



XIUCONG
HAN

Junior Architect Application
Work Samples 2016-2022

XIUCONG HAN

917-499-7578
xh2426@columbia.edu
752 W End Ave., Apt 24J
New York, NY 10025

EDUCATION

Columbia University
New York, NY 2019 - Present
GSAPP, Master of Architecture

Parsons School of Design
New York, NY 2015 - 2019
BFA, Architectural Design
GPA 3.8, with academic Honors

Bard College
Annadale-on-Hudson, NY 2014
Film Photography, Studio Arts

SKILLS

3D Modeling
Rhinoceros
Revit	...
SketchUp
3ds Max	..

Graphics
Adobe Creative Suite
Autodesk CAD	...
ArcGIS	...

Rendering
Enscape
V-Ray
Lumion	..

Other Skills	...
Grasshopper	...
Python	..
Bluebeam	..
Tableau	..
Wood Work	..
3D Scanning/Printing	..
Film Developing	..

EXPERIENCE

Kengo Kuma and Associates / Architectural Intern

Beijing ,China 05/2021-08/2021

Worked on commercial, cultural, and residential projects. Including Wuhan City-ane Project, in architectural design development, construction documents, interior design phases; Shaolin Temple Project, in schematic design phase; Yuhe Northern District sc06-1 Project, in interior design phase.

Parsons School of Design / Guest Juror

New York / Zoom 03/2020, 05/2020, 03/2021

Joined mid and final review of Parsons SCE architecture advanced design studio 6 and provided architectural insights on senior student projects.

QI Architects / Architectural Intern

Hangzhou, China 06/2019-08/2019

Worked on multiple residential projects, including XPACE Digital Park, Anso Hill Hotel, Yunnan and Songstam Lodge, Tibet. Produced construction drawings, interior renders, digital and physical models. Managed company's website, social media and edited publishing of projects.

Donghia Healthier Materials Library / Research Assistant

New York, NY 02/2019-05/2019

Participated in the research group and resource library at Parsons focused on educating design professionals and students on healthy materials. Helped organizing introductory lessons, consultations, and access to physical samples. Worked to develop resources for designers to understand and implement healthier design practices.

Steven Holl Architects / Architecture Residency Fellowship

Rhinebeck, NY 07/2018-08/2018

Participated as one of the five fellows led by Steven Holl in the Summer Architecture Residency 2018. Focused on theoretical and physical experimental design of the project, Rural Compression: Cosmic Dust.

Studio Ground Up / Architectural Intern

New York, NY 06/2017-09/2017

Created presentational rendering of projects intended for the William F. Ryan Community Health Center. Drafted design drawings, and made assisted with the production of construction drawings, including furniture and equipment plan.

DISTINCTIONS

Colombia GSAPP EOY Exhibition / Work Featured / 2019-2021

Spatial Quaranzine: online publication / zine by Columbia students /2020

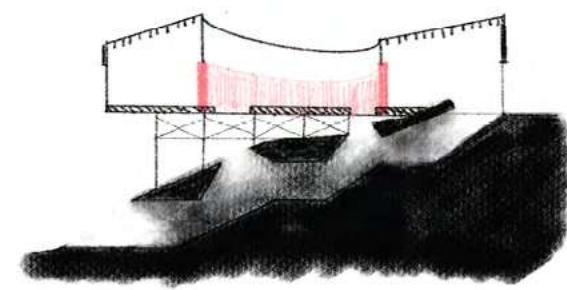
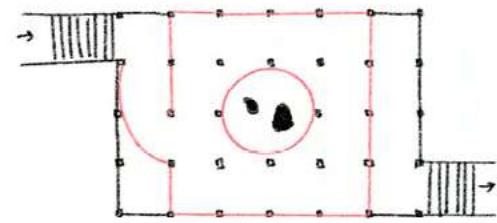
Thesis Award / Parsons School of Design / 2019

Dean list / Parsons School of Design / 2015-2019

*an assemblage of
cultures / spaces / technologies
learning / practices / cooperatives*

Content

01	Split Rock : a Museum Portal
02	Adaptive (Re)use : School
03	Shelter : Reservoir
04	Thresholds : the Binary House
05	Granite : Penn Station
06	Envelope : Glowing Pillow
07	Professional Works
08	Computation : City of Billboards
09	Heterogeneous Works

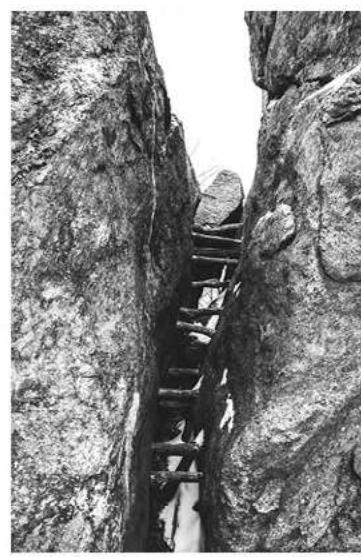


01 **Split Rock:
a Museum Portal**

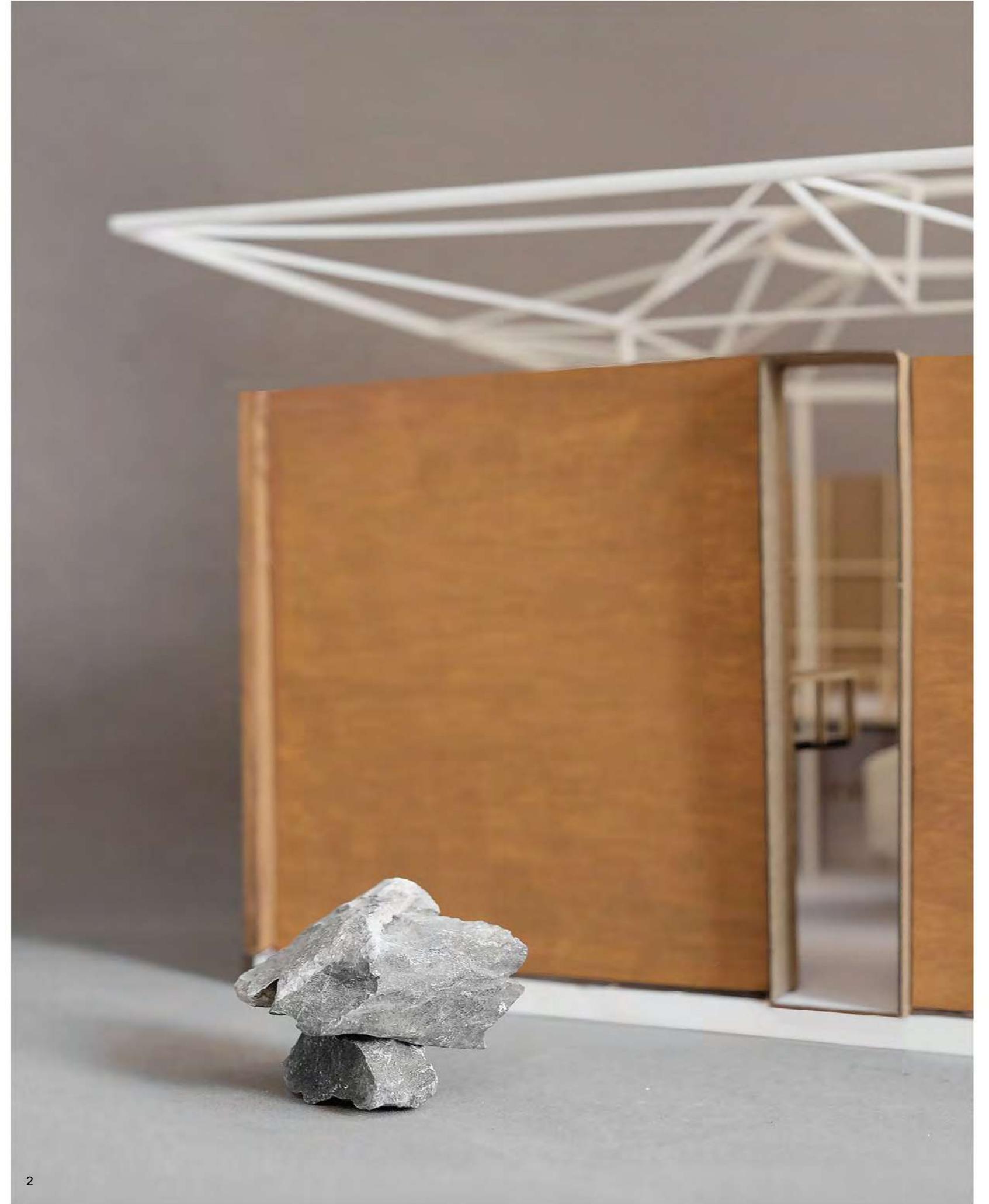
Columbia GSAPP
Core IV, Spring 2021
Instructor: Robert Marino

Museum of Ramapough Native Indian Arts

The Museum of Ramapough Native Indian Arts is a portal, an entry point of transcendence, a gateway to the spirit world. The Lenape Ramapough Tribe is proposing the possibility of a small museum adjacent to the sacred territory of Split Rock, a very rural, solid granite ridge near the town of Millburn, New York. The project is intended as a physical symbol of the tribe's presence, its history, and its traditions.



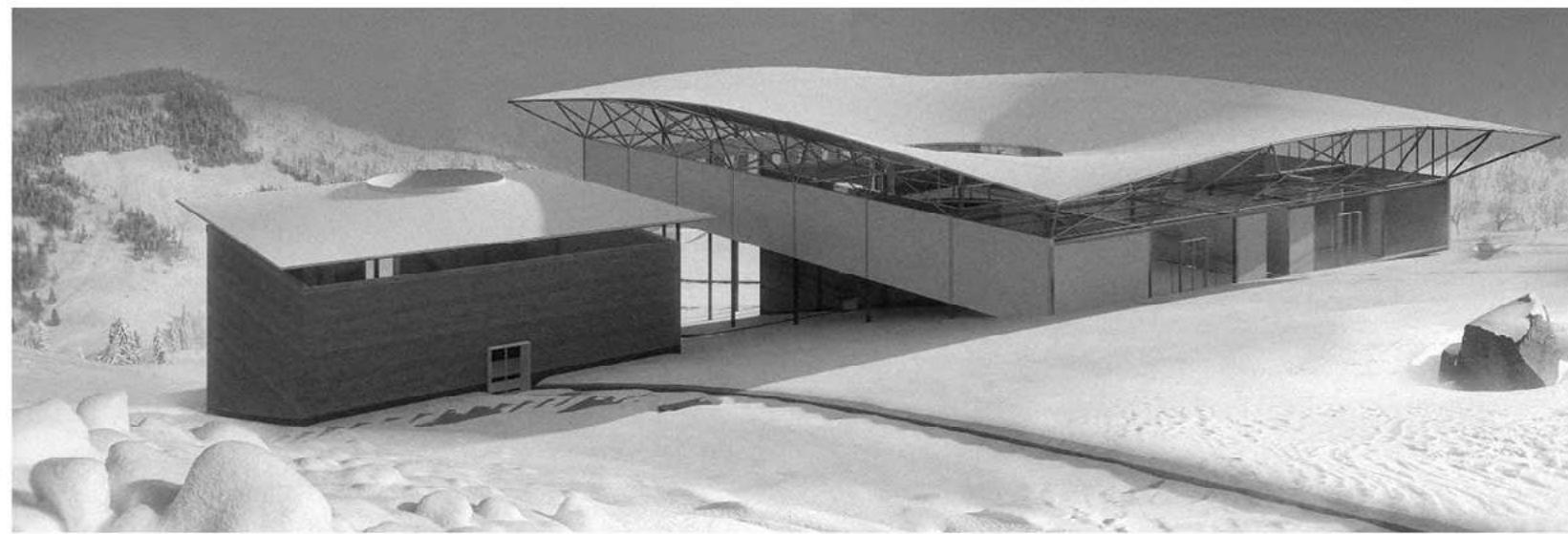
1



2

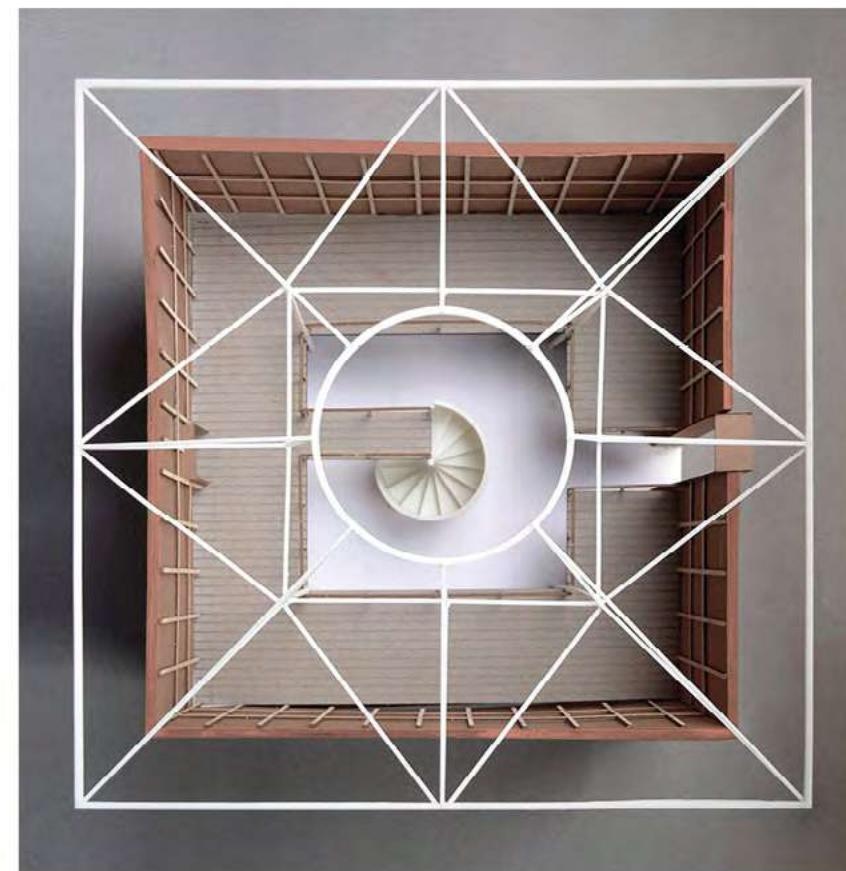


3

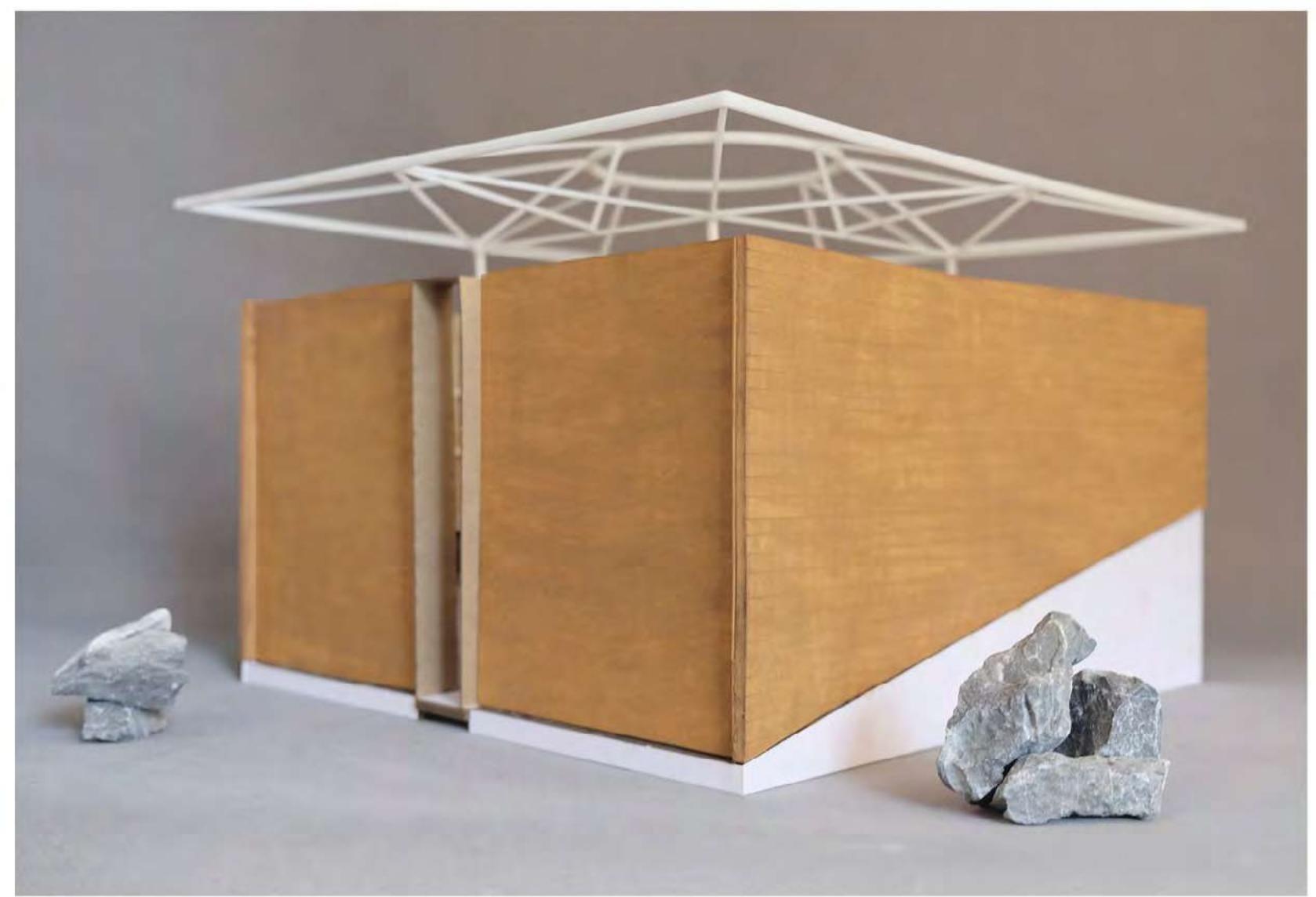


4

3 site plan
4 site render



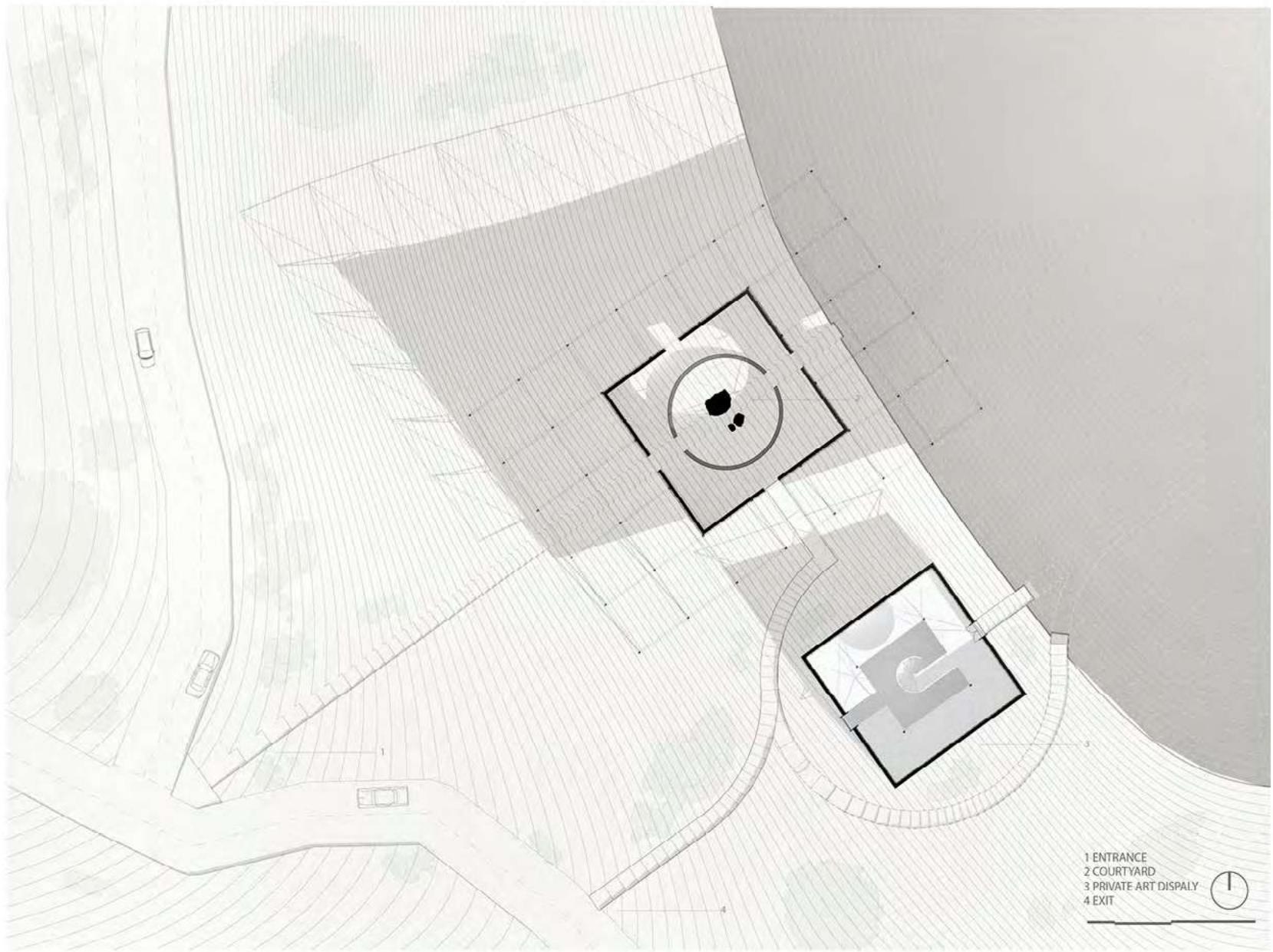
5



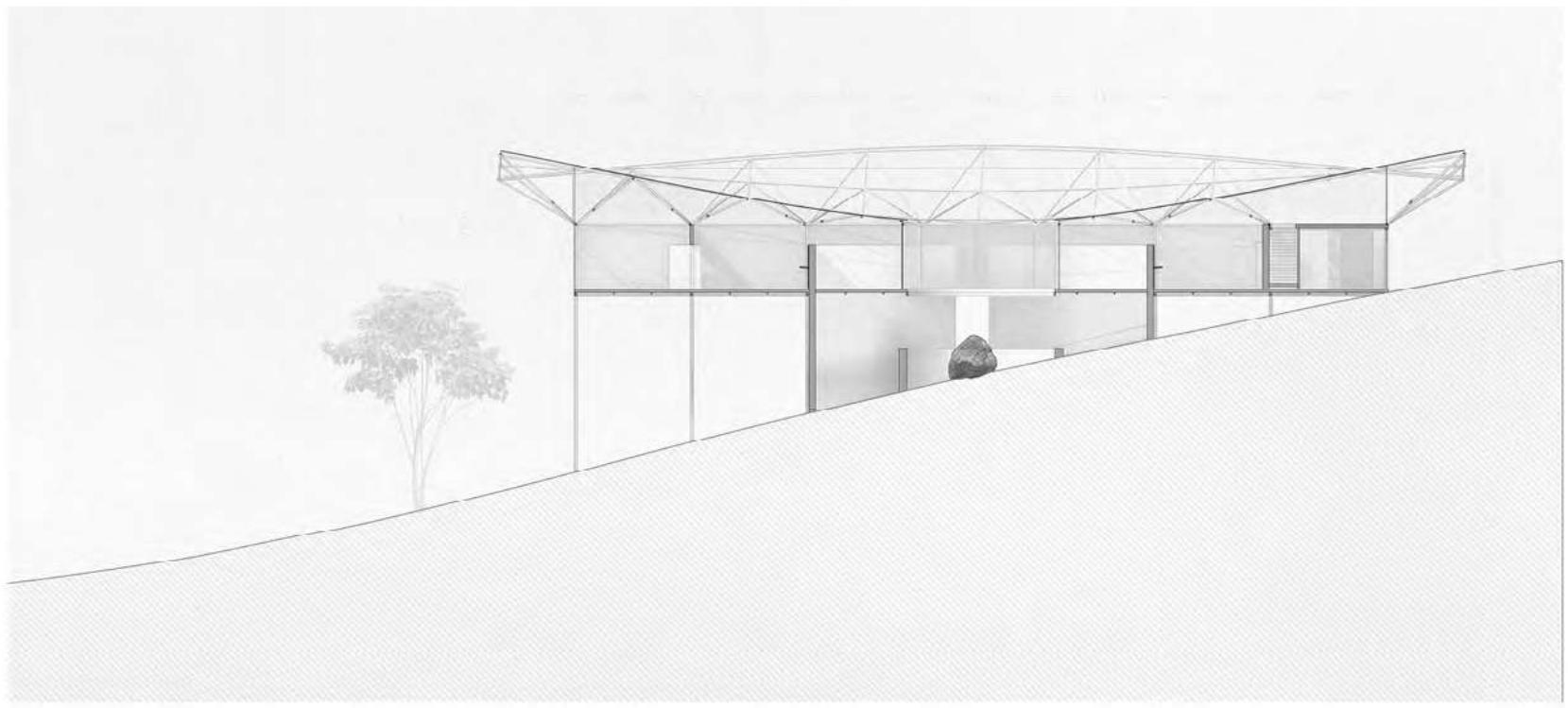
6

5 model
6 model

Sitting at the Ramapo Ridge, a carved staircase along with the topography subtly invites visitors to step on their journey. In the sunken courtyard, scattered rocks are presented under the light as a preview of the spiritual experience ahead. In the center atrium of public gallery space, visitors will return to the moment on a different hierarchy to embrace Ramapoughs values. The private gallery resembles the same architectural elements. However, it indicates a fully different story that becomes a vessel of their tribal memories. The structure made by rammed earth and steel carries the sensitivity of American's primitive construction, while implicitly presenting a pair of galleries for native cultures through inverse languages.

