Marberd Bernard

Architectural Portfolio

Selected works | Gsapp 2021-2024

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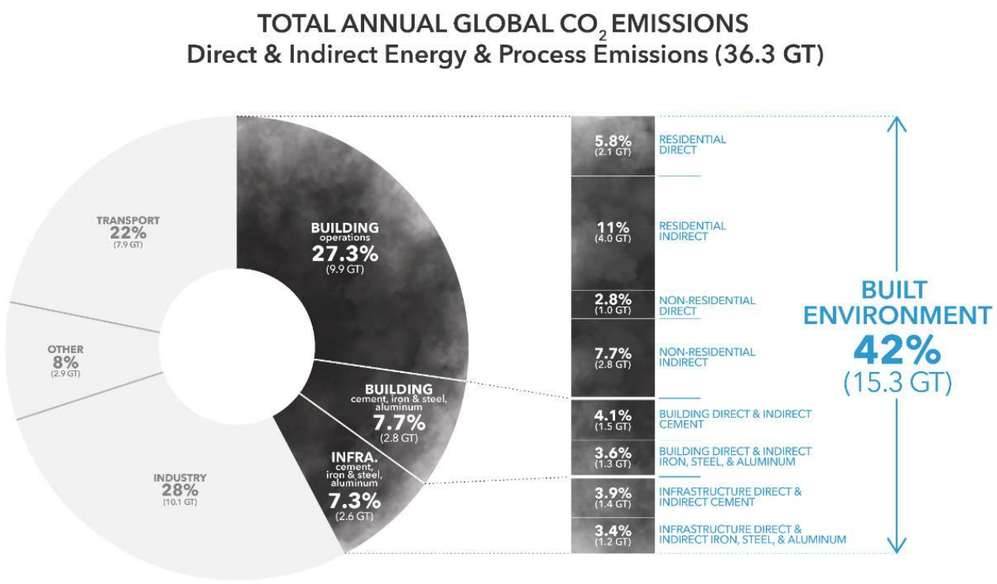
OPEN STUDIO | Loofah Brick

Project Description

Introducing the Clay Loofah Brick (CLB), an innovative, carbon-negative construction material designed to replace conventional concrete masonry units (CMUs) and reduce the carbon footprint of building materials globally. Harnessing the natural carbon-capturing properties of loofah, which absorbs CO2 during its growth, the loofah fibers are sequestered within the brick, maintaining carbon storage throughout their lifecycle and even into composting. This sustainable approach not only addresses the environmental impact of traditional construction materials but also supports material optimization through AI, enhancing processing and delivery. My project demonstrates the immediate applicability of CLB in a housing project for a rural town in Agra, India, and its scalability in replacing clay bricks in the favelas of Brazil, showcasing a significant reduction in carbon emissions and a revolutionary shift in building practices.



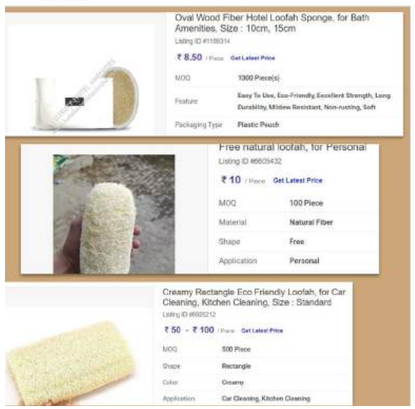
Carbon Sequestration

Biodegradable

Growth

By-product

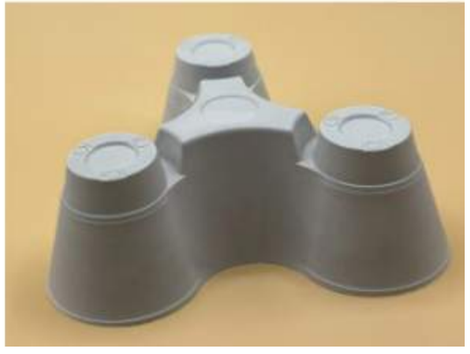
Cost



5 pieces for less than **60¢**

VS

The average cost of a CMU **$1.5**



ADOBE
EXPERIMENTAL RECIPES AND TECTONICS CATALOGUE

Marberd Bernard
Material Kitchens
Module 4

The goal of this experiment is to reinvent an adobe brick type for load-bearing wall construction that harnesses the benefits of rapid renewability and carbon sequestration.

1. Material Alternatives

1. Clay-rich soil + one Shredded Loofah
2. Clay-rich soil + whole Loofah
3. Clay + whole Loofah
4. 50% clay + one Shredded Loofah + 50% Clay-rich soil
5. Clay-rich soil + additional 10% clay +10% paper pulp + whole loofah
6. Clay-rich soil + 10% paper pulp + one shredded loofah

3.75 Mpa — 10 Mpa

Expected brick strengths | Calculated in Megapascals MPa

2. Fabrication Apparatus

A single custom mold tailored to accommodate the variation of mixtures, designed to ensure uniform distribution and optimal compaction. A single wood plank will be needed, measuring 26" in length, 4" in width, and 1" in depth. After cutting it into two pieces of 4" and two pieces of 8", form them into a mold with eight 1-1/2" wood screws #8.

Plan — Section

3. Material Sourcing

Mold shop drawings

Asian Loofah — Made in China, 11.4 inch-12.7 inch in length, Distributed by MITTLUCK

Clay — Made in Thailand, Distributed by Jurassa

Clay-rich soil — Joints Gabesha - Glens Falls Quarry & Plant, Albany, New York

Paper pulp — Recycled Paper

4. Preparation of Materials

Clay-Rich Soil
Select a soil with a high clay content.

Water
Have clean water on hand to mix with the soil to achieve the correct consistency.

Clay
Prepare the clay by mixing it with water until it reaches a workable consistency similar to playdough. It should not be too wet or sticky.

Loofah
Cut 2 the loofahs to fit the dimensions of the mold, and 2 other loofahs to be shredded.

Paper
Shred recycled paper and soak it in water to create a pulp.

5. Fabrication Method

Mold Preparation

Before starting the brick-making process, it's essential to thoroughly clean the mold to remove any debris that could distort the brick's shape. After cleaning, the mold should be dipped in water to prevent the brick mixture from sticking to its surfaces, effectively creating a barrier that facilitates the easy removal of the brick once formed. Allow the mold to drain excess water, ensuring it's moist but not overly wet, to maintain the brick mix's consistency and avoid prolonging drying time. Finally, a quick inspection for any damage is crucial to ensure the mold's readiness, guaranteeing uniform brick shapes and quality.

Clay-rich soil + one shredded Loofah

Step 1- Mix 3.5 cups of 8oz of clay-rich sifted soil with a cup of 8oz of water to achieve soil-to-water ratio needed.
Gradually add water to the clay-rich soil and mix thoroughly to ensure a homogenous, workable consistency, similar to playdough.
Step 2- Start by adding a layer of the mixture to the bottom of the mold, pressing it down to eliminate air pockets.
Step 2.1- Soak the loofahs in water until they expands fully. Then cut it in four parts horizontally matching the size of the mold.
Step 2.2- Cut up the loofah into smaller pieces. Now, mix well with the mixture.
Step 3- Finish with a final layer of the mixture, again pressing down firmly. Smooth the top with your hand wet to ensure a flat surface.
Step 4- Carefully remove the brick from the mold by raising and shaking upwards.
Step 5- set the wet brick aside

Clay-rich soil + one whole Loofah

Step 1- Repeat step 1
Step 2- Repeat steps 2 & 2.1
Step 2.3- Now that the first layer of mixture is in the mold, add the loofahs.
Step 3- Repeat step 3
Step 4- Repeat step 4
Step 5- Repeat step 5

Clay + one shredded Loofah

Step 1.1- Mix 5 pounds of clay with approximately 2.5 pounds of water to achieve the 2:1 clay-to-water ratio. Mix thoroughly to ensure a homogenous, workable consistency, similar to playdough.
Step 2- Repeat steps 2.1 & 2.2
Step 3.1- Compact mixture into the mold.
Step 4- Repeat step 4
Step 5- Repeat step 5

50% clay + one Shredded Loofah + 50% Clay-rich soil

Step 1- Repeat step 1 & 1.1
Step 2- Repeat step 2.1, 2.2 & 2.3
Step 2.4- Tear about 10 sheets of paper into small pieces and soak in water overnight. Break the pieces with your hands until the pulp reaches the consistency of a thick soup.
Step 3- Repeat step 3
Step 4- Repeat step 4
Step 5- Repeat step 5

Clay-rich soil + 10% clay + Whole Loofah + 10% paper pulp

Step 1- Repeat step 1.1
Step 2- Repeat step 2.1, 2.3 & 2.4
Step 2.5- Mix the clay with the shredded loofah and paper pulp, ensure to add the water gradually and mix thoroughly to reach a homogeneous consistency similar to that of playdough.
Step 3- Repeat step 3.1
Step 4- Repeat step 4
Step 5- Repeat step 5

Clay-rich soil +10% paper pulp + one whole loofah

Step 1- Repeat step 1 & 1.1
Step 2- Repeat steps 2, 2.3, 2.4 & 2.5
Step 3- Repeat step 3 & 3.1
Step 4- Repeat step 4
Step 5- Repeat step 5

6. Final Drying and Curing

Drying Phase 1

Set the brick in a dry, warm area with good airflow. Protect it from rain and direct sunlight in the initial stages.
Turn the brick periodically to ensure even drying. The outside will dry faster than the inside, turning helps prevent cracking

Drying Phase 2

Once the brick is firm enough to handle without losing shape, move it to a sunnier spot to continue drying until solid.

After the brick has dried completely, it should cure for several additional weeks to attain full strength.

Quality Check
Inspect the brick for any cracks or structural issues.
Test the brick's strength and durability with basic methods, like attempting to break it by hand or dropping it from a height.

8oz measuring cups:
Water and Clay-rich Soil

Asian Loofahs

1" Pine wood cut in 4 pieces : 4" & 8"

Soaking the Wood Mold

Soaking the Loofah

Wood Mold

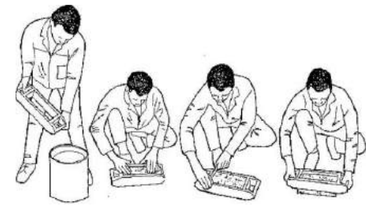
Adding Water to Clay-rich Soil

Consistency Check

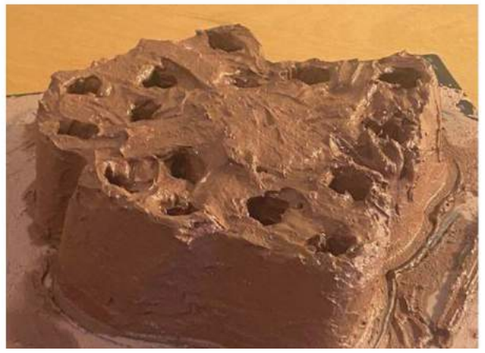
Cutting the Loofah

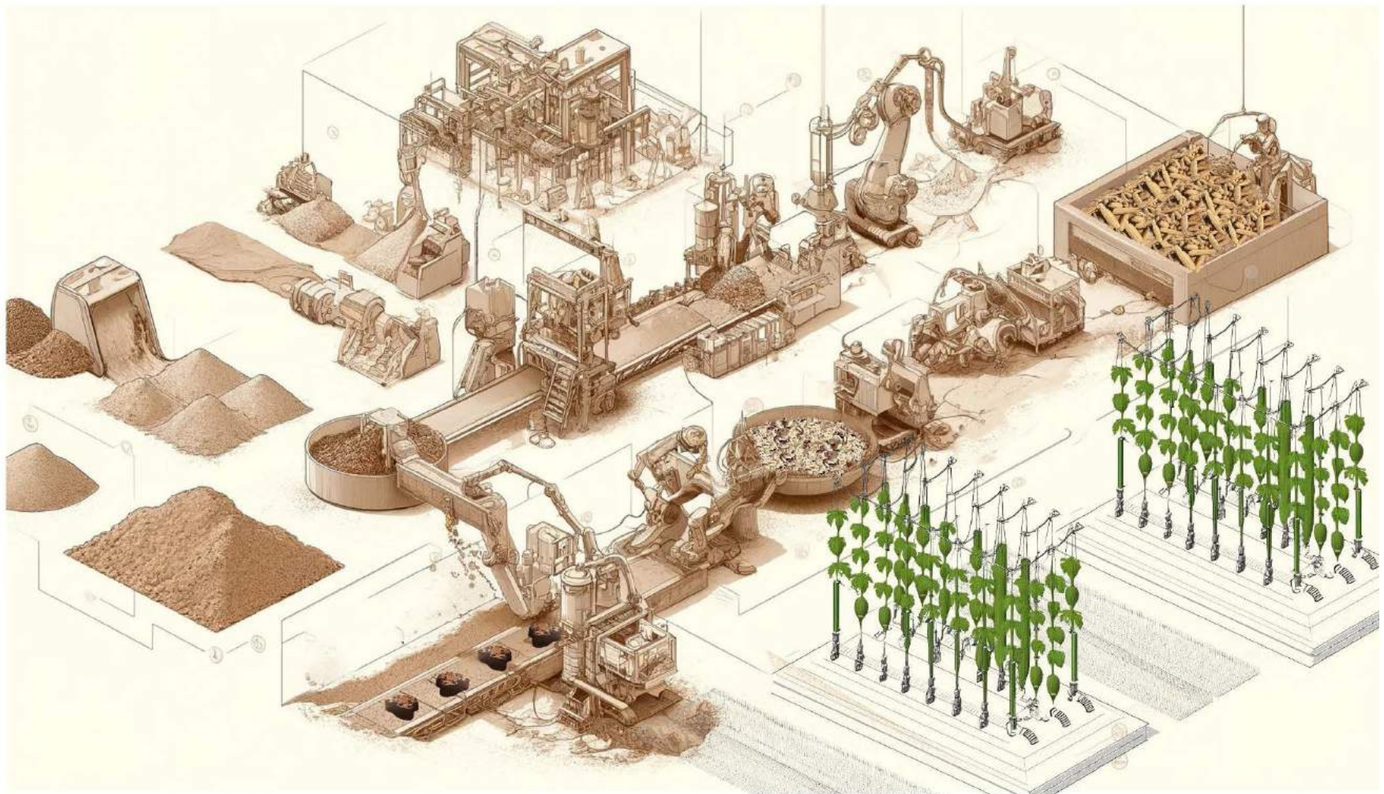
Shredded Loofah

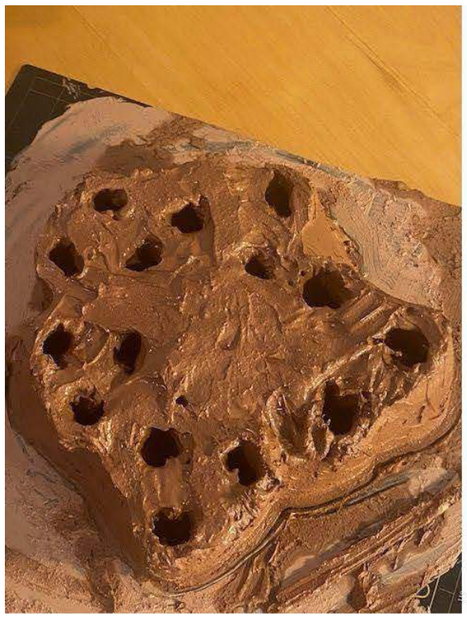
Compressing the soil within the mold, ensuring a firm and even layer.
Afterward, I top it off with water to achieve a smooth, finished surface.



