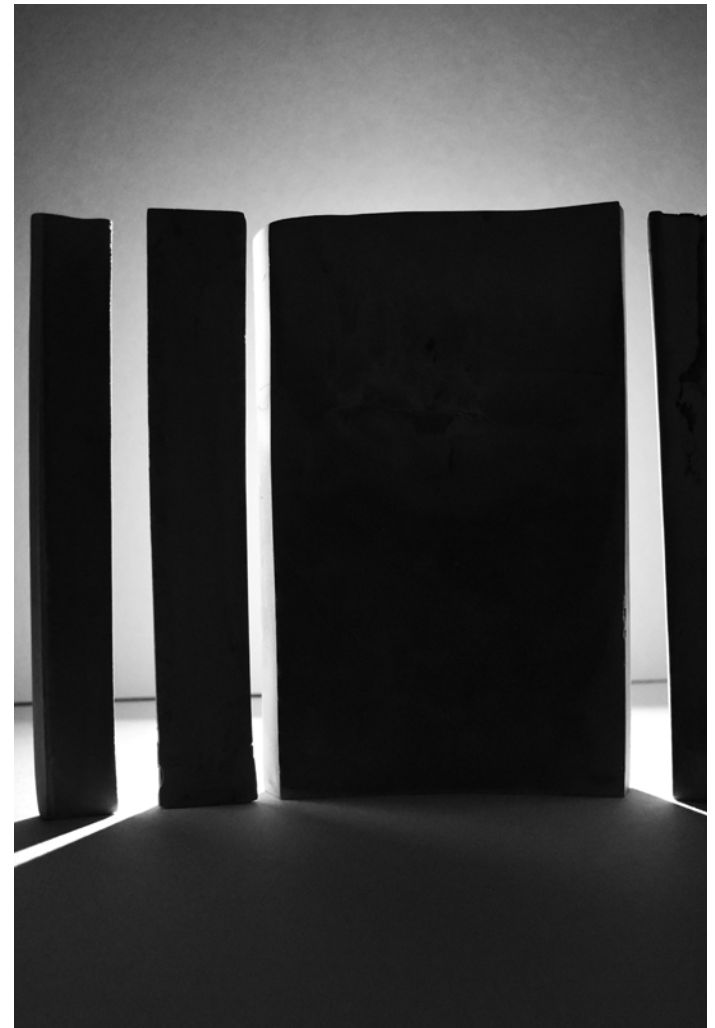


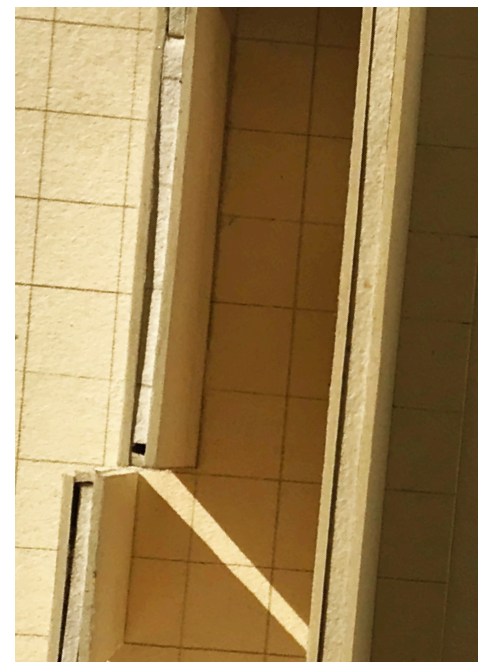
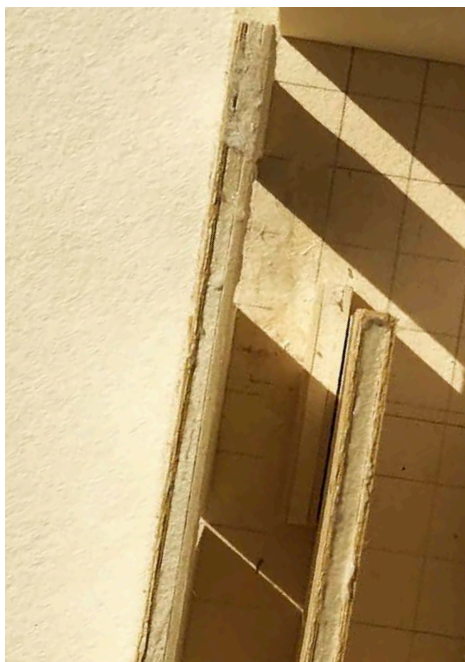
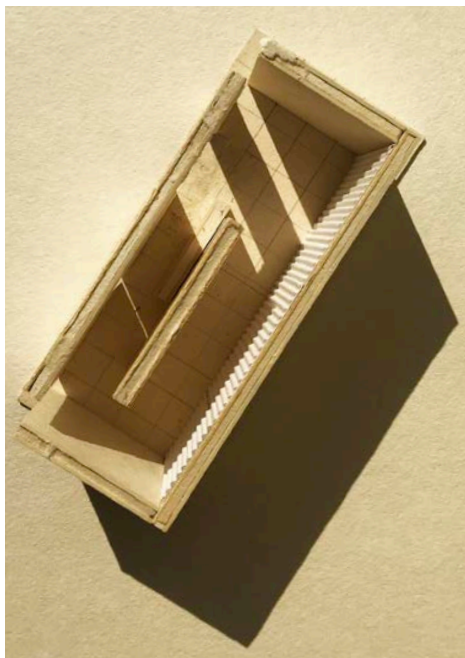
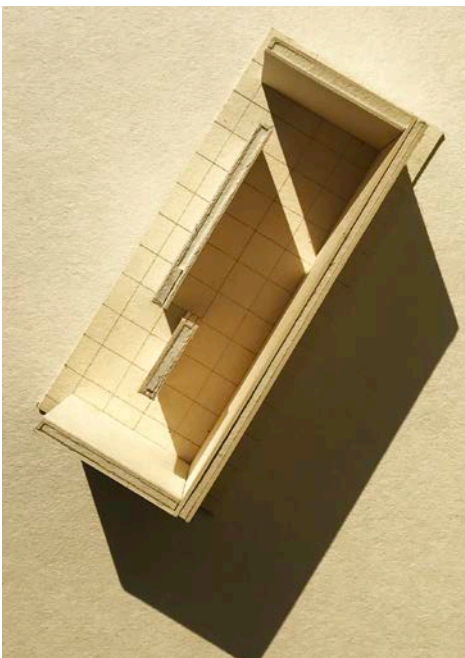
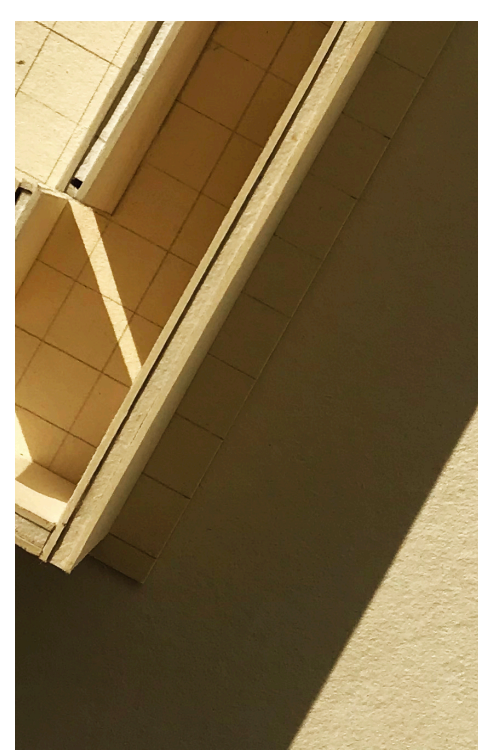