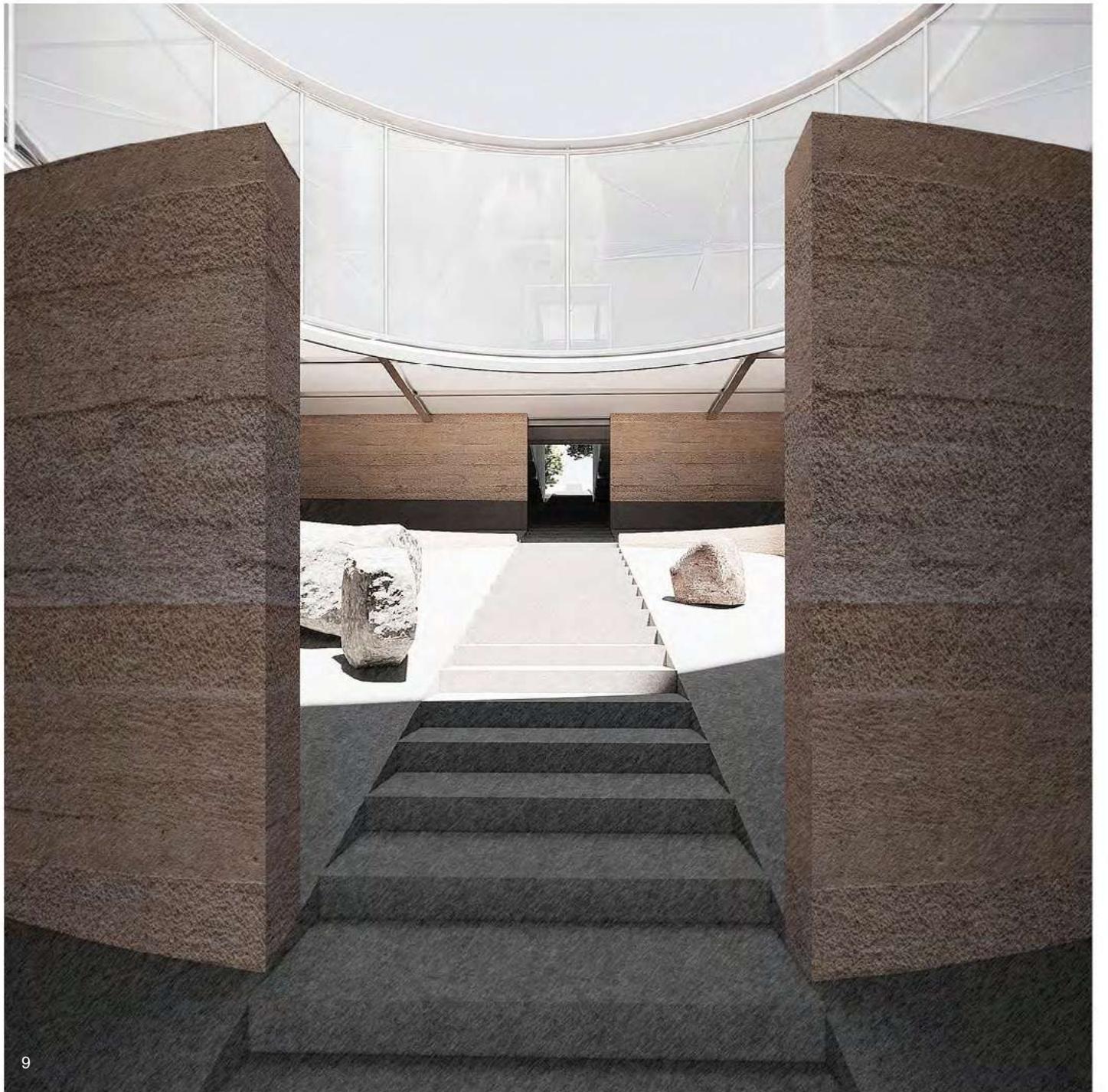


7



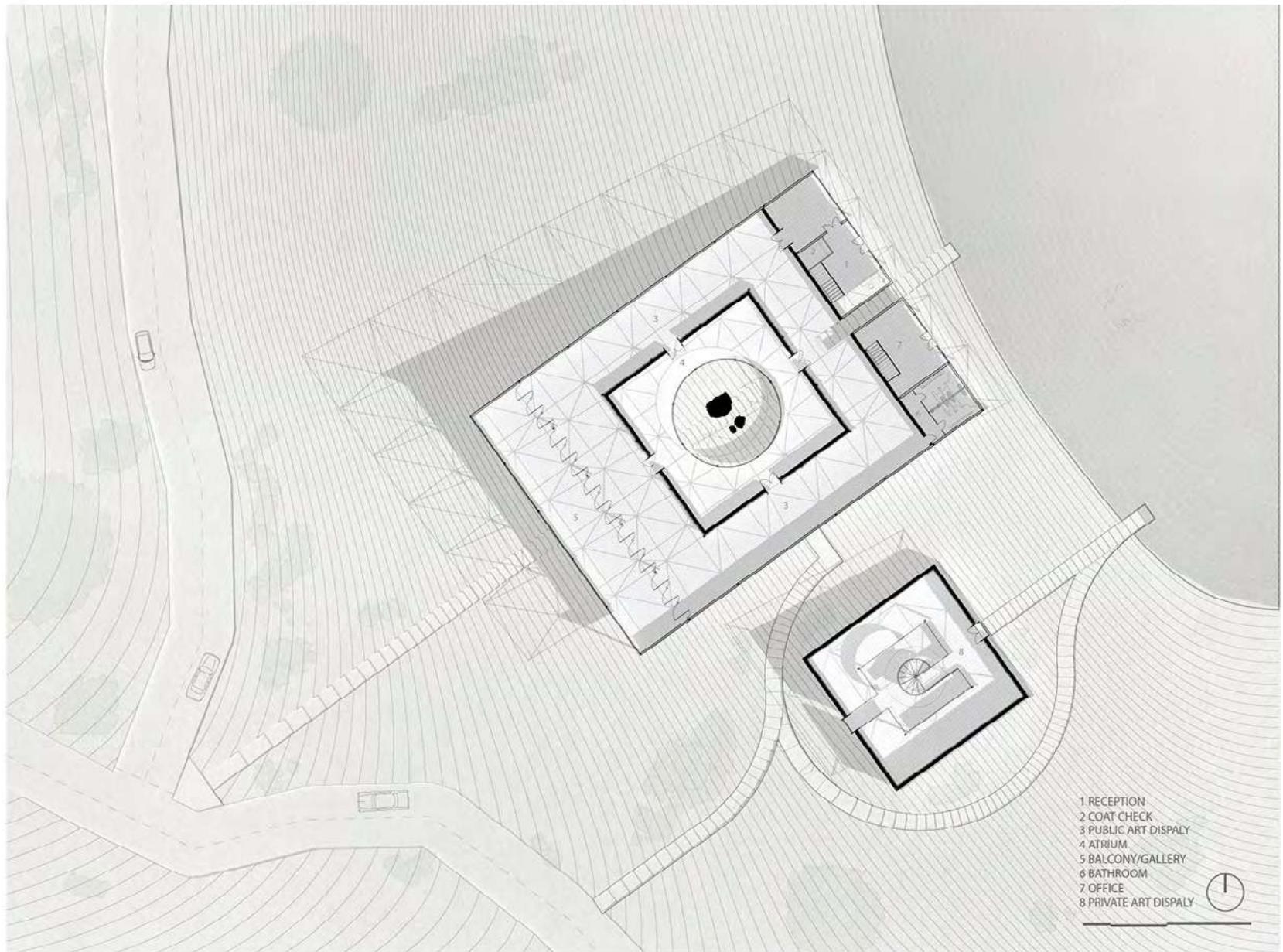
8

7 ground plan, passing through sunken courtyard
8 section of public sector

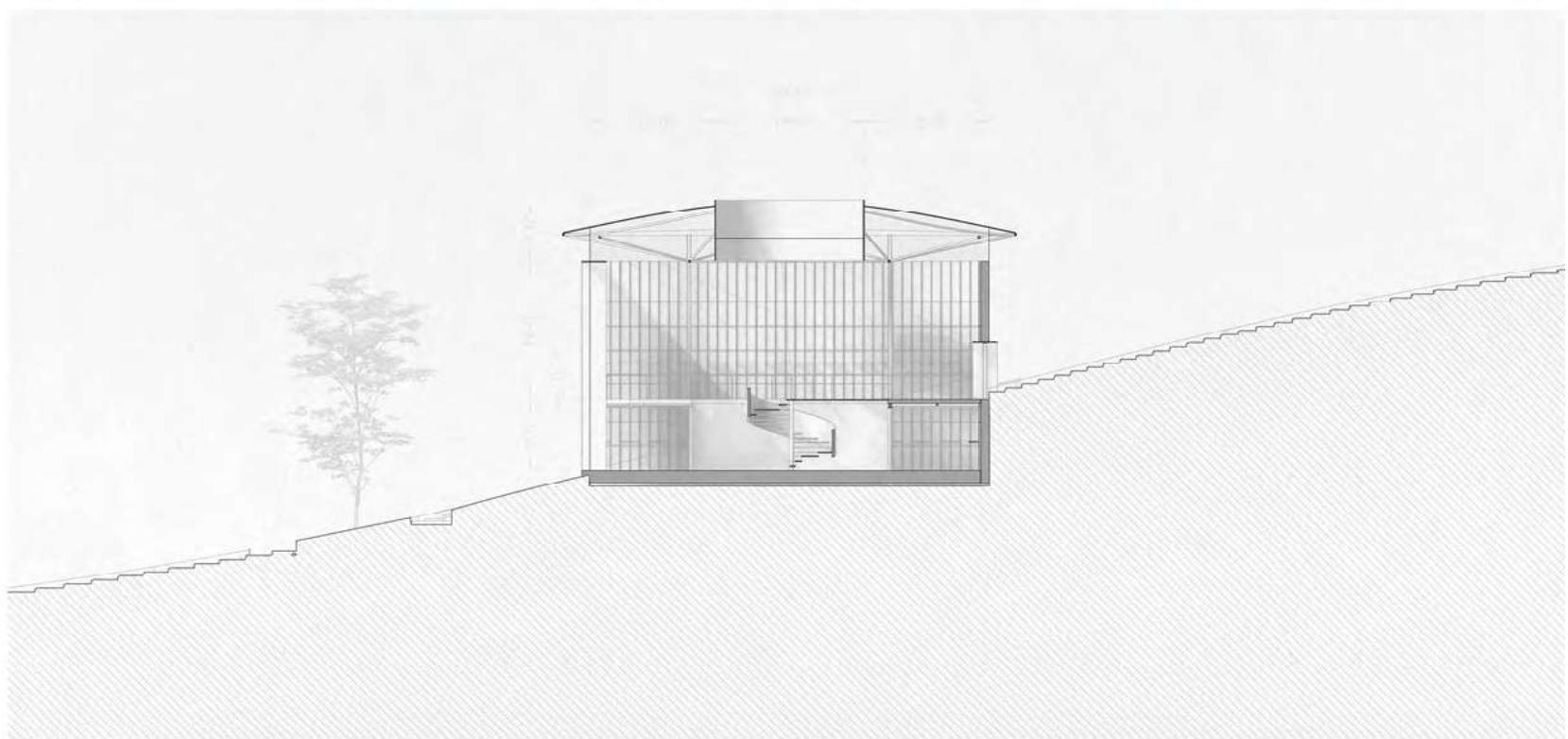


9

9 render of entry / preview of spit rock



10



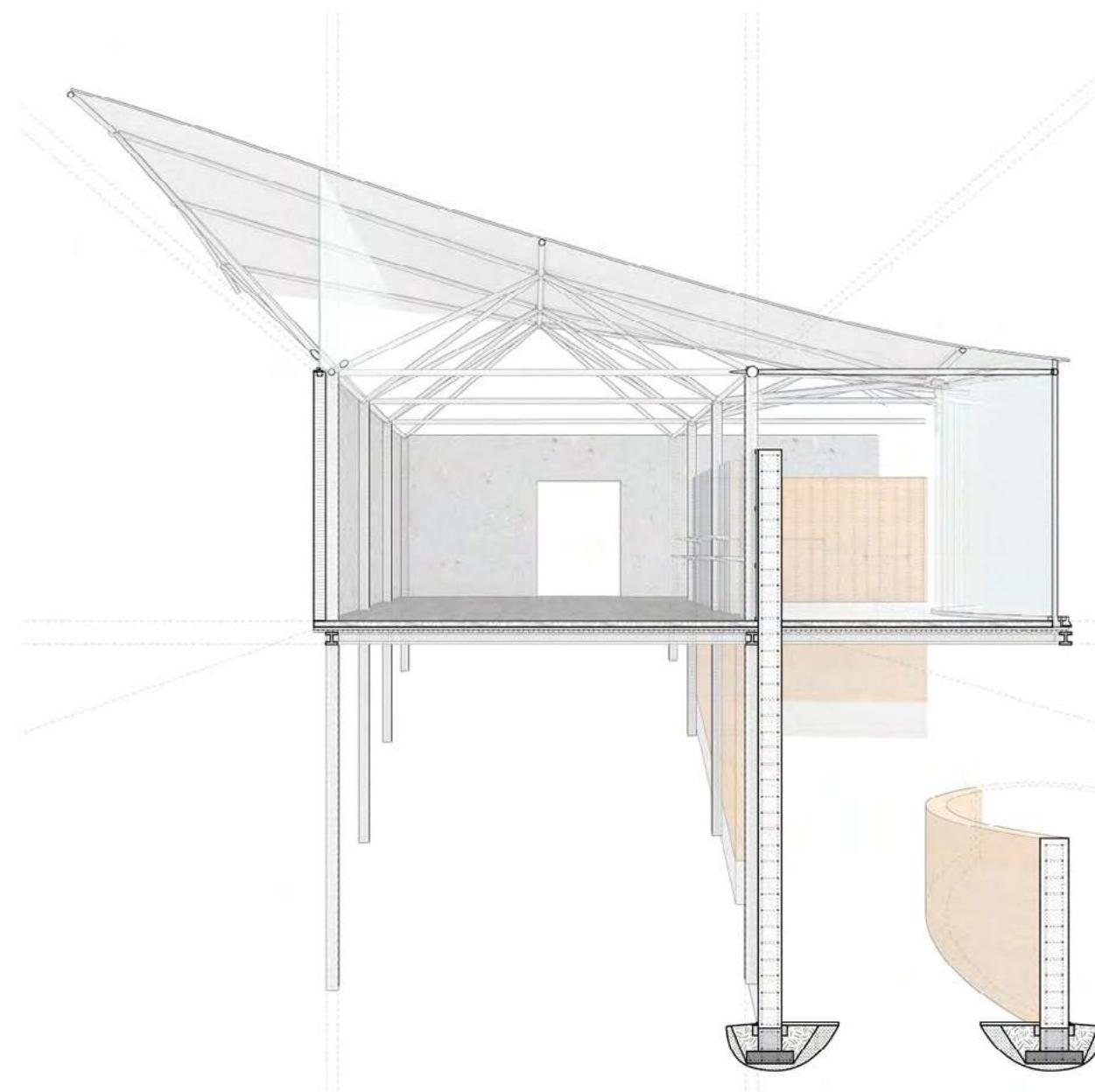
11



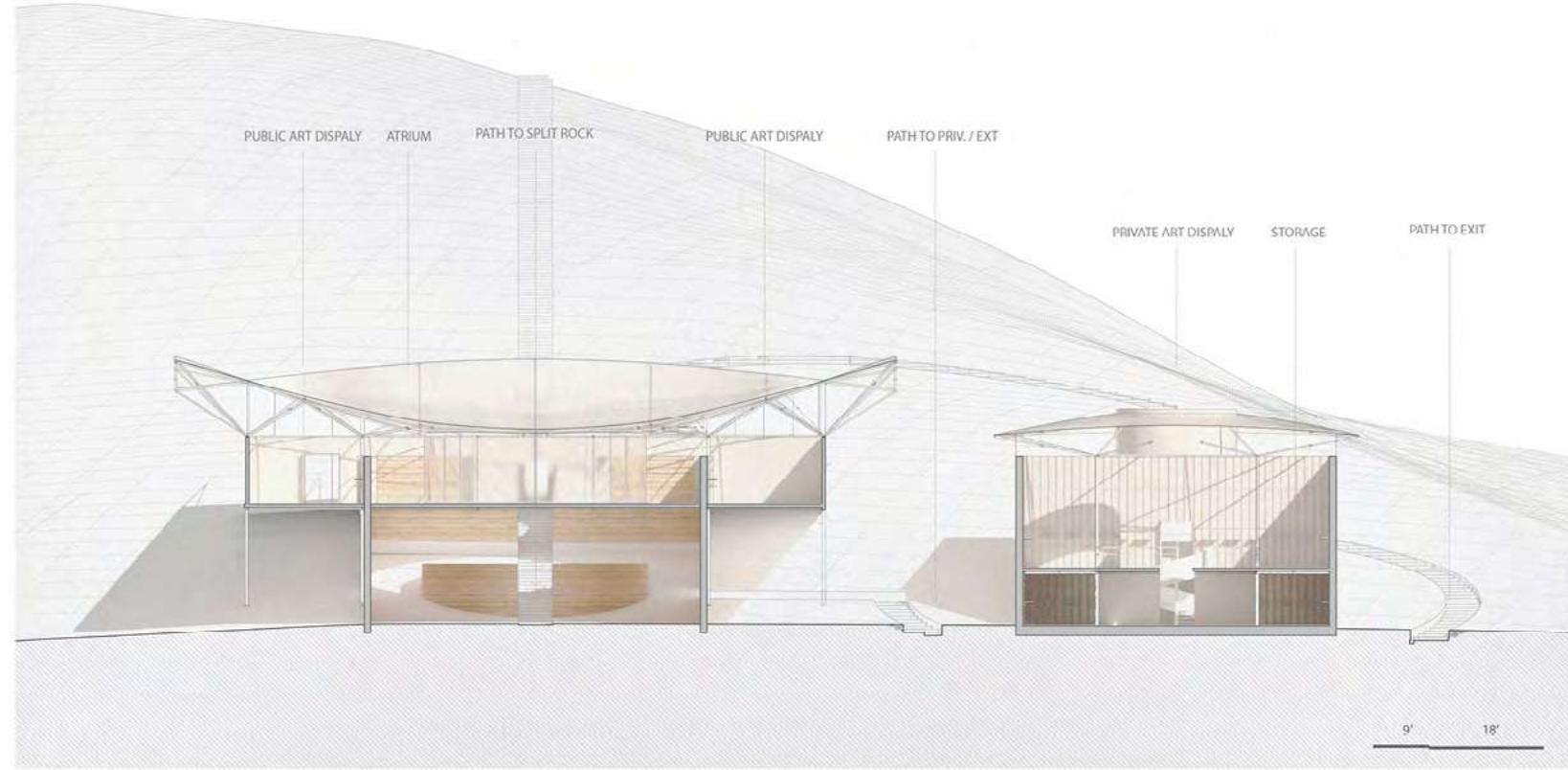
12

10 plan of main gallery spaces
11 section of private sector

12 render of private gallery with skylight above



13



14

Architecture is one of the most significant ways in which American Indian societies modified the natural landscape. Traditional American Indian architecture is vernacular in type, and the design, construction, and use of built environments incorporates shared values and traditions. Thus, how this portal to sacred territory is to be constructed becomes vital. The main structure is rammed earth combined with steel structure that elevates the gallery space and supports the roof. After rammed earth construction, selected parts of the wood form-work will be kept for future display shelves and recycled for furniture. The solidity of rammed earth and the lightness of the pvc fiber roof co-exist in the same space and will lead people to look up and down, to the light and to the shadow.



15



16



17



18



1



2

02

Adaptive (Re)use: School for Empathy

Columbia GSAPP
Core II, Spring 2020
Instructor: Daisy Ames

a new proposal for P.S. 64 605 EAST 9TH STREET

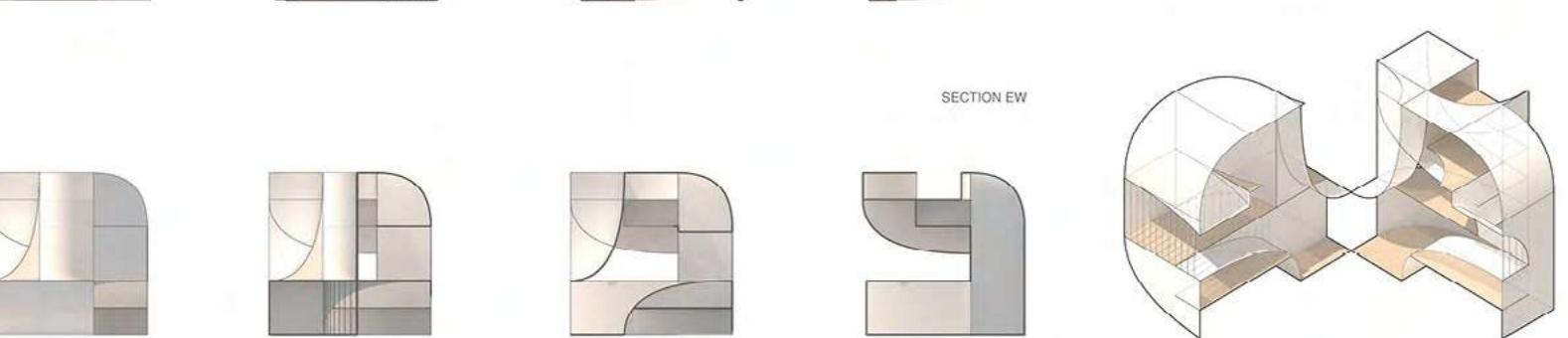
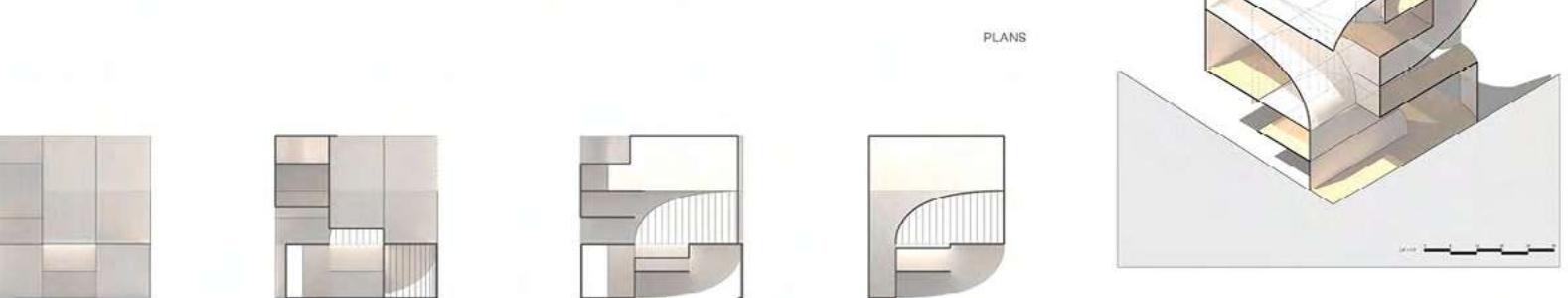
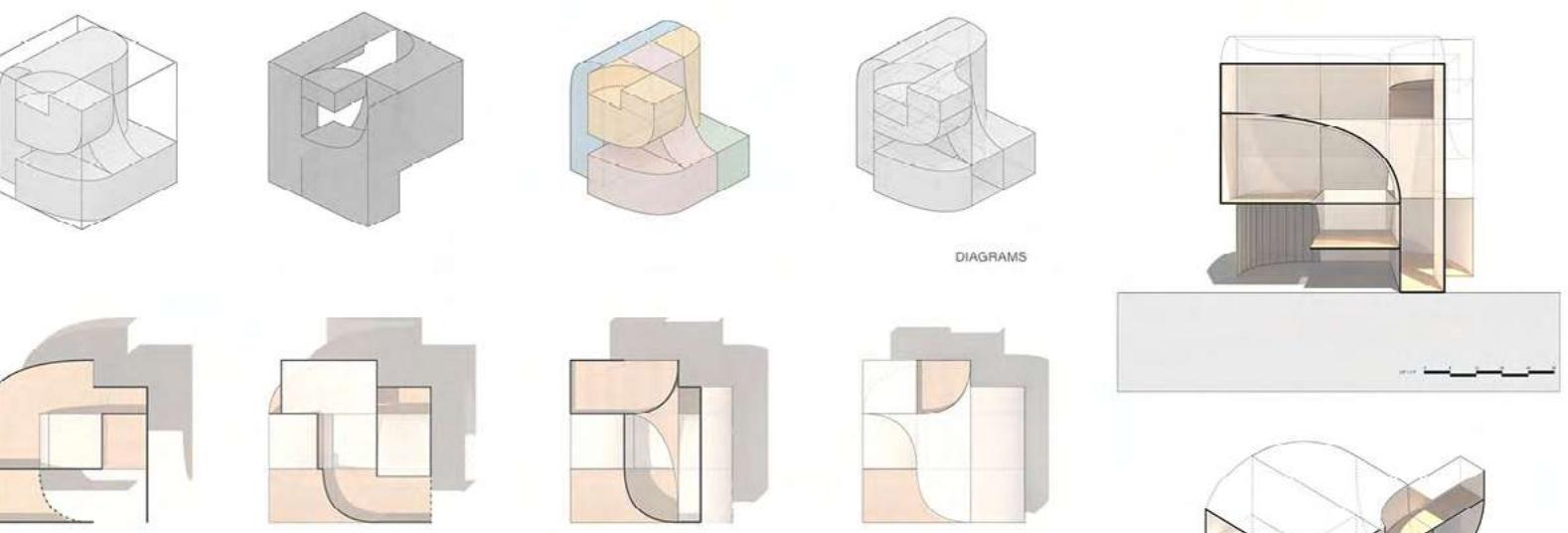
This project explores how society might transition from outdated learning environments and outdated construction processes, toward new learning and construction processes for the future. While there are many definitions of the term adaptation this studio engages specifically in the general, biological, and evolutionary interpretations.



3

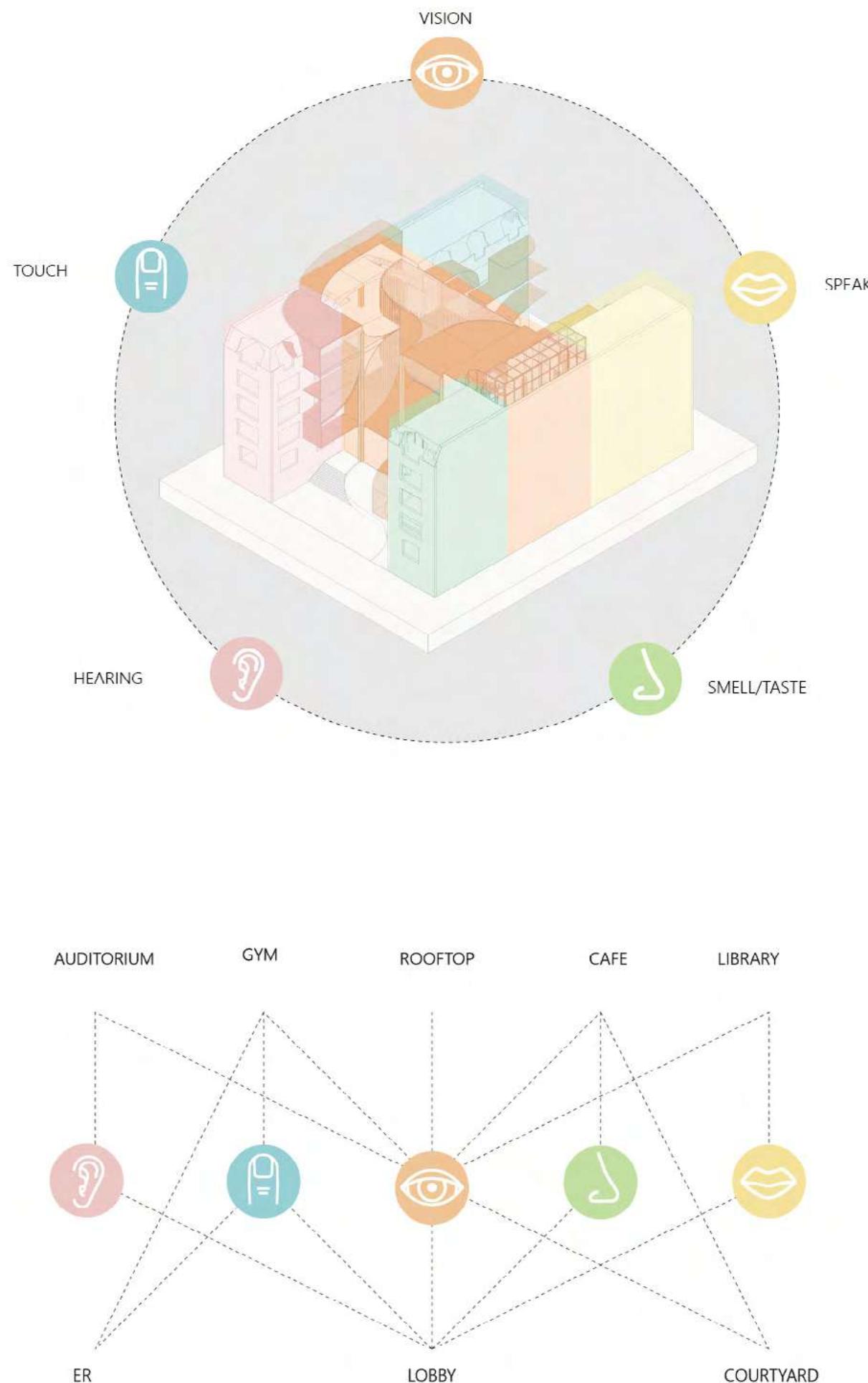
This project acknowledges that given the fast-paced nature of the current social, educational, and environmental climates, society is in a constant state of transition between what was and what will be. Therefore, thinking simultaneously about what we can learn from the past and what we imagine for the future is necessary. We believe that EMPATHY is the foundation of intellectual and standardization education, indeed, will help the next generation to perform better in their later life.

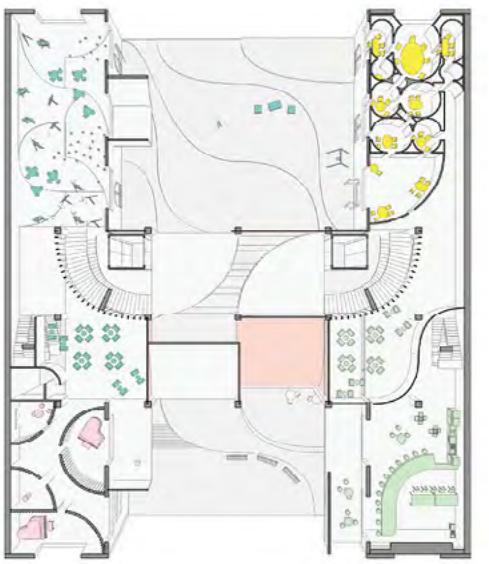
Given the diverse demographic of the Lower East Side community, the School For Empathy is a new educational typology to break the cultural, language, and social barriers through a sensorial learning process. When the curve interweaves with the existing building, it injects fluidity to accommodate a child's ingenuity, and defines spatiality with intentional program. The education of empathy will be implemented through these sensorial spaces to achieve the goal of cultural exchange, recognition of identity, and imaginative expression.