Gently Shaking the Mold Upwards to Release and Settle the Adobe Brick







Wet

1 Hour

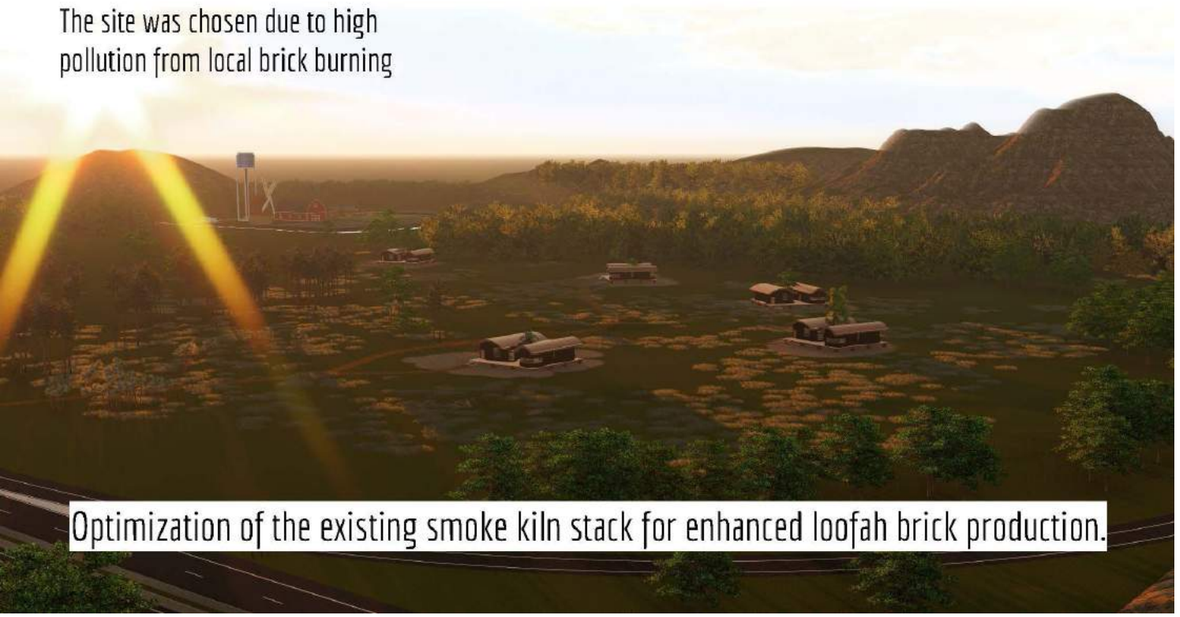
Baked

150°F (30 minutes)

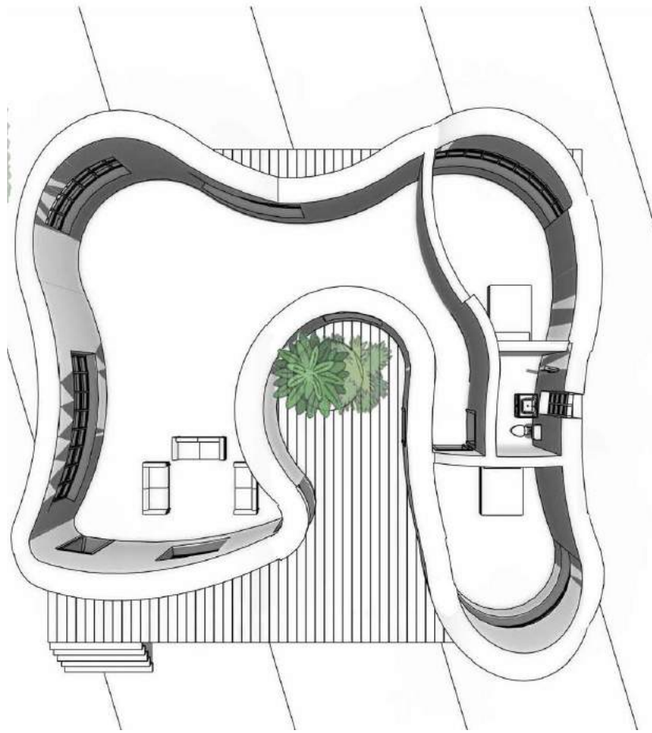
Dry

3 Days

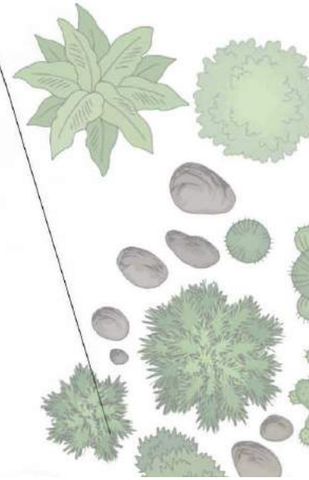
The site was chosen due to high pollution from local brick burning



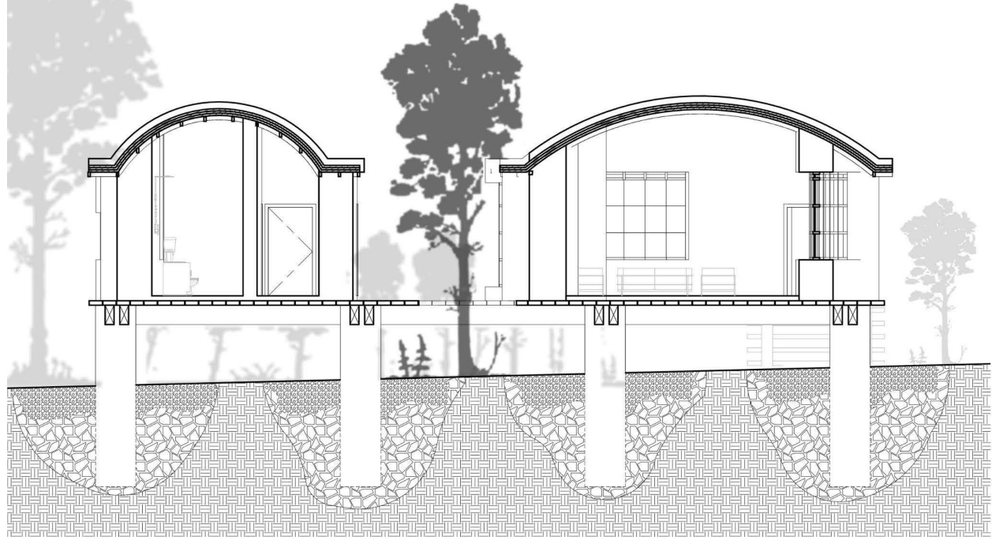
Optimization of the existing smoke kiln stack for enhanced loofah brick production.

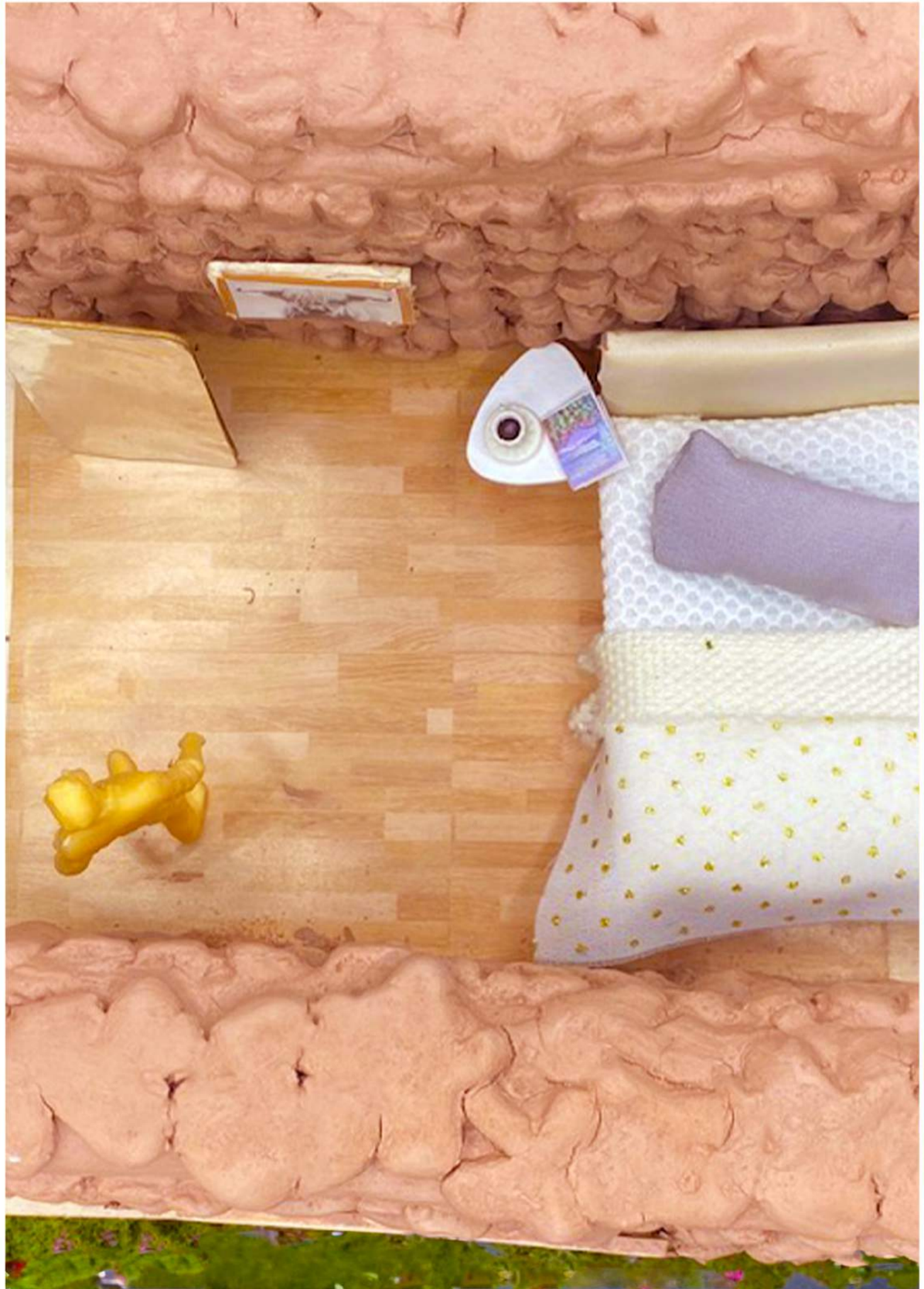


The building's undulating design showcases new uses of materials on **diverse shapes.**



The platform elevates the house, enabling it to withstand the monsoon, while the gravel facilitates water drainage.





WATER STUDIO | AquaChronicles

Project Description

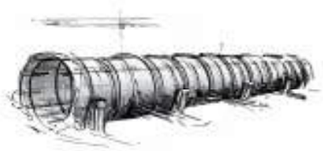
Within the pages that follow, immerse yourself in the unfolding narrative of **AquaChronicles** – a project that took root during my CORE V studio excursion to San Giorgio Maggiore. It was there, in the midst of our site exploration, that I stumbled upon the pool building – an architectural gem with a characteristic triangular weaving structure. This serendipitous discovery became a catalyst, transforming my initial research on the island's historical events into a design journey that would redefine my approach.

The pool building, once overlooked and disregarded, sparked a shift in perspective. Instead of concealing its unique form, I was inspired to celebrate and incorporate it into my project. In the context of my Water Museum, the pool building would metamorphose into the grand finale, the last exhibition of a linear historical exploration that traversed the architectural evolution of Venice. This distinction set my project apart from those of my peers, offering a chronological journey through time where each room mirrored a specific era in the city's freshwater history.

Drawing a parallel with the Venetian evolution of floor plates – beginning at the water and culminating on land – I deemed it essential to physically break the exhibitions, creating distinct islands on the water. This decision not only mirrored the city's architectural progression but also added a tangible layer to the visitor's experience. Without spoiling it too much, I present to you **AquaChronicles** – a fusion of history, architecture, and innovation that breathes life into the captivating tale of Venice's dynamic relationship with water.

...Venetians turned to the clouds

...Venetians turned to the sea



...Venetians turned to the underground

Ancient Times:
The Venetian lagoon was essentially a swampy region with various salt marshes, tidal flats, and islands.

500 A.D.:
With the fall of the Roman Empire and subsequent Barbarian invasions, mainland residents started seeking refuge in the lagoon, setting the foundation for Venice.

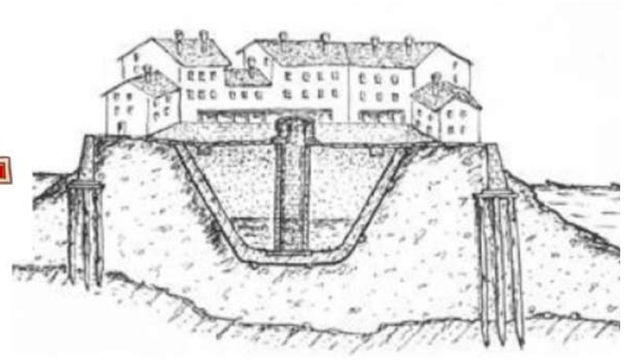
1200 A.D.:
As populations began settling, their need for freshwater started to grow. Venetians soon realized that they could not consume salt water therefore they turned to the sky.

They began to collect rainwater and rely on wells dug into the islands to access

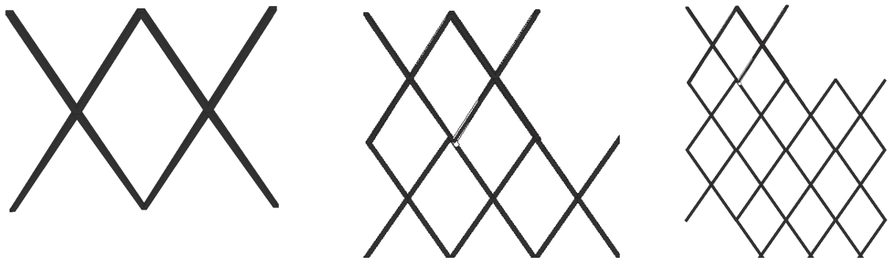
Water transportation evolution Timeline

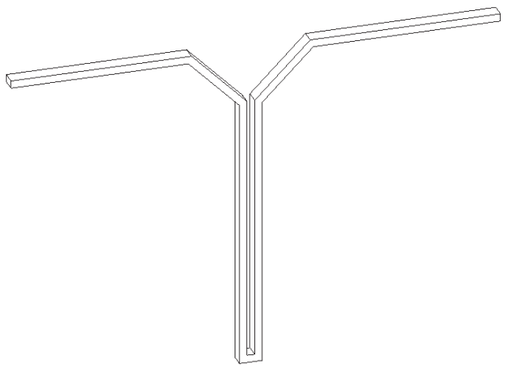
1900 - Today:
In the 20th century, to address the increasing demand and the limitations of relying on cisterns, wells and trade Venice started sourcing its freshwater from the mainland using aqueducts.