WRAPPING LIGHT

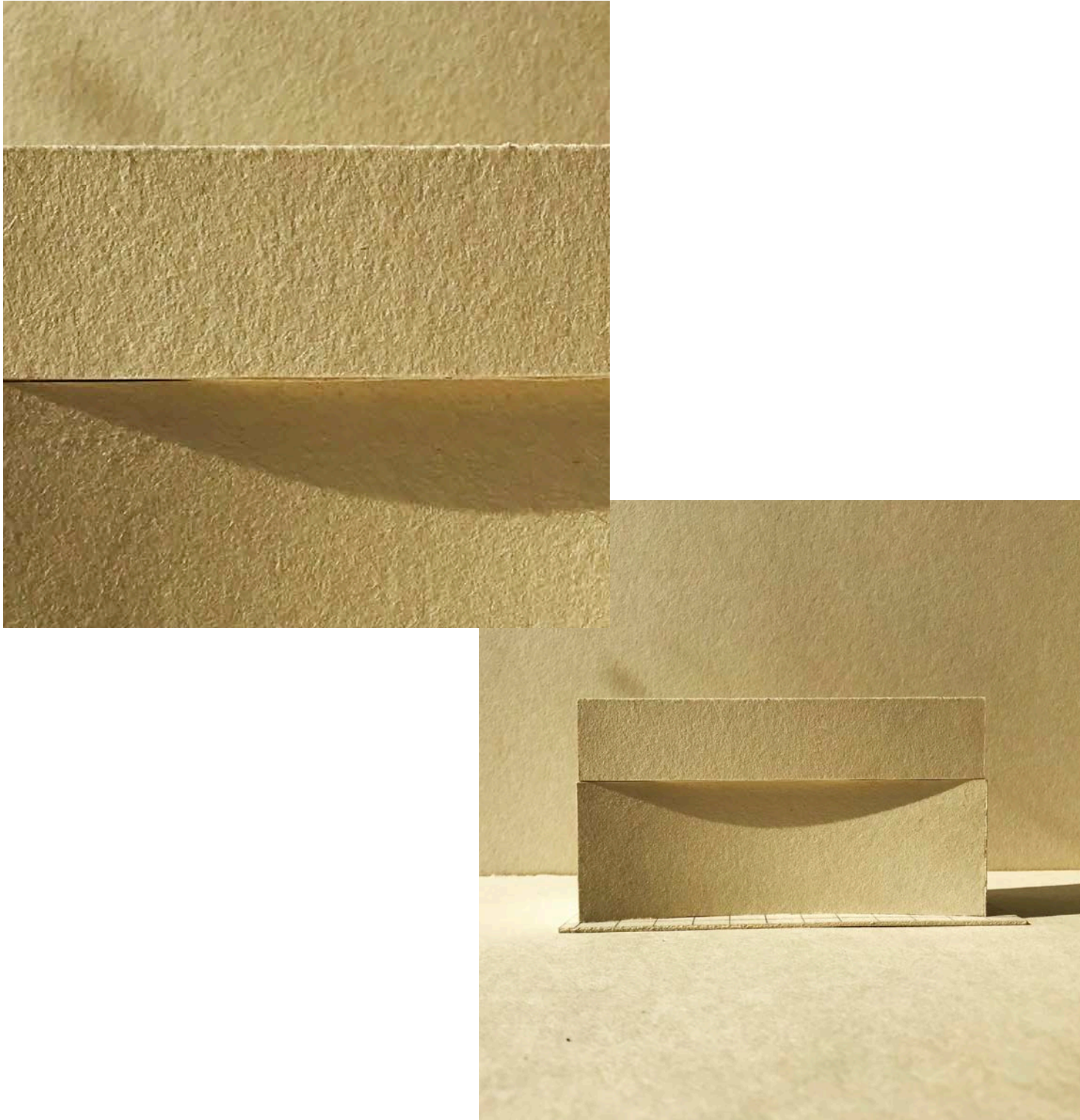


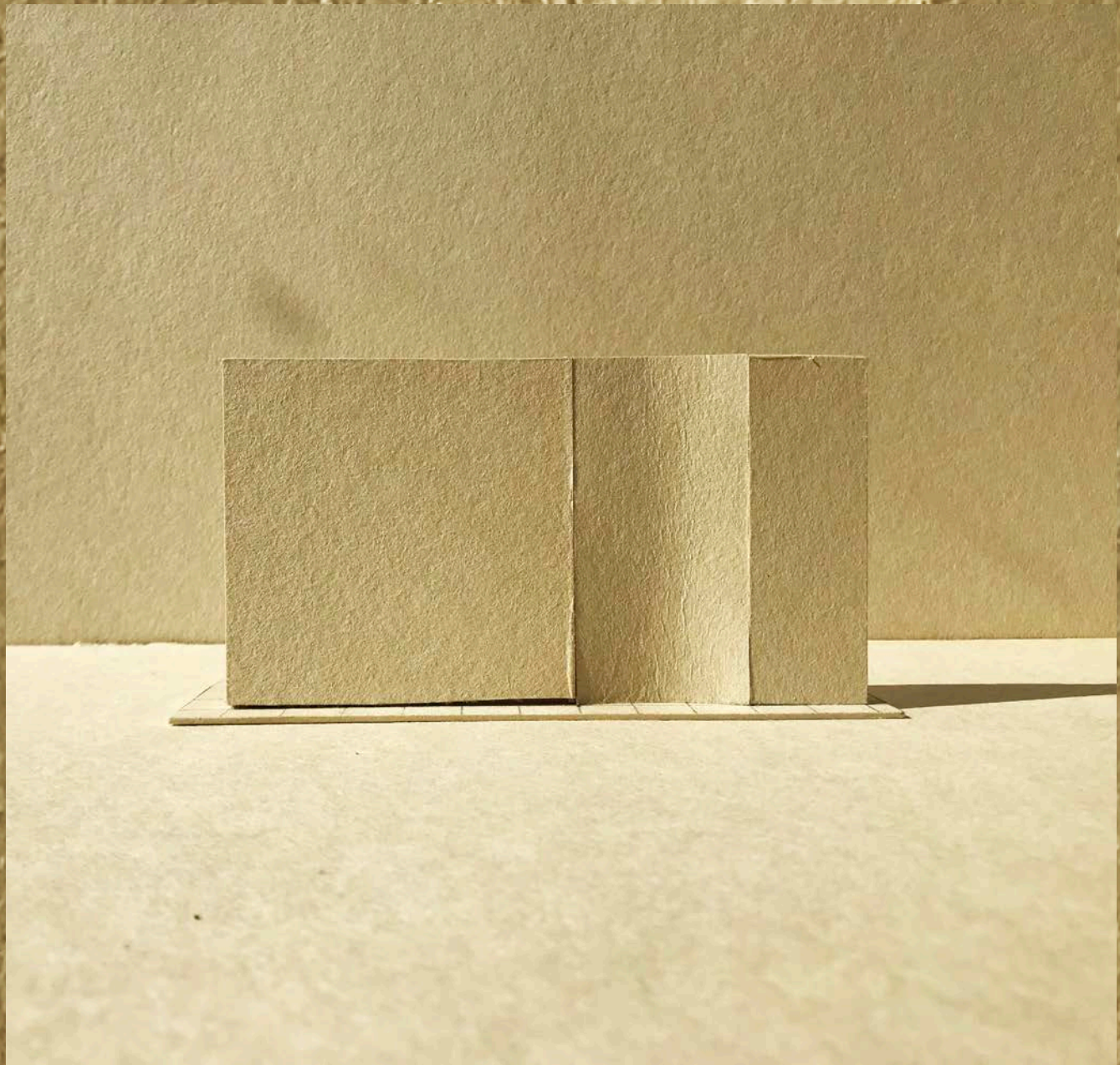
LIGHT EXTRUSIONS