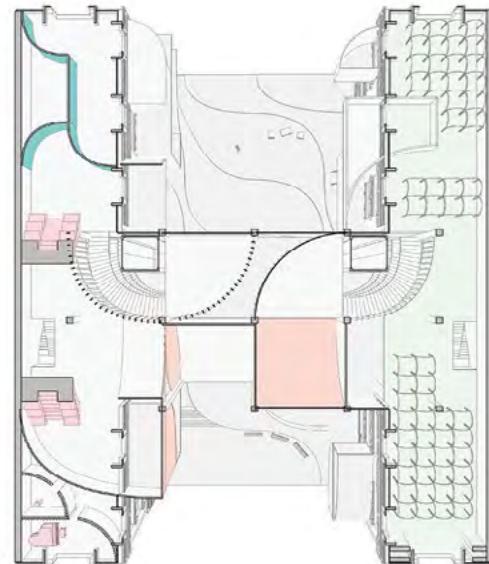
7







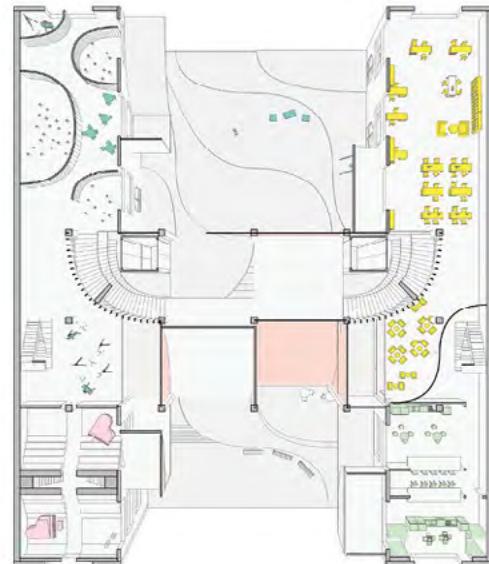
floor plan 2nd



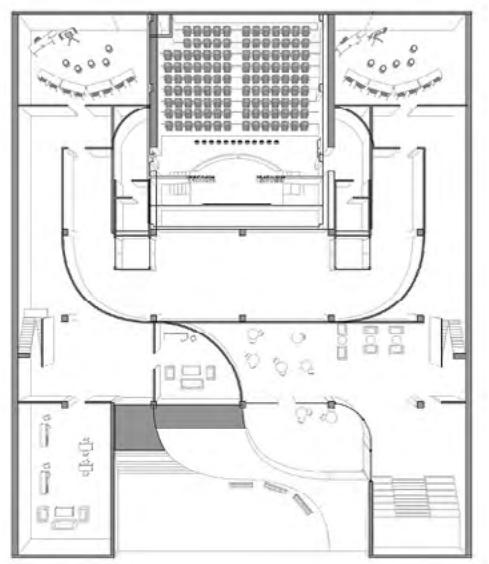
floor plan 5th



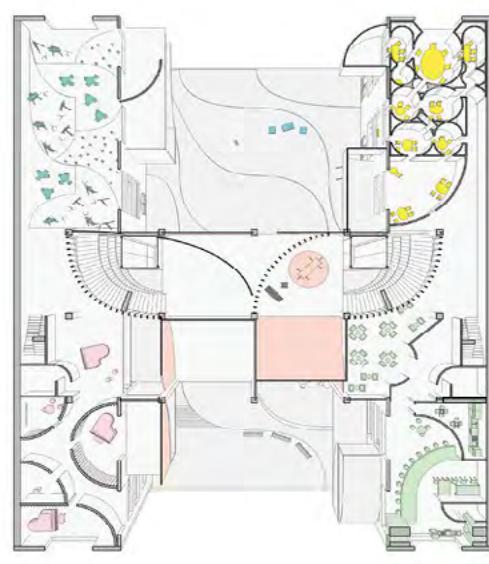
floor plan 1st



floor plan 4th



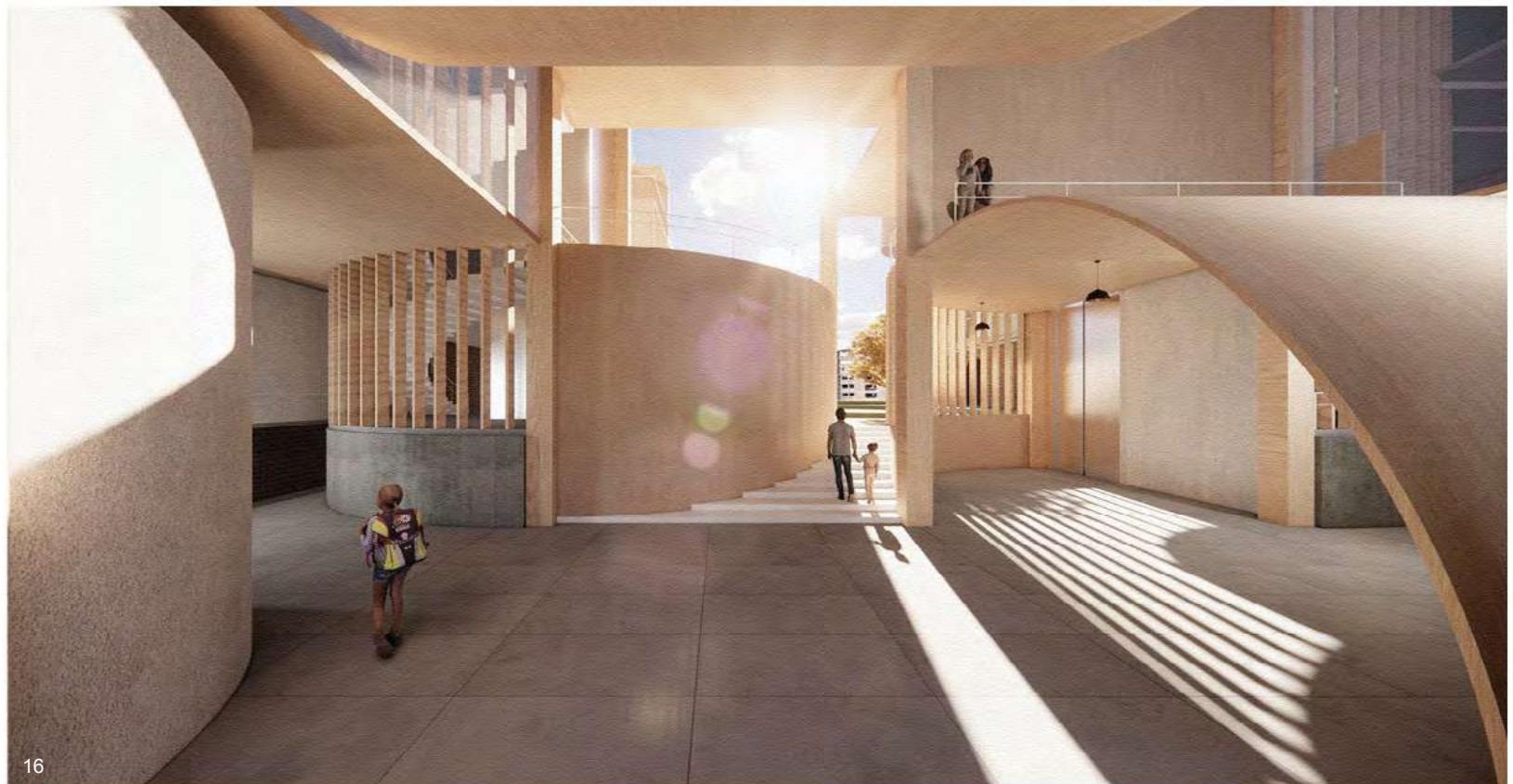
floor plan basement



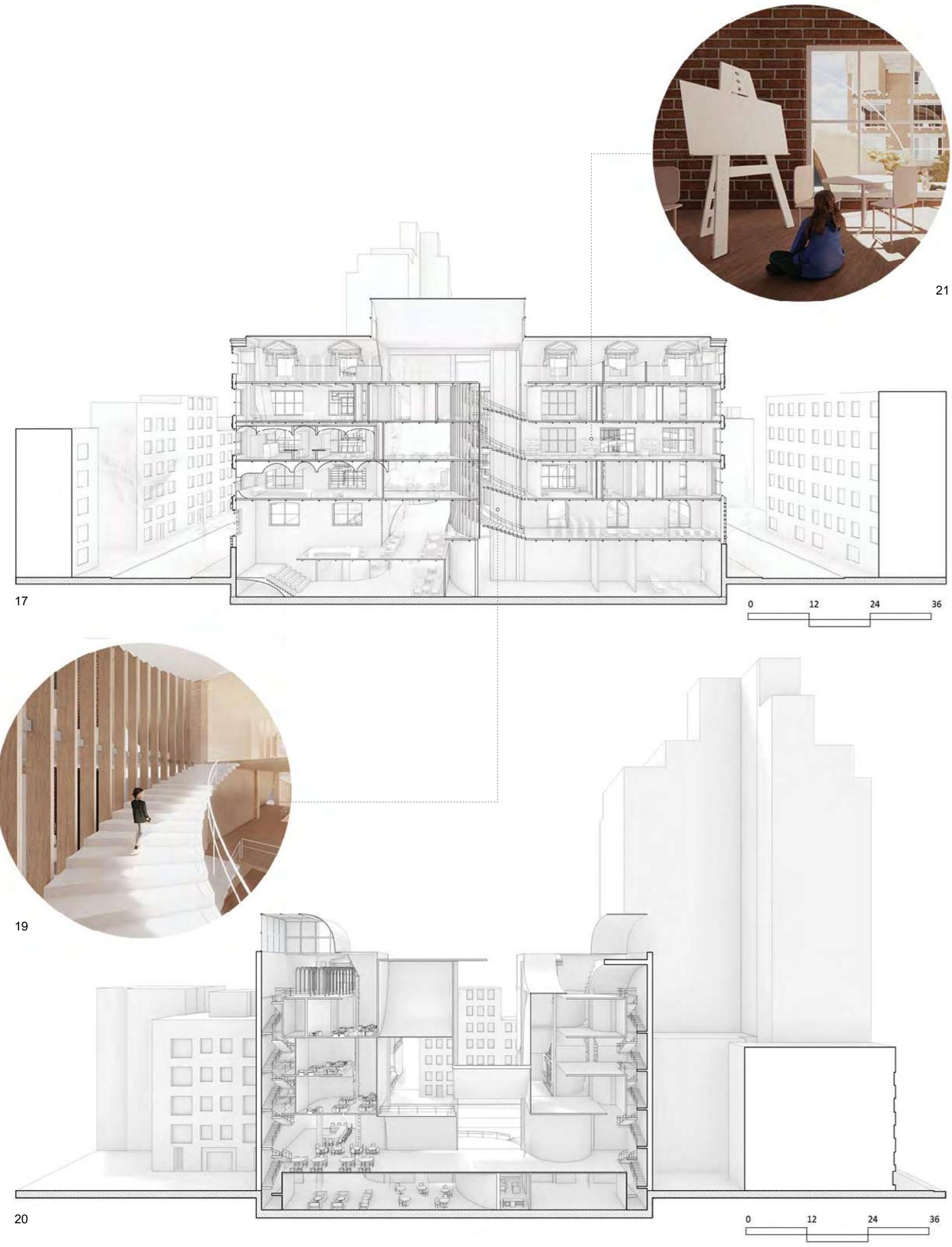
floor plan 3rd



floor plans



14 render / courtyard facing east 9th street
15 render / library
16 render / entrance lobby



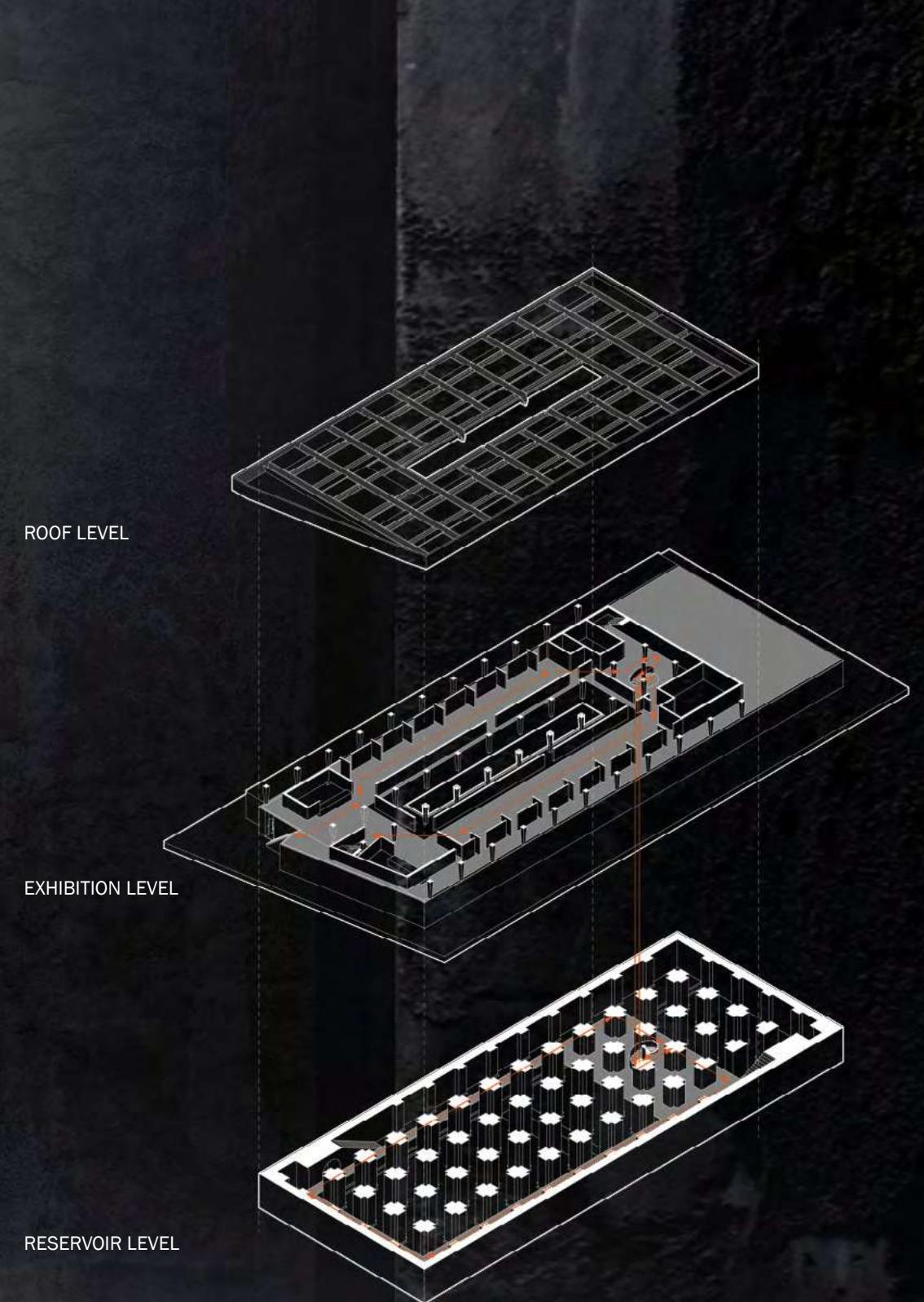
17 section / east-west
18 render / sight / balcony
19 render / sight / sculpture stair
20 section / north -south
21 render / classroom for touch

03

Shelter : Reservoir

collaborate with
Jiafeng Li,
Sixuan Chen,
Guqiang Yao

1 render of reservoir level

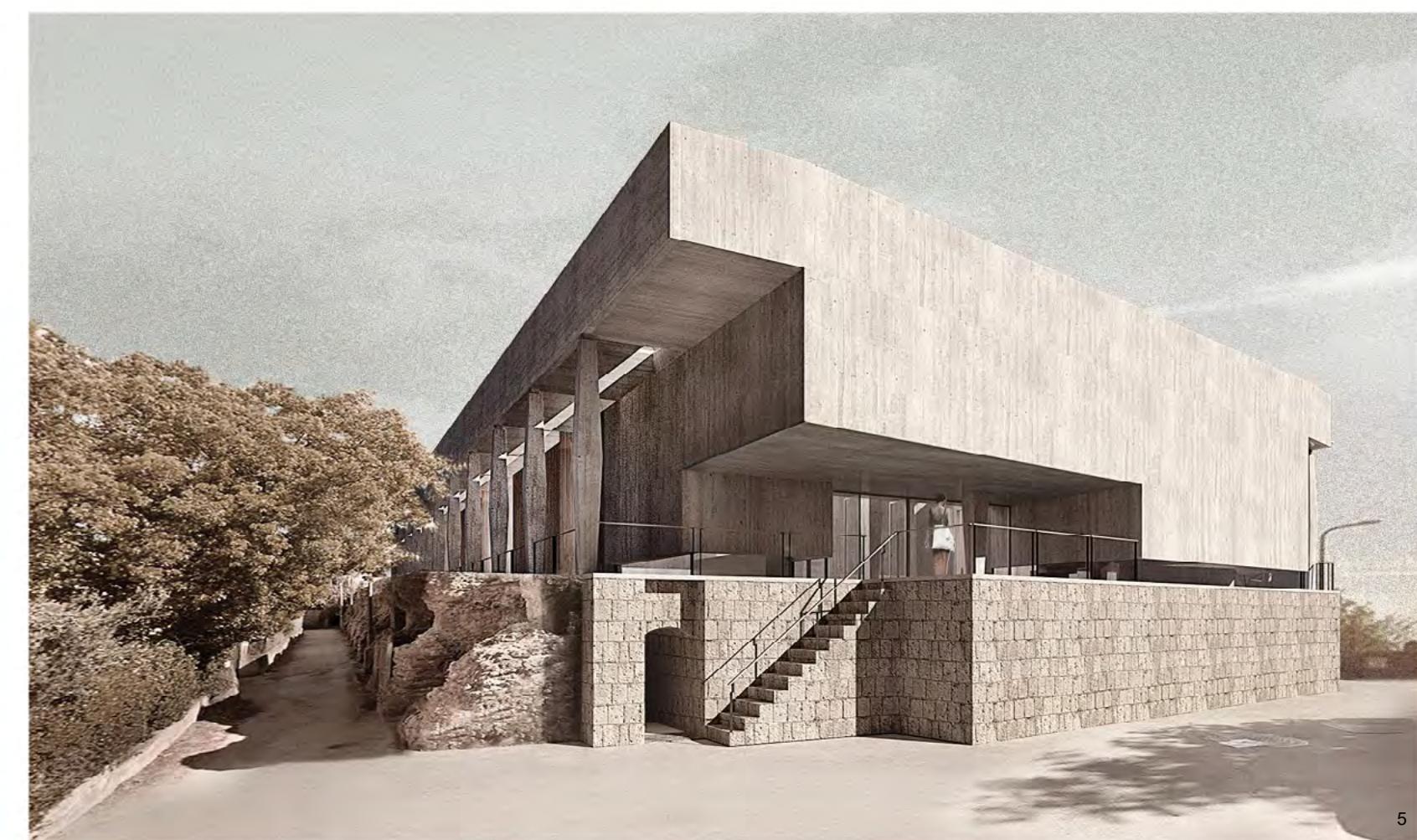
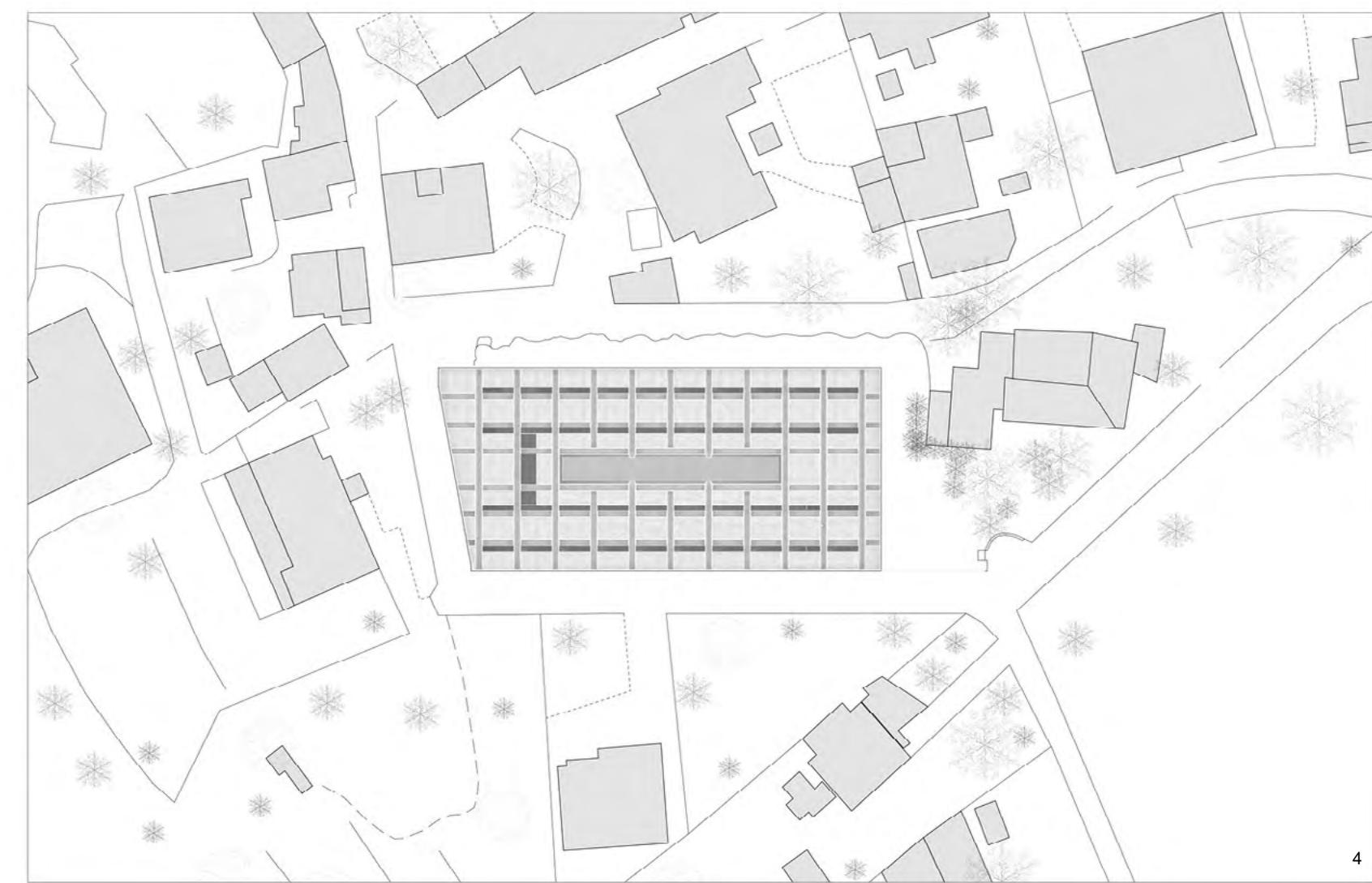


filters light, organizes water and hosts new programs, bringing added layers of purpose to the ruin. The new structure becomes the interstitial space to experience contemporary art and the ruins. Oriented at the center of the courtyard, the pool with a clear glass base will contain rainwater collected by the roof, it meanwhile acts as the aperture of the ruins below it. The entirety of the holistic program serves as a vehicle of integration between the past and the present, antiquity and modernity, oneself with all of humanity.

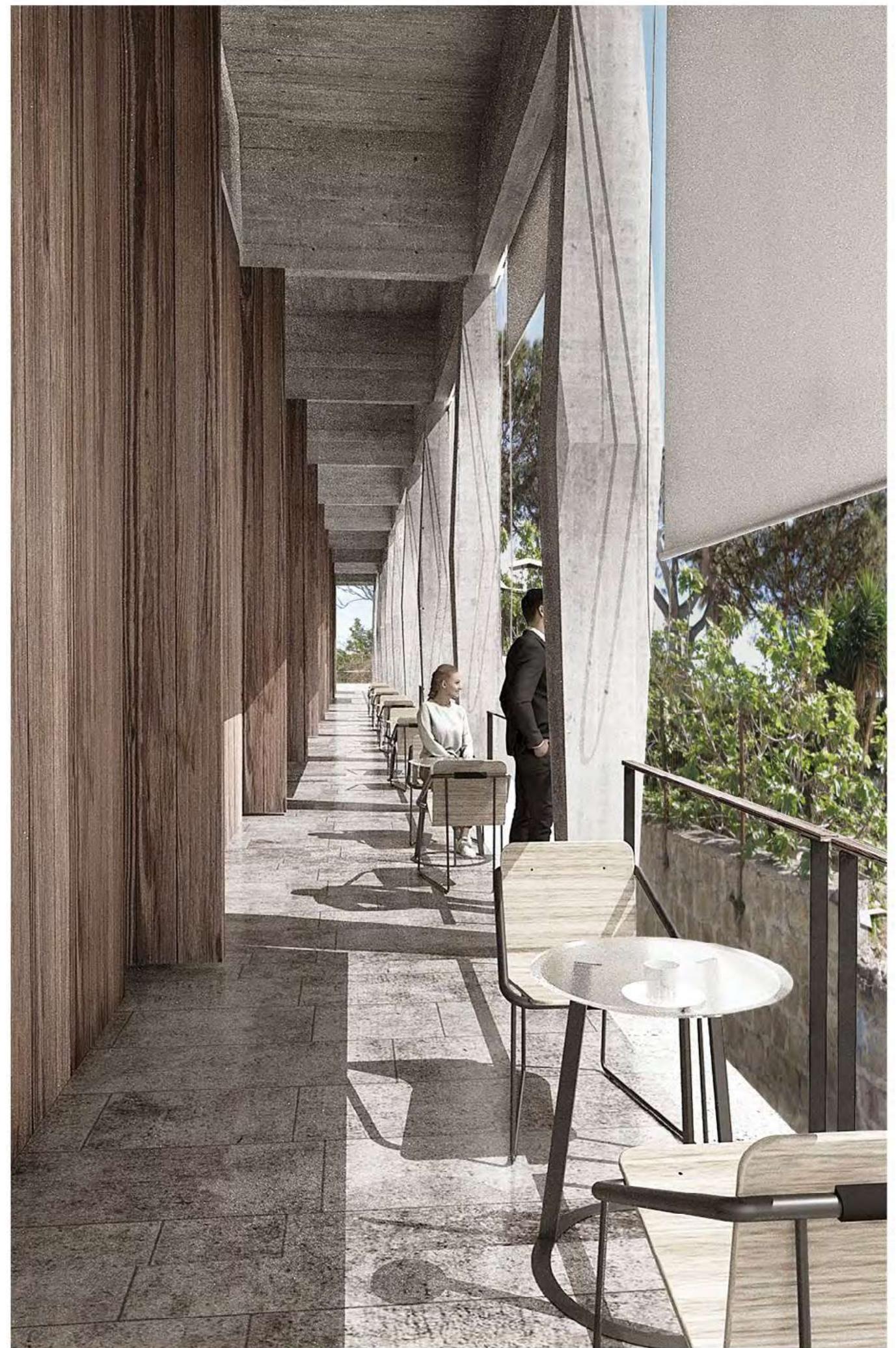
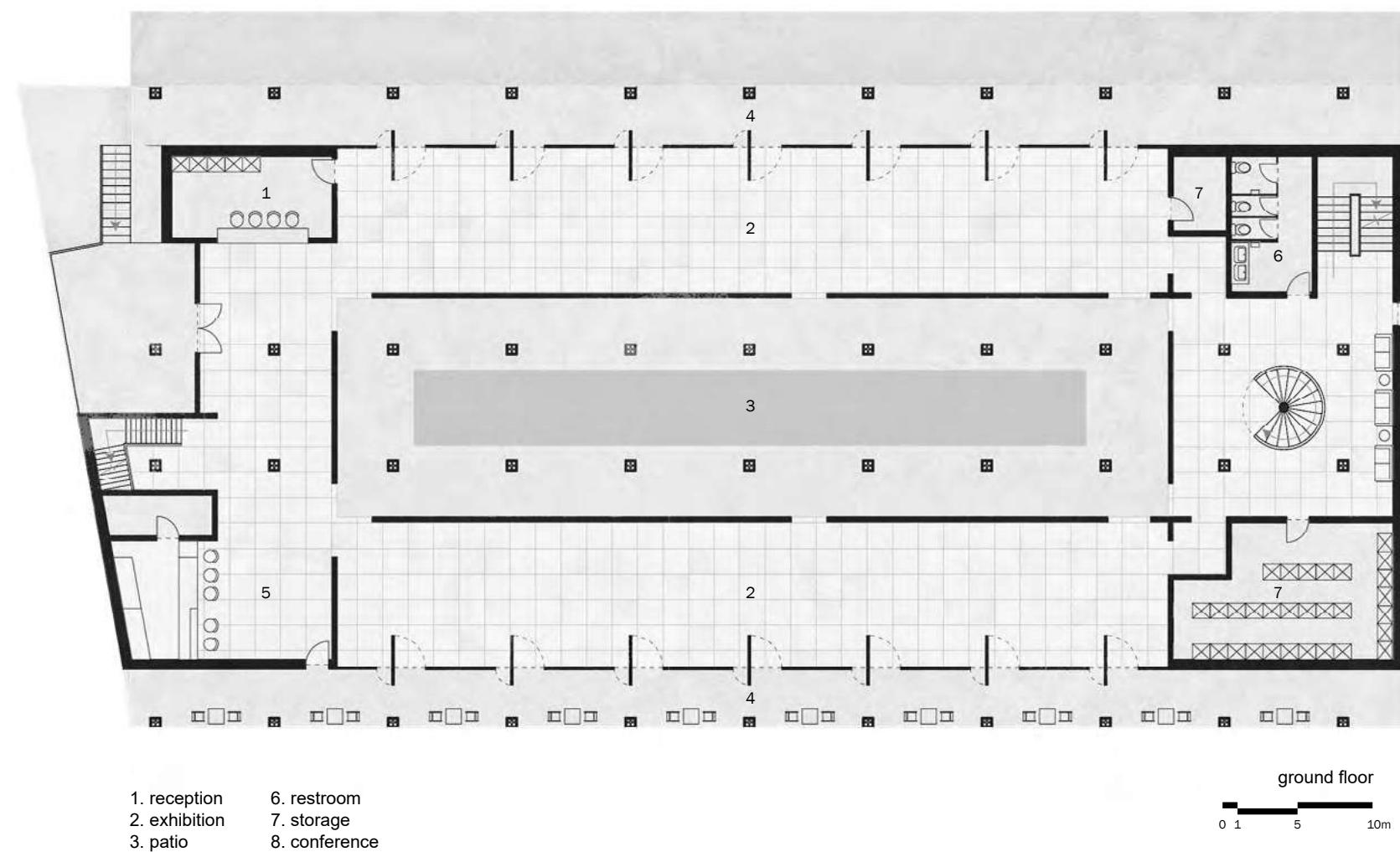
The Piscina Mirabilis Contemporary Art Museum celebrates the infinite cycle of water in the poignant reflection of a bygone era while interfacing with the present time. The new program is envisaged as a vessel of programs contained in a proposed structure over the 'ruin' of the column forest buried below. The new structure floating above serves as an additional threshold for the existing monumental space, compelling viewers before and after their meditative exploration within the reservoir. In constant dialogue with the ruin, the dense structure

2

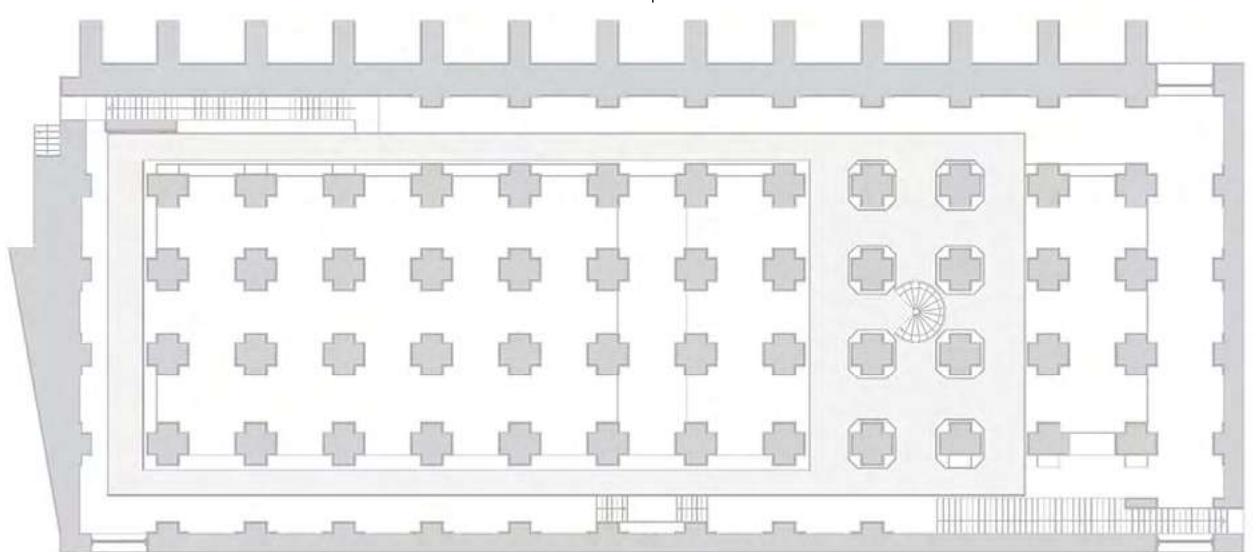
2 exploded axon



3 birds eye view
4 site plan
5 render of street entrance

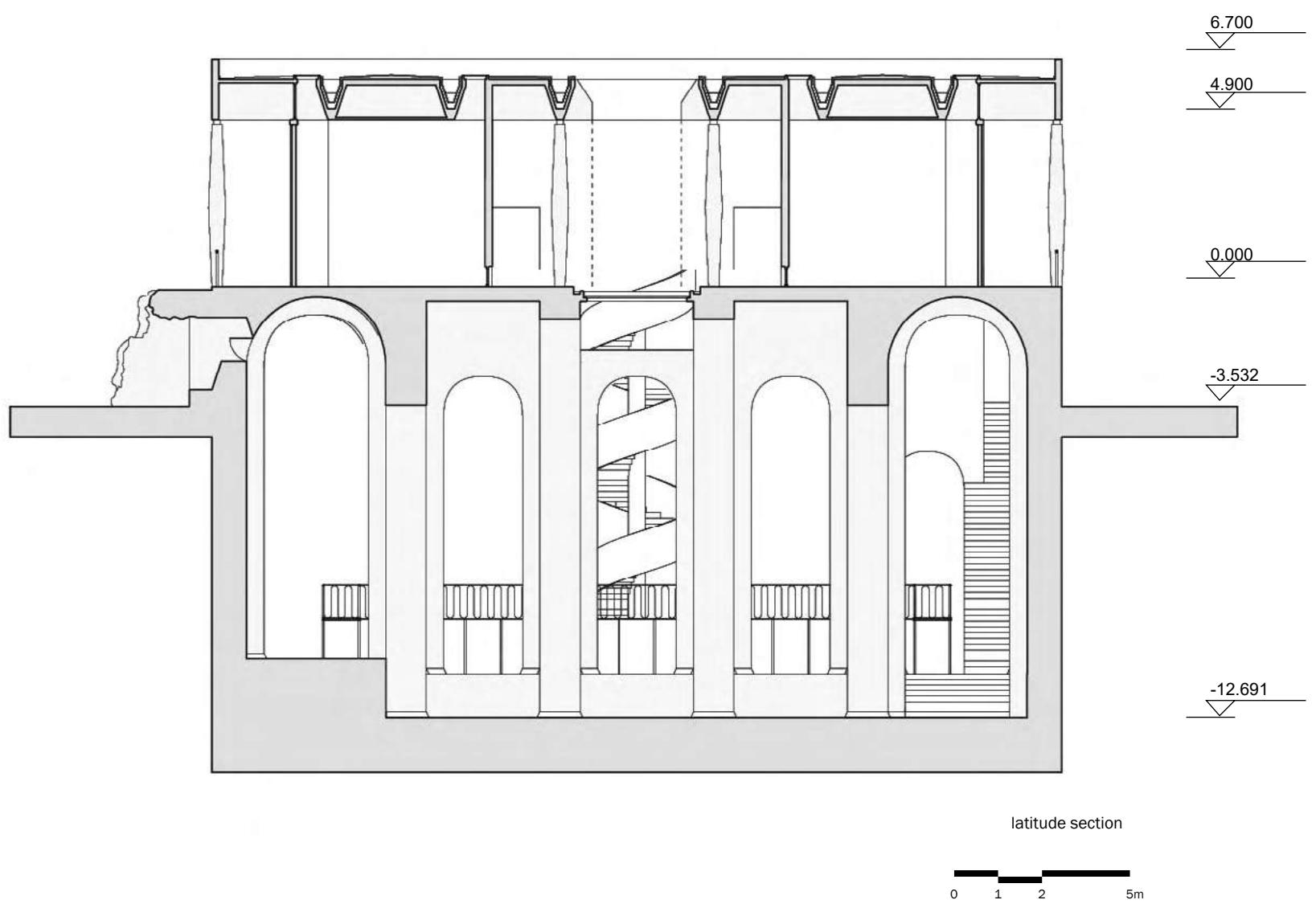


6 render of balcony



7 reservoir level

0 1 5 10m



8



9



10

7 plan - reservoir level
8 section

9 render of gallery space
10 render of central courtyard



04

Thresholds: the Binary House

Affordable studio and housing for Bronx artists

Columbia GSAPP
Instructor: Annie Barrett
Collaborate with Xuanyi Chen

Cultural engagement represents an important dimension of community wellbeing by building social connections within groups and across social divides. The arts provide a resource that people can use to make sense of the world as it is, to connect with collective memory, and to imagine the future. The BINARY HOUSE is aiming to design a community that provides affordable housing and a variety of art-oriented services to local artists. By introducing an in-between art space into the traditional housing unit, the project advocates a work-life integrated lifestyle. It encourages local residents to participate in the vibrant culture of Mel-rose, and enhances neighborhood revitalization, social inclusion, and community wellbeing.