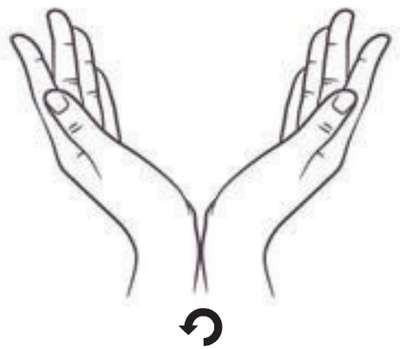
1800 A.D.:
As Venice reached its peak in population, it started facing challenges in freshwater availability. The increased strain on wells and cisterns meant that, at times, the city needed a more consistent water supply.
Becasue of this, the venetians turn to their abundance - salt water. They realized that by extracting the salt from the water, they were able to trade what they called "White gold" for freshwater from the

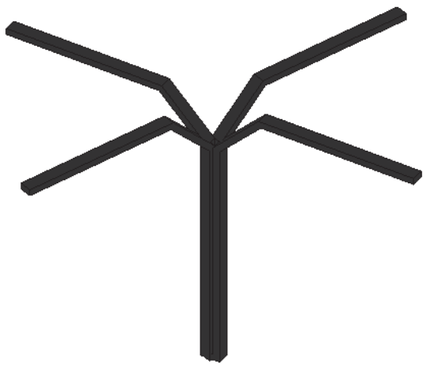


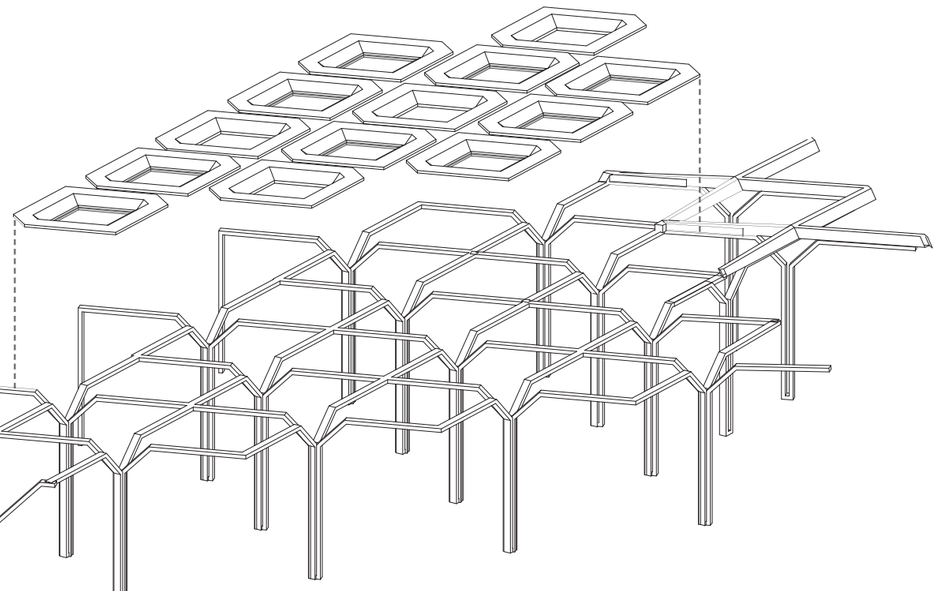
1500 A.D.:
Venice's rising population increased the demand for water. The number of wells in Venice grew, with underground cisterns storing rainwater filtered through layers of sand.