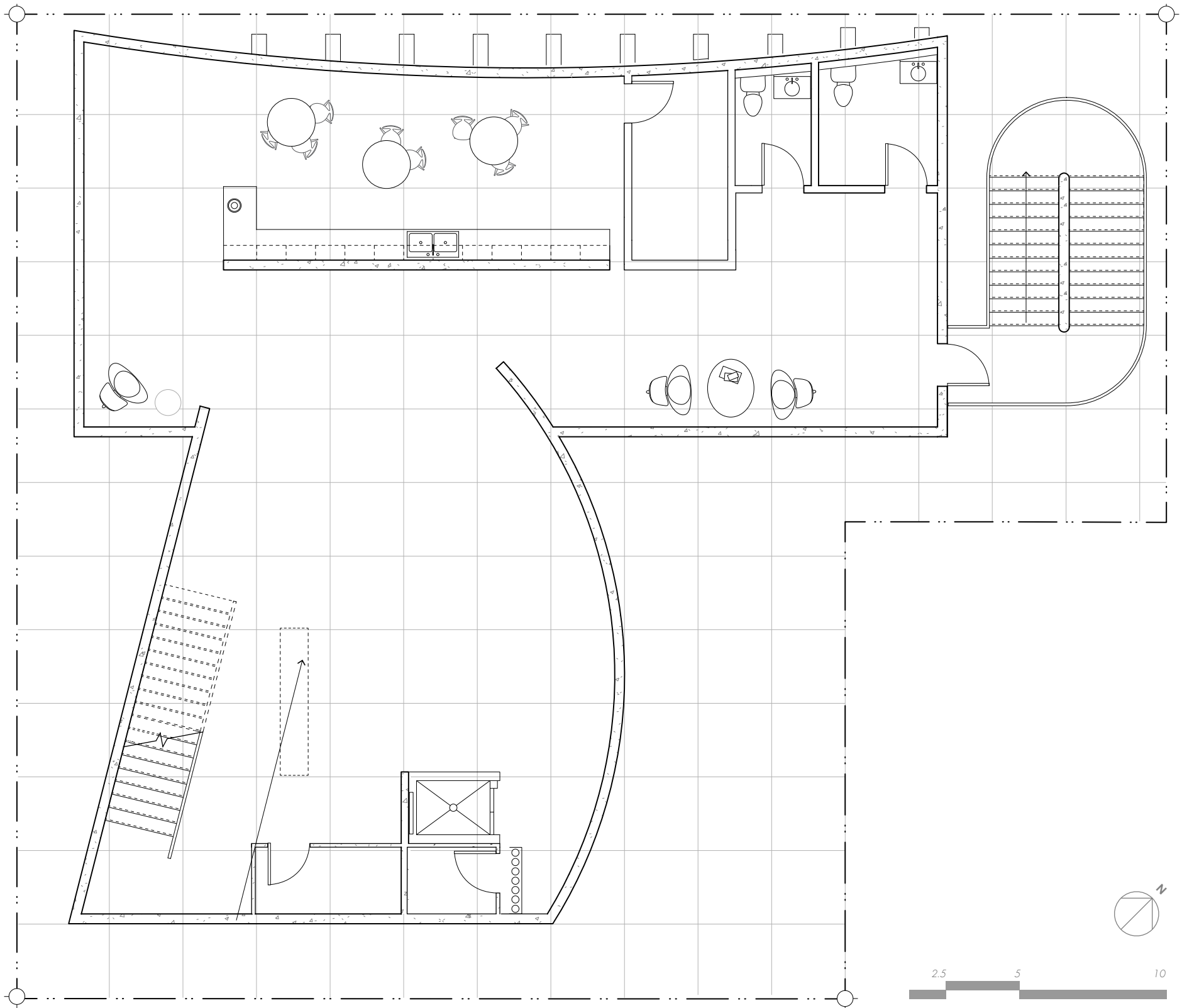


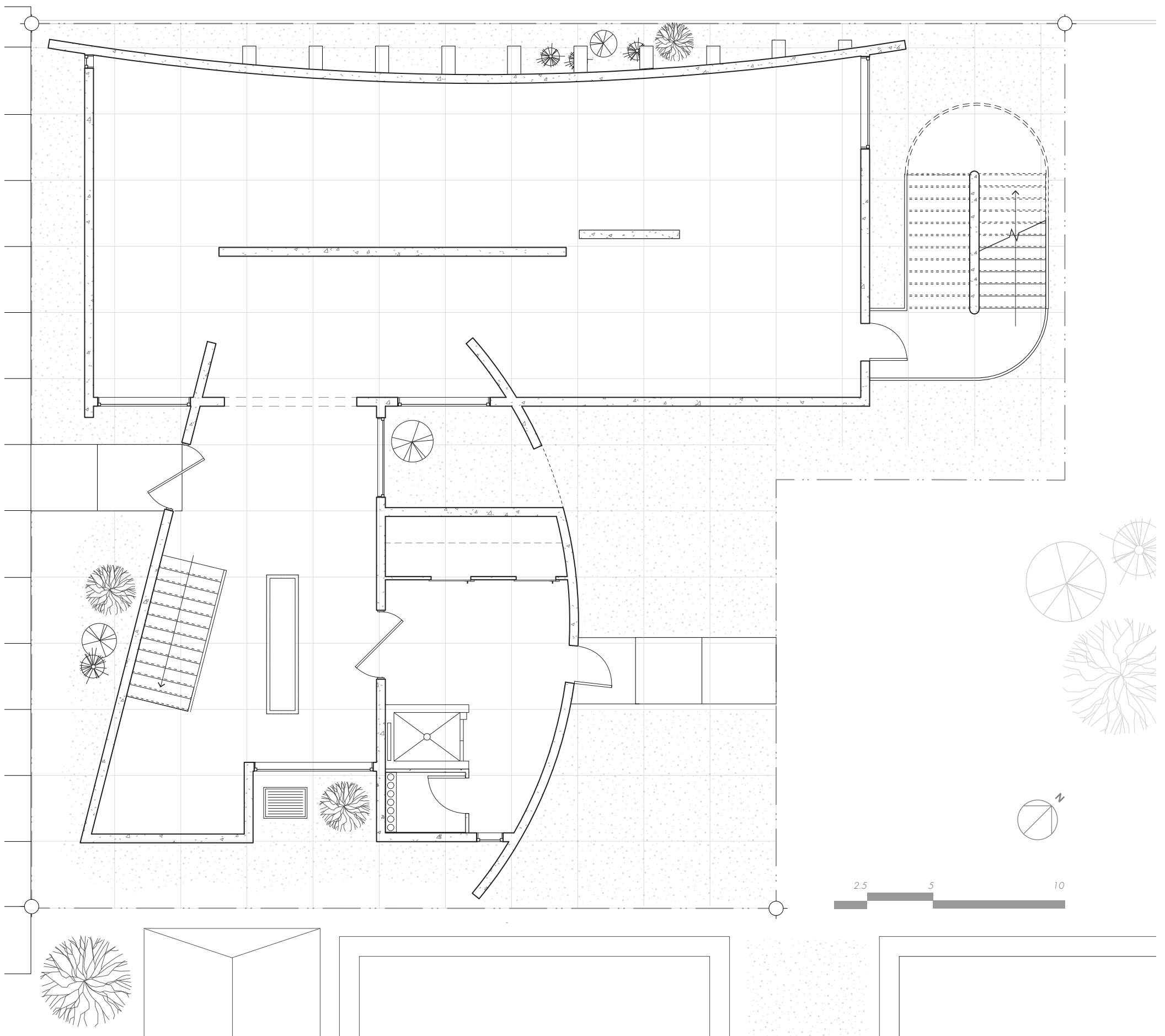
CUPPING LIGHT

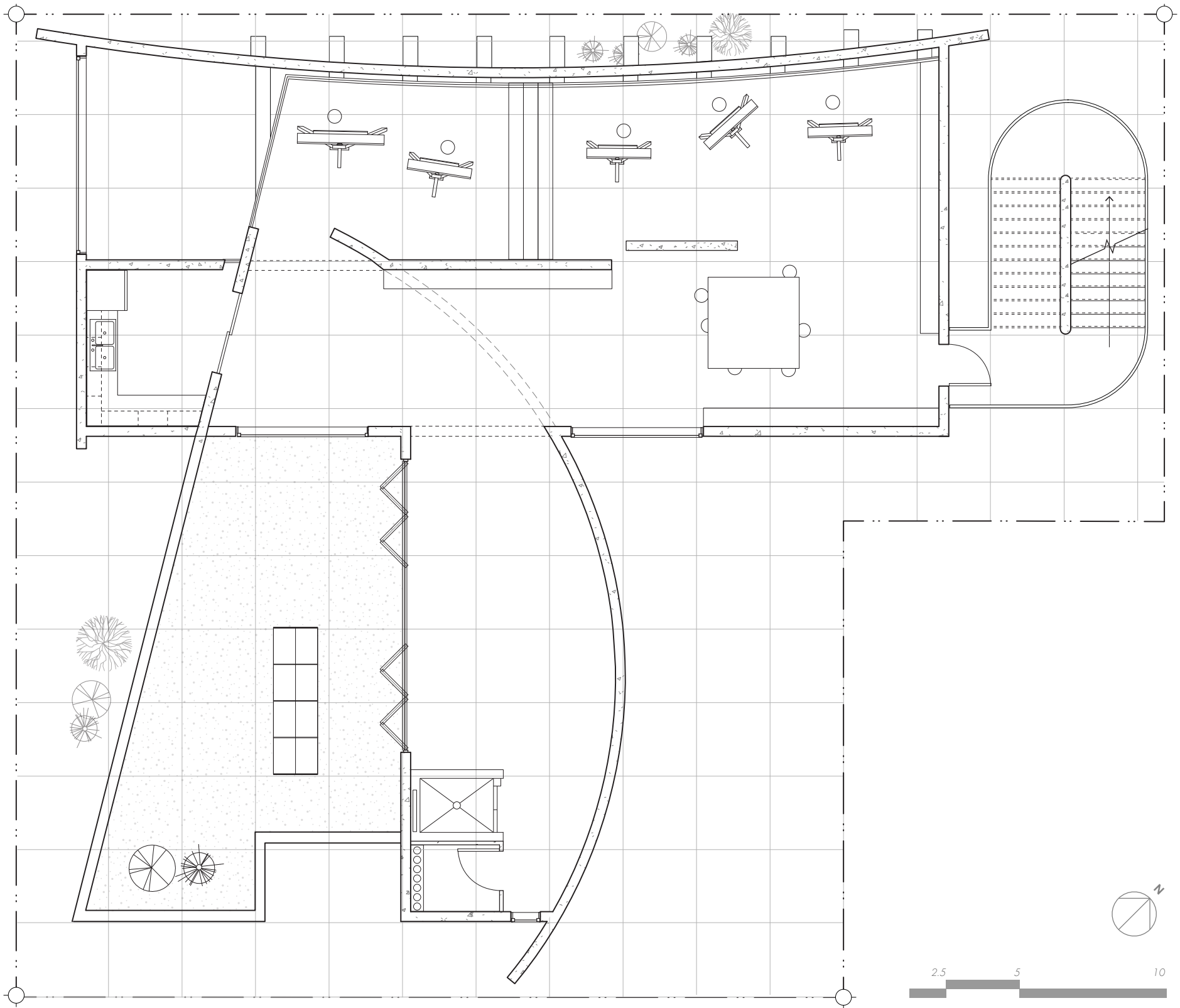