1 interior render of duplex art studio



2 doodles of housing unit

Dynamic culture

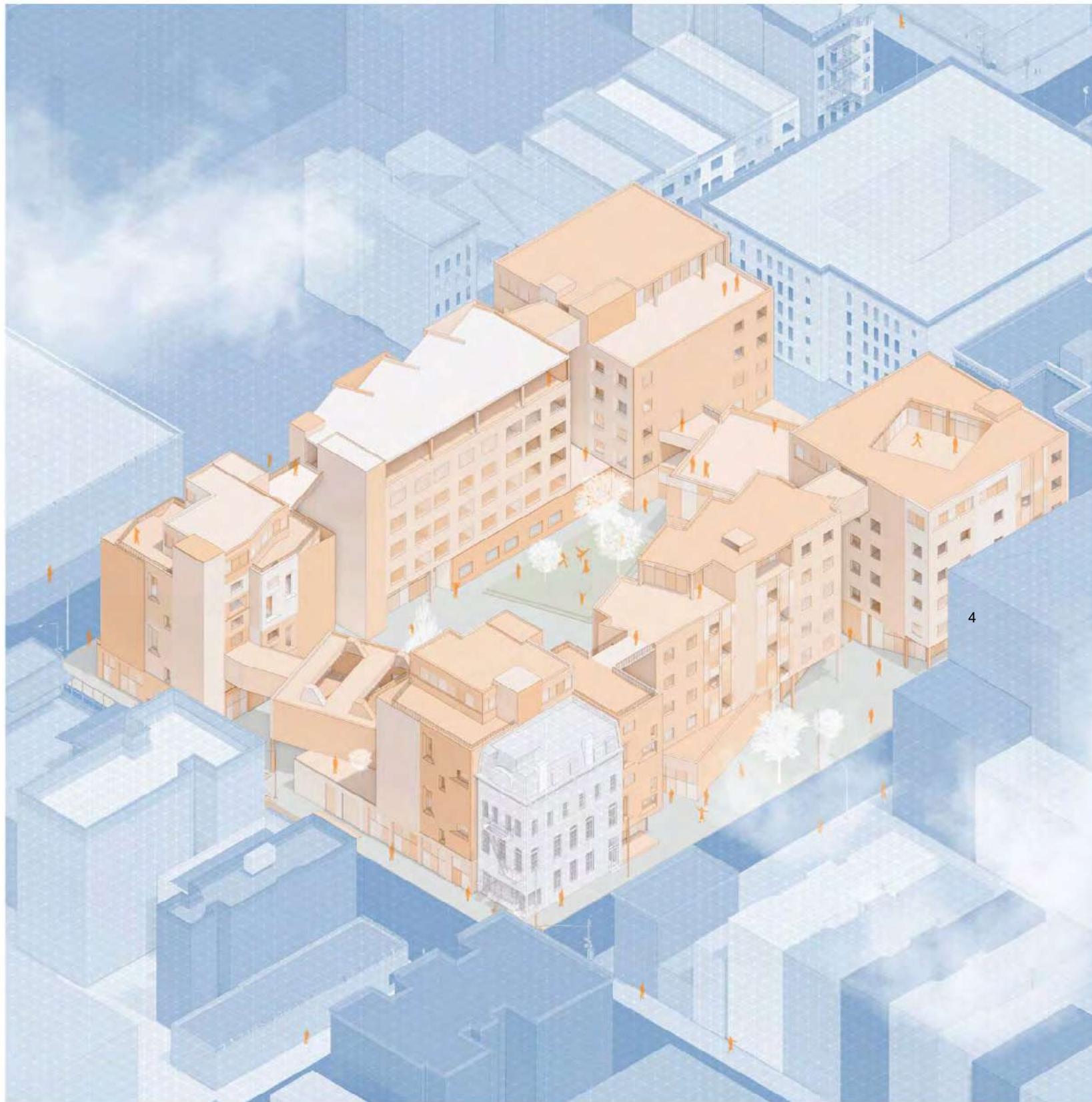
artists are welcomed to participate in the interior design. This project provides a platform for artists with a variety of backgrounds to express and exchange ideas.

Communal kitchen

For units that are not equipped with kitchen appliances, shared communal kitchens will be provided, which serves as an informal social space at the same time.

Adaptation

provides maximum flexibility in layouts. A variety of configurations of standardized parts will be offered to create individual residences that suit each resident.



3

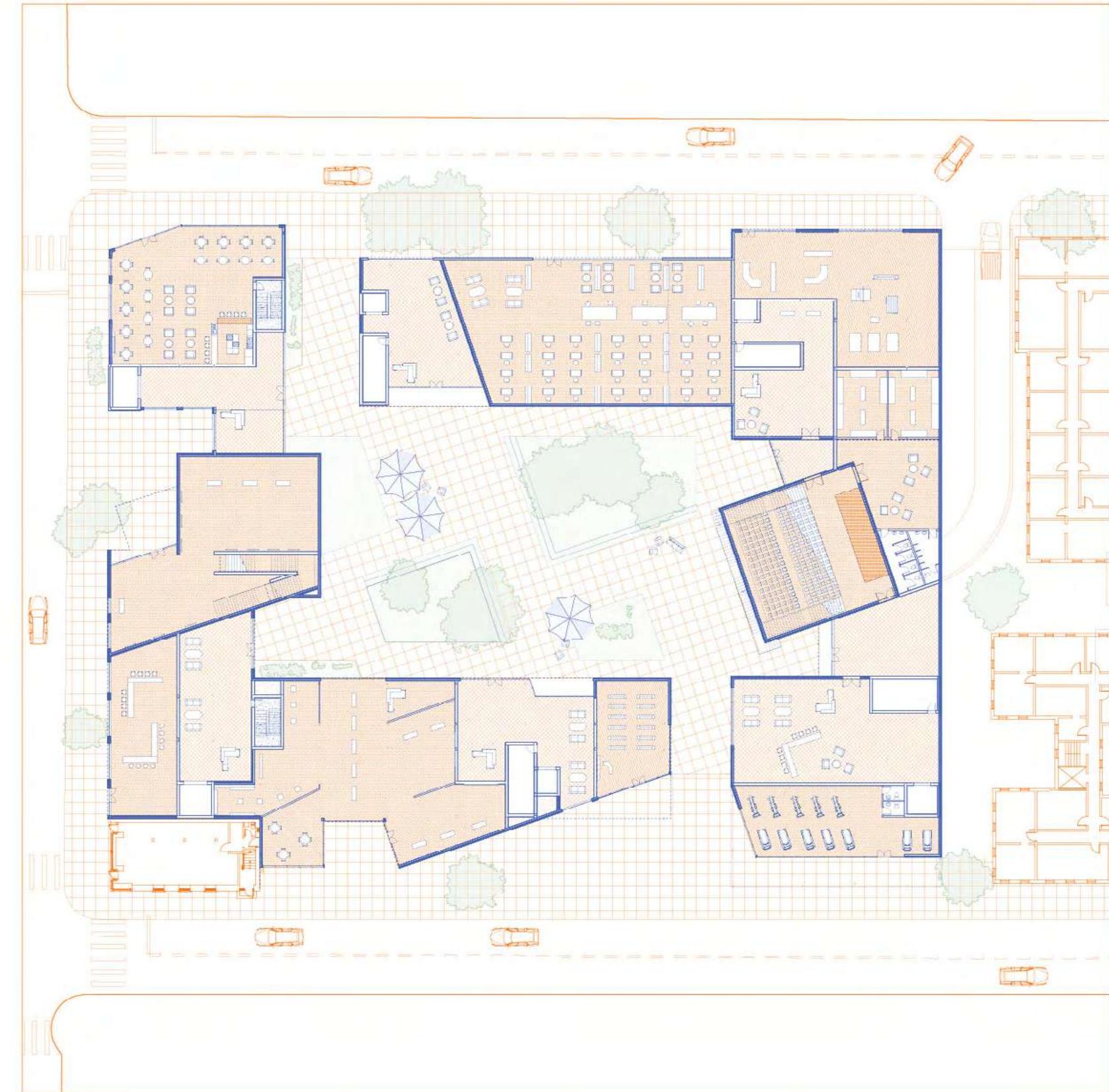
3 axon view

Affordability

The binary house provides not only affordable living space but also working and performing space and commercial programs at the ground level for local artists.

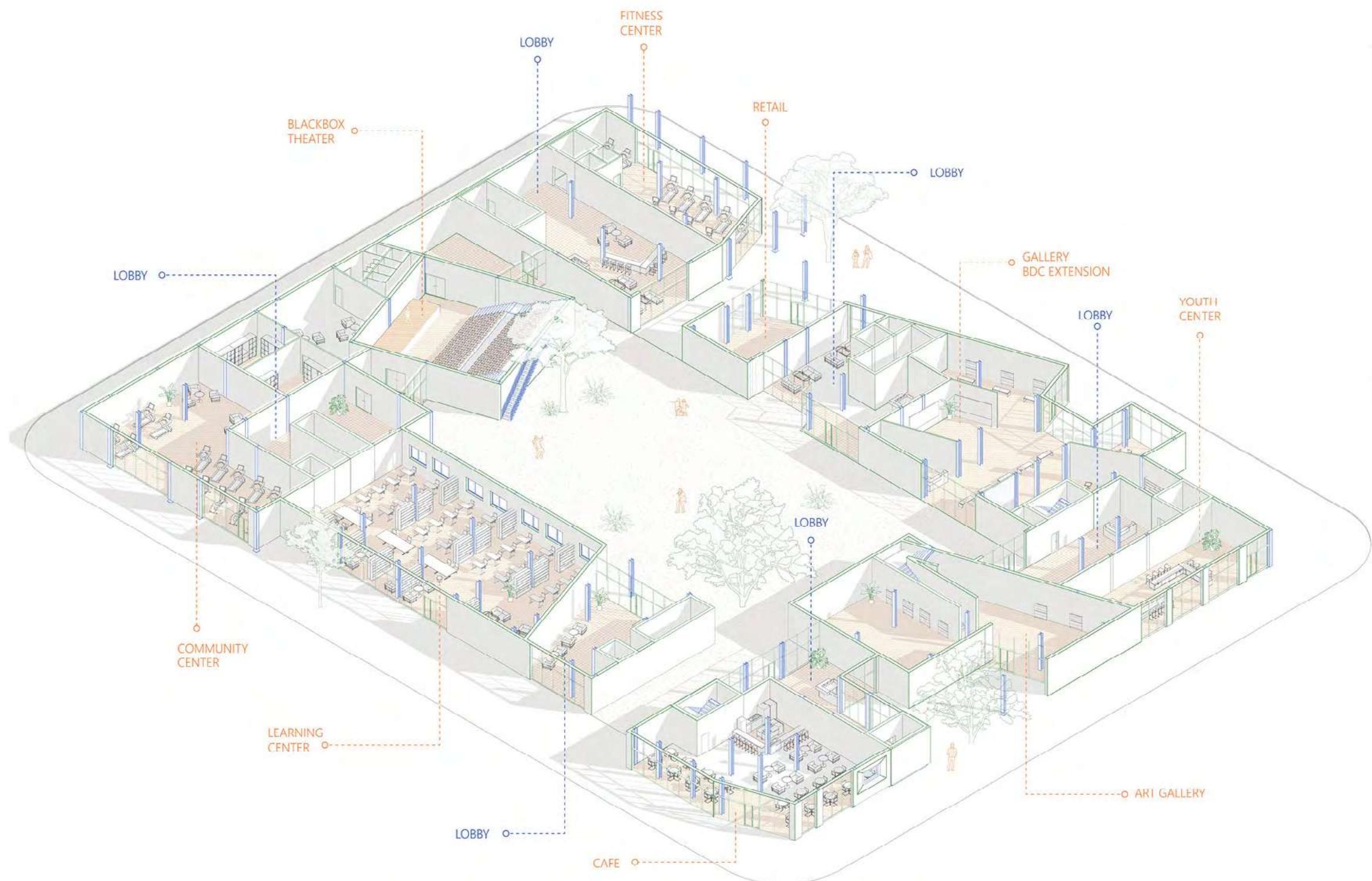
Live & work

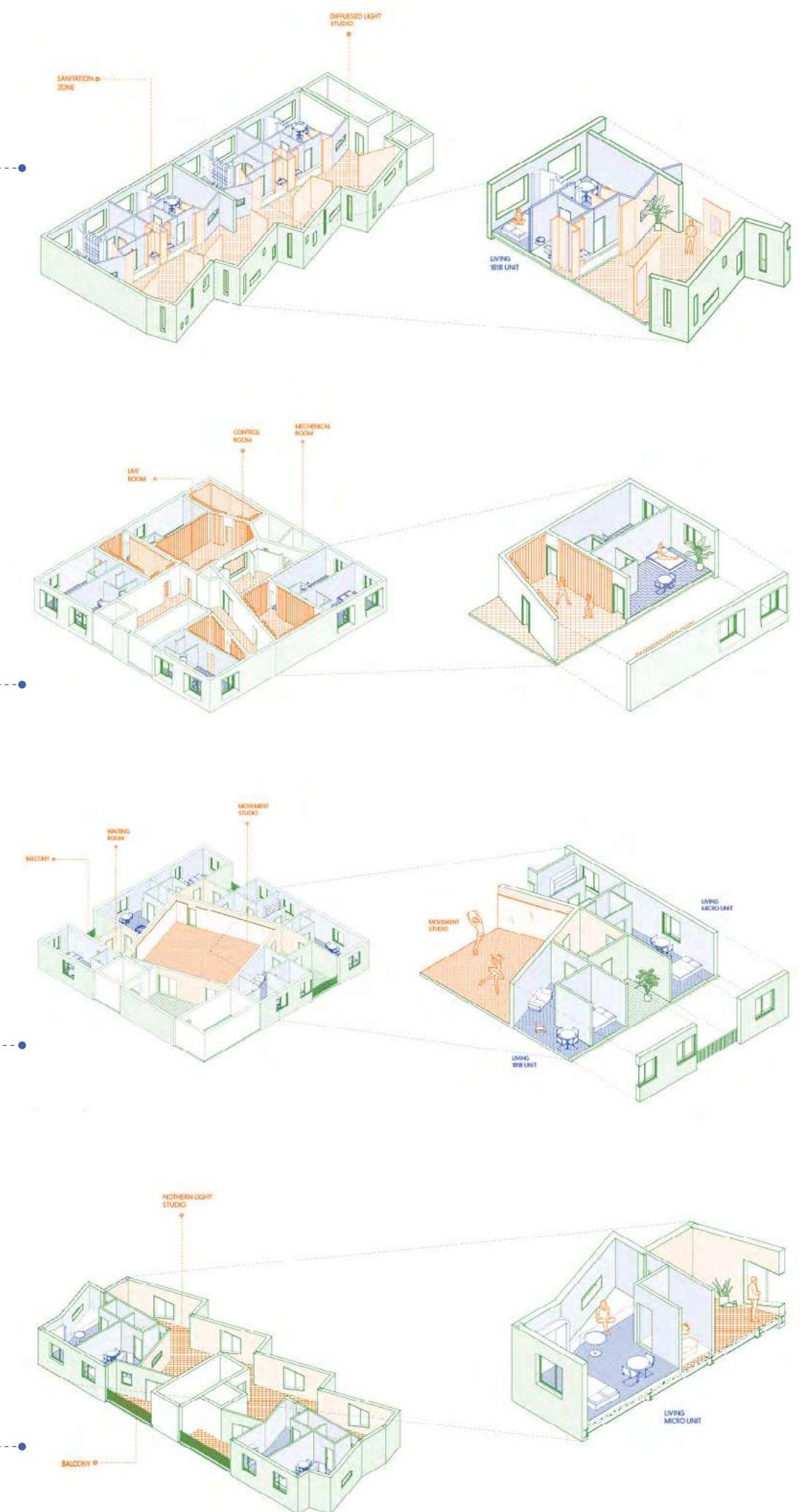
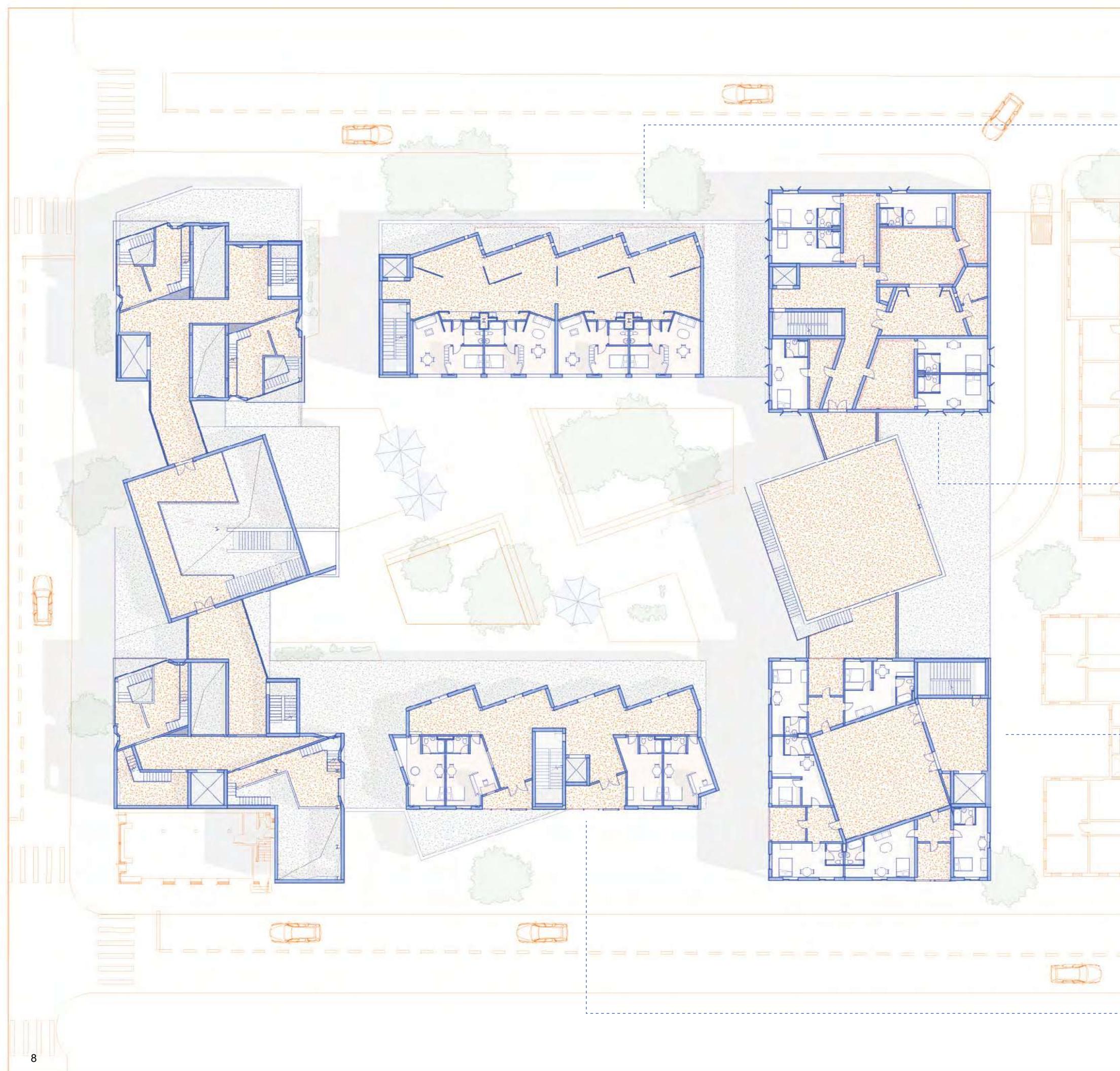
The art-life integration housing is an adaptation of the generic affordable housing, it is composed of micro-unit and a studio space. The in-unit kitchen is substituted with studio space. Residents can also decide the arrangement of their living and working space.

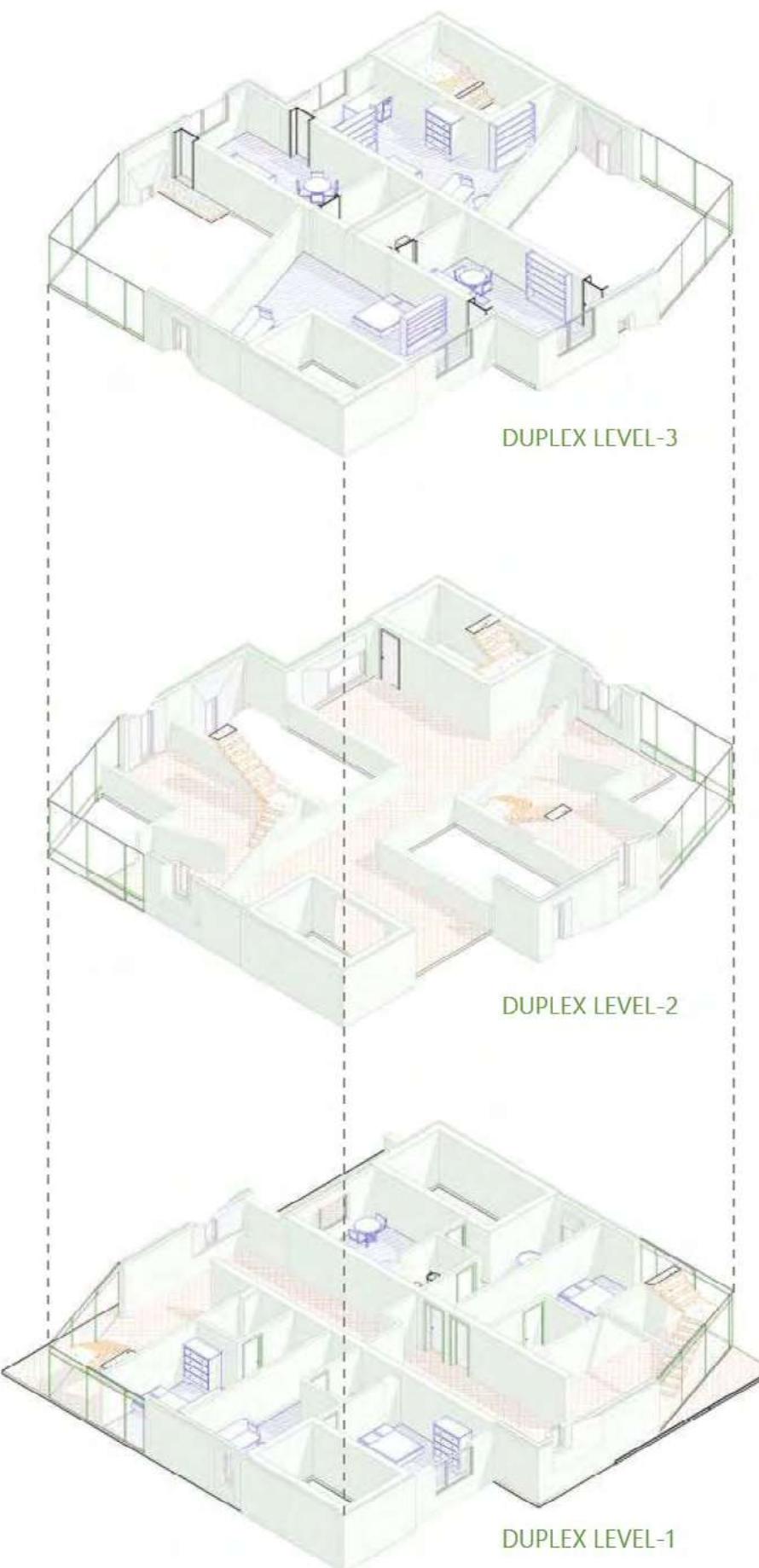
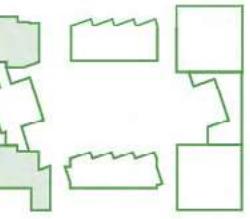


4

4 ground plan

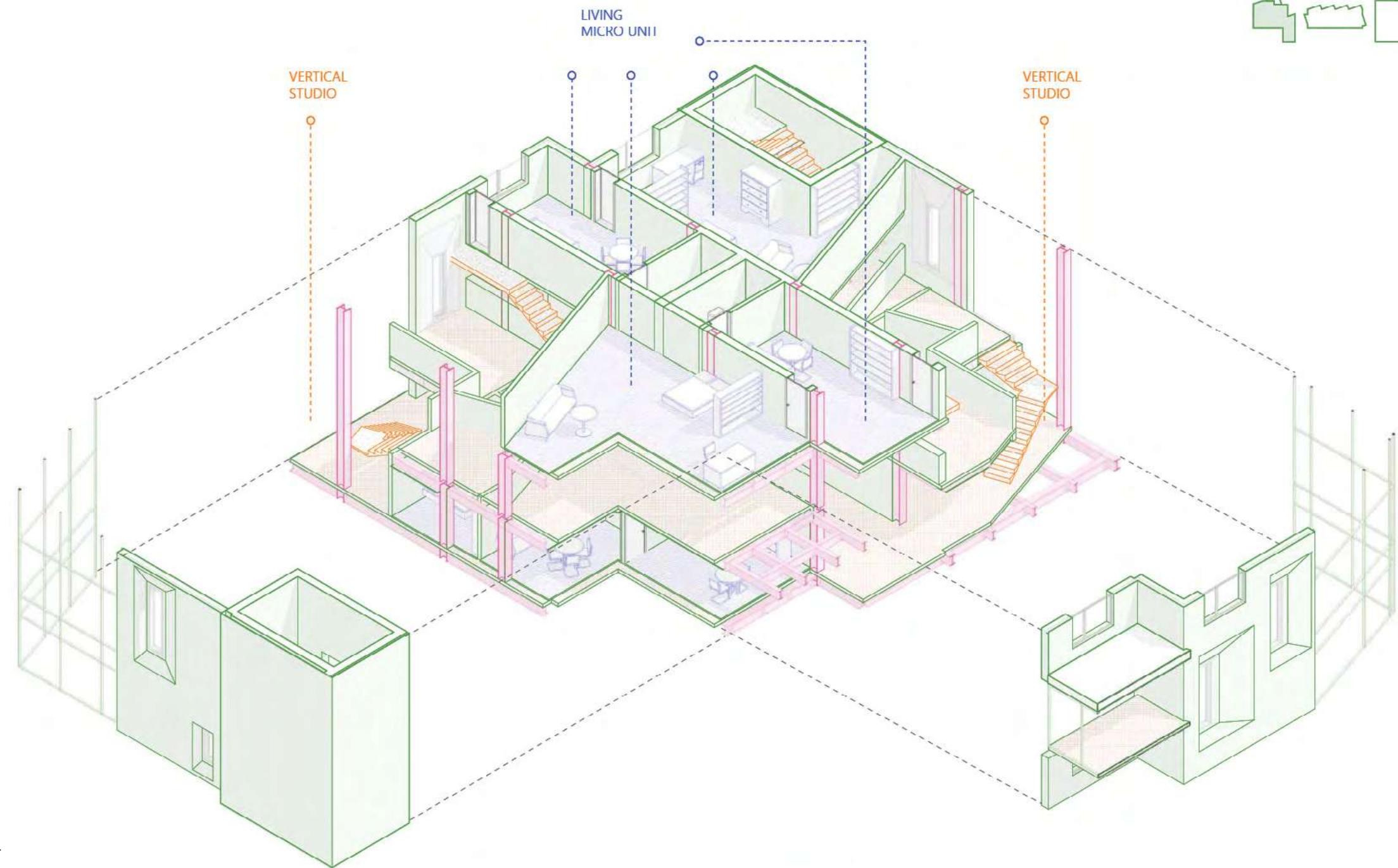






13

13 exploded duplex diagram
14 duplex unit typologies



14

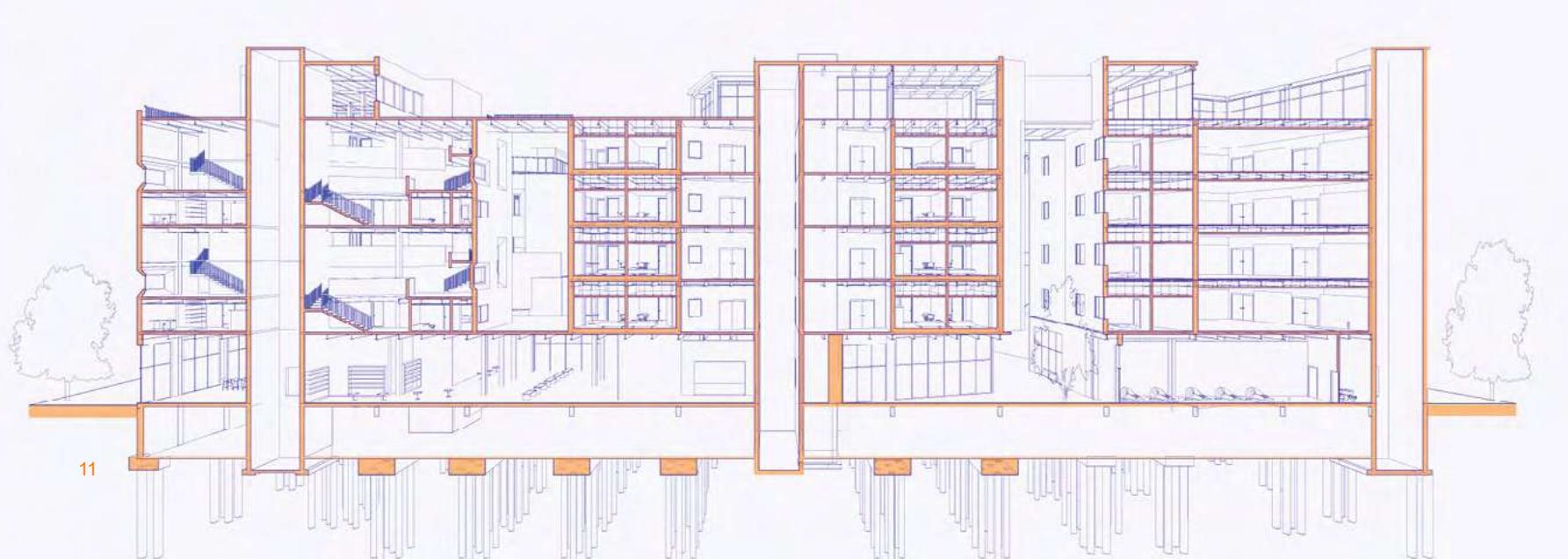
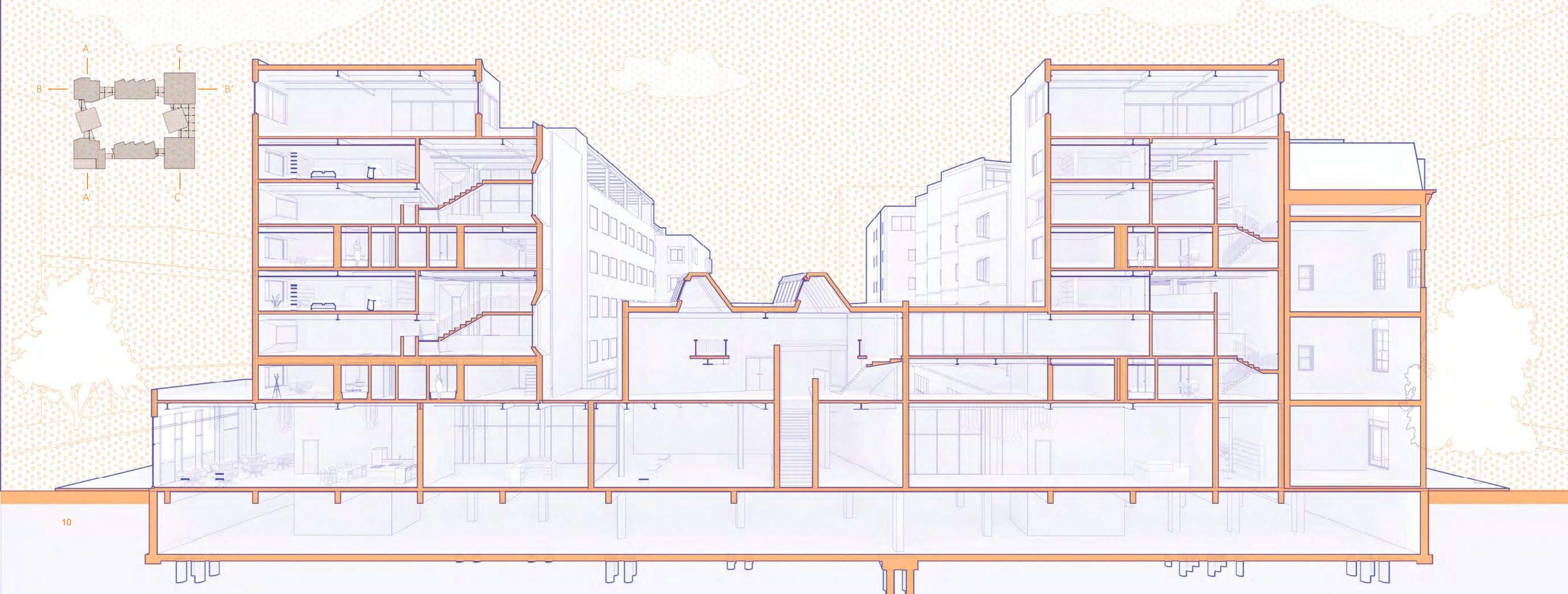
15