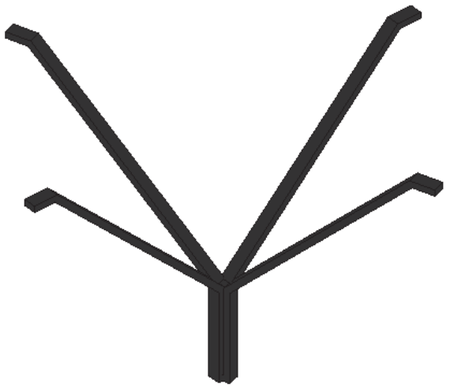


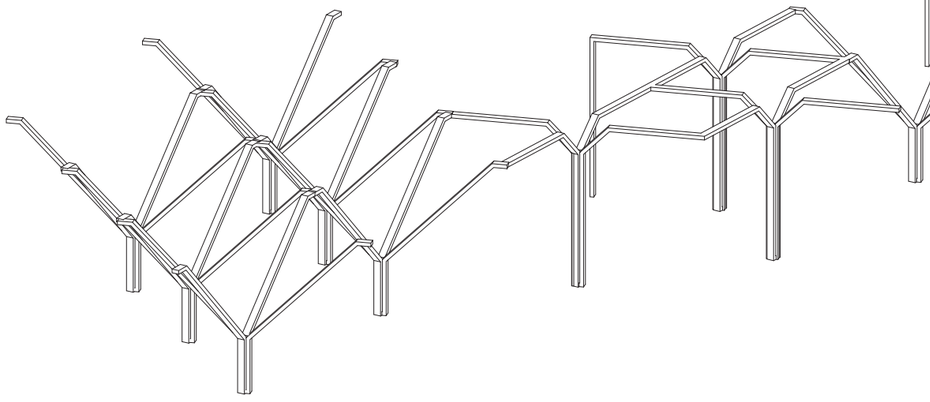












Variation

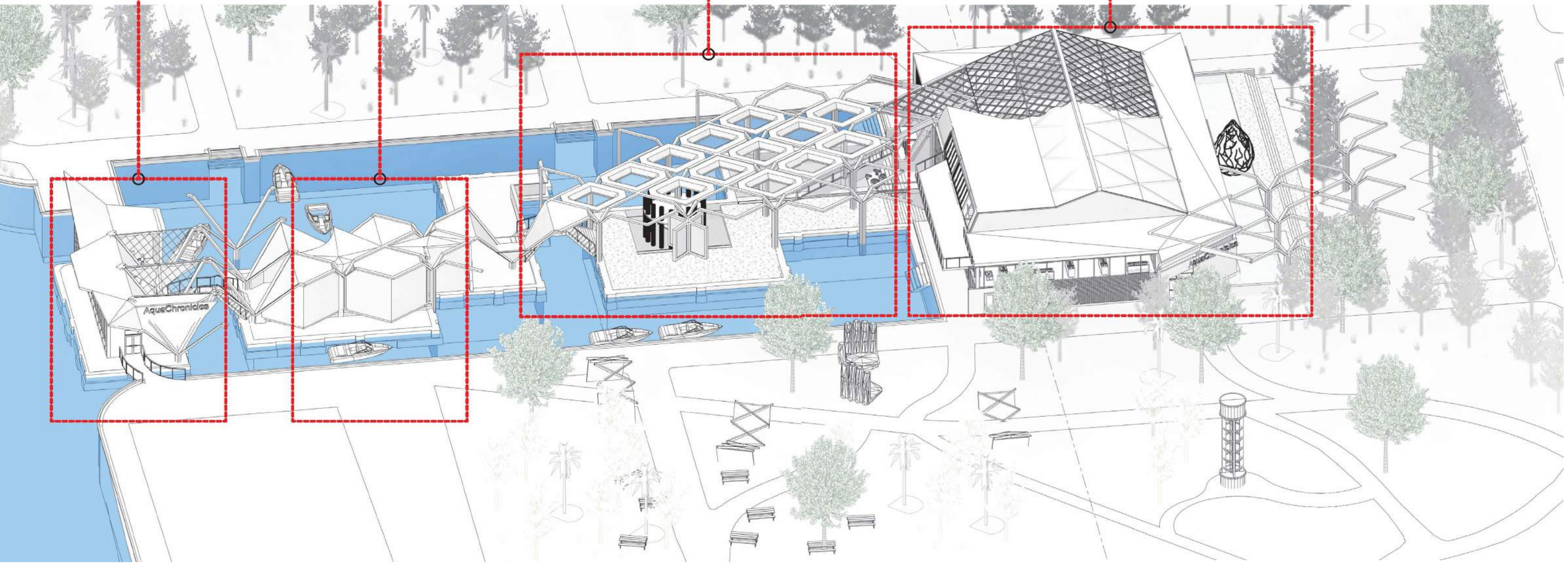
Repetition

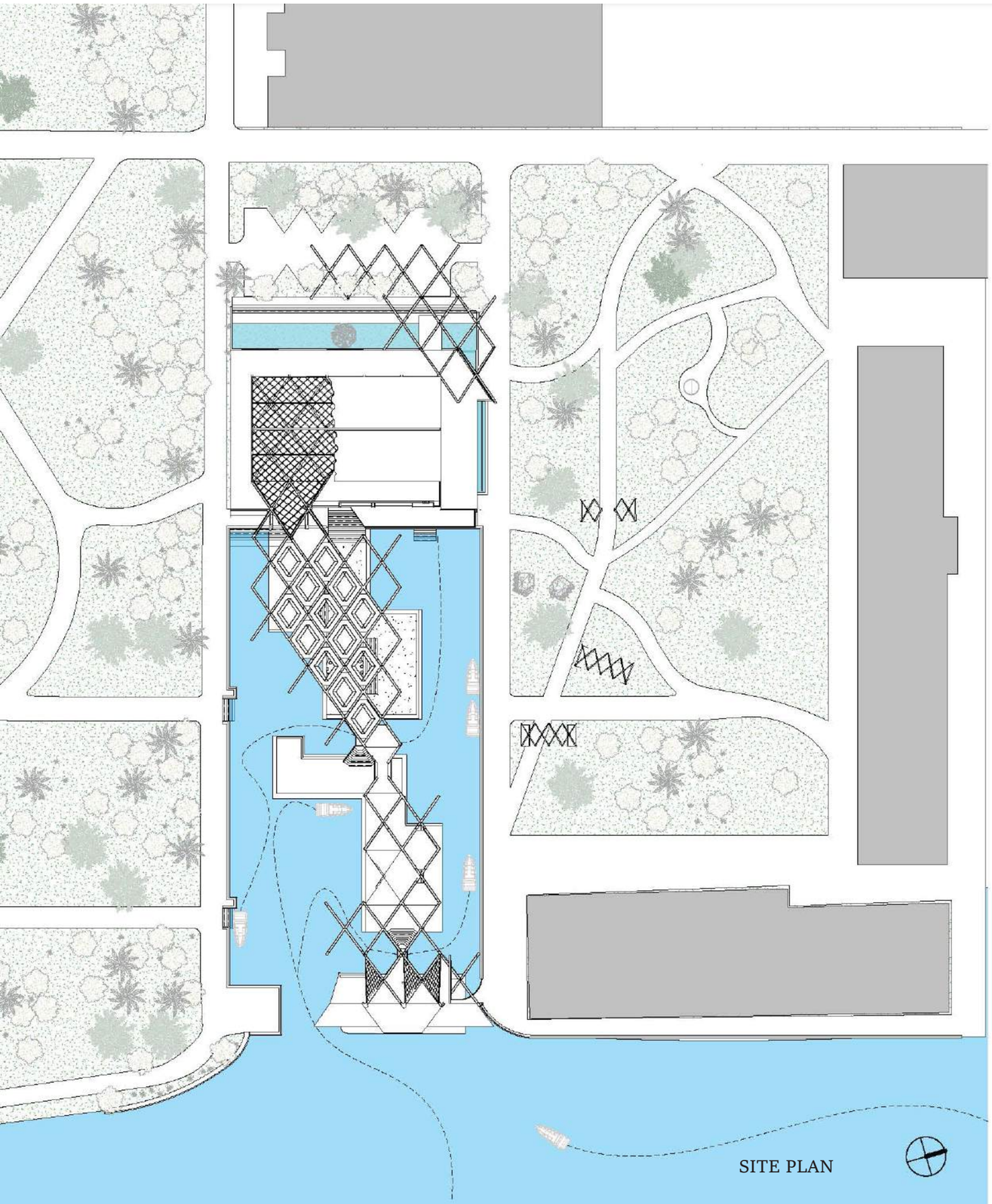
Adaptation

Venetians turned to the Sky

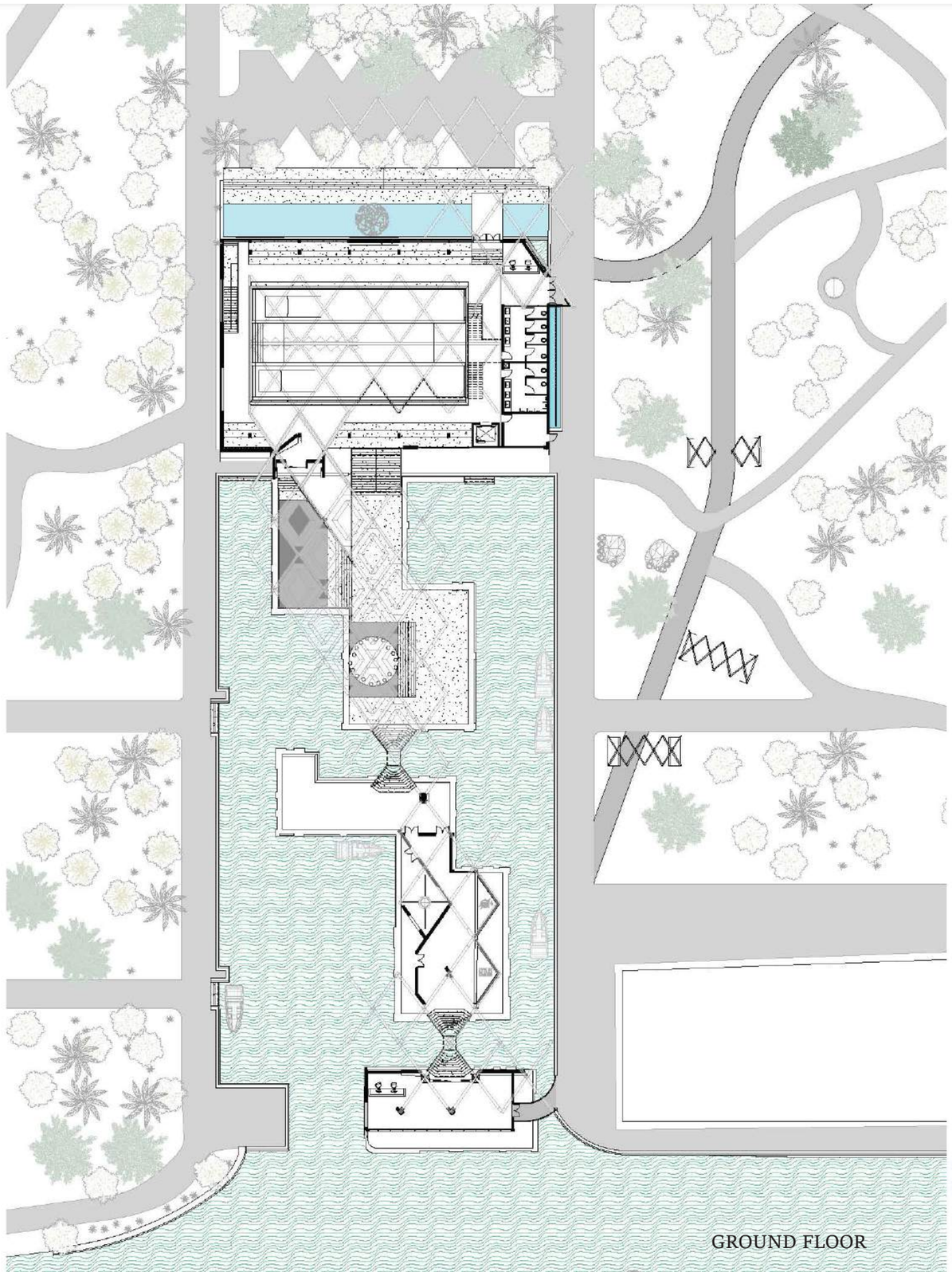
Venetians turned to the Water

Venetians turned to the Ground

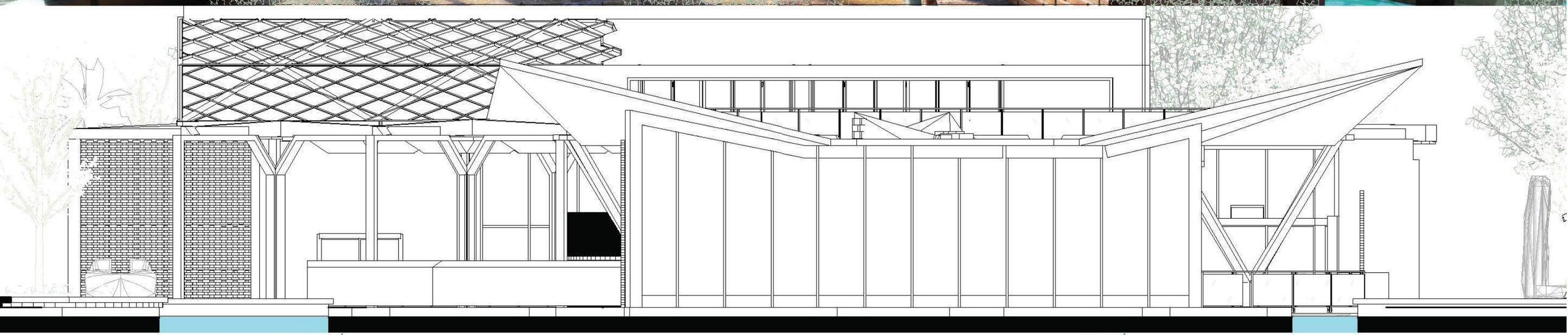




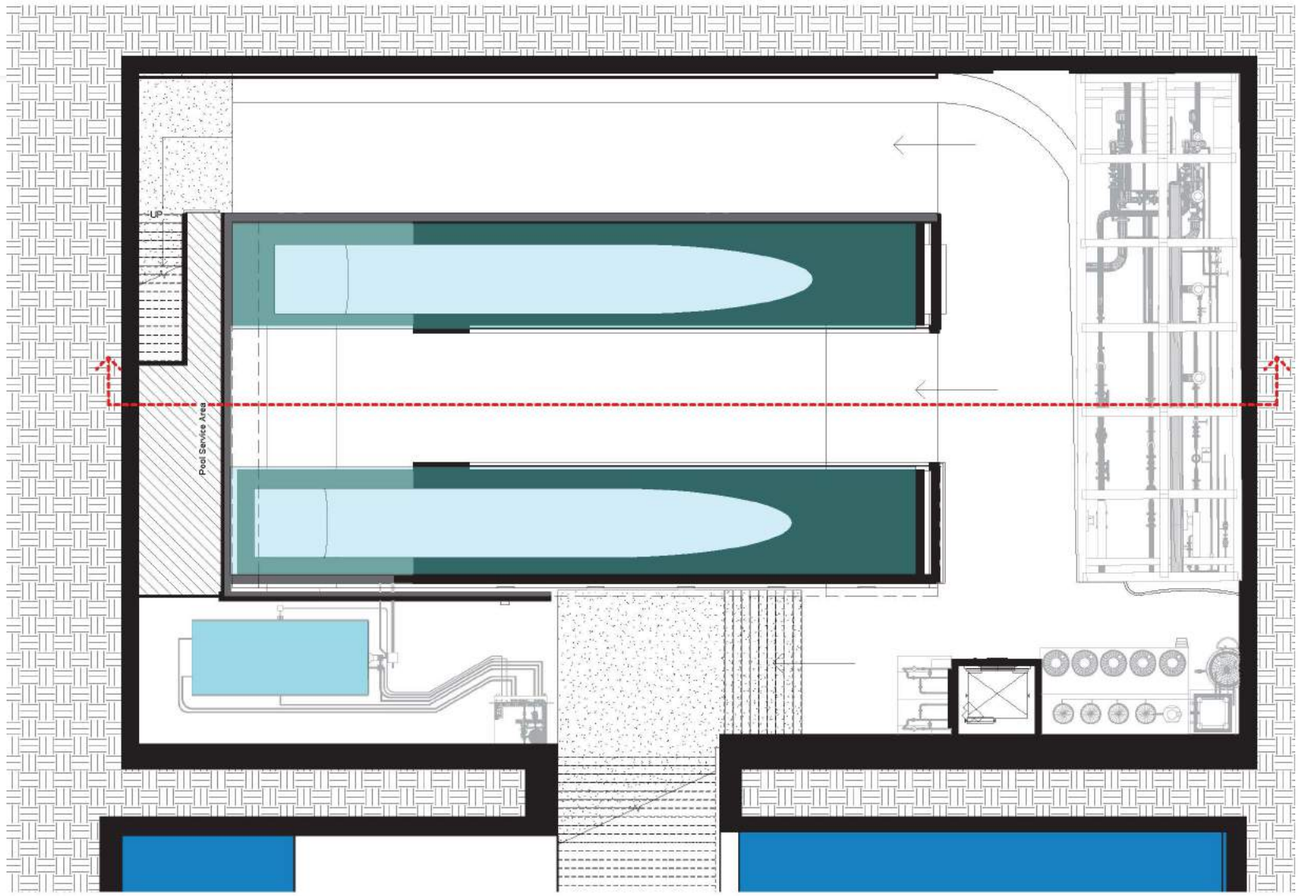
SITE PLAN

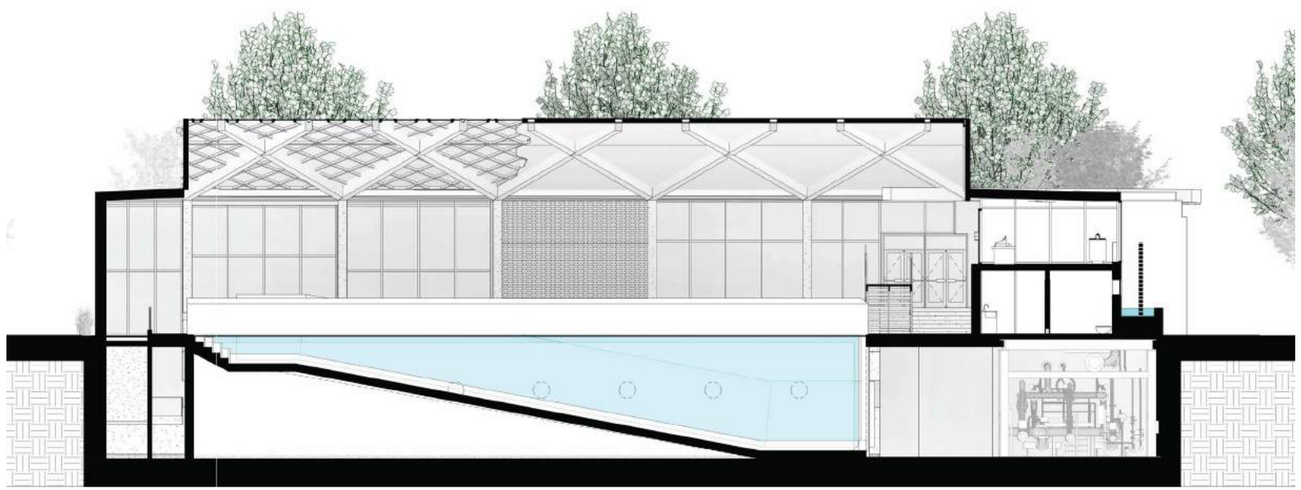


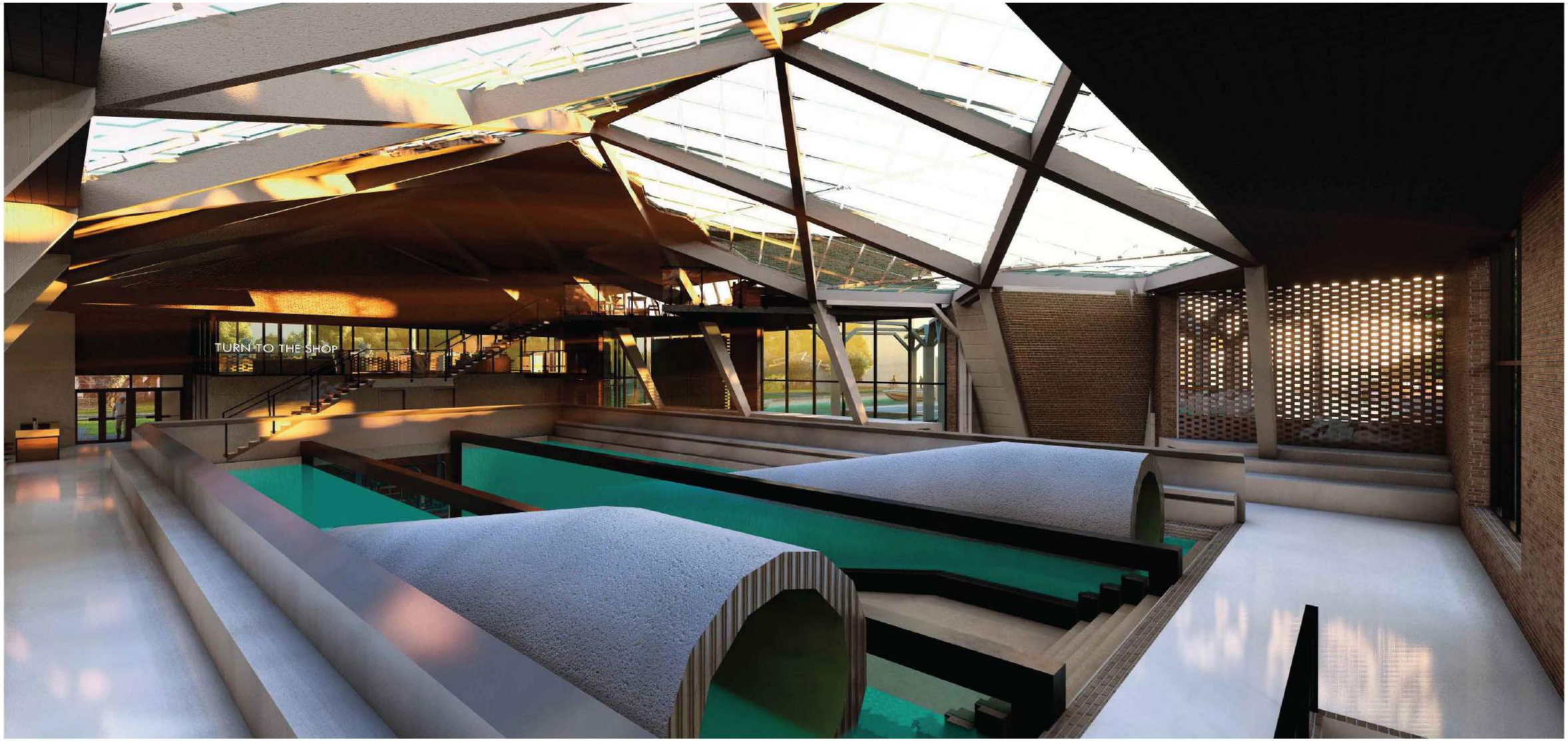
GROUND FLOOR