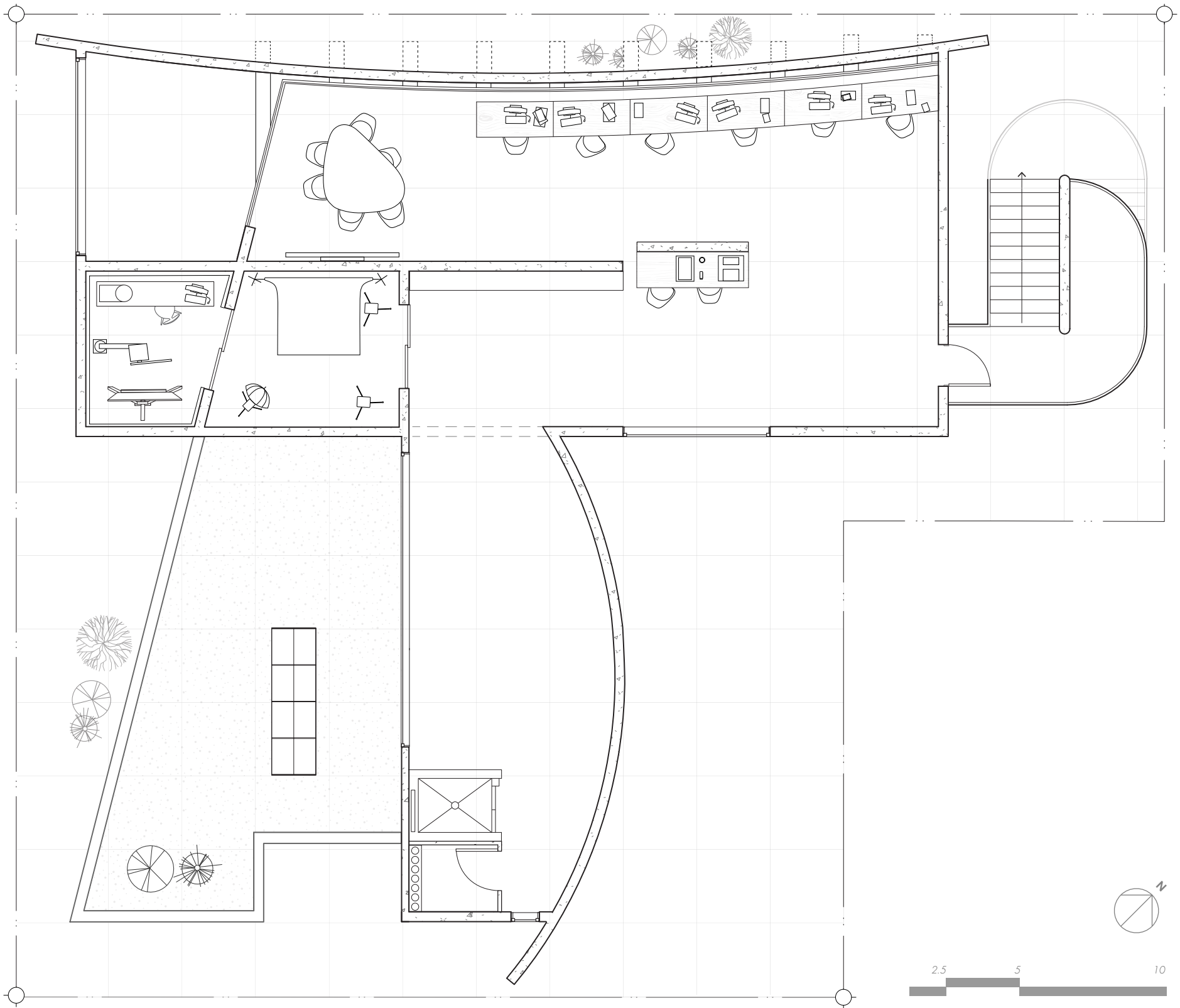


PLANS

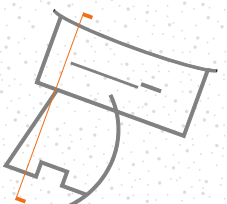
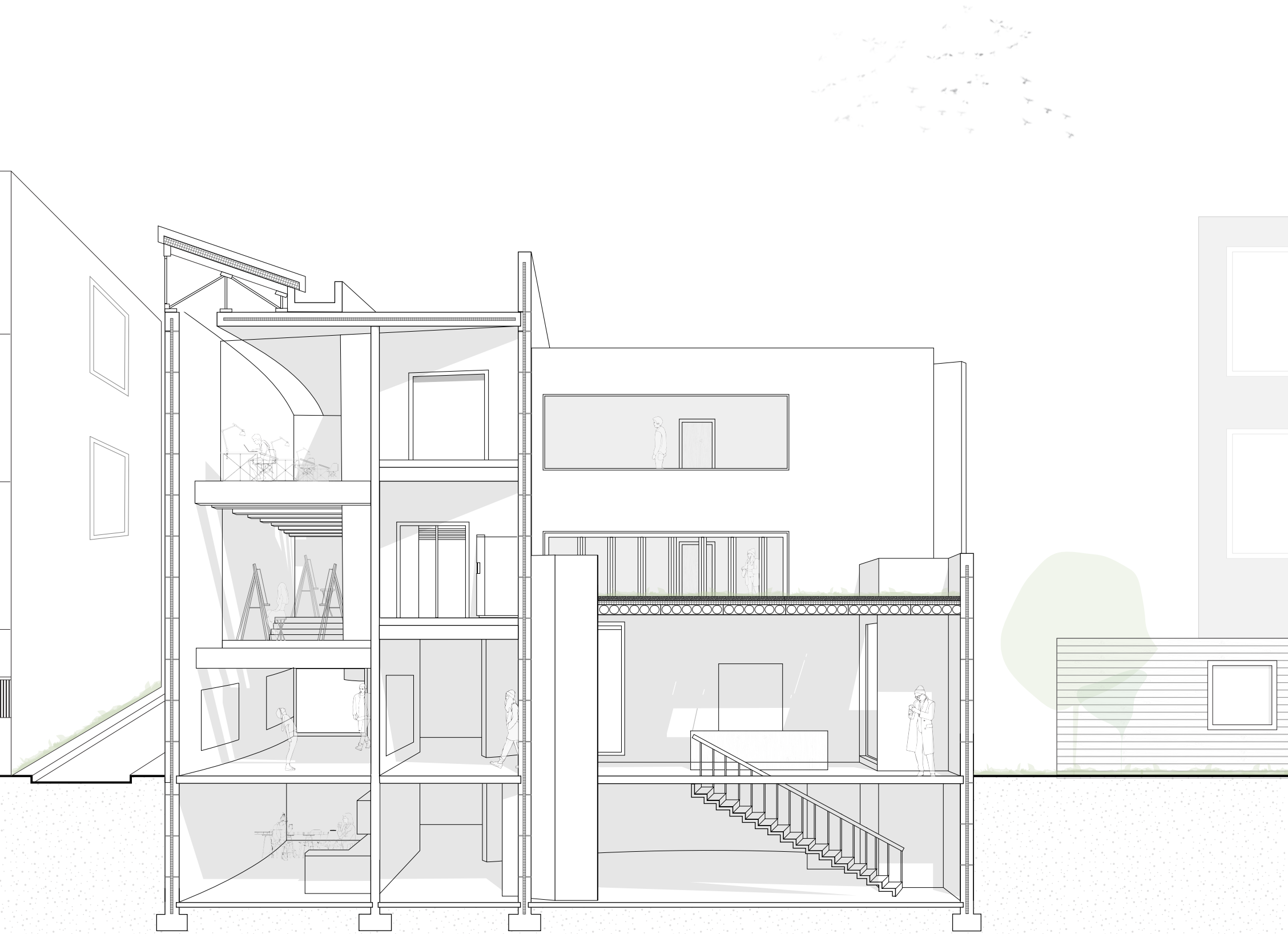