16

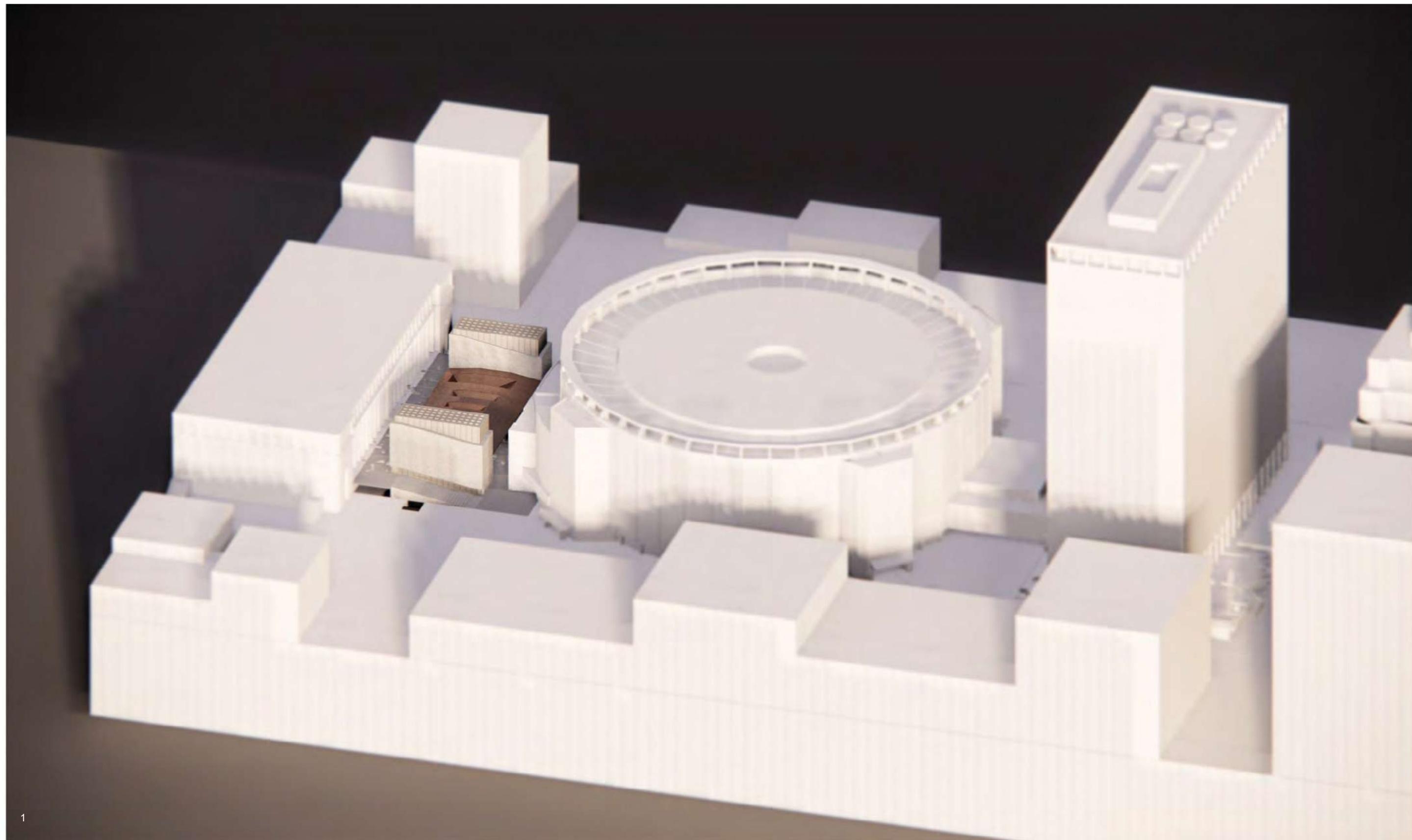


15 render of inner courtyard
16 render of northern light studio space



10 cross-section aa'

11 section bb'
12 section cc'



Barre Grey



Reclaimed Granite



Old Penn Station

05

Granite: Extension of Penn Station

Columbia GSAPP
Advanced V, Fall 2021
Instructor: Ivi Diamantopoulou, Jaffer Kolb

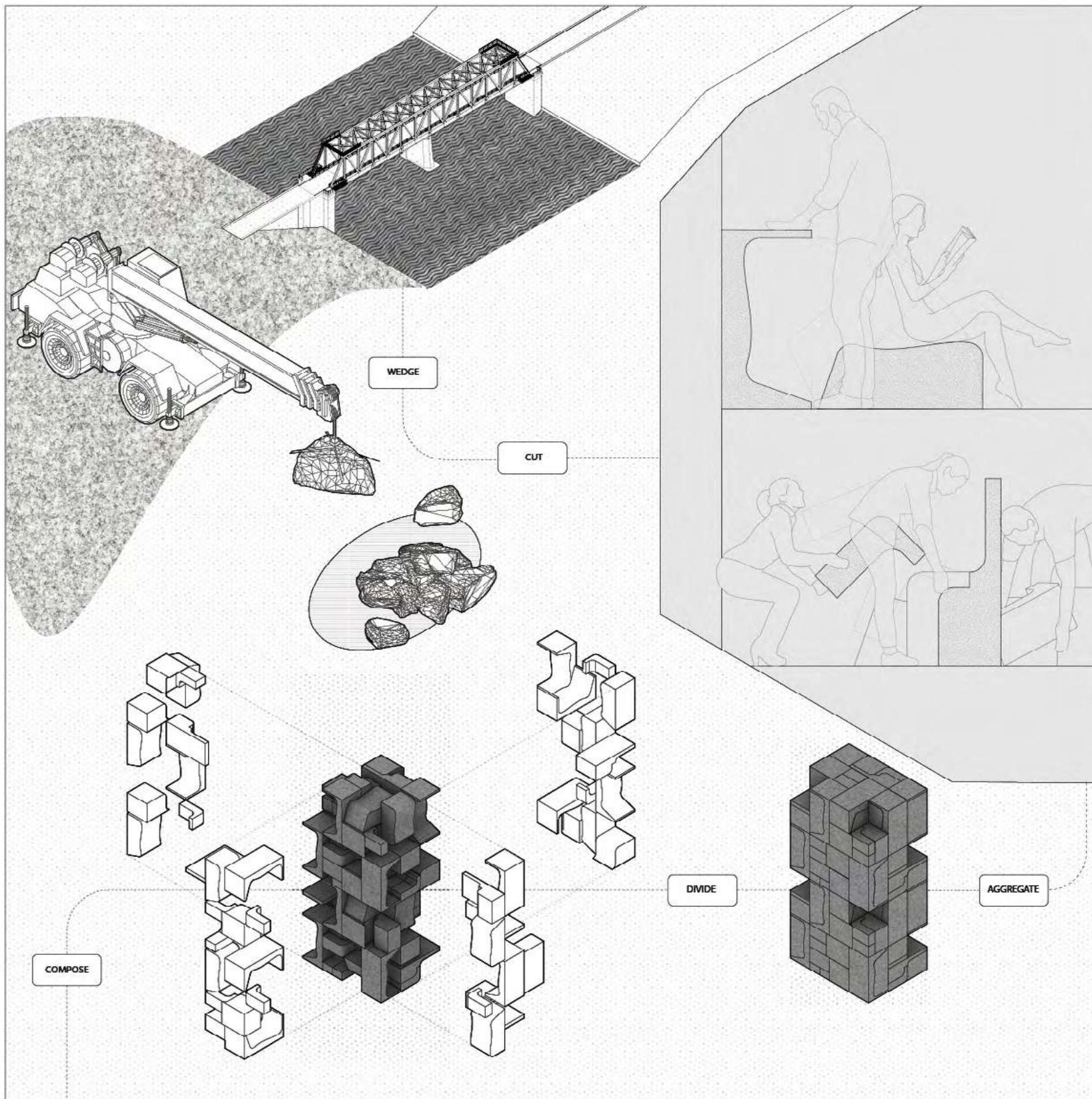
The extension of Penn Station should surmount the existing issues, the lack of coherence, connectivity, and a clear image. It connects with both stations, meanwhile negotiates with their unrelated plan arrangements and sectional conflicts. The extension, a civic corridor composed of granite, aspires to bring multiple layers of comfort: multi-directional connection, social gathering, and a historical gallery as well as a library of granite.



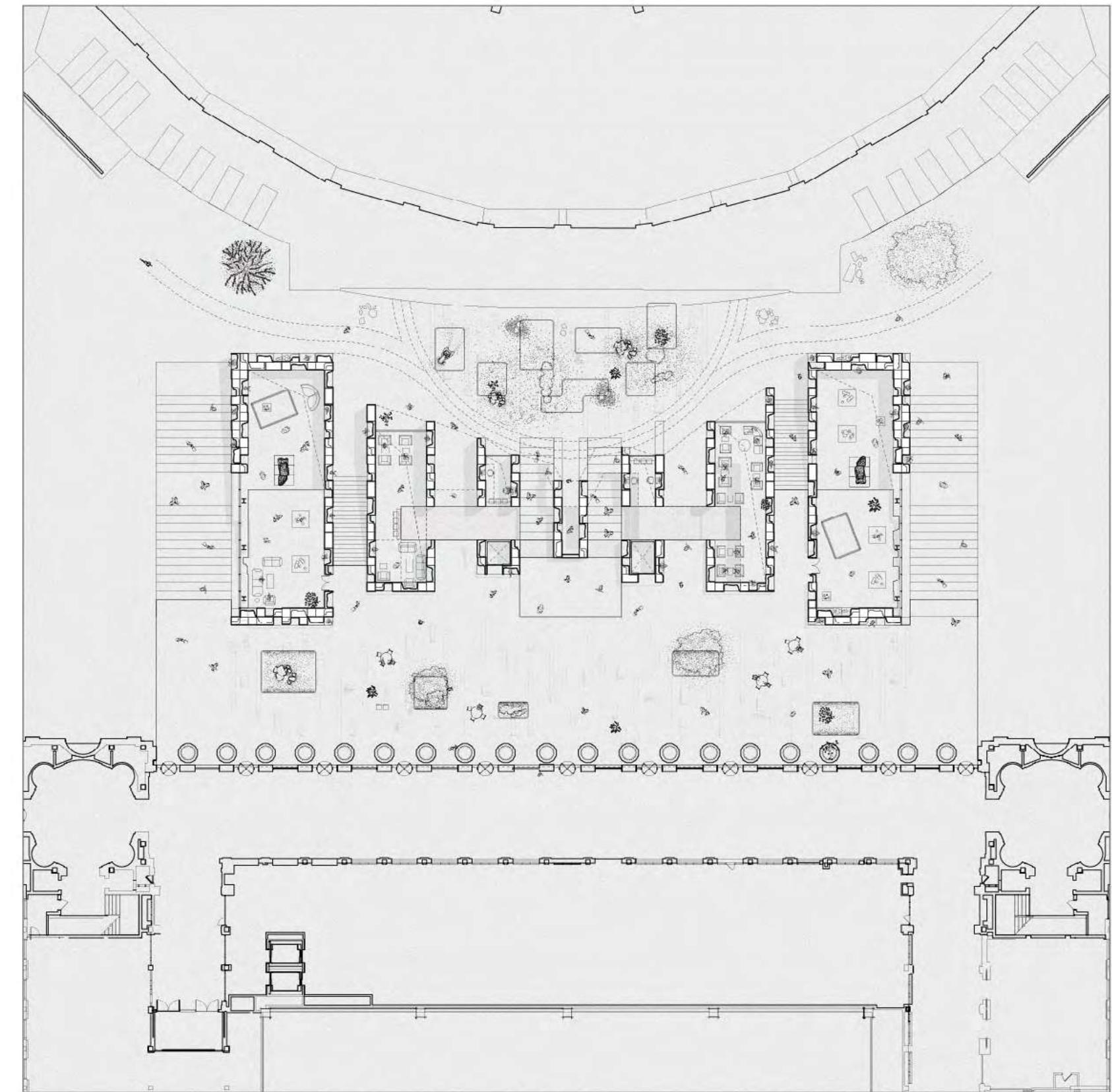
Obstruction 1 / Multiple Lives or stone-hunting

The stone hunting started with three huge granite blocks that sit at the corner of 97th and west end. This drawing shows the journey of my granite. Barre granite is mined at the E. L. Smith Quarry, near the town of Barre in Washington County, Vermont. They are highly durable and regionally appropriate, locally sourced, and are often recycled from a demolished urban

infrastructure, such as bridges and tunnels. Their second destination was at north Washington Bridge. NYCDOT uses a lot of granite blocks in and around plaza spaces to create a sense of enclosure and to buffer the plaza from motor vehicle traffic. These blocks are often placed along the edge of plazas or streets, acting as barricades, as well as street furniture.



Obstruction 2 / Wedge or space



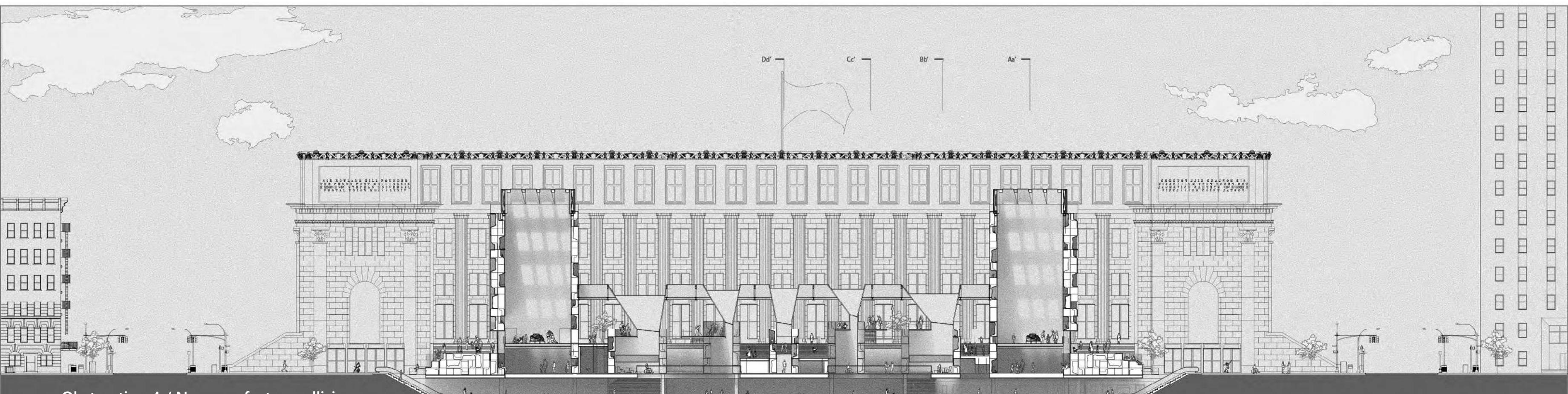
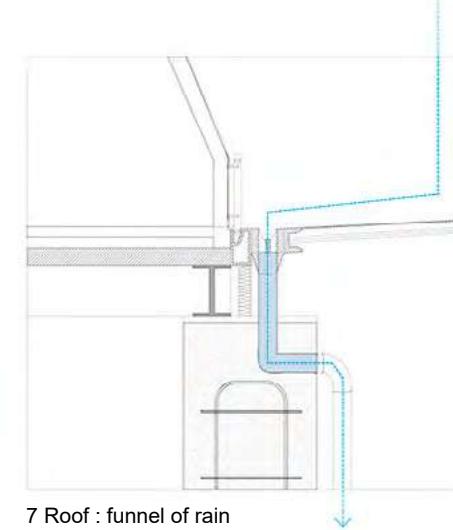
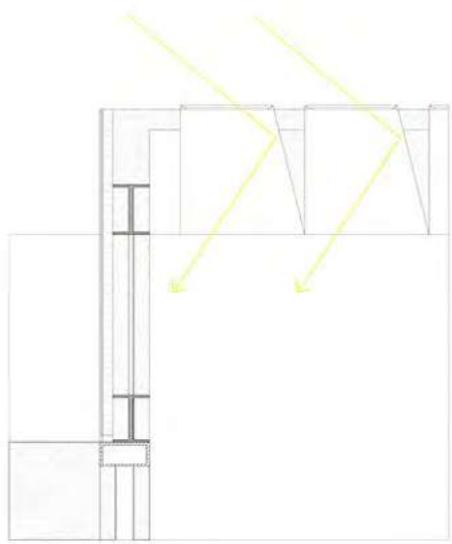
The recycling and preservation of reclaimed granite is the main driving force in this project. Through the process of wedge, cut, aggregate, divide and compose, they form into breathable spaces. The two edges are responding to the facade they are facing. On the east side, the space offset back from the MSG Moynihan's facade and become a bazaar under Pavillion.



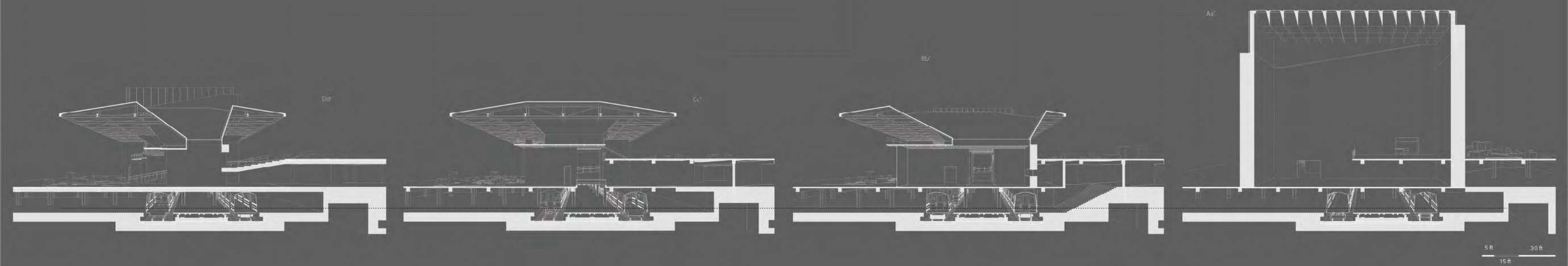
Obstruction 3 / Saving Face or a memorial for granite

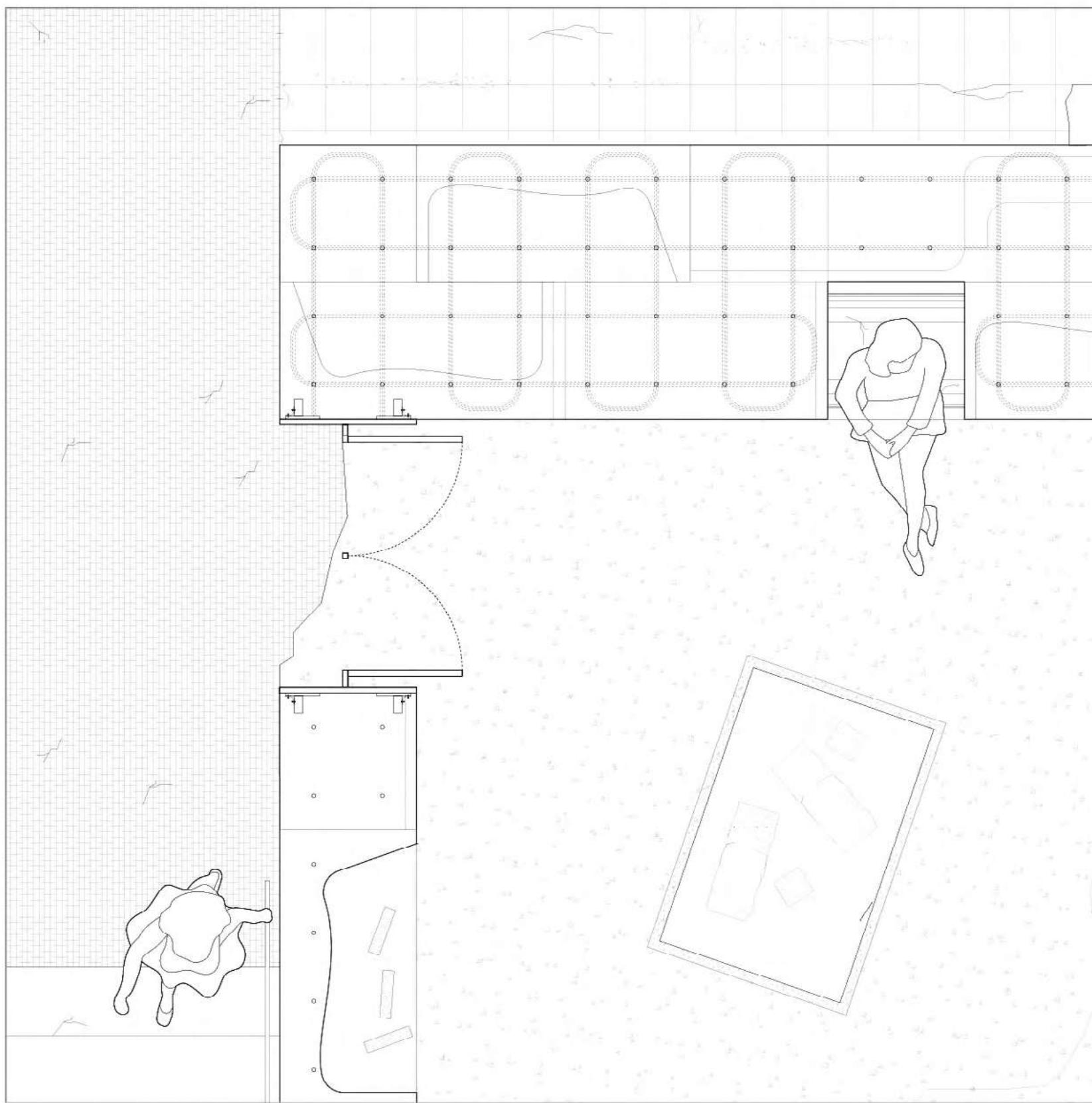
The facade performs as a memorial of demolished infrastructure in history, a gesture inviting people to occupy, and a variety of spaces for individuals to take a pause, recharge, and step back to the ground again. A slit of opening following the grand staircase emphasizes the directional movement between the two existing stations. Meanwhile, it lifts the granite up and creates a lightness that contrasts with the heavy nature of the material.

In plans, the extension reads as a collision of the two stations. In section, it captures the same compression between the underground and the above as well. Meanwhile, the galleries at two ends are responding to the height of both stations. However, the in-between spaces are designed for human scale. Moving from a sublime space to a condensed space, from gigantic infrastructure to furniture, it carries the potential of granite as an acquiescent material.

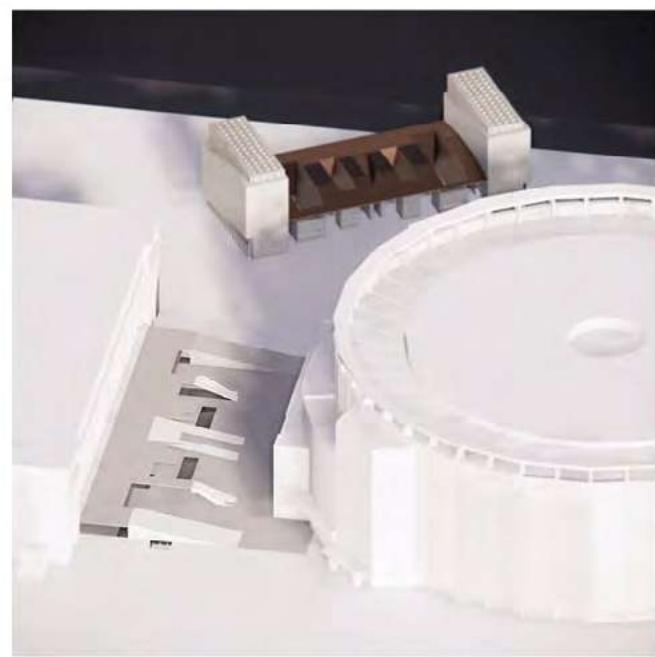


Obstruction 4 / New comfort or collision





8



9



10



11

Obstruction 5 / A corridor or a civic space



06

Envelope : Glowing Pillow

Columbia GSAPP
Tech III & IV, Fall 2020
collaborate with
Agnes Anggada / Jiafeng Li / Yumeng Liu

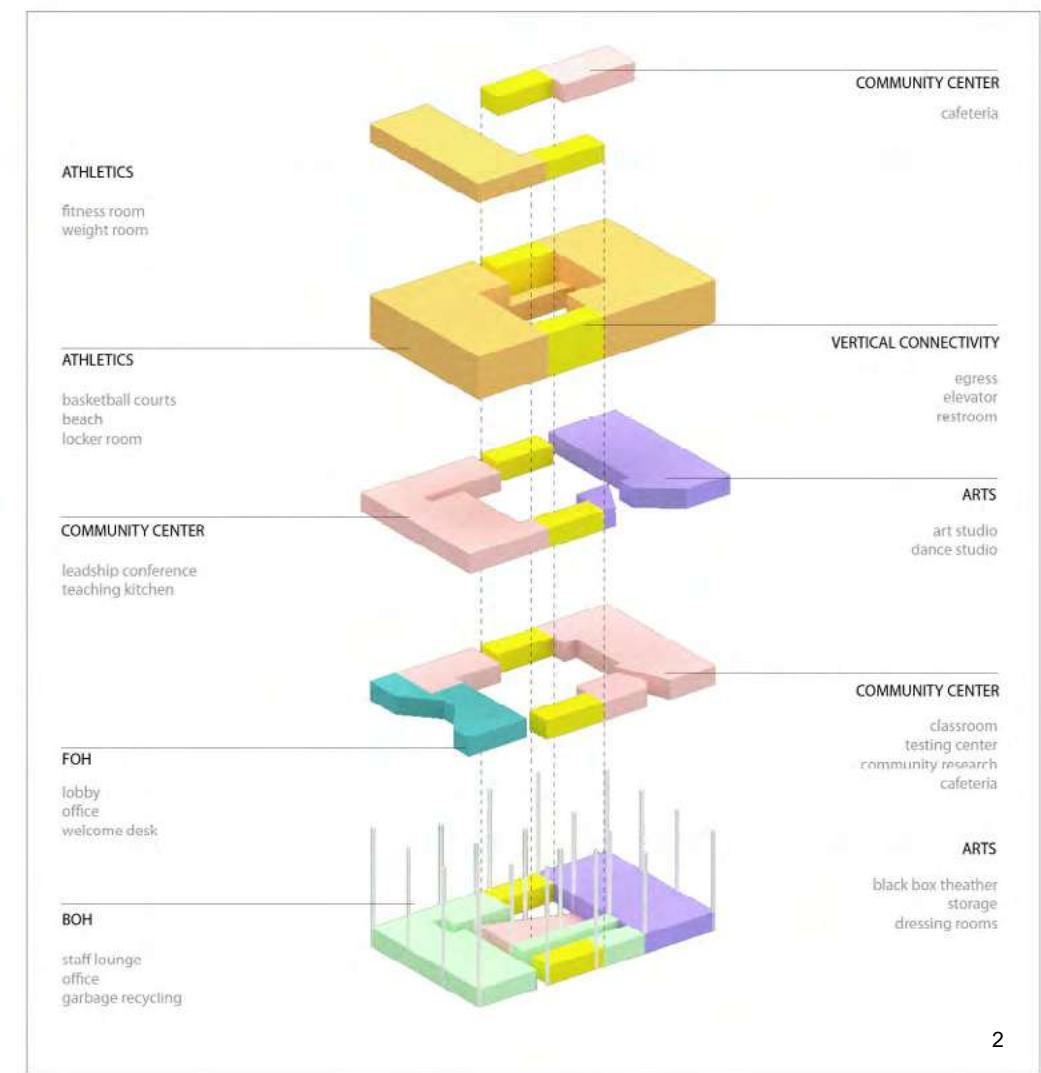
Architectural Consultant : Stephen Ruiz
Structural Consultant : Shinjinee Pathak
Mechanical Consultant : Oliver Meade
Enclosure Consultant : Ryan Donaghay

Mel-rose Community Center

Located in the South Bronx, the lot has a south facing entry from 151st street and sits in between an existing park and community garden, with a sloping topography going down towards the east. The Bronx community center is located in a very active and chaotic community. Behind it, the tiny house was the Bronx documentary center, a landmark of this community.

There are four main wall types of facades system: glass curtain wall, translucent double façade, sandstone veneer wall and roof coating. This translucent skin is composed of glass tubes providing natural light to the basketball courts and other spaces, forming a “cool jacket” around our building. This layer of façade reduces solar gain and at the same time creates cooling energy. During the night the translucent skin will be lit from the inside, then as a result we have a glowing pillow floating in the air.