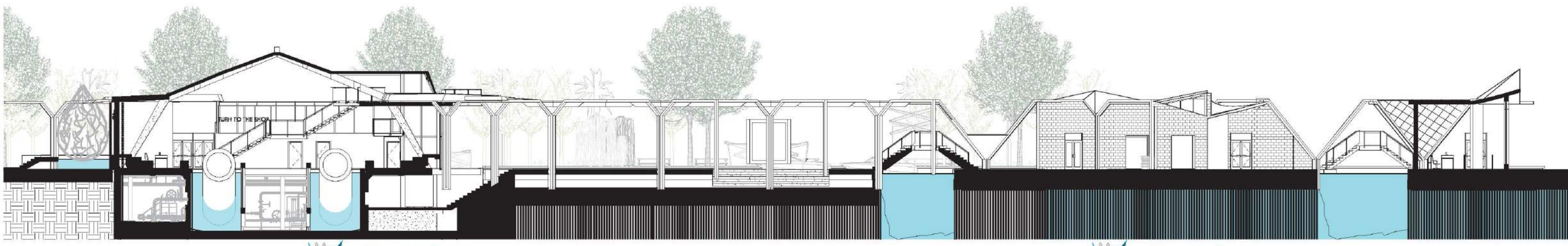


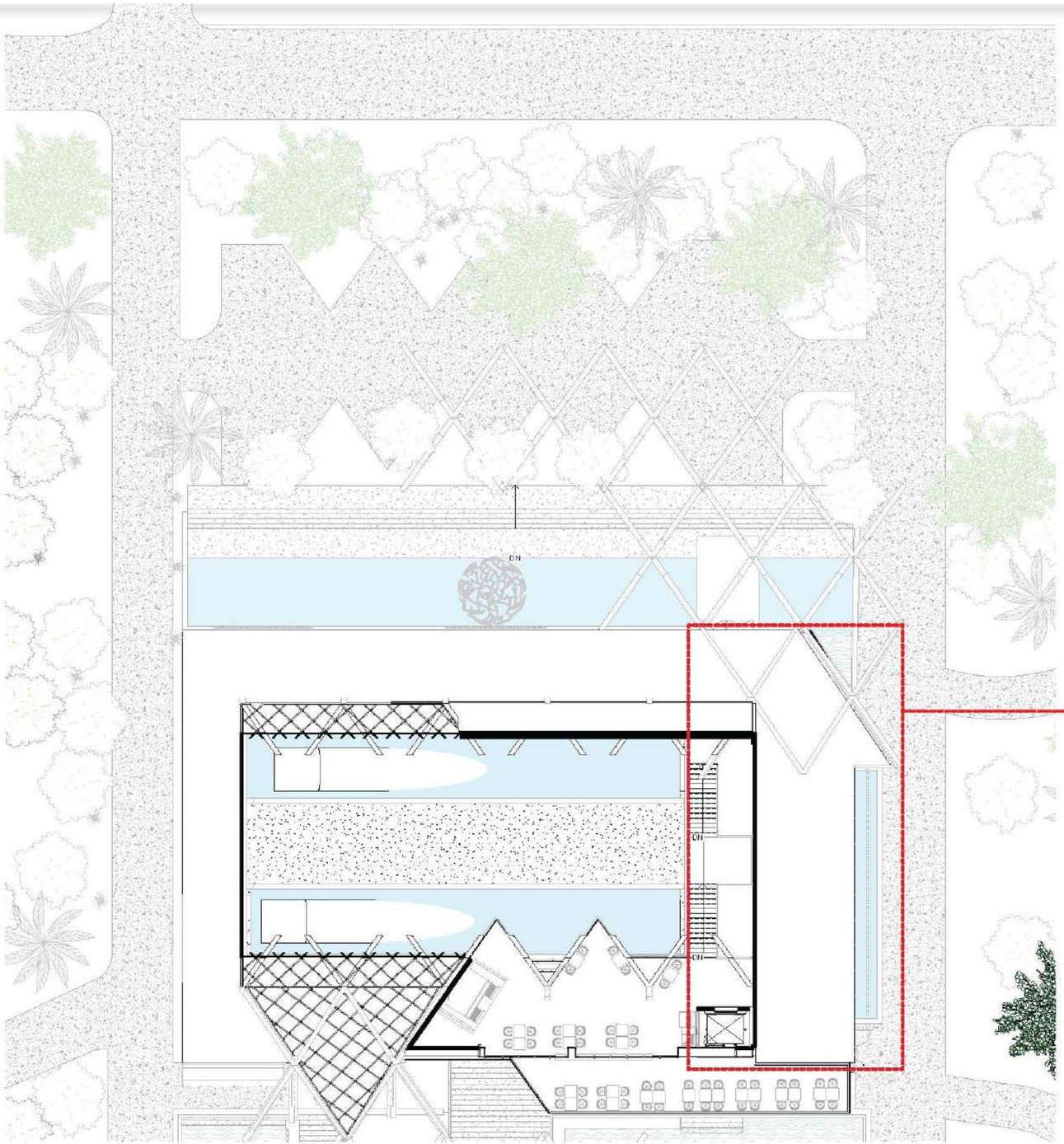
AquaChronicles


UP
Pool Service Area

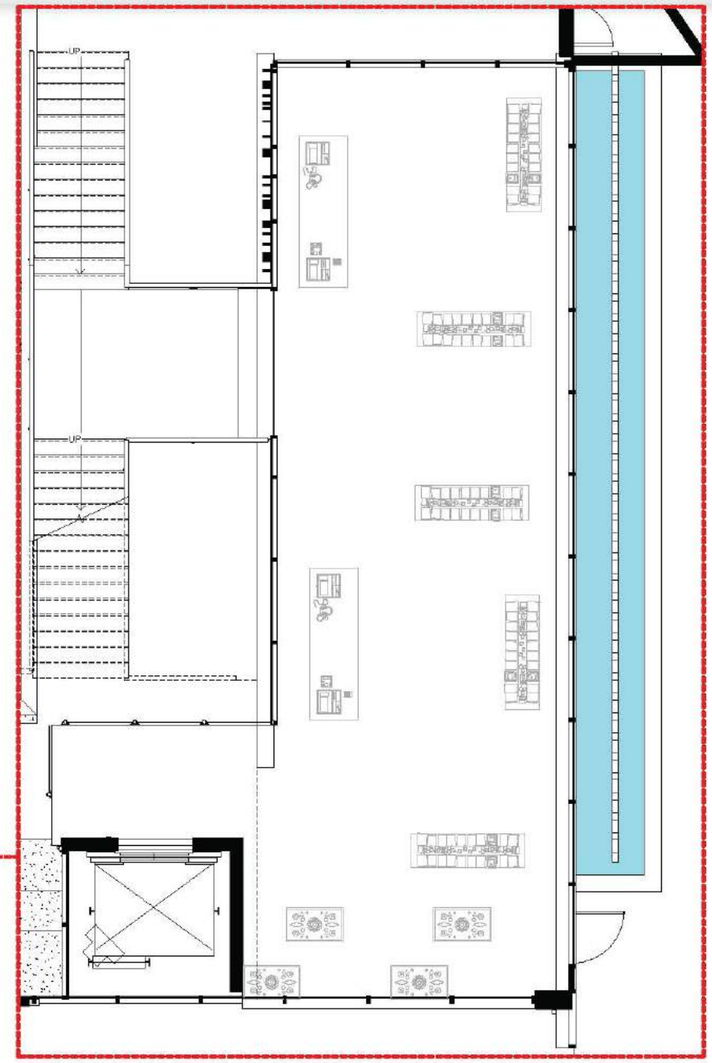



TURN TO THE SHOP


TURN TO THE SHOP



Second Floor



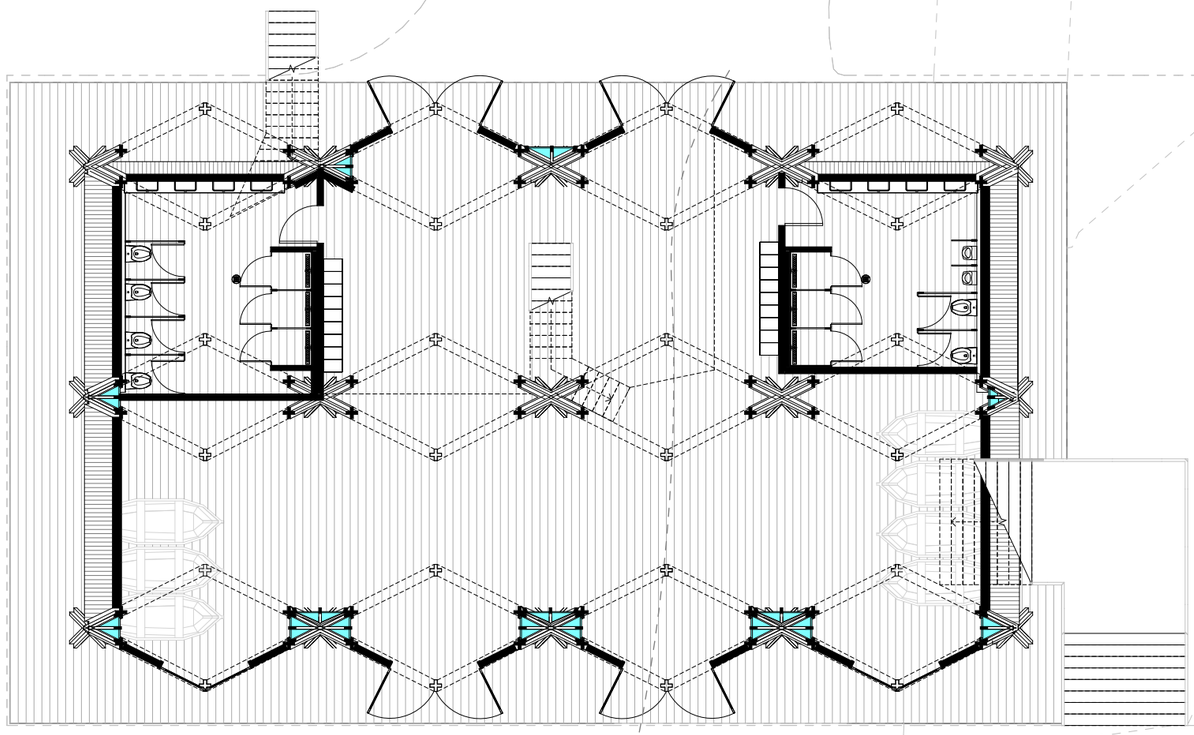
Half Level

OCEAN STUDIO | The Mangrove

The Mangrove
Boulevard

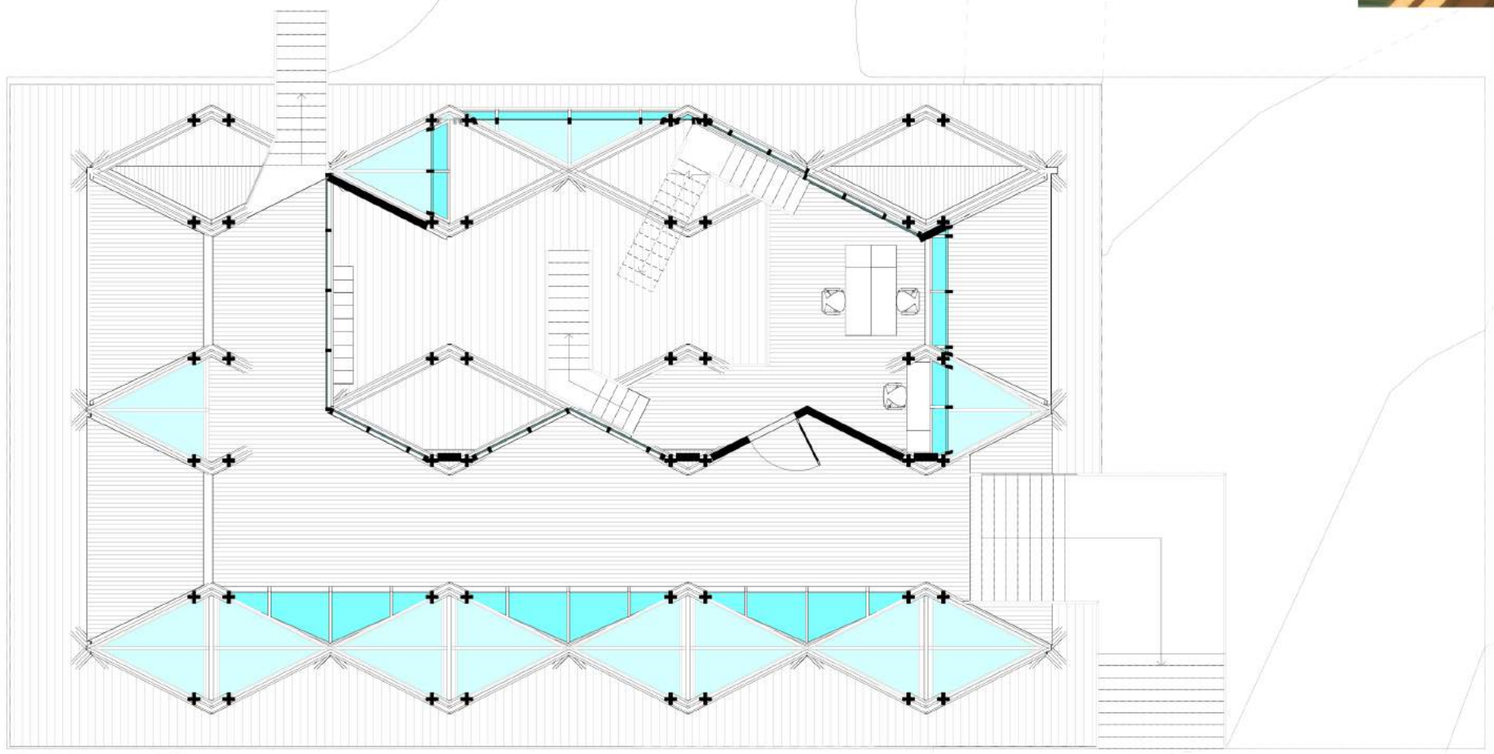
PLAN
SECTIONS

NETWORK OF SPACES
1
2
3
4
2
3
1
4
2
3
1
4
2
3
1
4

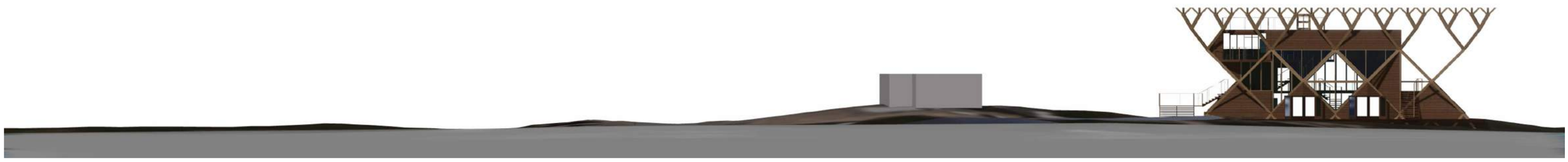


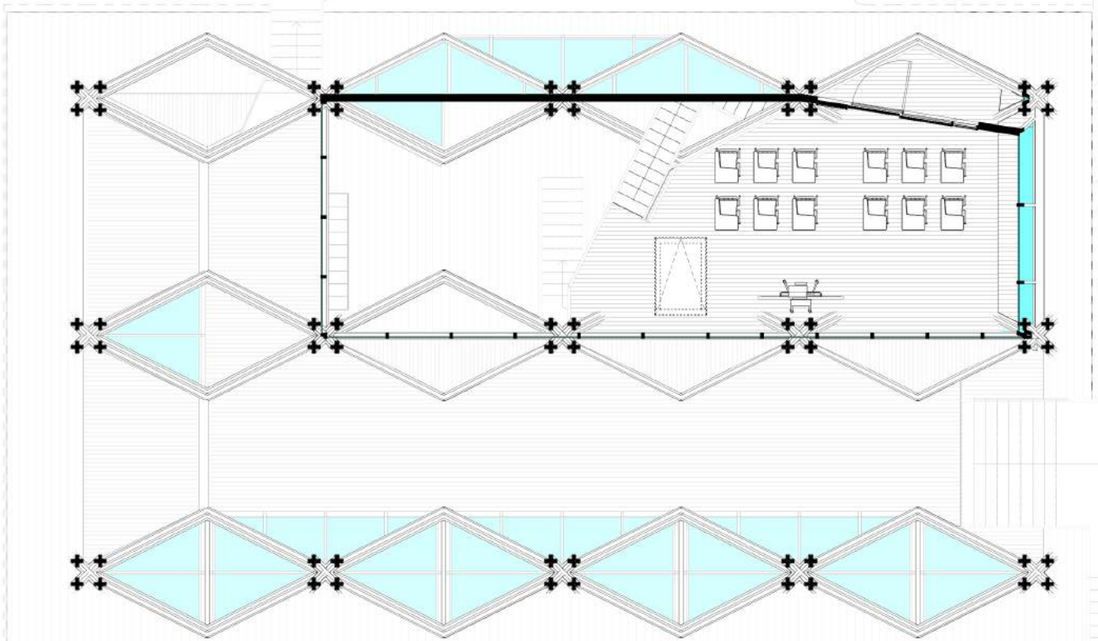
GROUND FLOOR

3/16" = 1 '- 0"