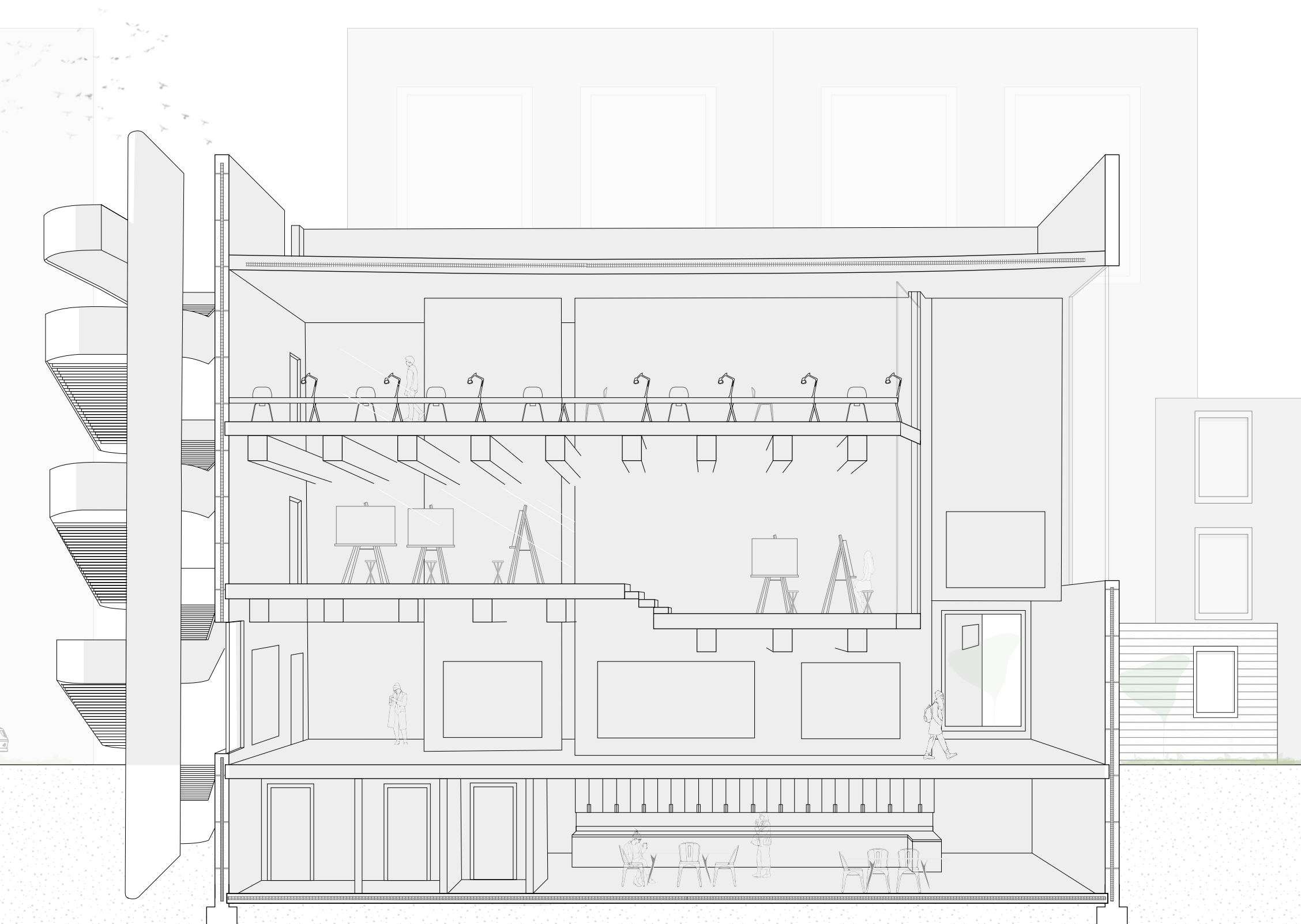
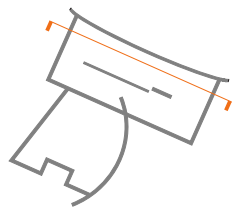