1 render of the envelope



2

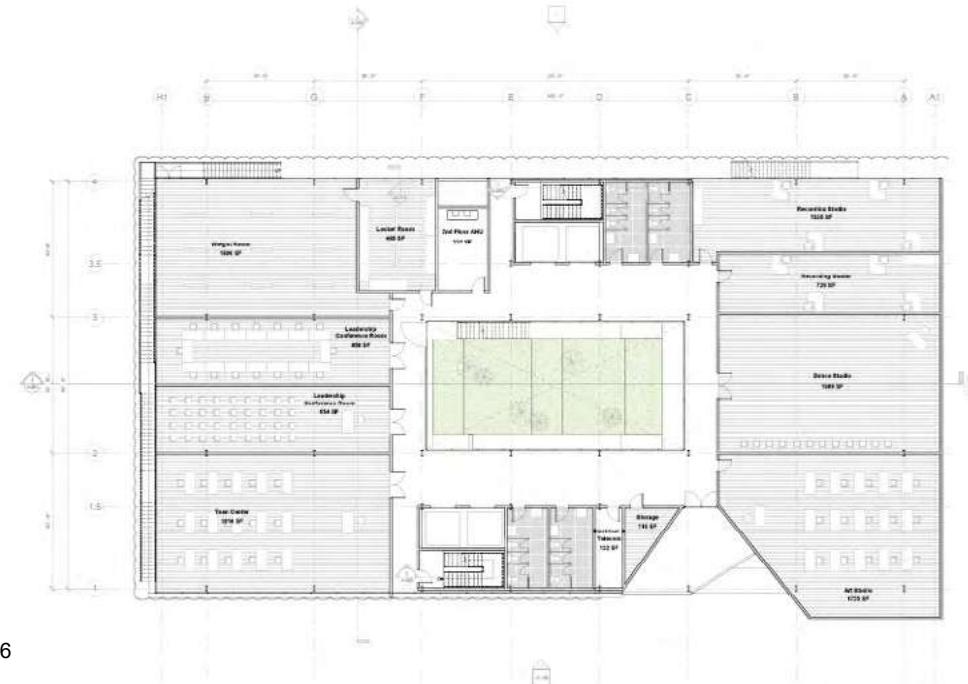


3

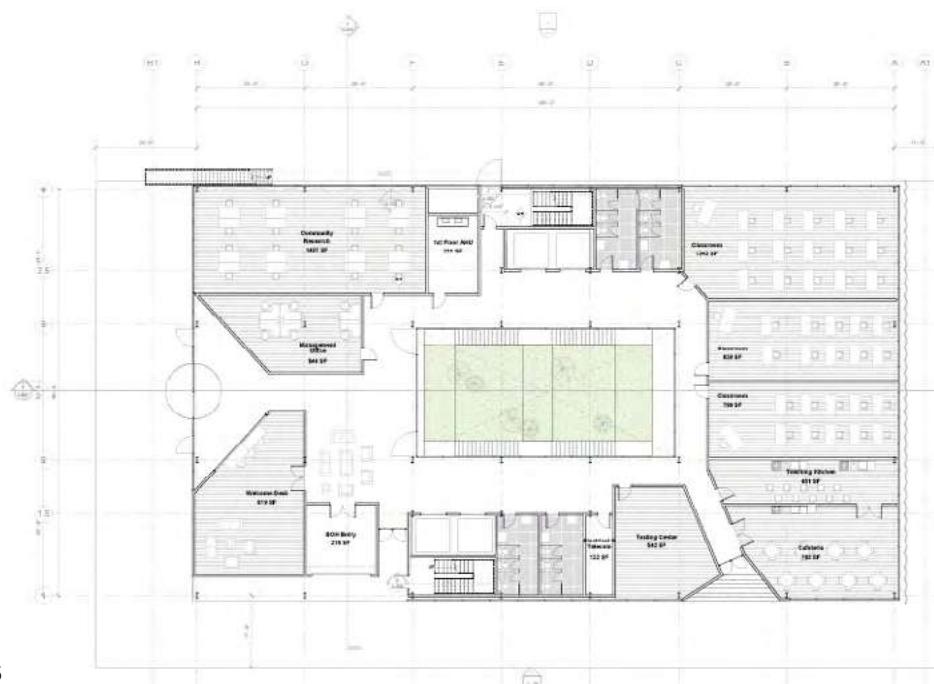
2 concept diagram
3 site / roof plan



4



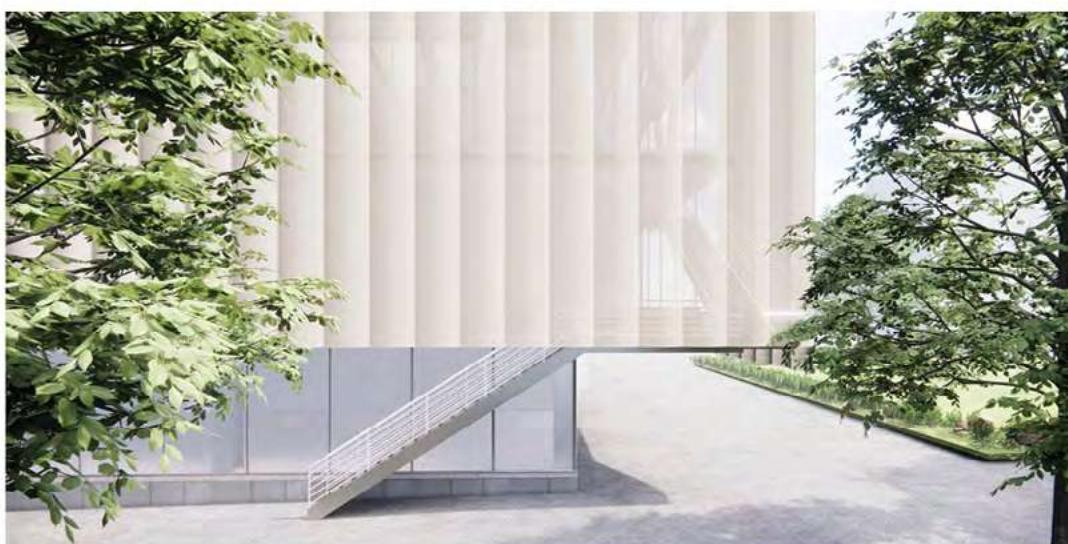
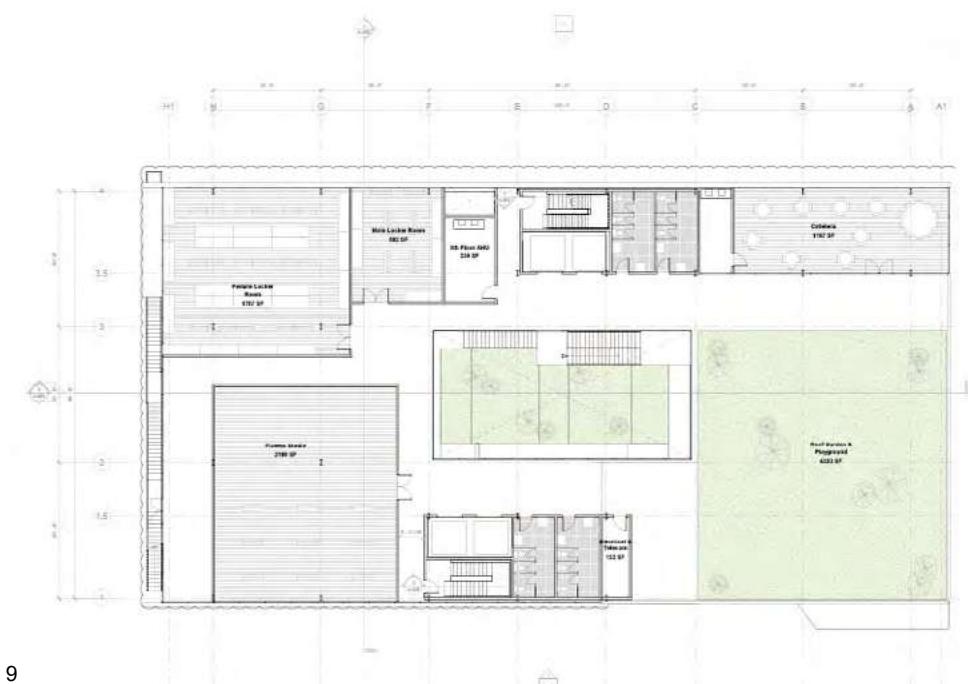
6



5



2



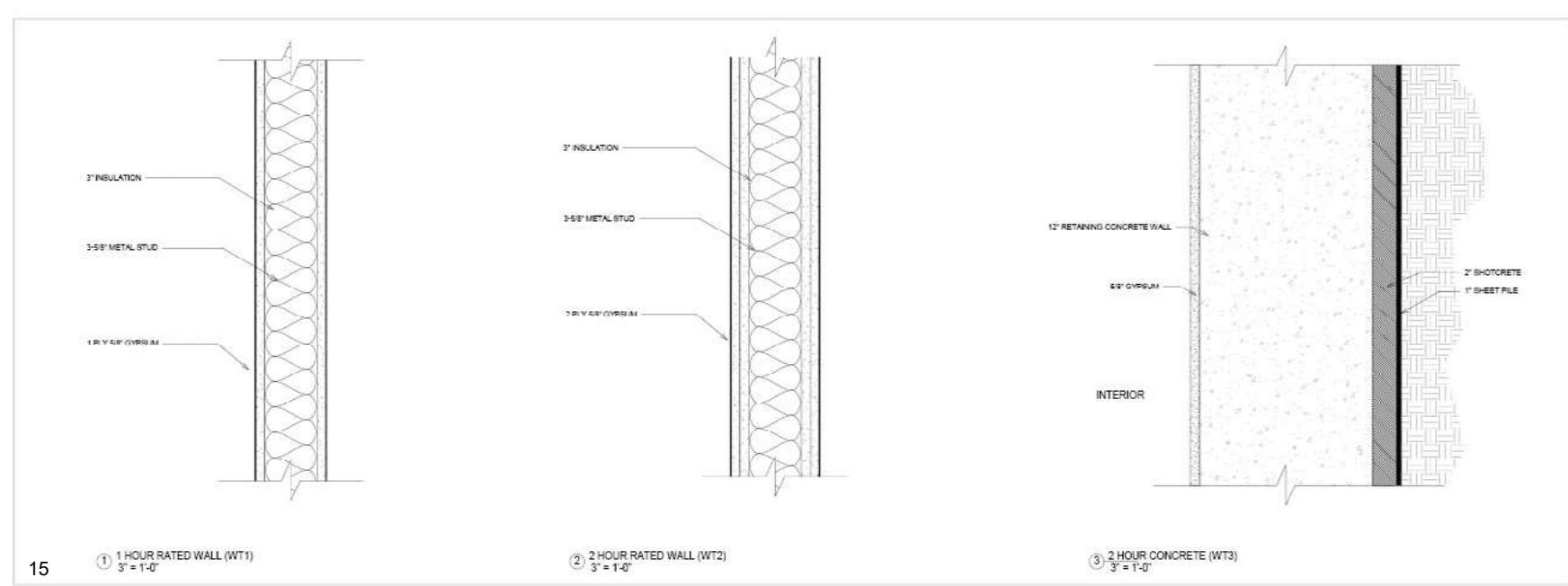
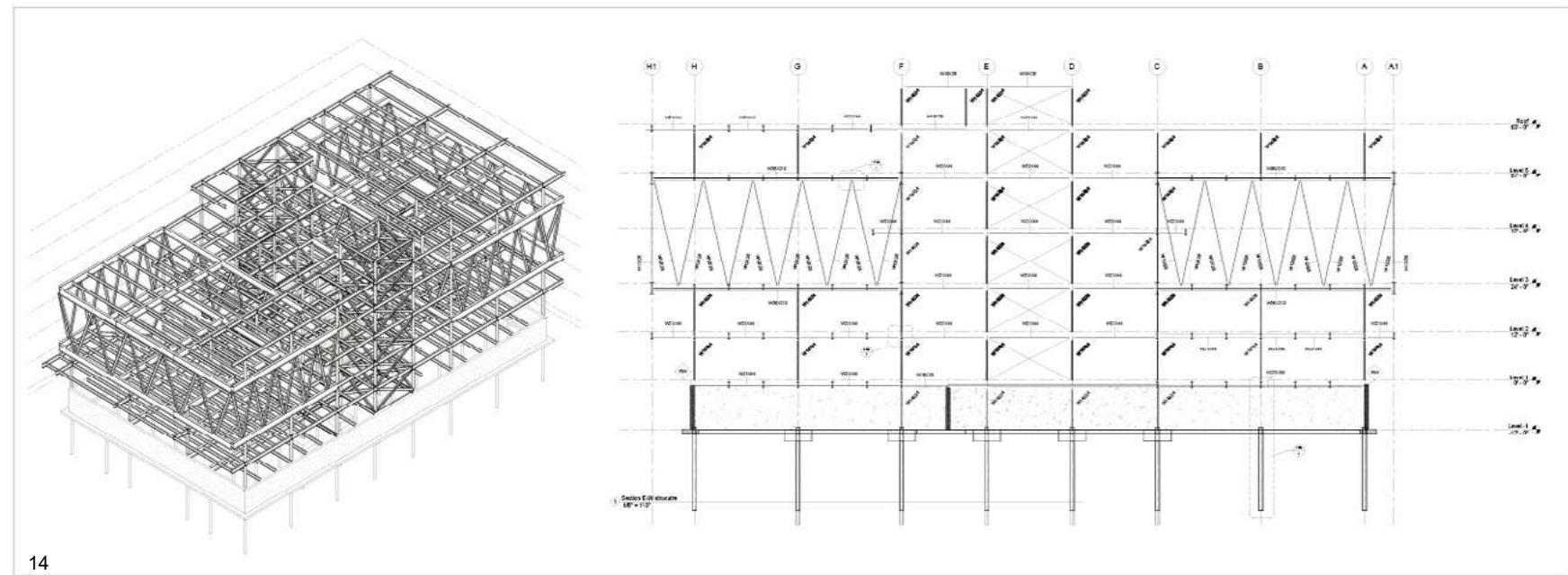
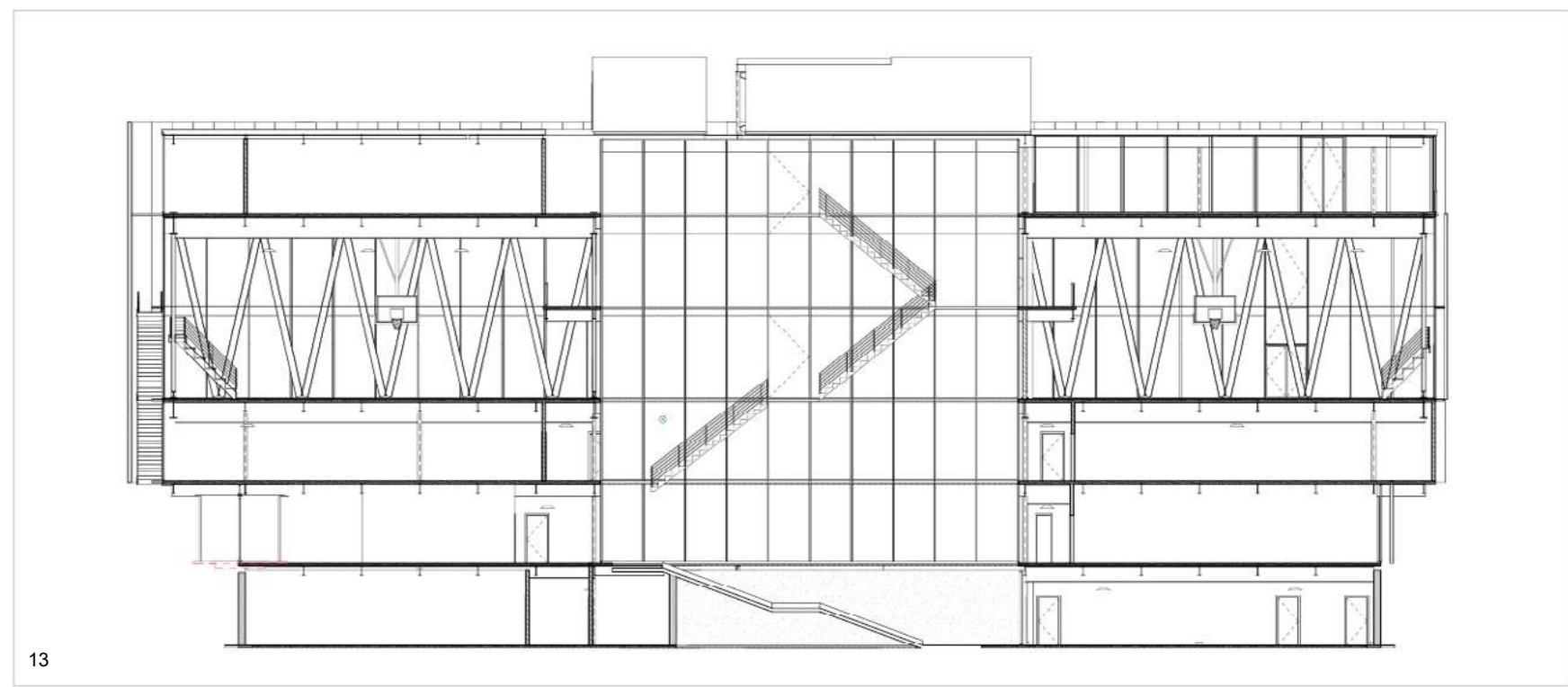
10



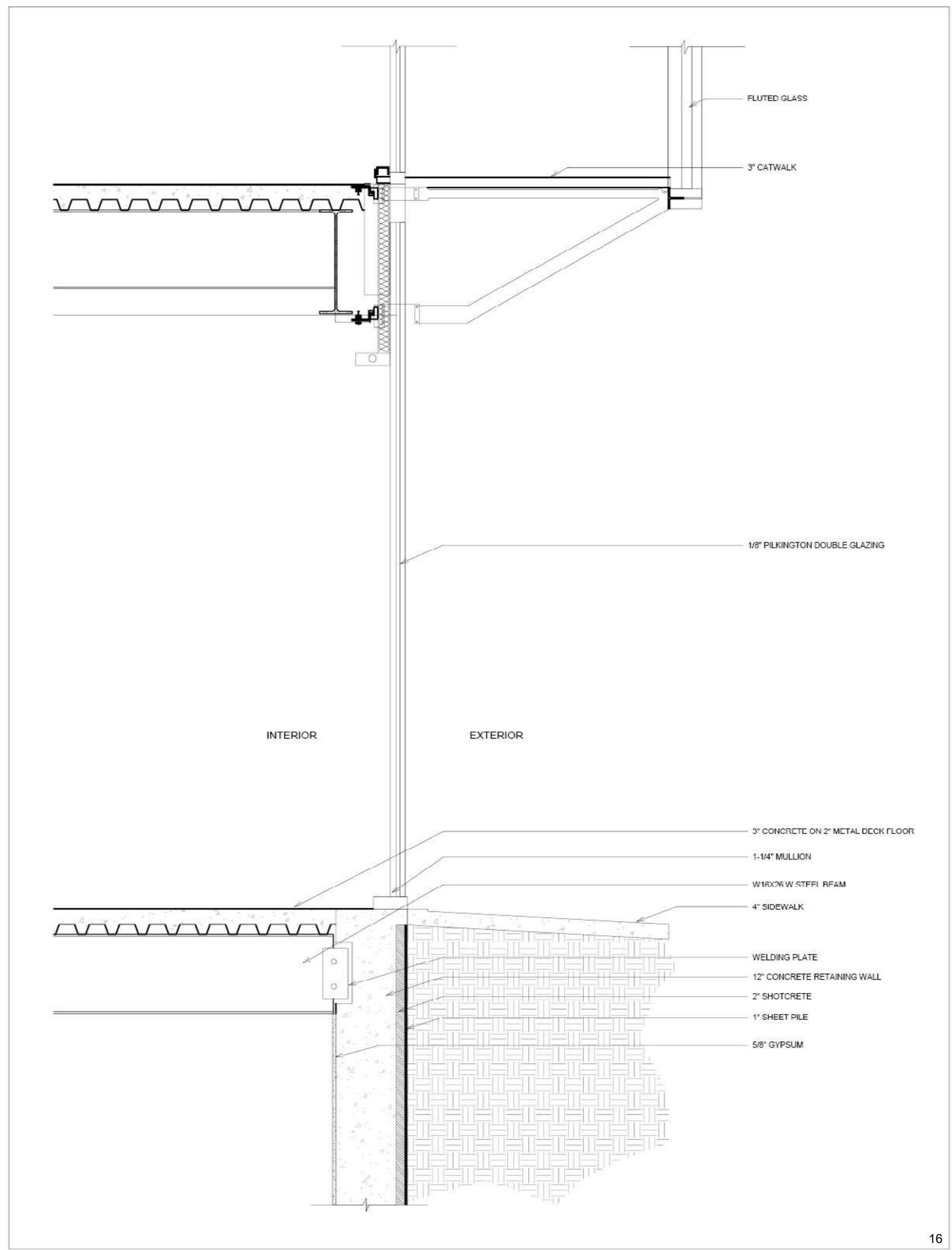
- 4 basement plan
- 5 first floor plan
- 6 second floor plan

- 7 third floor plan
- 8 fourth floor plan
- 9 fifth floor plan

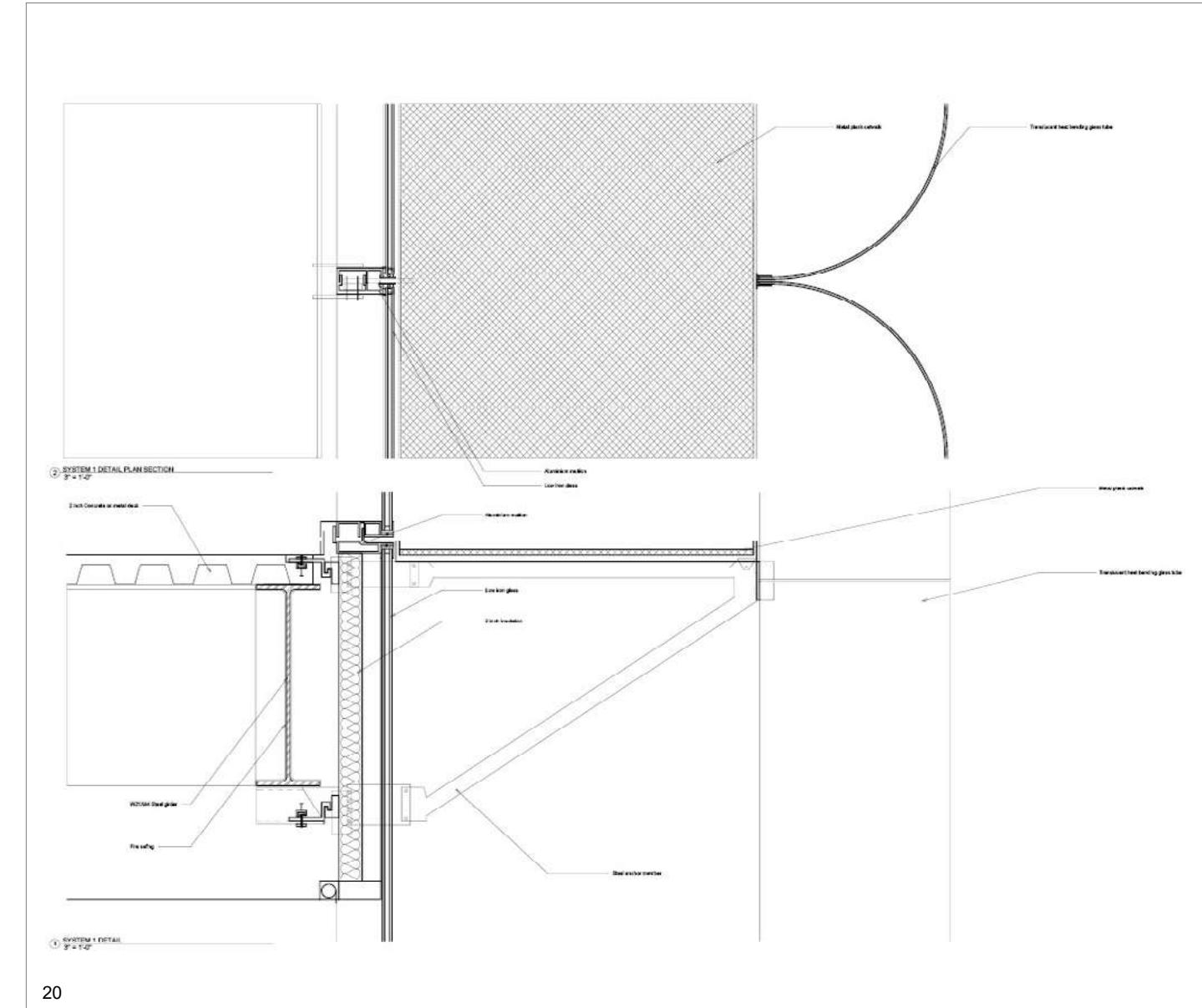
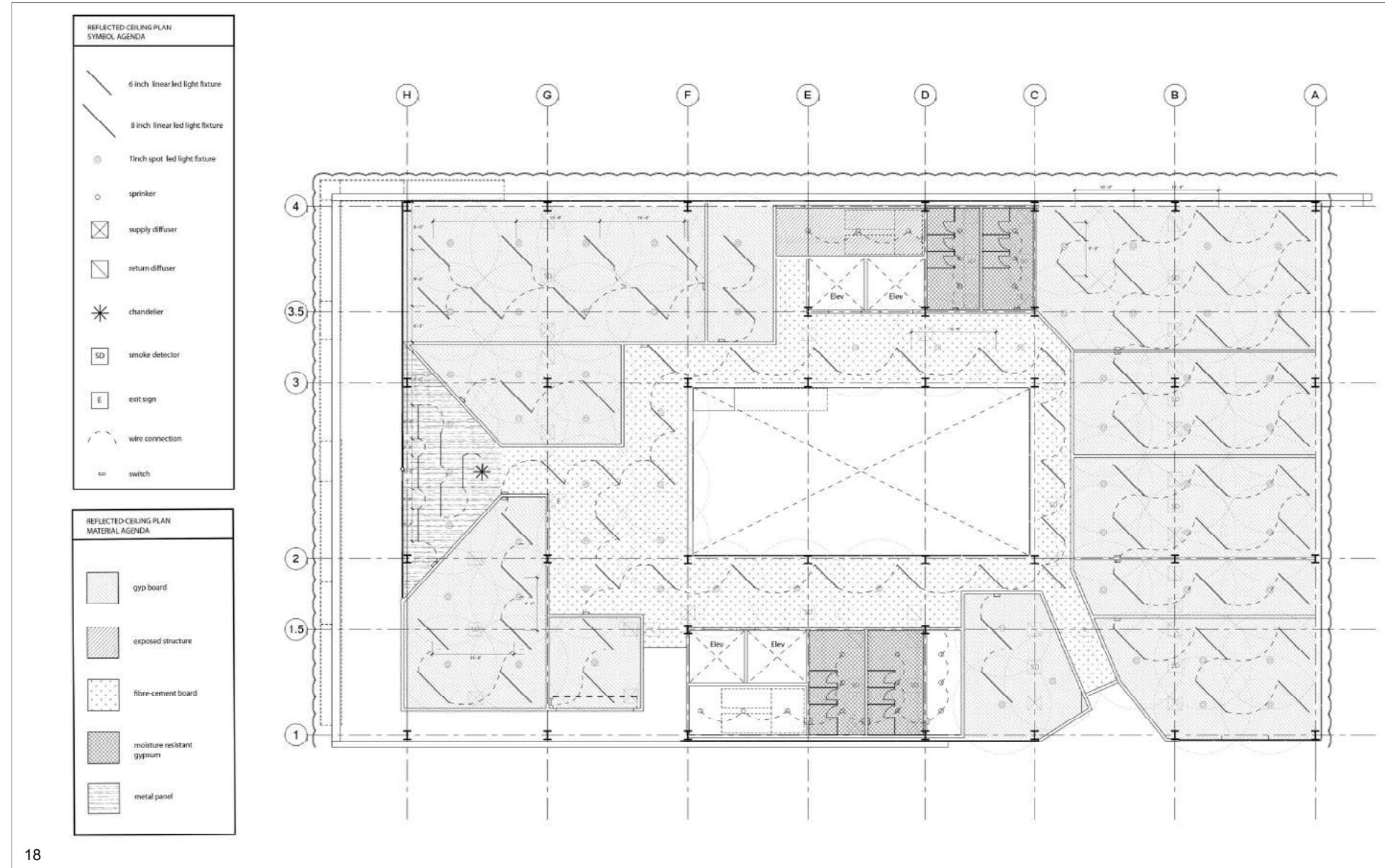
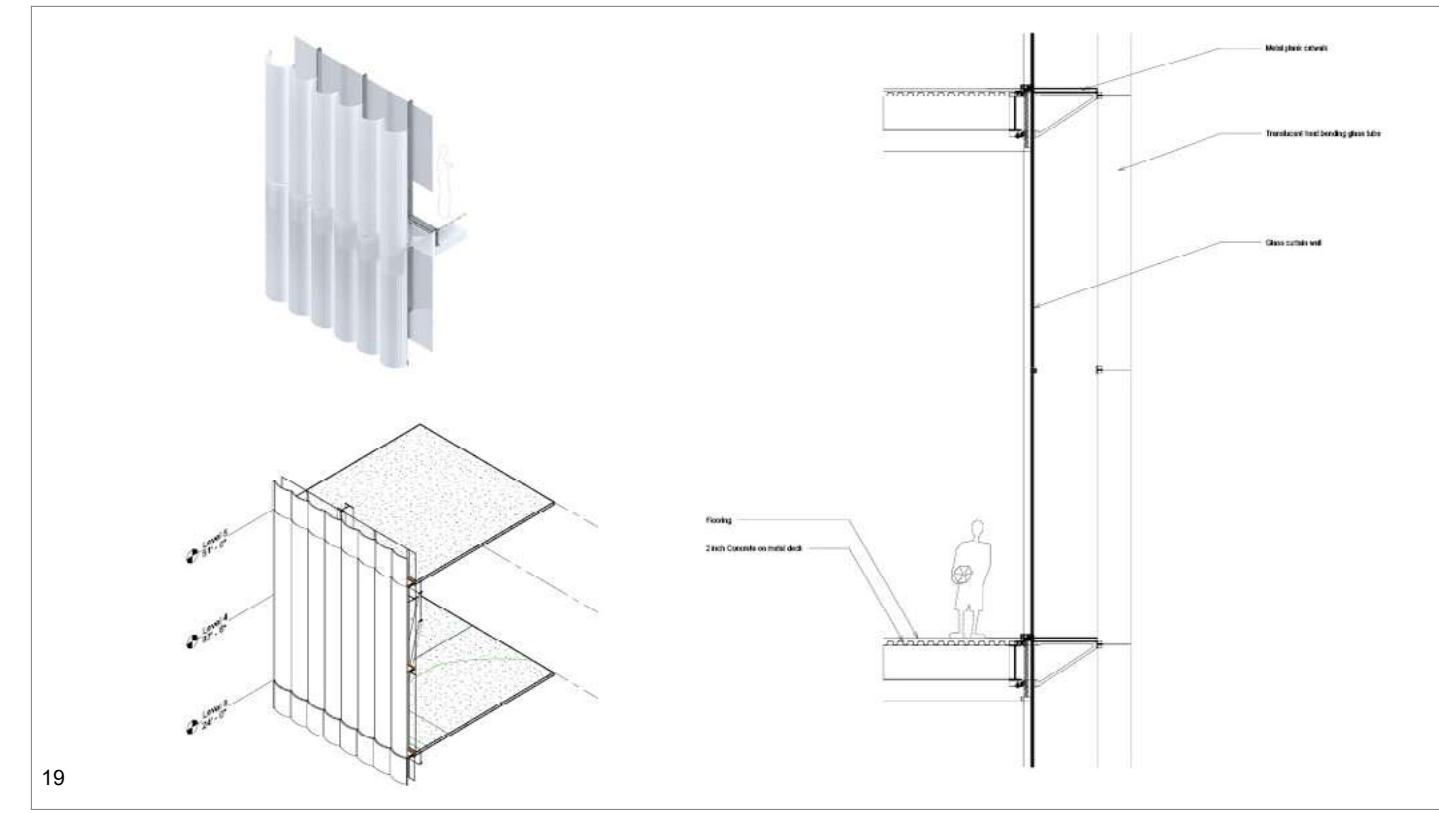
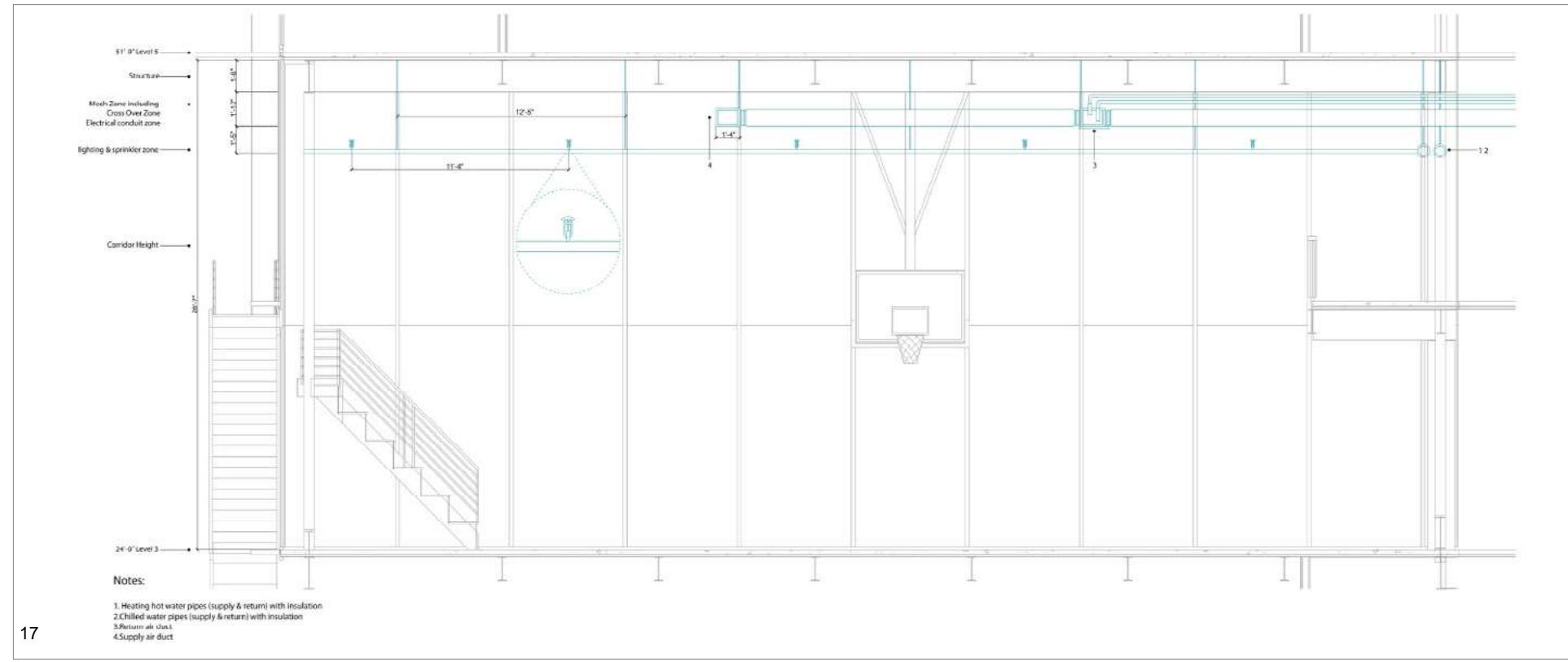
- 10 render of egress in between envelope and building
- 11 render of gym space
- 12 render of courtyard view