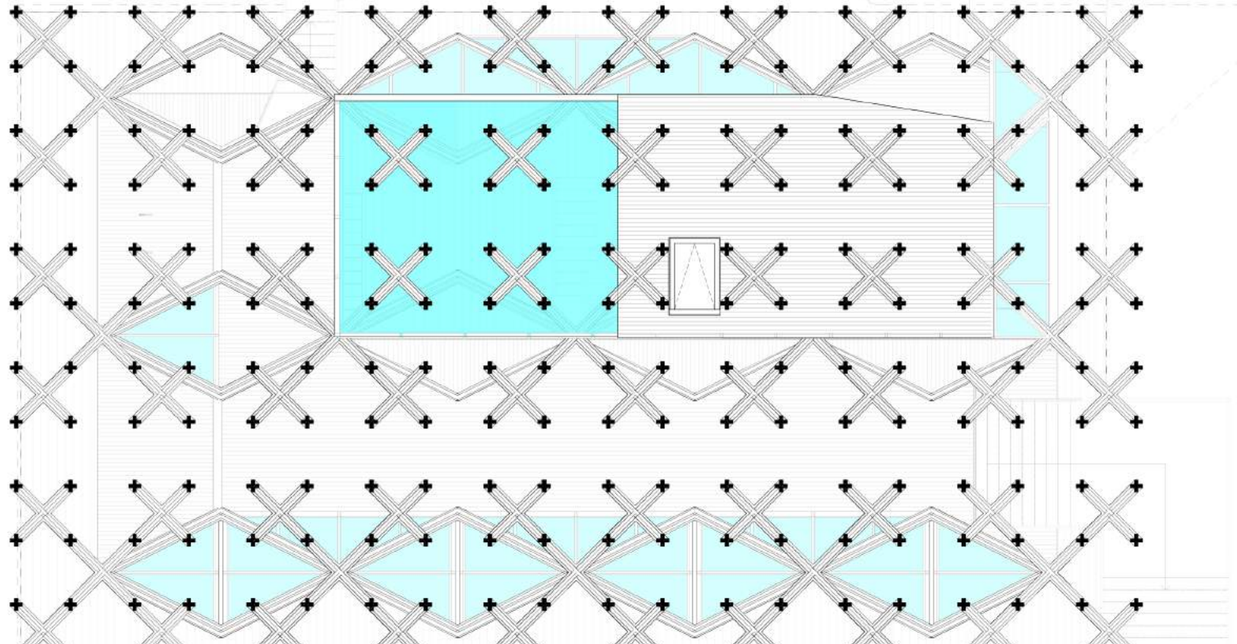


SECOND FLOOR
3/16" = 1 '- 0"

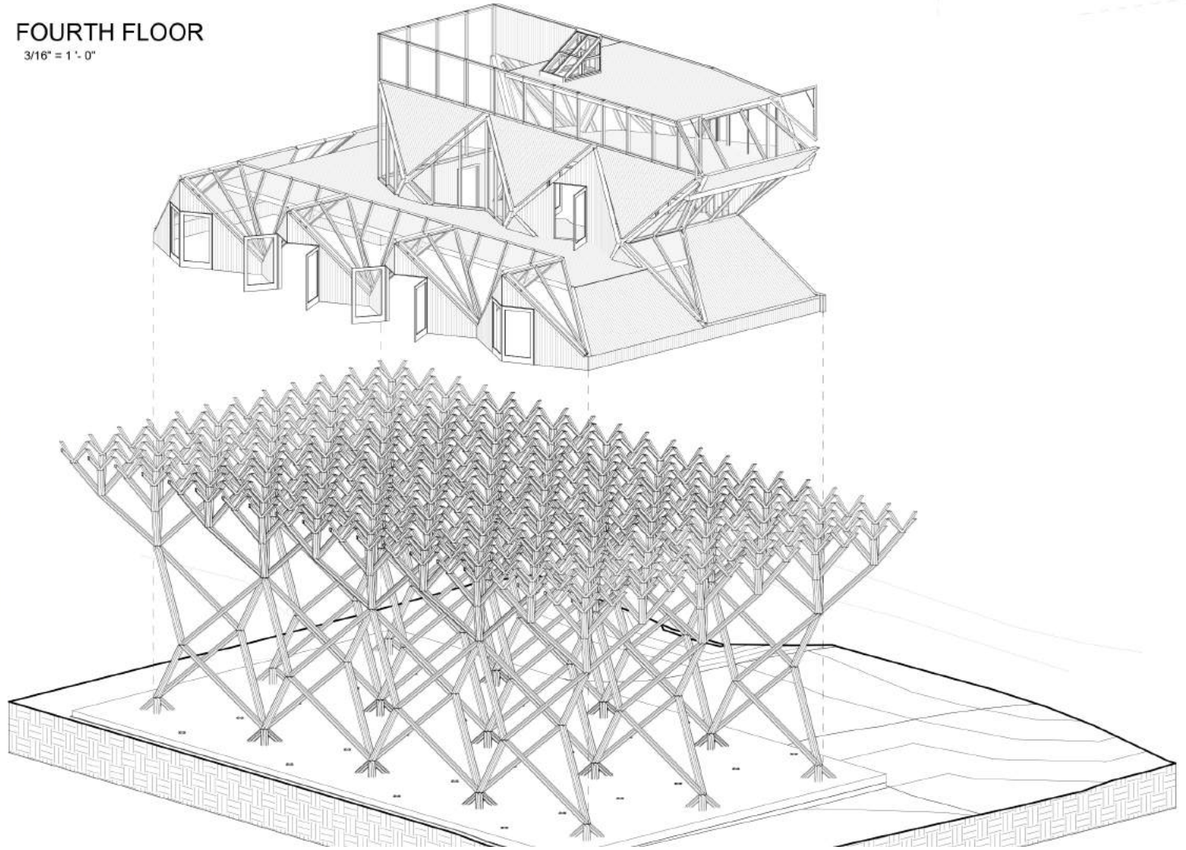




THIRD FLOOR
3/16" = 1 '- 0"

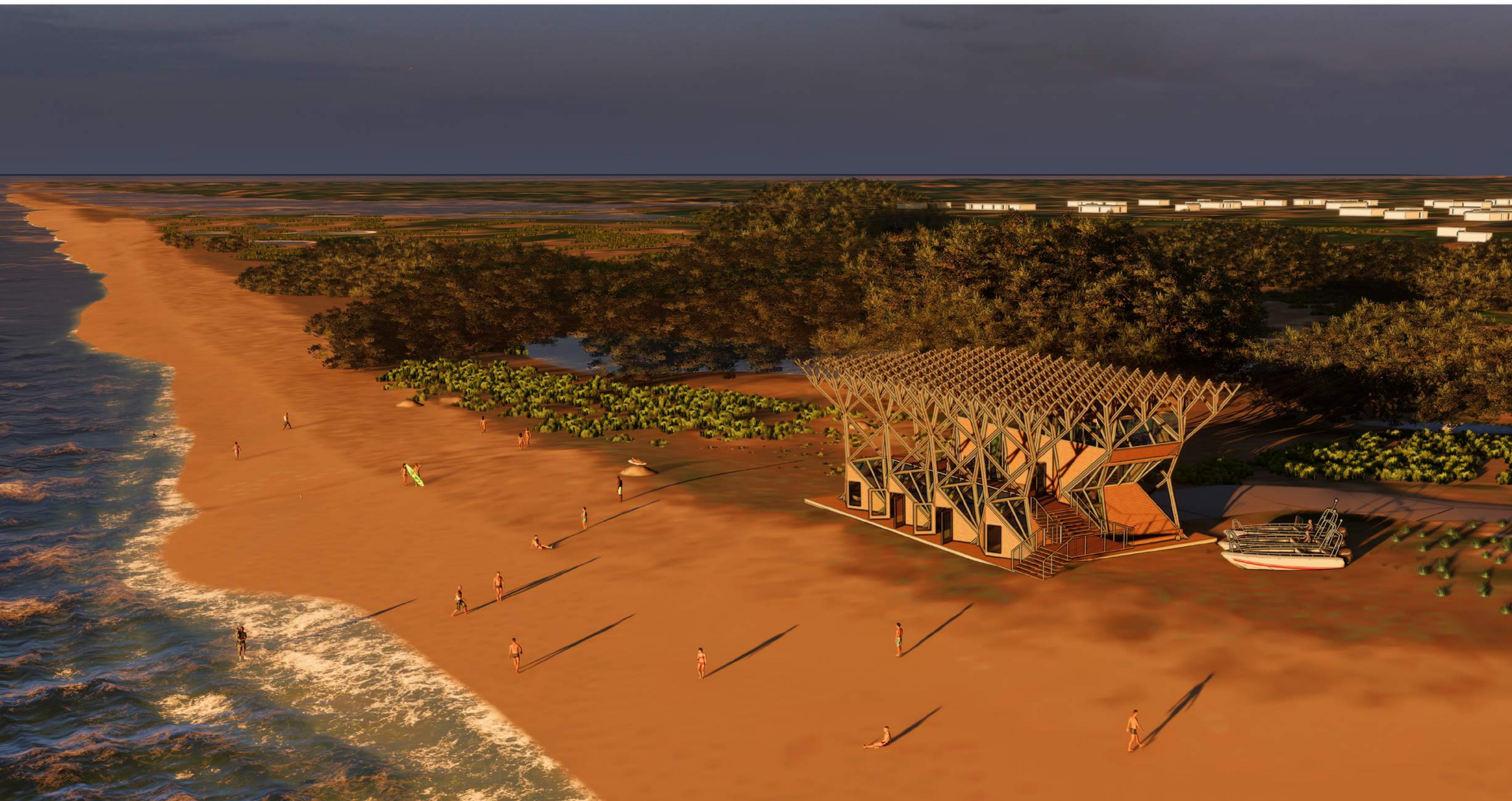


FOURTH FLOOR
3/16" = 1 '- 0"