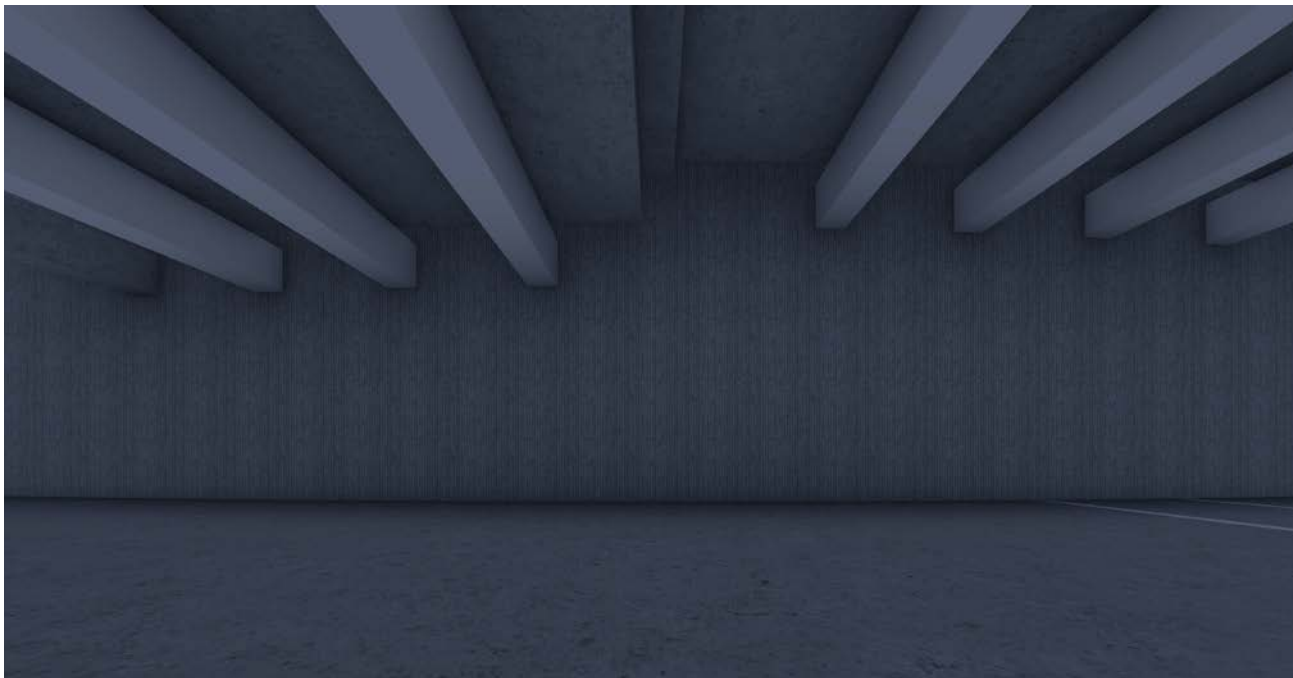




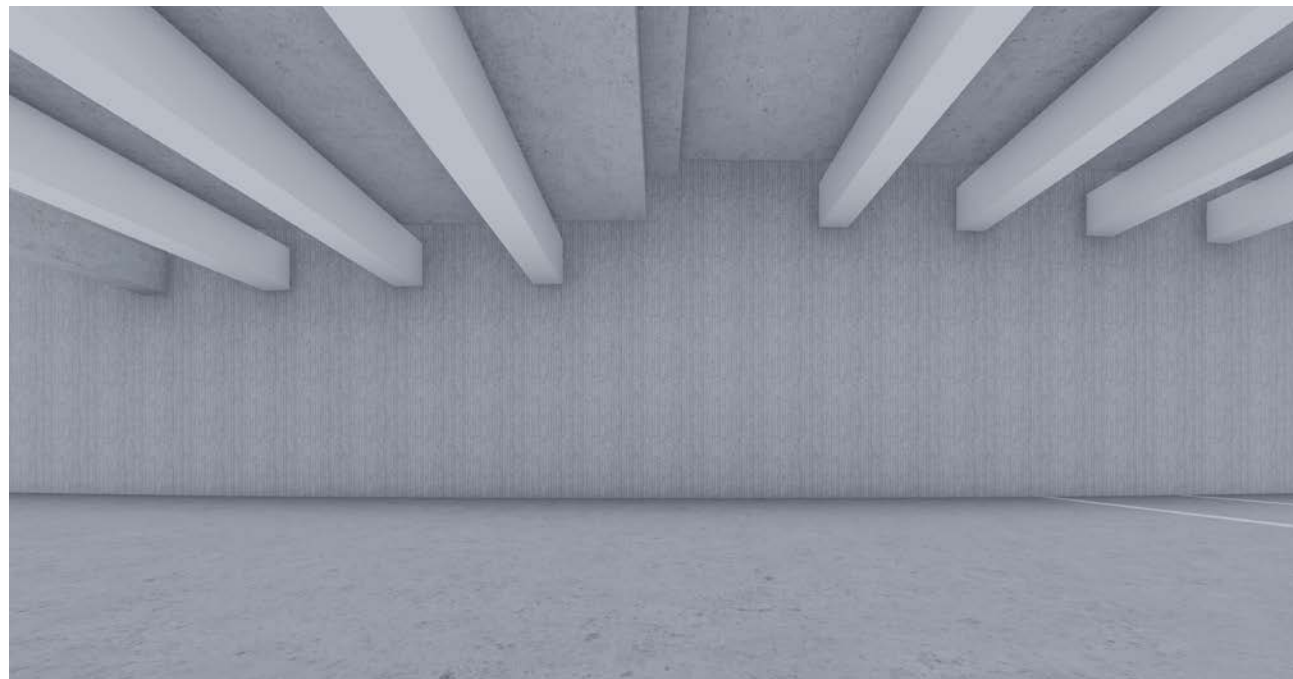
PERSPECTIVE SECTIONS



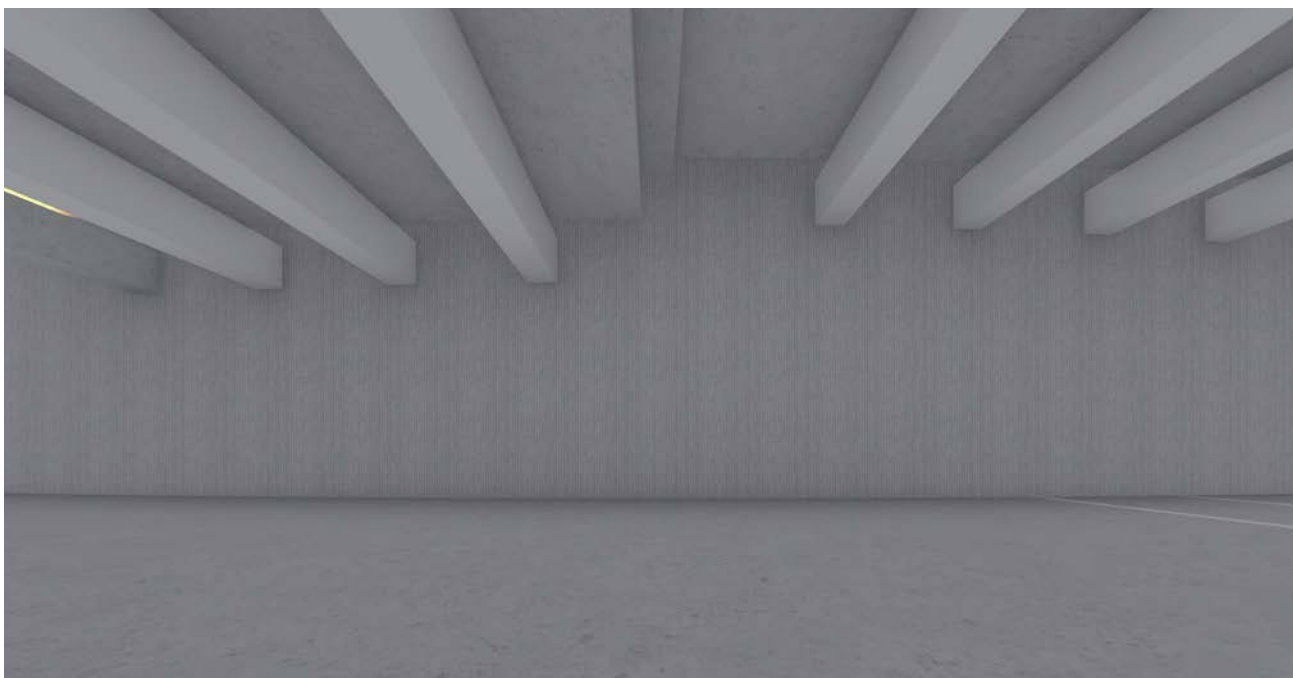




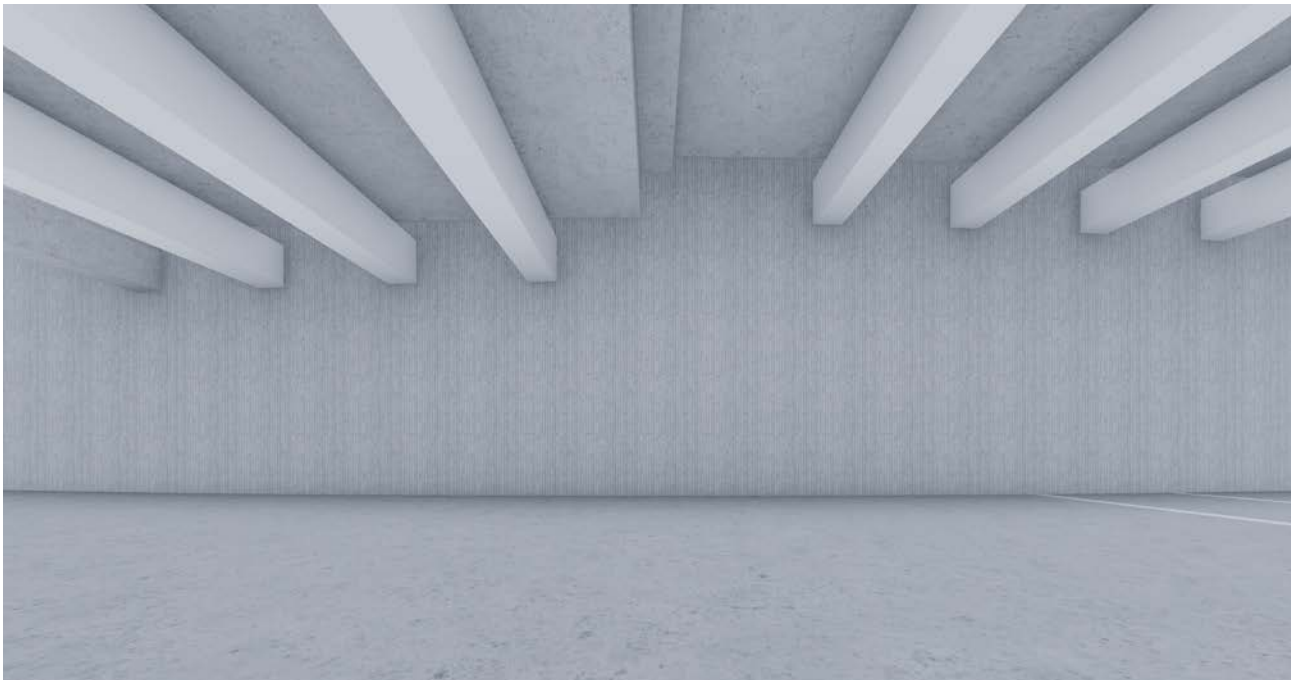
December 21 7:00 am



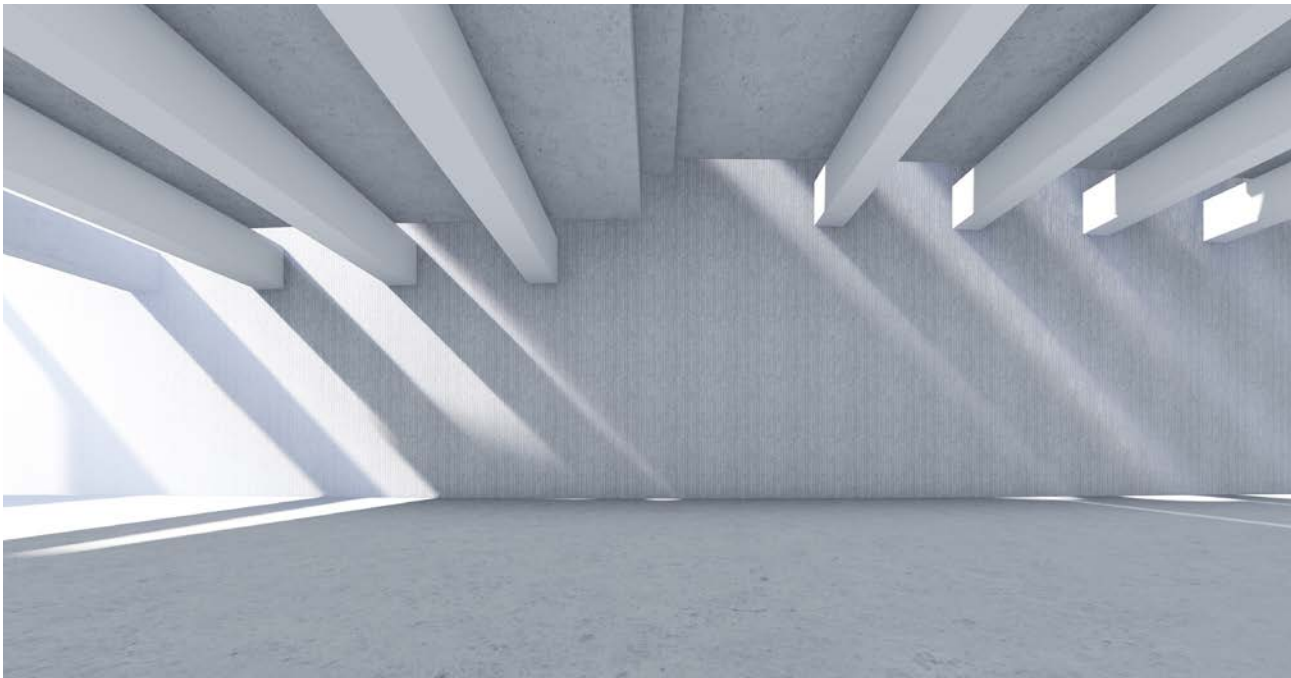
December 21 12:00 pm



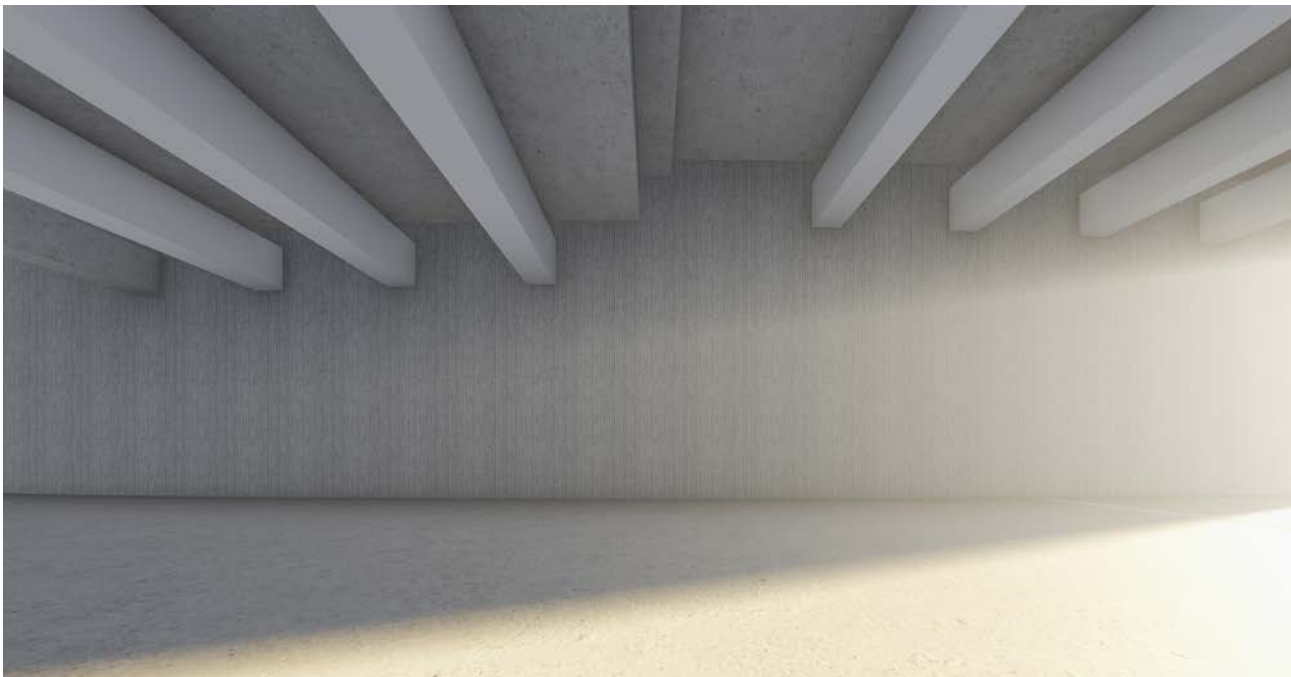
June 21 7:00 pm



June 21 7:00 am



June 21 12:00 pm



June 21 7:00 pm



December 21 7:00 am