13 ew section
14 structure digaram ew section



15 rated wall sections
16 wall section



17 mechanical section
18 roof ceiling plan / first floor

19 roadmap / system 1
20 detail / system 1



1



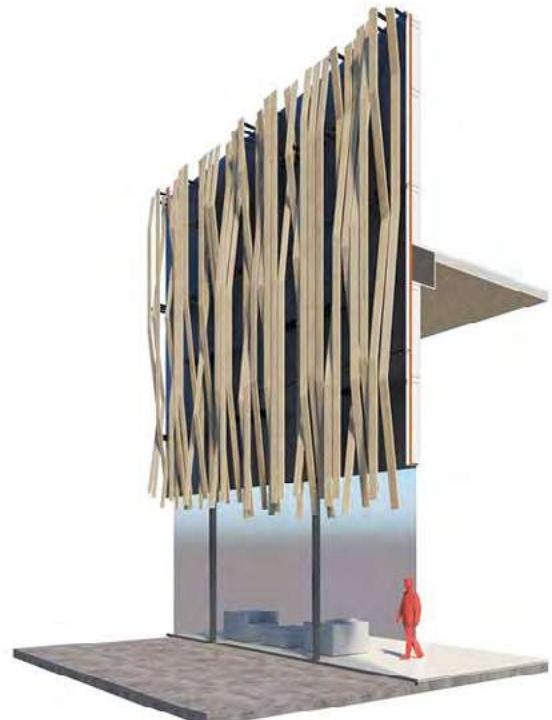
07 Professional Works

Wuhan Citylane Project
Kengo Kuma and Associates
Summer Intern, 2021

Working Scope :
Architectural Design Development
Construction Documents
Interior Design



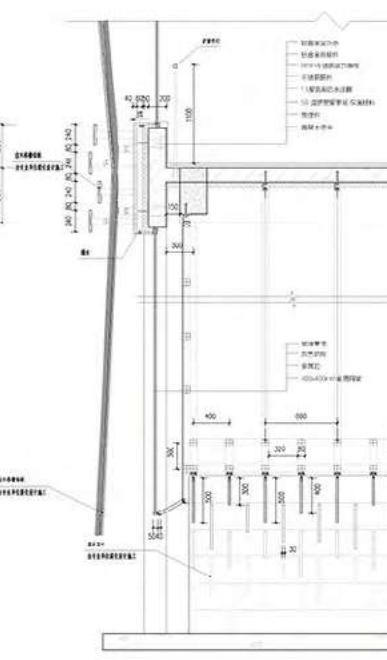
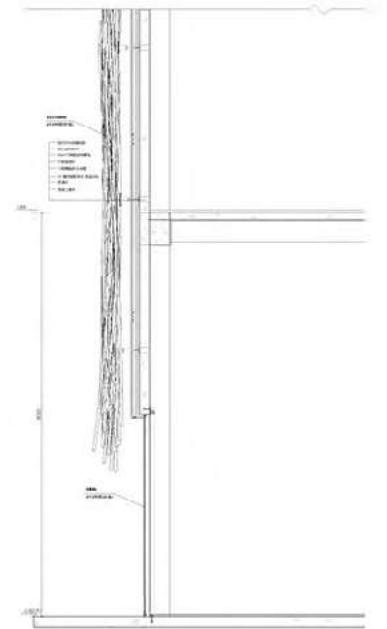
2



4



5



6



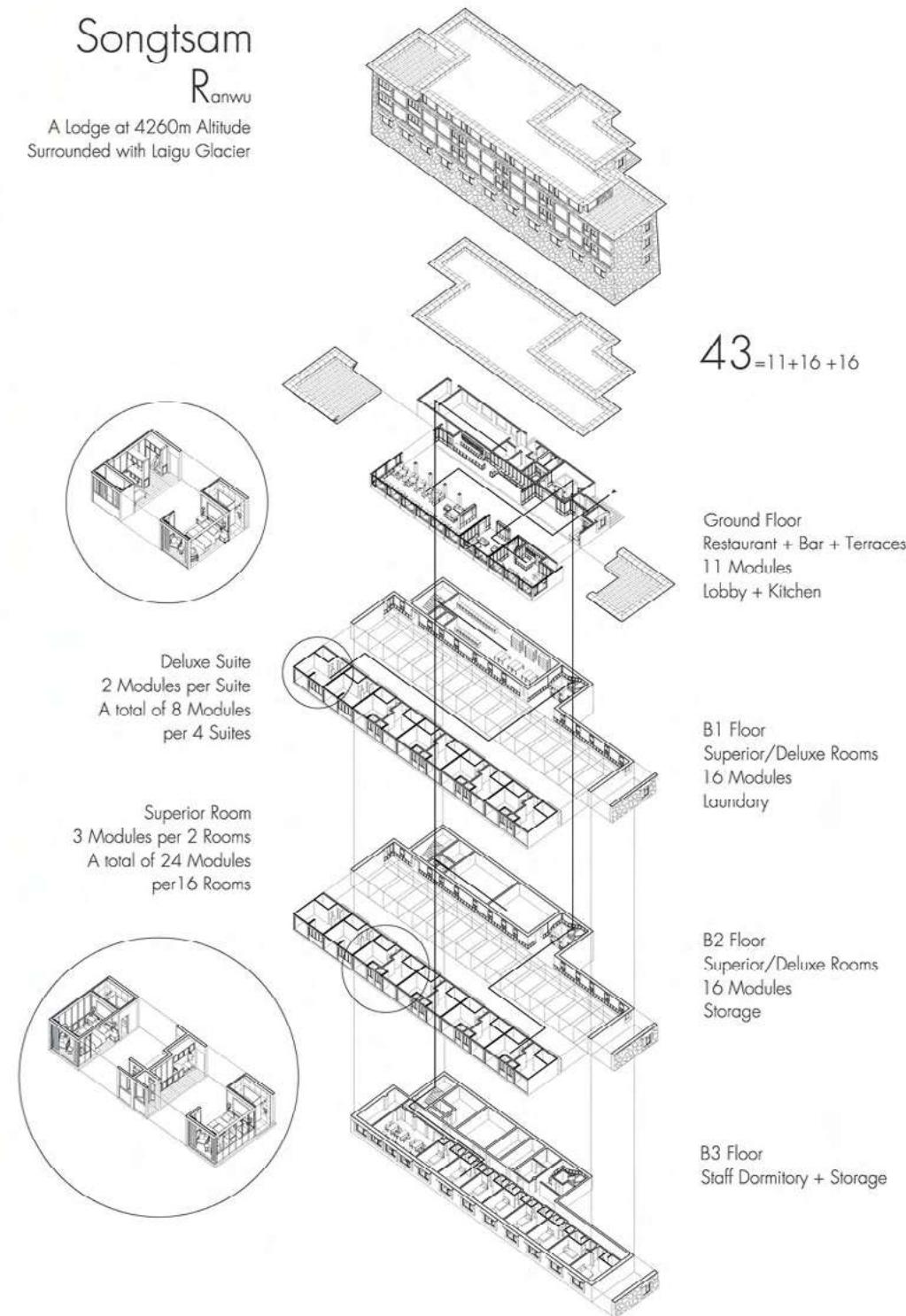
Songtsam Laigu Lodge
Studio QI, Hangzhou
Summer Intern, 2019

Working Scope :
Design Development
Status : Constructed



**Songtsam
Ranwu**

A Lodge at 4260m Altitude
Surrounded with Laigu Glacier



1

1 Photographs
Exploded Axon

Renovation : Ryan Health Clinic | West 97th Street
Studio Ground Up, New York
Summer Intern, 2017

Working Scope :
Schematic Design, Design Development
Status : Constructed

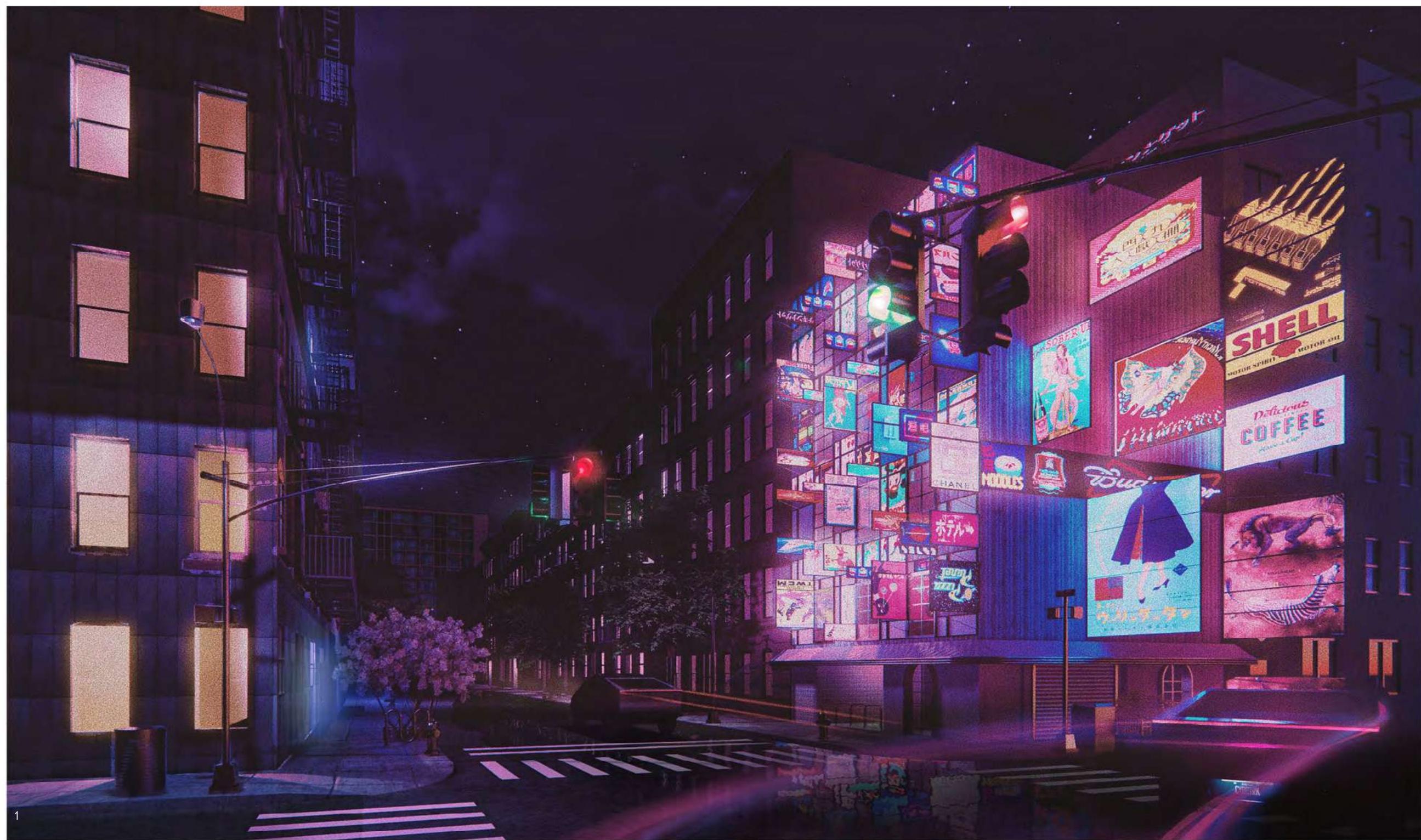


before renovation



2

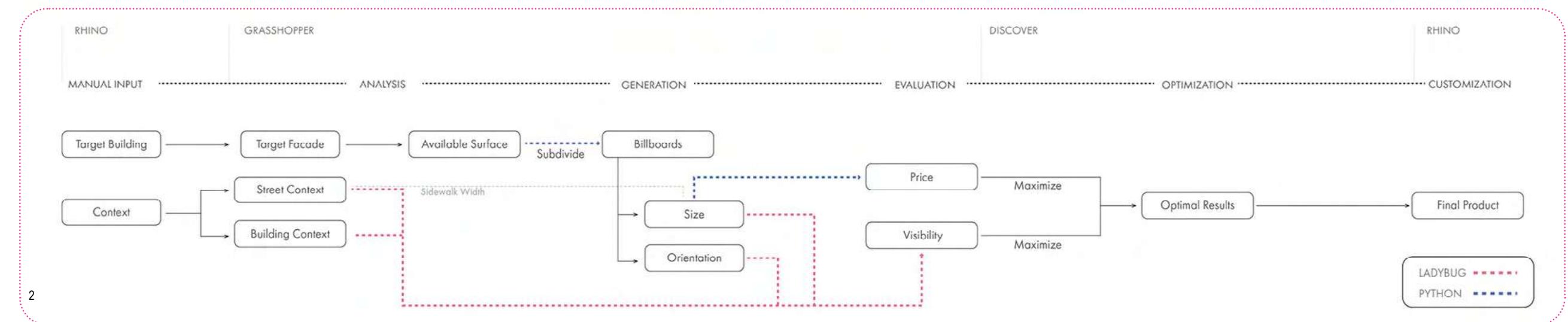
1 Photographs
Exploded Axon



08

Computation : City of Billboards

Columbia GSAPP
Generative Design, Fall 2021
Instructor: Danil Nagy
Collaboration with:
Xuanyi Chen, Duo Xu, Chuqi Huang, Hao Zheng



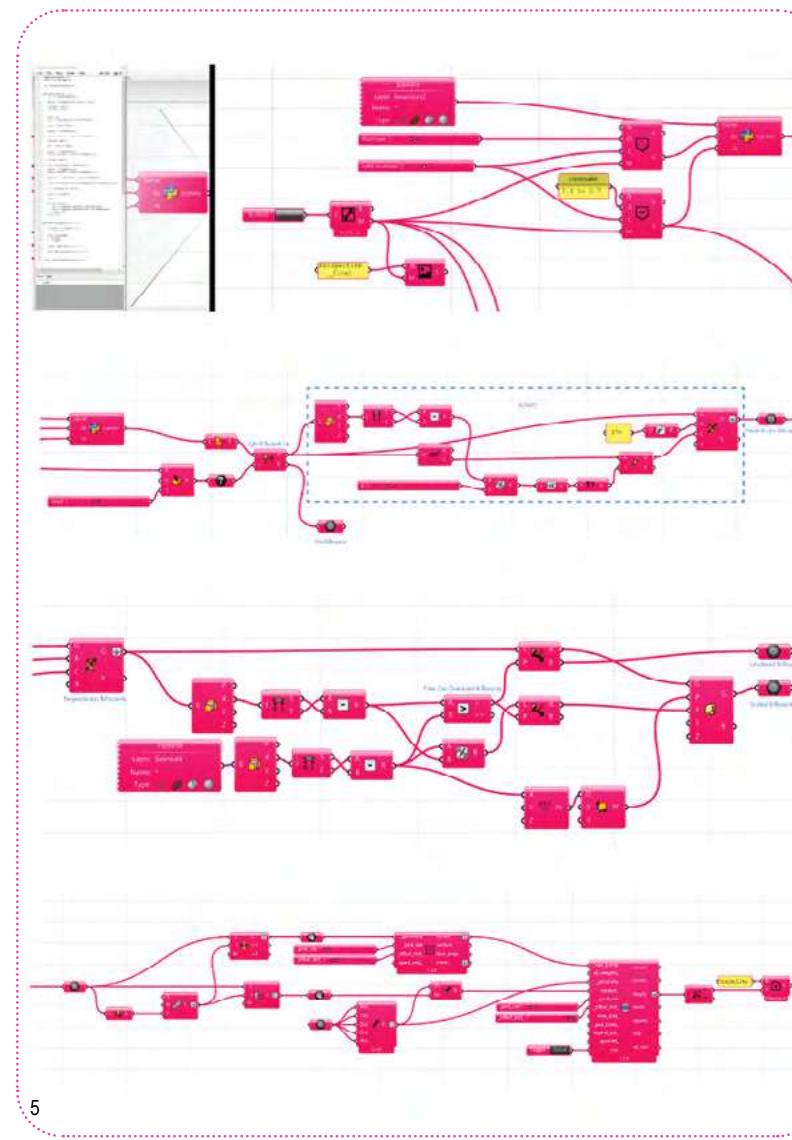
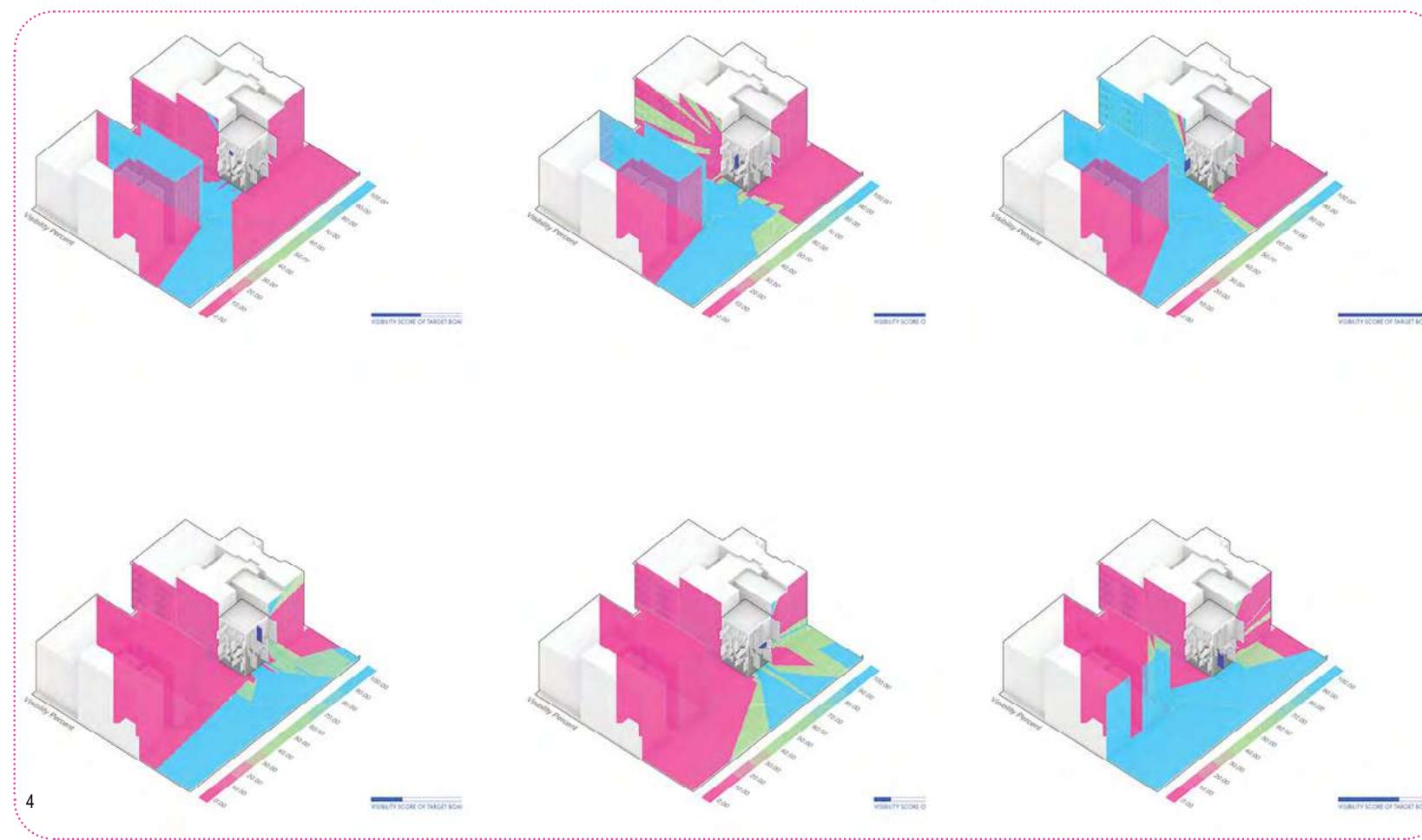
1 Final Render

2 Simplified Flowchart for the Generation Design



A study of optimizing placements of billboards on existing facades in high-density cities.

Billboards are essential for advertising and propaganda in the capital world. Their dazzling graphic styles and lines always catch pedestrians' eyes at their first glance. In the era of information explosion, people perceive information nonstop. In the cityscape, billboards as the second layer of facade influence people's mood, mind, and action. The increasing need for marketing and advertising for products has spurred the need for billboards. In cities already cramped in high density, it is unreasonable to construct new structures for advertising. Therefore, the project aims to use generative design as a method, combined with the application 'Discover' to generate designs that maximize the use of the existing structures in cities while improving the advertising quality. At the same time, customization is considered, allowing users to choose the layout that fits their needs most. The generative model provides flexibility for the arrangements of billboards with different dimensions and orientations to achieve maximum visibility. It could also be used as a tool to find optimized layouts for a designated building or block to achieve maximum profits.



Design Space Model

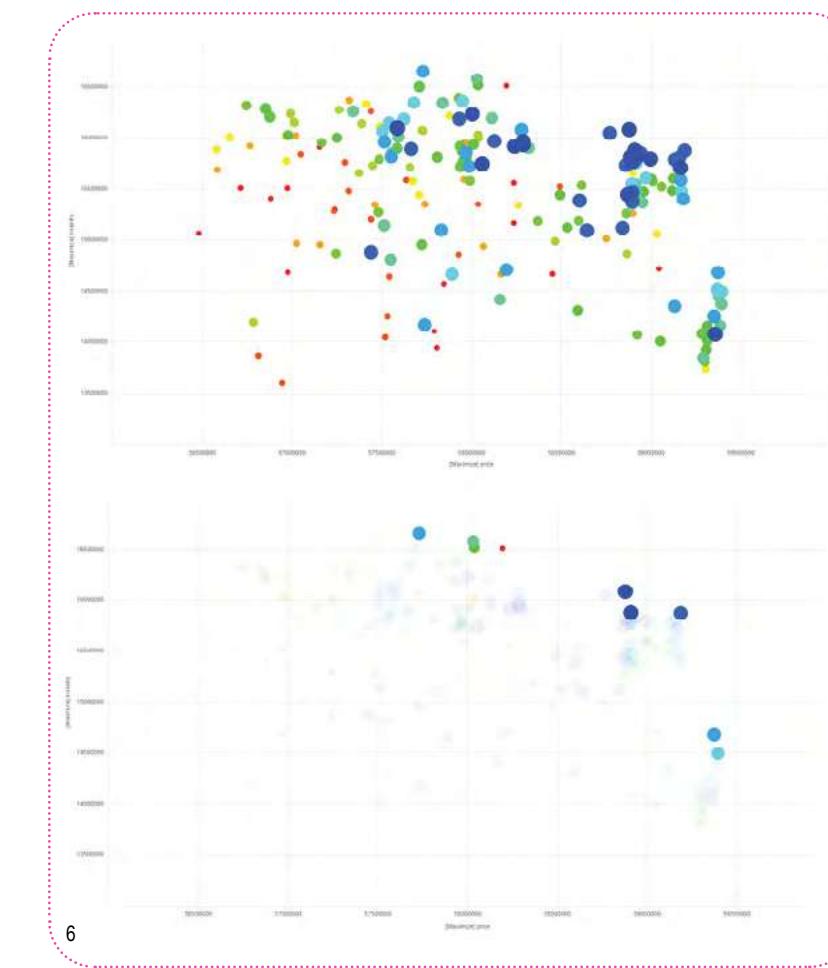
The project's ambition is to adapt the program to various façades while achieving maximum visibility and profit. Based on the idea, the generation of billboards on the designated surface could be divided into four steps: 1. Generate general logic for the billboards' layout. 2. Design the placements of billboards, including different sizes and orientations. 3. Add in profit and visibility as metrics to measure the performance. 4. Generate the optimal options and let the users choose which better fits their needs. Input Parameters

Target Façade - The project starts with inputting information on the designated facade to get the optimized billboard layouts with maximum profit and visibility. The facades we are intervening could be divided into the following two conditions: 1. Facades with openings. 2. Façade without openings.

Performance Metrics

Visibility - Since billboards are generally set up to advertise and promote, visibility is of the utmost importance. We do a reverse design to maximize visibility, making billboards the starting point of sight. The more the sights cover the surrounding contexts, the better the visibility.

Profit - The occupiable area of the façade calculates the total profit. The larger ratio of the billboards to the facade, the more profit the building has to the owner. Since maximizing the profit for the building owner is one of our intentions, we programmed to make use of the surface as much as possible.



The two sets of objectives can then be calculated using the genetic algorithm to find the possible layouts of billboards arrangement for optimization. The optimized design options are visualized by connecting the grasshopper batteries to Discover.

Results

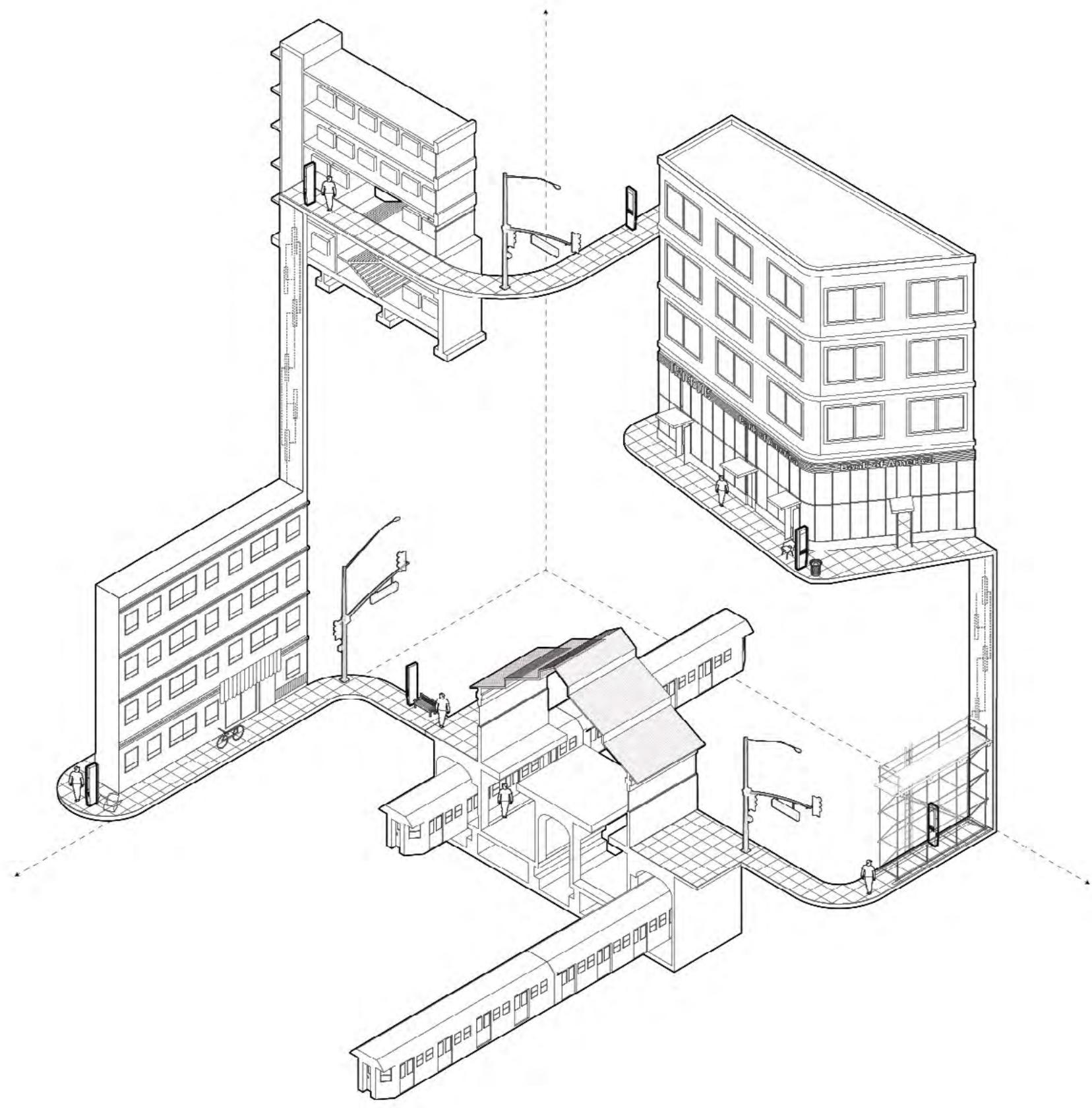
We got the optimized designs after running 12 generations with 15 designs generated per generation. With the X-axis representing the price and y representing the visibility, the optimization trend is going upwards diagonally from left to right.

The optimal results can be generally classified into three groups. One group prioritized the profit; one group balanced these two parameters; the last group prioritized the visibility. Interestingly, the height of the billboards and the amounts of the perpendicular ones influenced the visibility and profit. When the billboards go higher, the profit goes up while the visibility goes down. When there are more perpendicular billboards, the visibility goes up while the profit goes down.

The results reach our goals that the grasshopper and Discover could generate layouts with inclination to different objectives, letting the users choose the design with the factor they value more. In conclusion, the optimization processes described above justified the possibility and efficiency of generating the layouts of billboards on facades using computational skills such as rhino, grasshopper, python, and Discover.