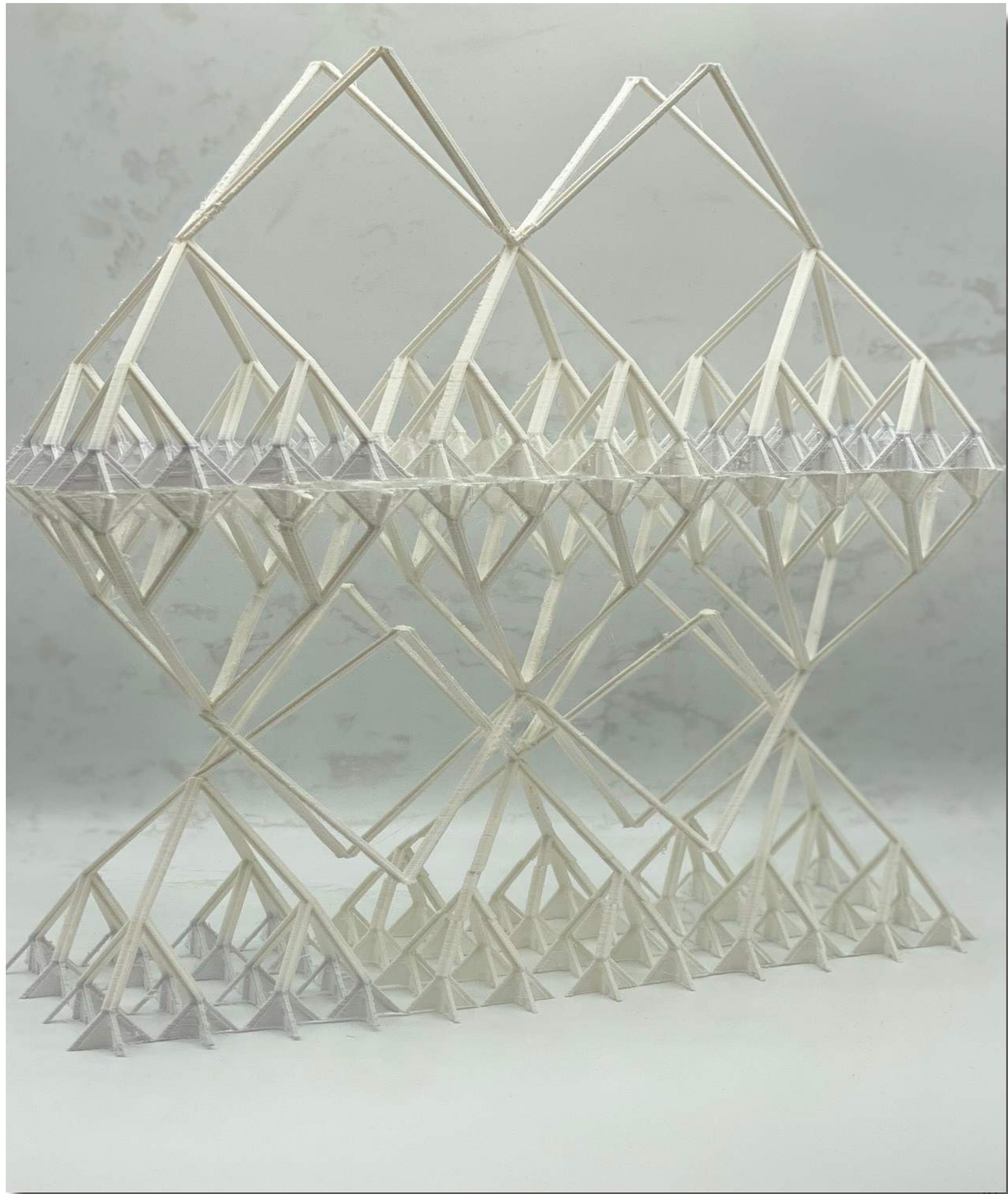


The Mangrove

The Mangrove



The Mangrove

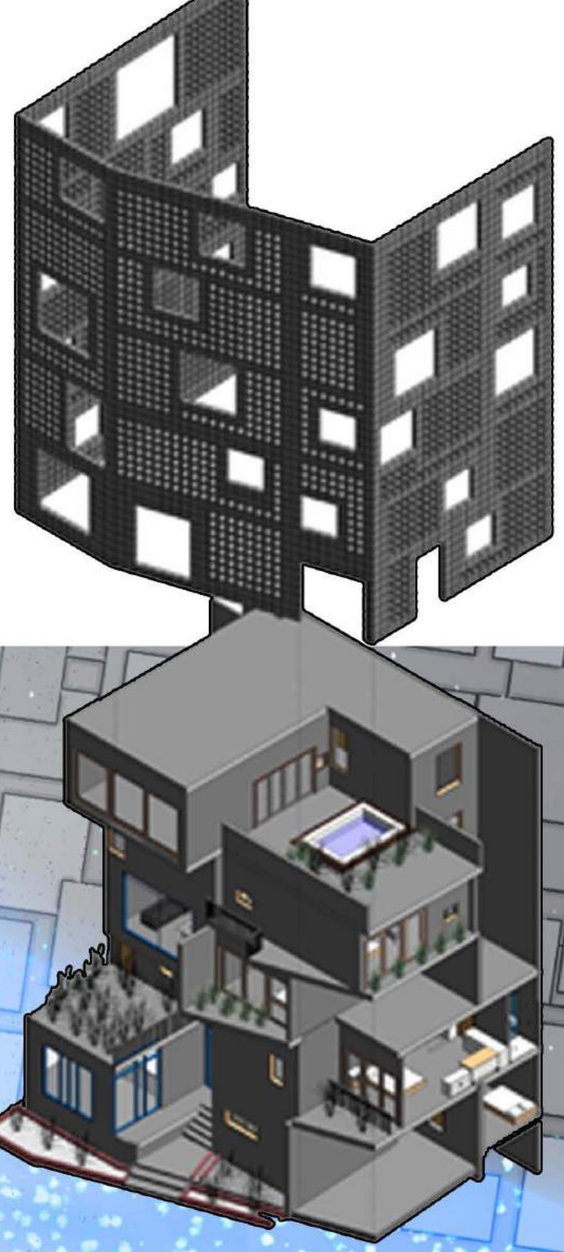


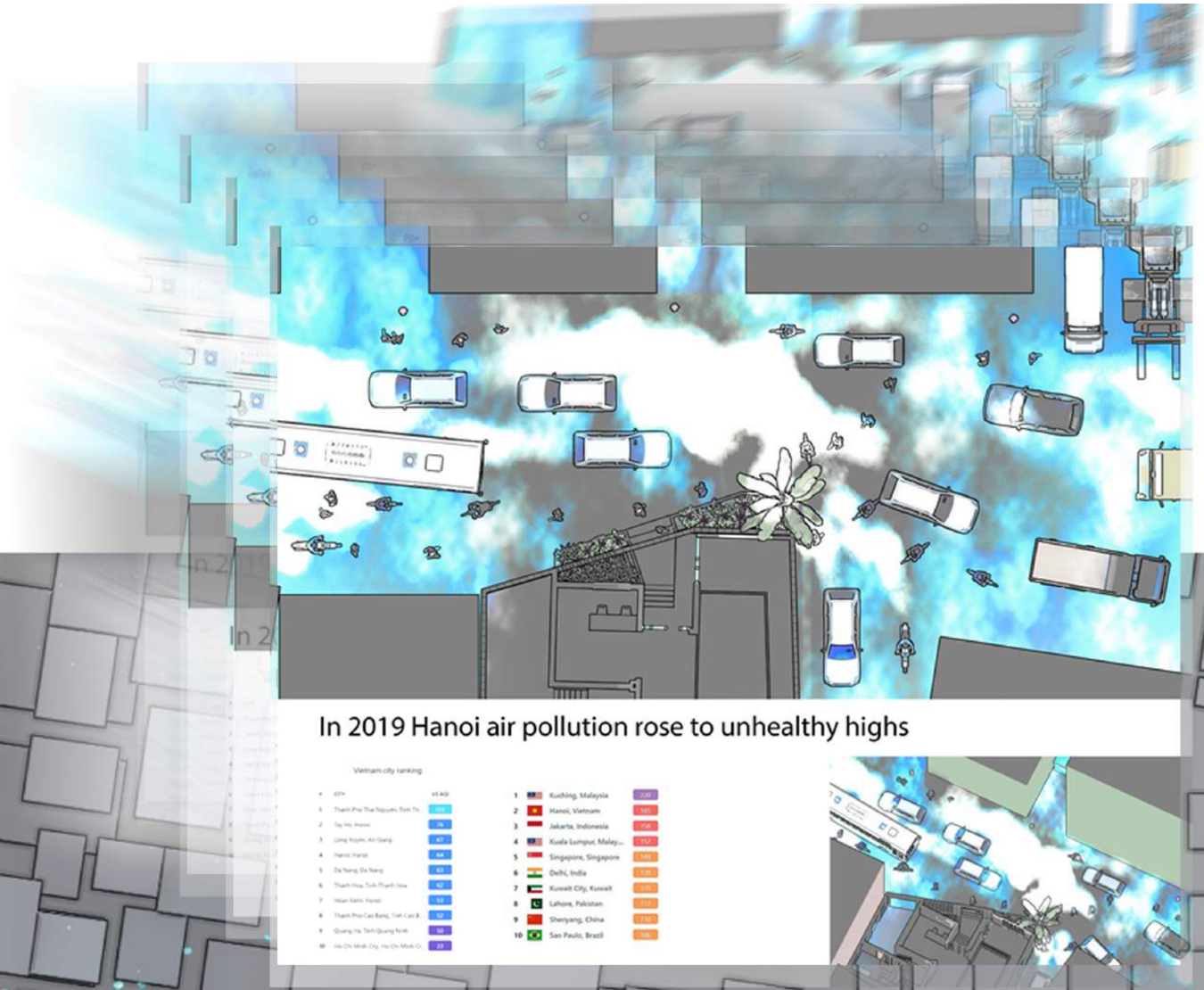
HOUSING STUDIO | Little Mont Heaven

Sherry Aine Chuang Te

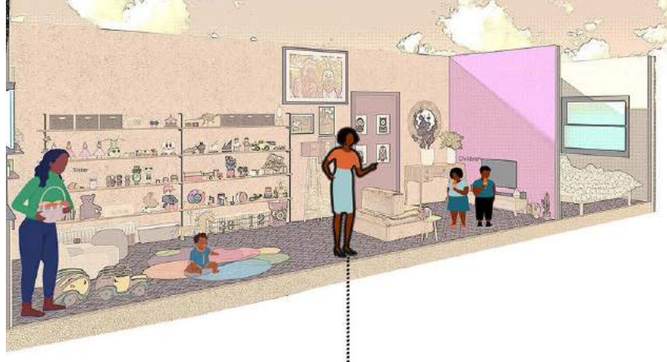
Research and model making partner


Cambodia
Phnom Penh
Ho Chi Minh City
Vietnam
Hanoi
Guangzhou
Shenzhen
Hong Kong

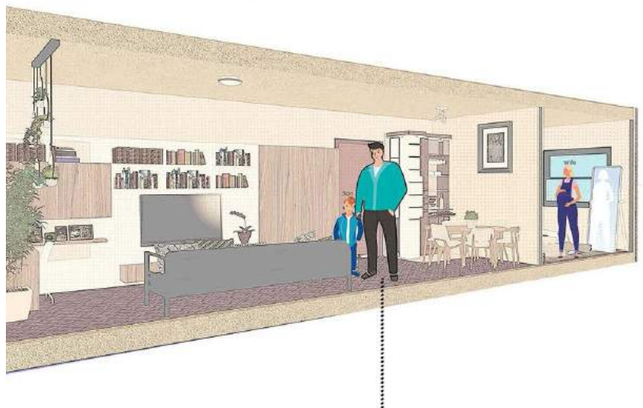




In 2019 Hanoi air pollution rose to unhealthy highs

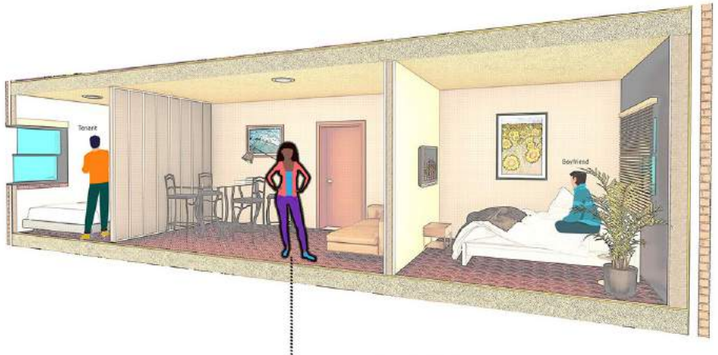


My name is Janelle
I am the bread-winner of my family. I am American, I live with my sister who helps me raise my children. I am an Office Administrator. I earn $38,000/yr. and we are thankful for public assitance.



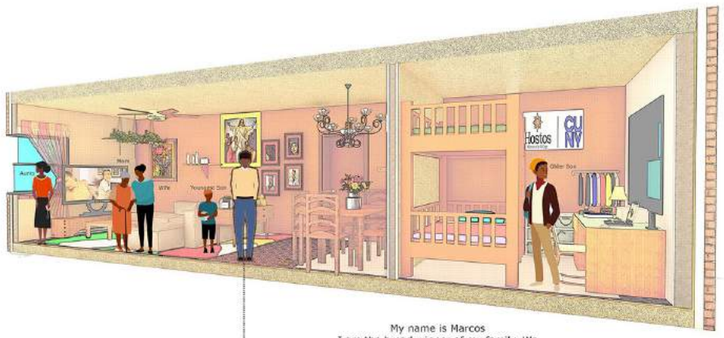
My name is Dave
I am the bread-winner of my family. I am American. My wife and I are expecting a second son. We are Substitute Teachers at Equality Charter School. My wife is on maternity leave, and after she gives birth she plans to quit. I earn $30,000/yr. and we dont qualify for public assitance.This appartment was given to us by my wife' father, who passed 10 years ago.

My name is Carmen
I am the bread-winner of my family. I am Dominican. I live with my noumerous family and we are expecting 2 more children next week. I am a registered nurce at the Presbyterian hospital in Manhattan, and my salary is 90,000/yr.



My name is Maria
I am the bread-winner of my family. I am Dominican decent and my boyfriend is American. I was passed down this apartment after my grand-mother's passing. My parents retired in the DR and my boyfriend and I decided to rent the extra room. We are cirrently unemployed so we added a provitional partition to rent part of our livinroom as well. We rent each room for $750/m, which puts us roughtly at 18,000/yr. We are thankful for public assitance.

My name is Apollo
I am the bread-winner of my family. We are Originally from Senegal, and at home we speak Wolof & French. My Aunt, who was never married;raised my brother and I and brought us to live with her when we where younger. Thanks to her support, I am a part-time HEALTH TECHNICIAN at US Veterans Health Administration, while I attend Medical School. My gross income is $25,981/yr and soon we wont qualify for public assitance.



My name is Marcos
I am the bread-winner of my family. We are Dominican- Puerto Rican, and speak solely spanish at home. I am an Office Assistant at Legacy College Preparatory Charter School, which is at a short commute of 5-10 minutes on foot. My gross income is 55,000/yr and soon we wont qualify for public assitance, as we are 3,000 over the annual income limit stated by NY to receive public assitance.

RESULTS OF DAYLIGHT ANALYSIS

TOTAL SF : 1,114

NEW YORK CITY HOUSING AUTHORITY
PATTERSON

$20,731,000
DEVELOPEMENT COST

$2,433
COST PER RENTAL
(ROOM)

You may be eligible for an apartment if:

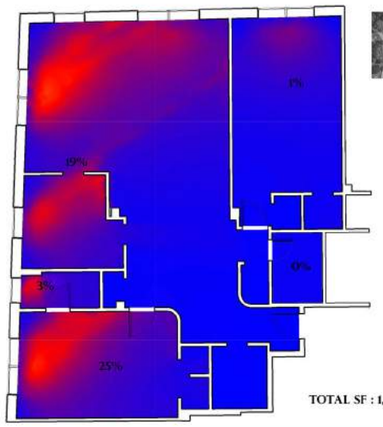
Person(s) in Family	Income Limits
1	$74,800
2	$85,450
3	$96,100
4	$106,800

NYCHA's COVID-19 rent hardship policy

Rent for public housing residents will always be 30 percent of the household income. If you have no income at this time, your rent will be zero

Apartment Size	FY 2021 Fair Market Rent (Revised March 10, 2021)
1 Bedroom	$2,054
2 Bedroom	$2,340
3 Bedroom	$2,952
4 Bedroom	$3,173

800 GRAND CONCOURSE



TOTAL SF : 1,533

$23 X 1,533SF = $35,260

$2,840/ MONTH
2 BR

Building Facts

Facts	254 units 6 stories Built in 1954
Building Class	D4
District	Community District 204 City Council District 16 Police Precinct 44
Floor Plans	131 floor plans available
Documents and Permits	206 documents and permits
Discussions	1 discussion
Sales Listings	7 active sales ($437 per ft² avg, $278,342 avg price) 1 in contract sale ($178,320 avg price) 147 previous sales ($277 per ft² avg, $247,784 avg price) 92 previous rentals ($25 per ft² avg, $1,958 avg price)
Architect	H.I. Feldman

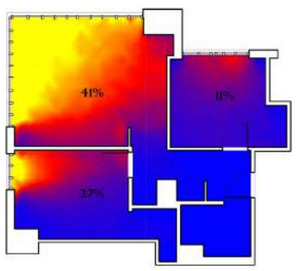
Sold on July 27, 2022
Check Your Equity Today
Just Sold

Last sold for
$400,000

2 bed 2 bath
800 Grand Concourse Apt 5LN, New York City, NY 10451

Coop — Property Type
1954 — Year Built
$400K in 2022 — Last Sold

THE ARCHES

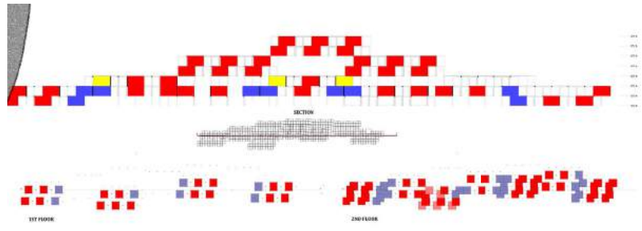


TOTAL SF : 701

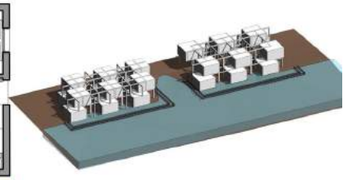
$60 X 701 SF = $42,060

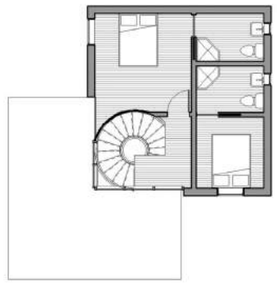
Building Facts

Facts	156 units 25 stories Built in 2020
Building Class	D6
District	Community District 201 City Council District 8 Police Precinct 40
Floor Plans	17 floor plans available
Documents and Permits	34 documents and permits
Rentals Listings	4 active rentals ($2,822 avg price) 266 previous rentals ($60 per ft² avg, $1,594 avg price)
Architect	Fischer + Makool Architects
Developer	Chess Builders
Leasing and Marketing	EXR

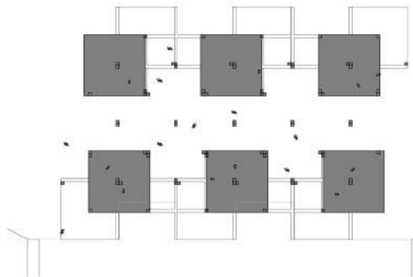


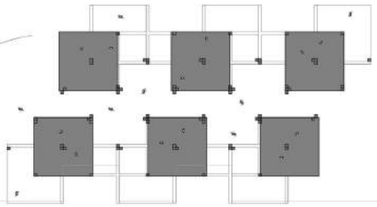
1 Bed





2 Bed





OCCUPATIONS

Percentage of the civilian employed population aged 16 and older in the zipcode 10451