December 21 12:00 pm



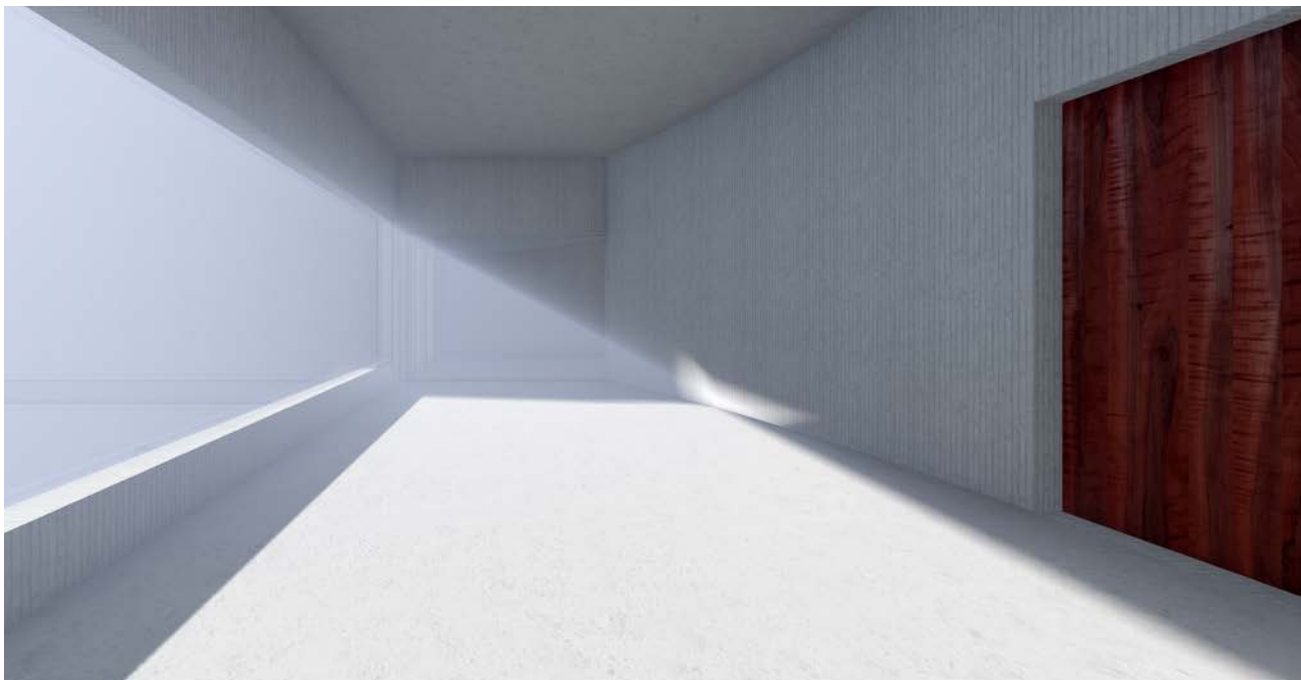
June 21 7:00 pm



June 21 7:00 am



June 21 12:00 pm

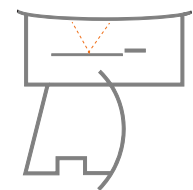


June 21 7:00 pm



The Curved North Wall

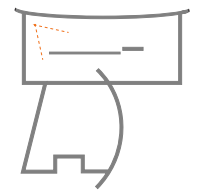
A view of the North Wall which houses majority of the conservatory's work and embraces the exposed concrete structure as it reveals the passing of time