Video : <https://youtu.be/LcM3aOhdWwY>





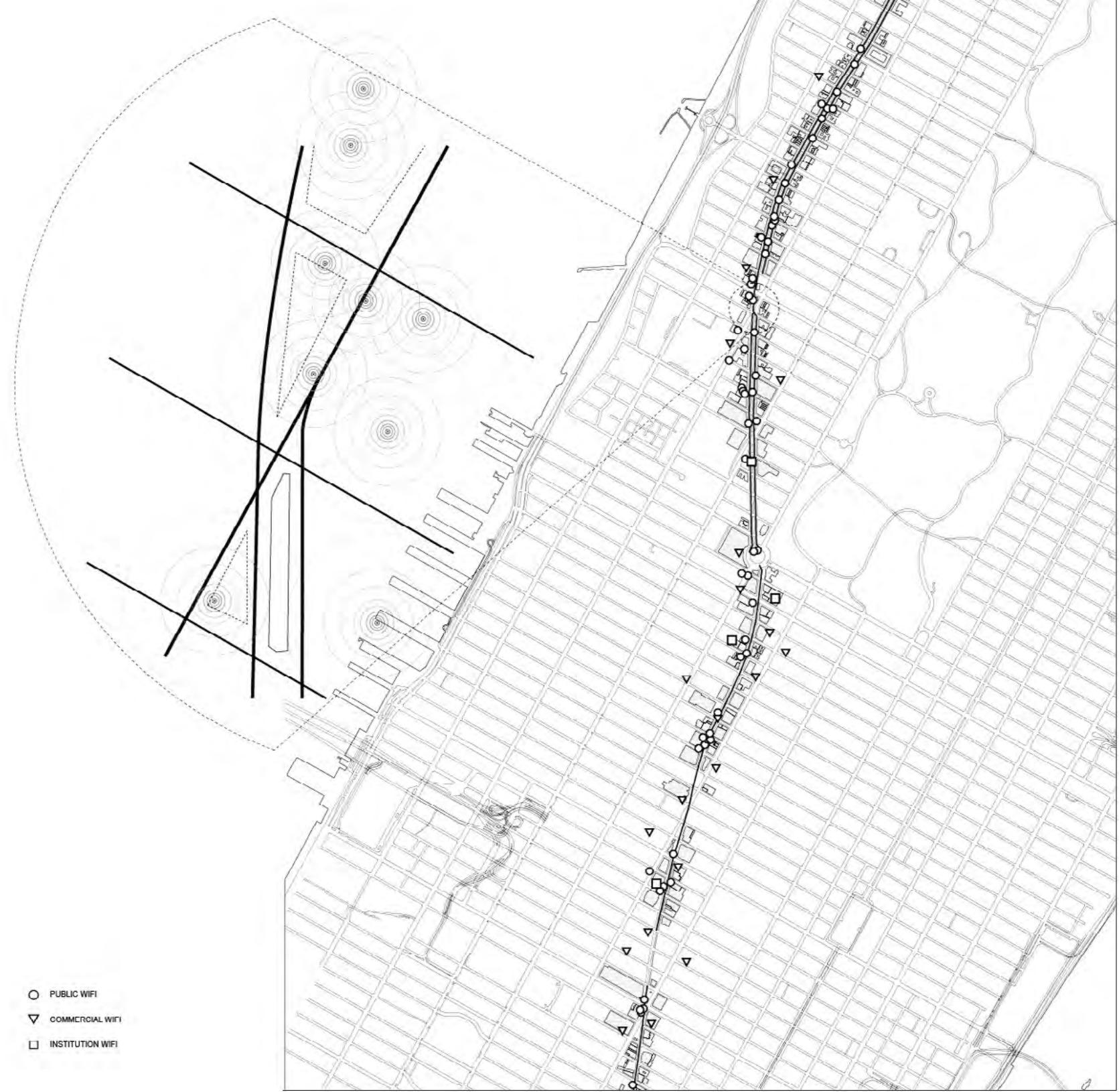
1

09

Heterogeneous Works

Format : Digital

Broadway Stories : in Public Space

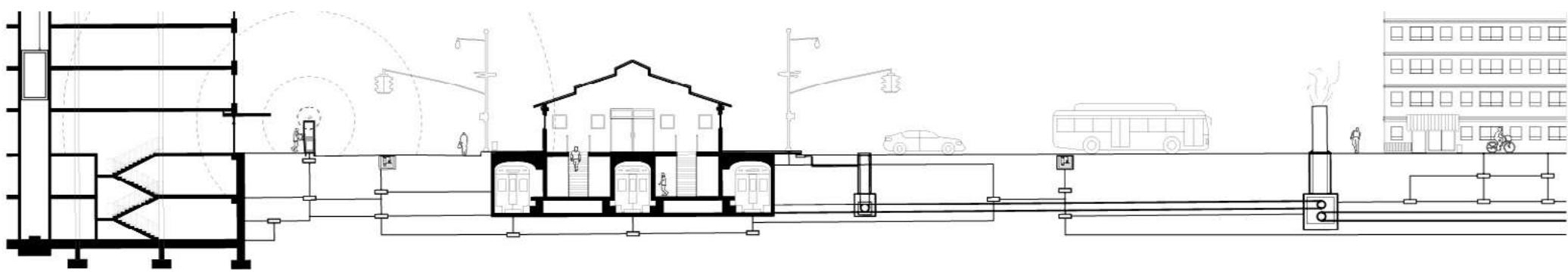


2

Digital Landscape on Broadway LINK NYC wifi stations merging with urban infrastructure

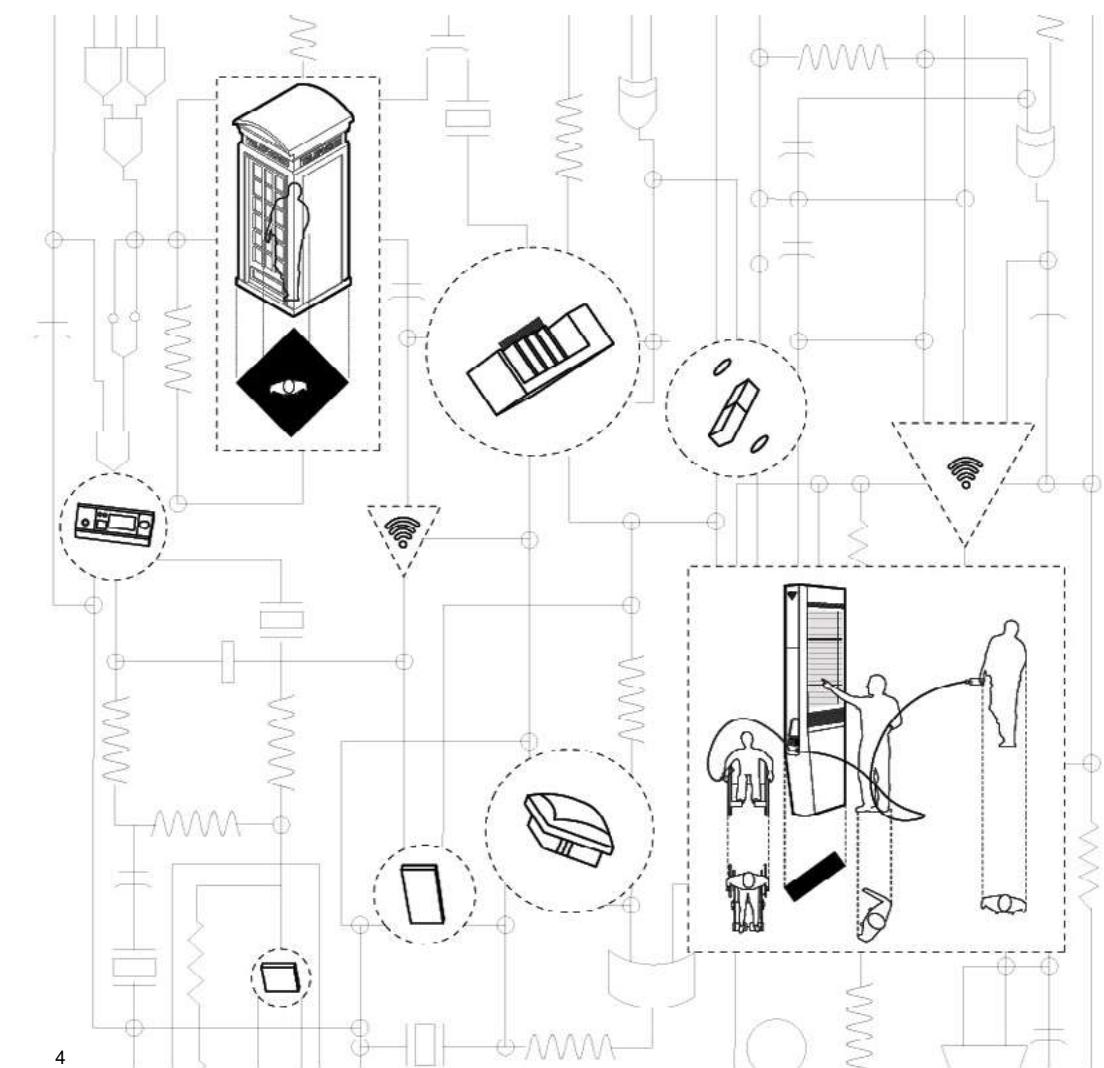
"LINK NYC" performs as a digital landscape on Broadway and adds a new layer to the cityscape that modifies physical spaces.

The set of drawings illustrates how digital technology expands its limit of private and public, and physical and nonphysical. At the intersection of Broadway and 72nd street, human interaction, social events, and commercial activities take place in the digital public space.

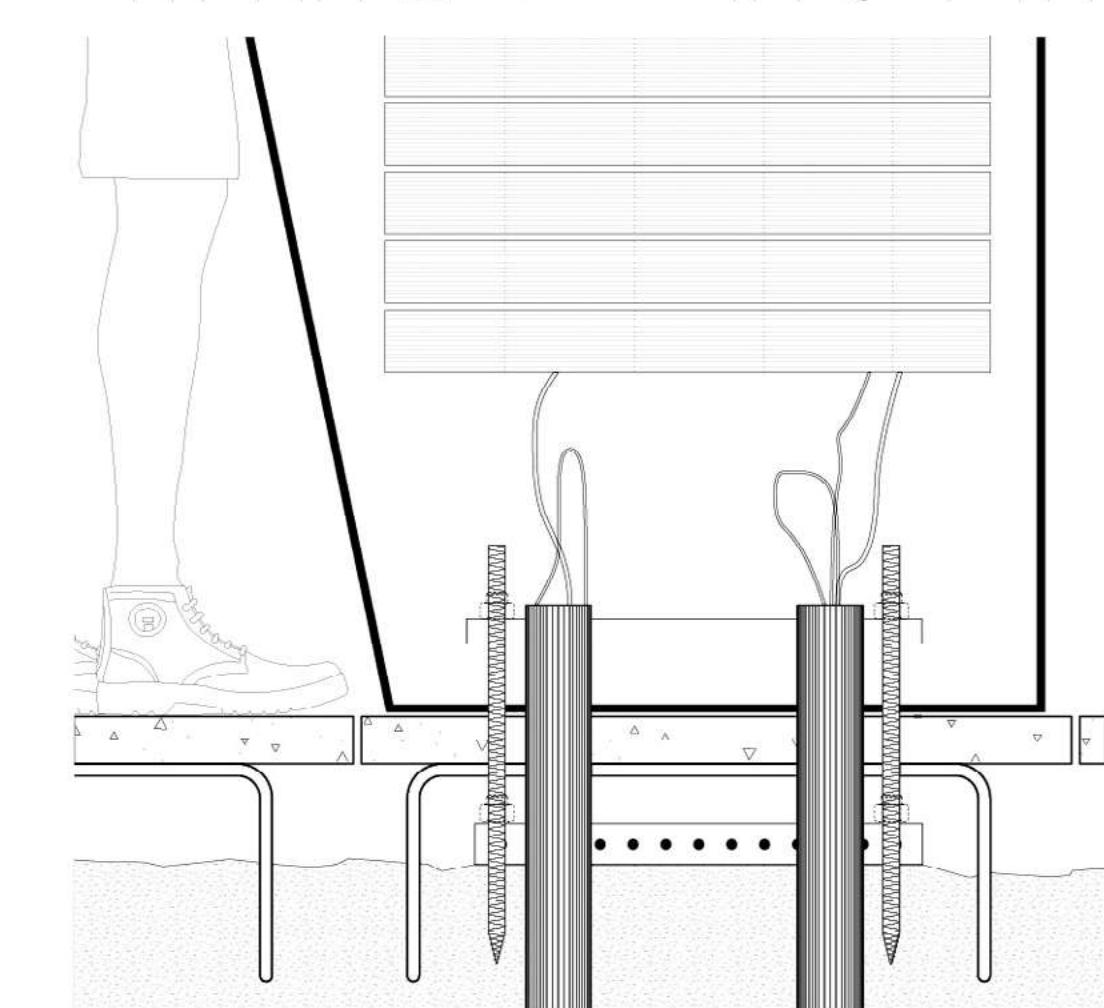


3

3 Section and Plan at the intersection of Broadway and 72nd street



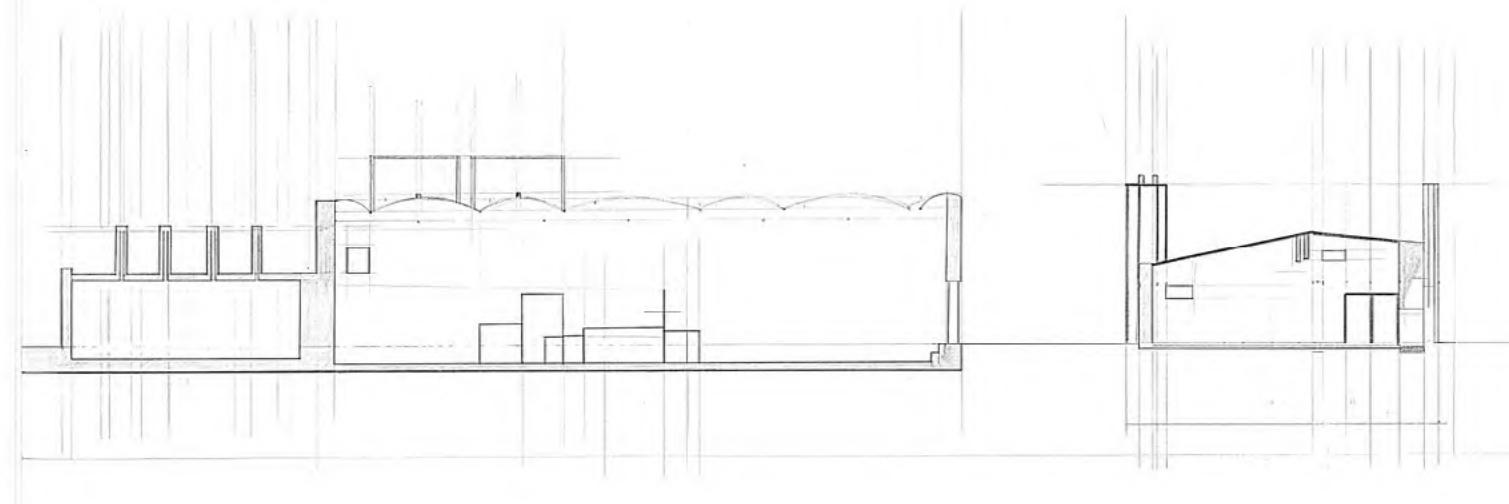
4



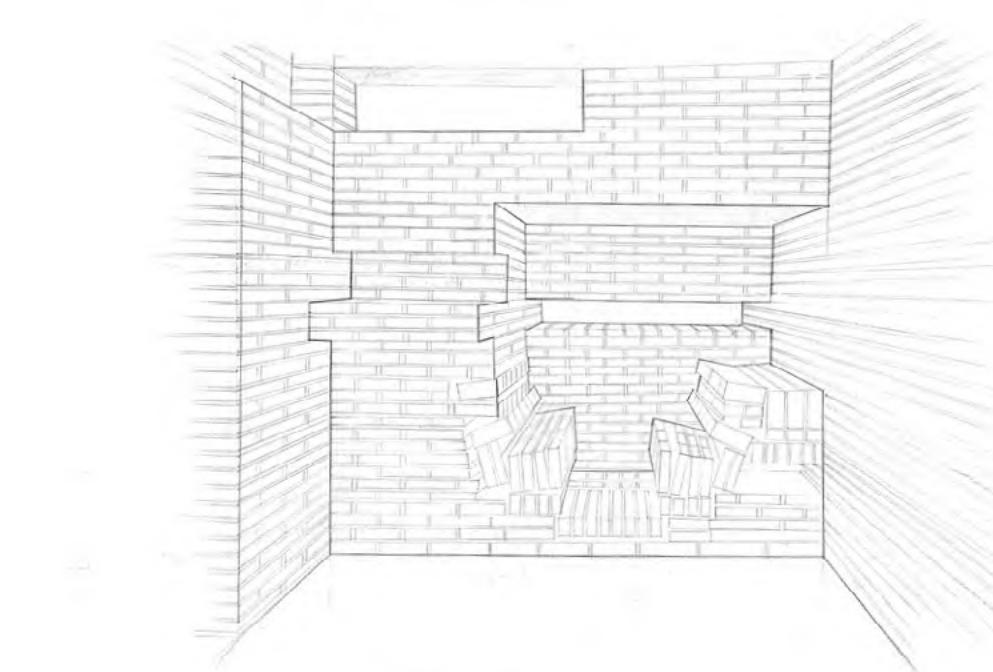
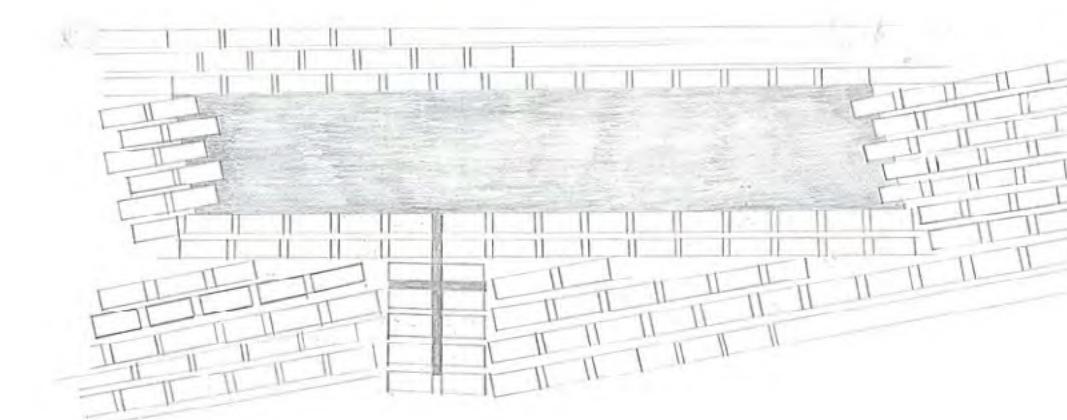
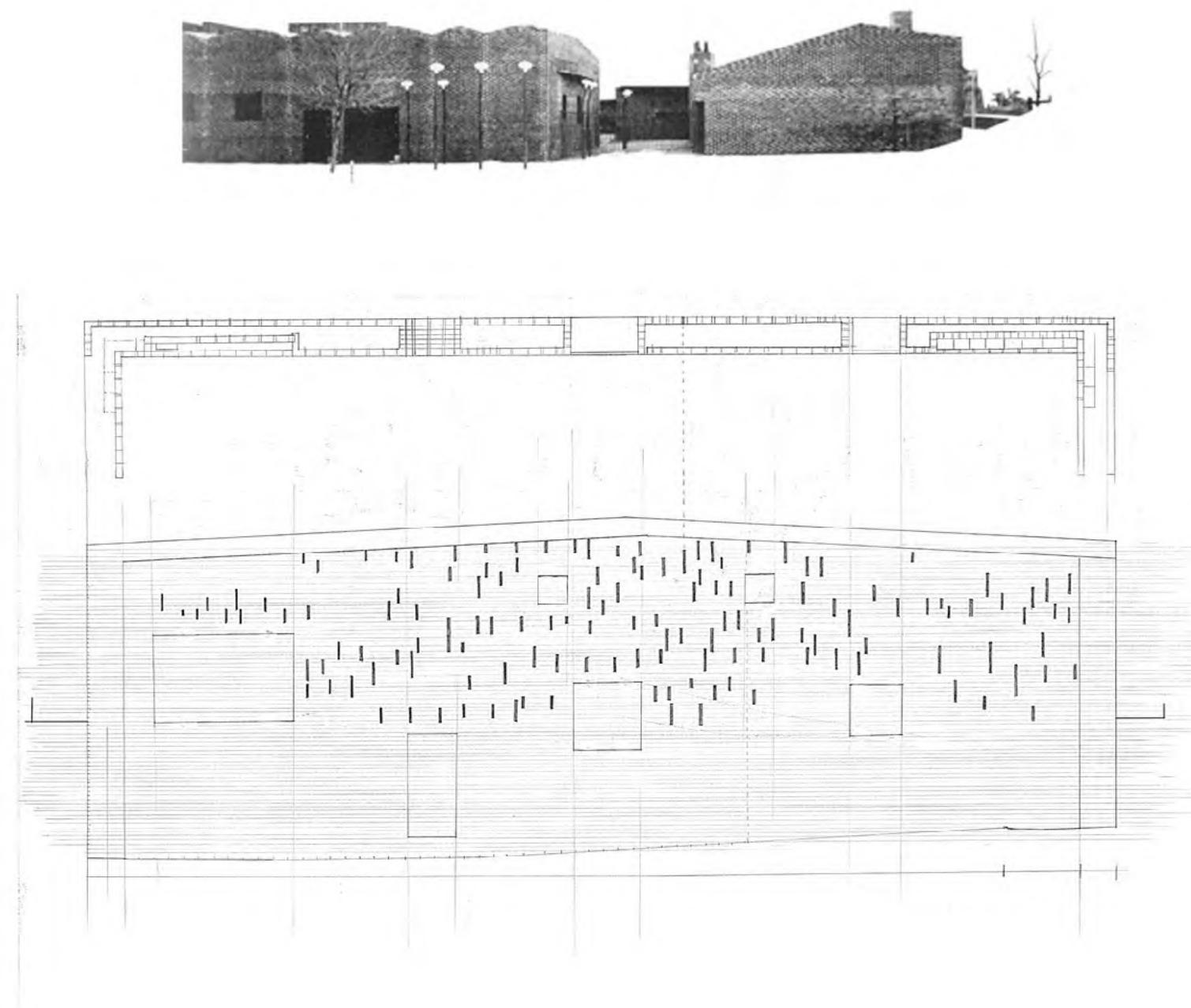
5

4 Conceptual Diagram of LINK NYC system

5 Detail section of digital device on street



Sigurd Lewerentz,
the church;
St Peter's Klippan.



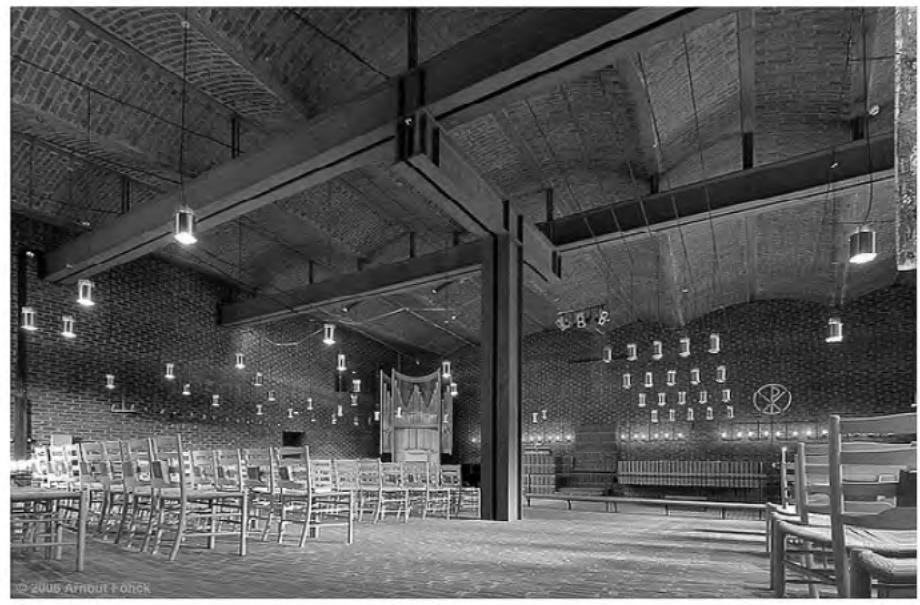
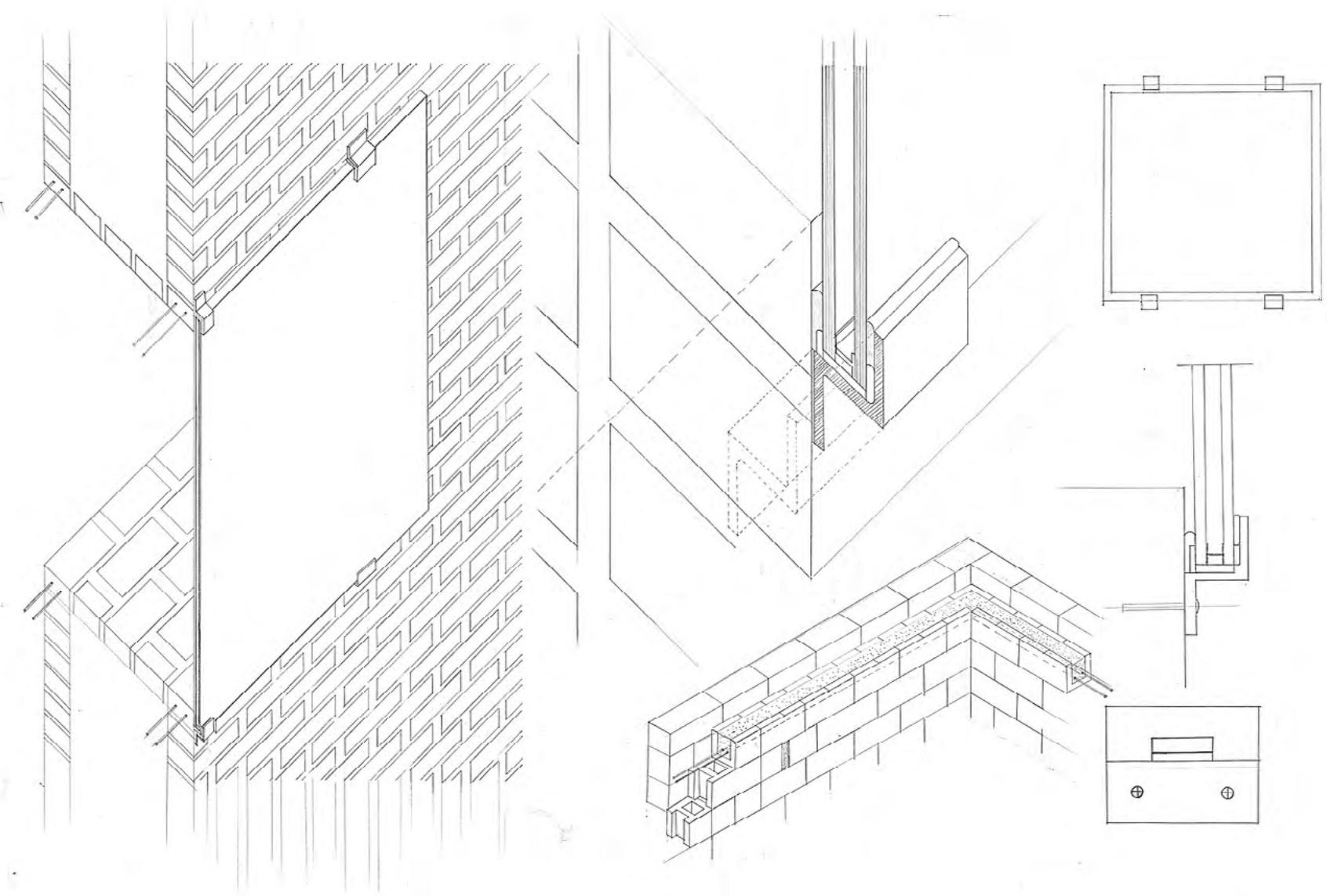
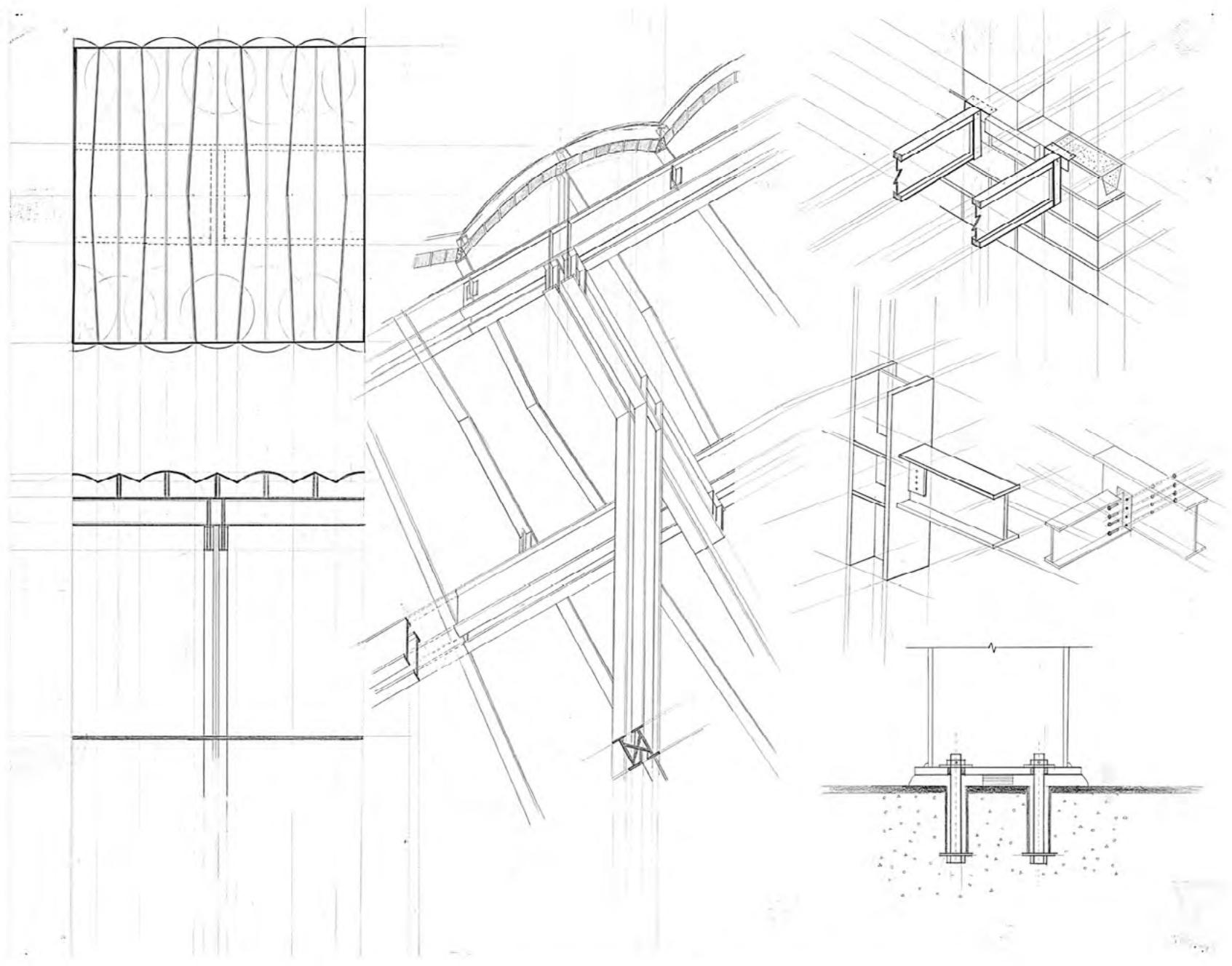
09

Heterogeneous Works

**Brick :
by hand**

Format : On Paper

Parsons School of Design
Materiality&Assembly, Spring 2017
Instructor: Jeremy Barbour



thank you