Atrium Axis

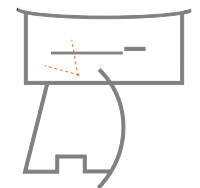
A view of the conservatory as seen from the gallery atrium





Gallery Entry Wall

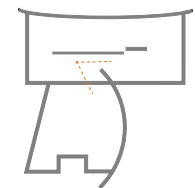
The Gallery's Primary Entry Wall used to host the conservatory's work and funnel circulation





Conservatory Diagnostics Lab

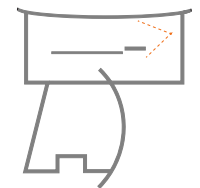
A view of the conservatory's "office lab space"

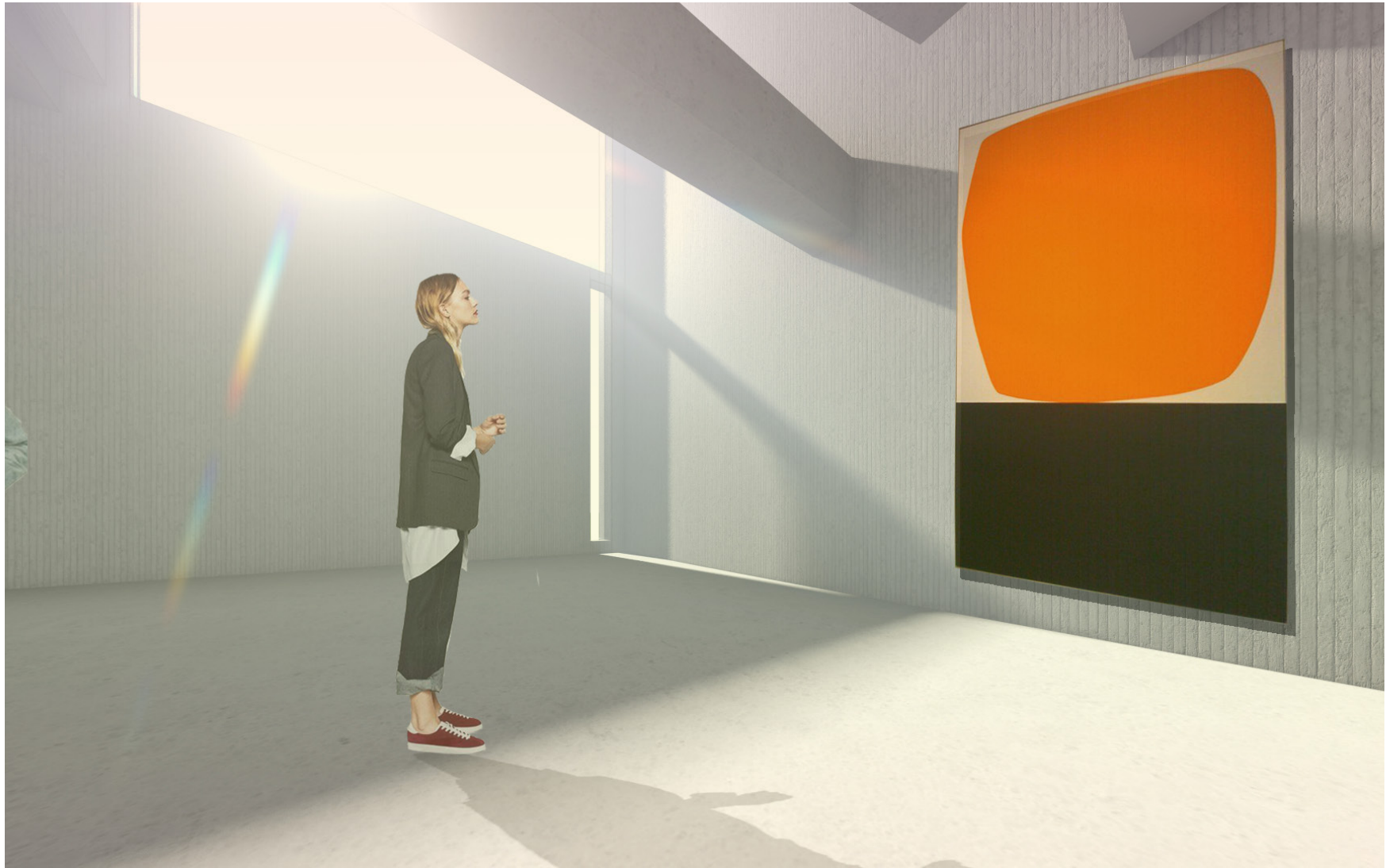




Conservatory Wet Lab

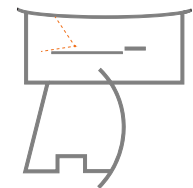
A view of the conservatory's "working lab space"





Northwest Atrium

A view of the gallery atrium where the western aperture introduces a high contrast light



SOURCES

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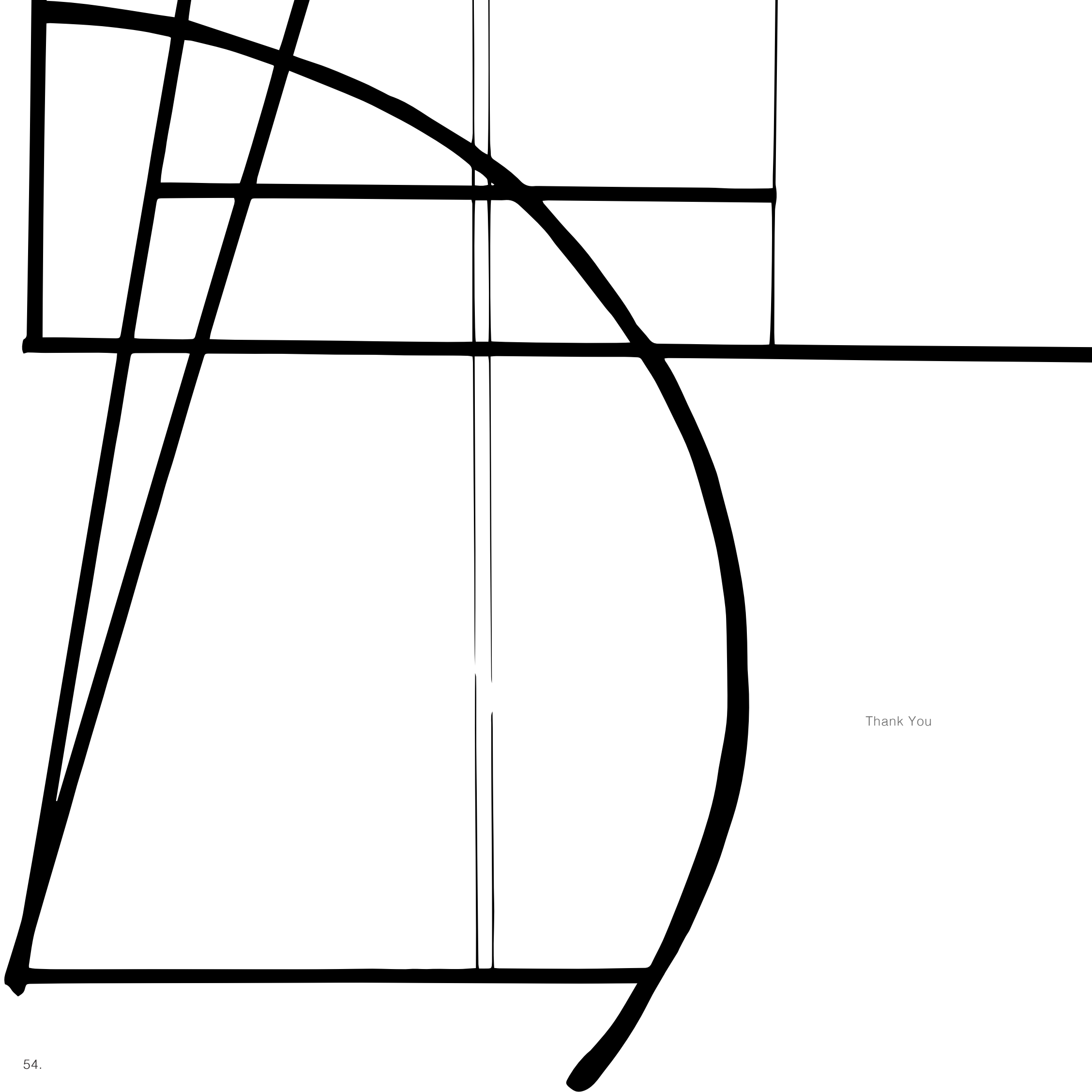
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IMAGES

All work including: photographs, sketches, models, and drawings are the work of the author.



Thank You