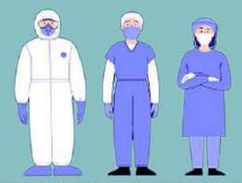
ADMINISTRATIVE

FACILITIES

SALES AND RELATED

FOOD SERVICE

PERSONAL CARE

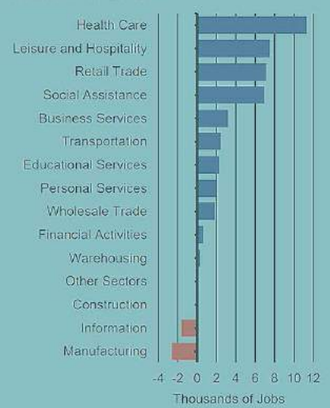


HEALTHCARE SUPPORT

TRANSPORTATION

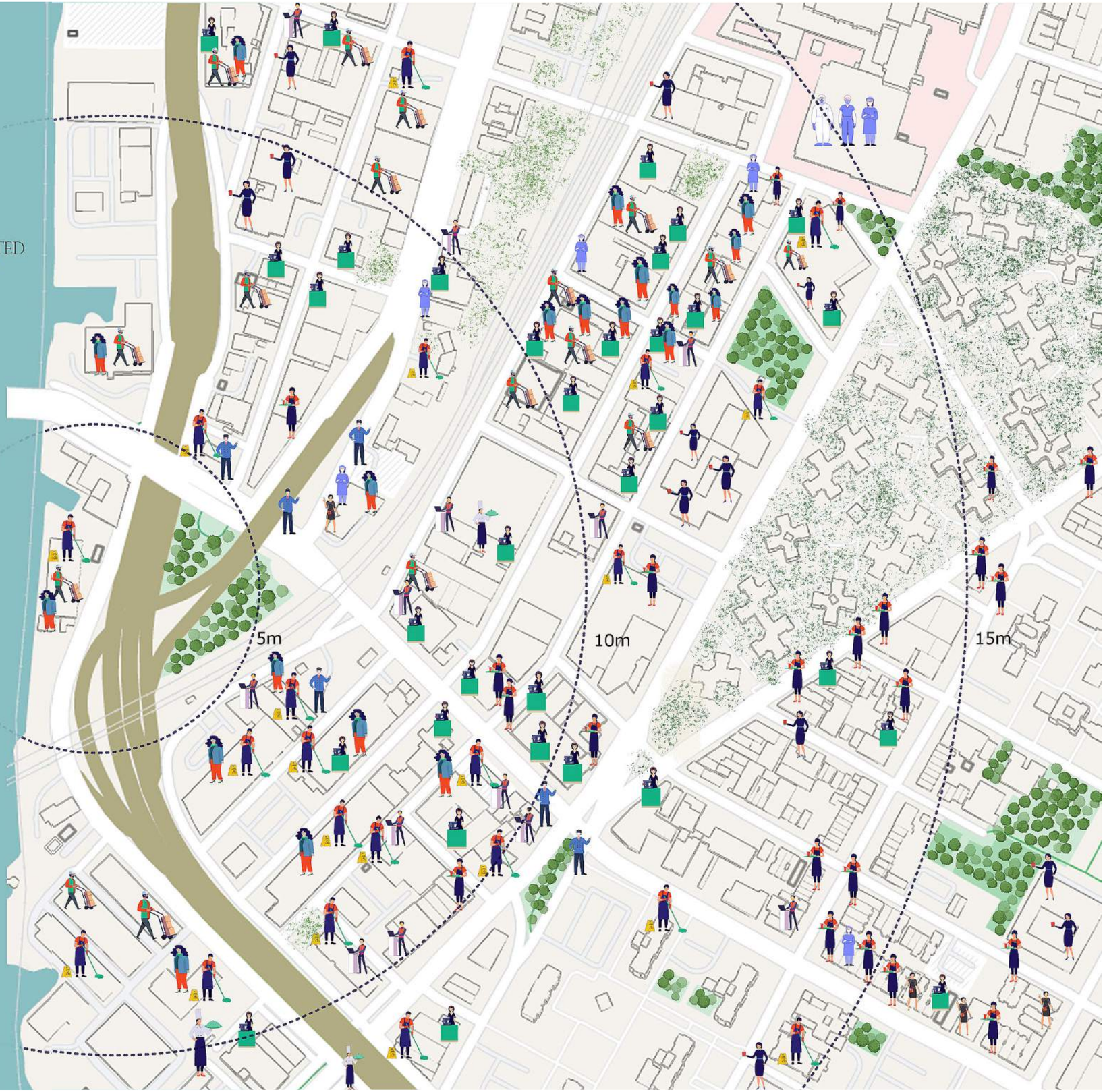
EDUCATION

Job Gains or Losses by Sector in the Bronx, 2007-2017



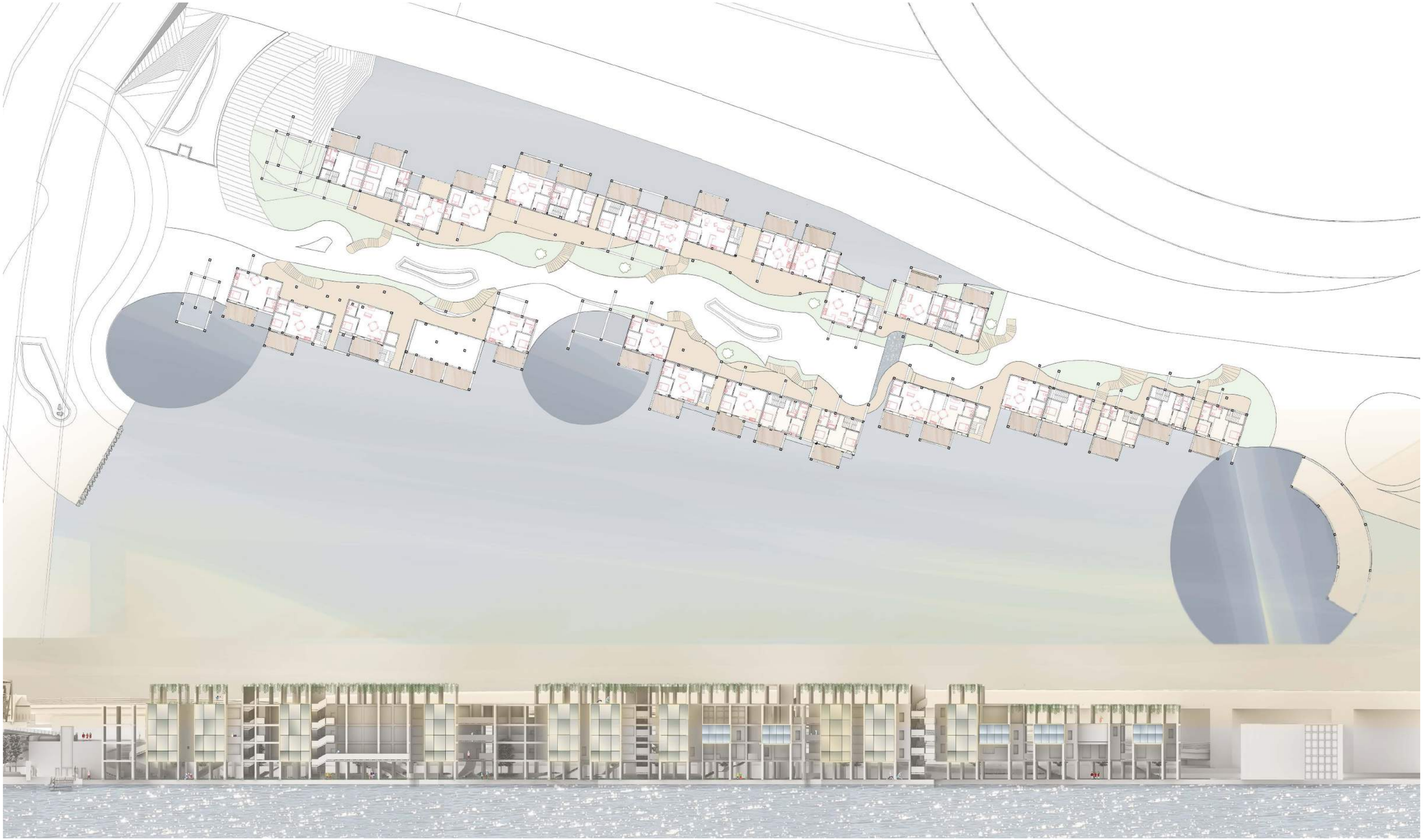
Median Household Incomes and Poverty Rates

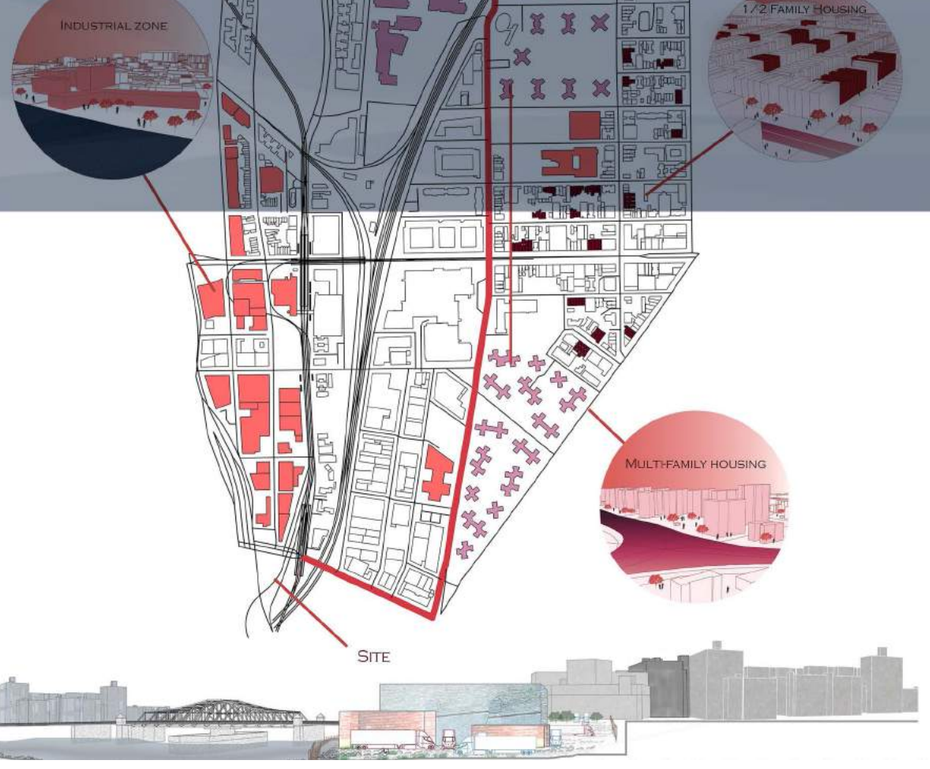
	Household Income	Poverty Rate
Bronx	$37,500	28.4%
Brooklyn	$55,200	20.0%
Manhattan	$77,600	15.5%
Queens	$62,200	13.6%
Staten Island	$77,200	14.5%
NYC	**$58,900**	**18.4%**



Marika Mariam Agnes Falco

Project partner




INDUSTRIAL ZONE
1/2 FAMILY HOUSING
MULTI-FAMILY HOUSING
SITE

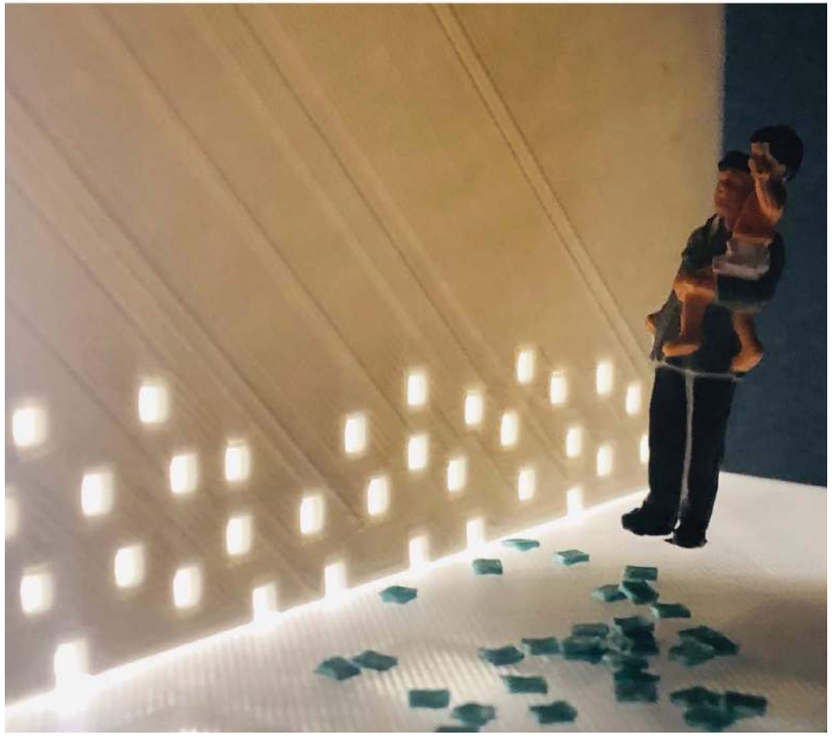

FRESH MEATS
DIVINE HEALTH
MEDICAL SUPPLY INC
MORRIS AVENUE

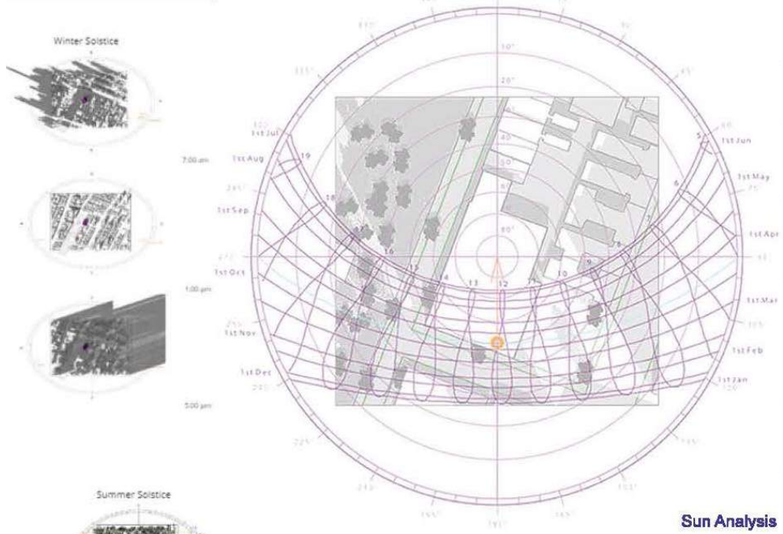
FINAL

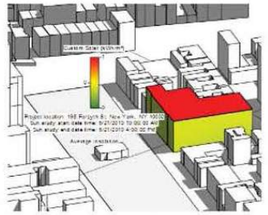
PEDAGOGY STUDIO | Unlocking Spaces

Project Description

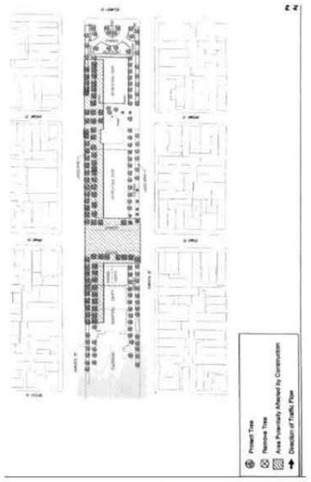
Learning is no longer limited to the confine of a traditional classroom. The interest of each individual student must be the driving force of their development. And just at the pedagogical approach is important to the learning experience of the student, so is the architecture that supports it. The premise of the proposal of this school is to promote autonomous learning manifested as the children reconfigure their spaces through discovery; by doing this they learn about the tectonics of their built environment. According with this perspective, the classroom is conceived around two main design actions : The walls are highly tactile spatial experience that by the subtraction of squared cut-outs will allow for the reconfiguration of seating arrangements, apertures and mindfully assemble play structures of their own imagination, the ground level of the classroom will be dedicated for socializing, group activities and hands on project, while the levels above will visually and physically isolate the student from distraction as they perform individual work. It is this learning environment that nurtures the developmental needs of children ages two to six years through an engaging framework of consciously explorative and communal play spaces. To keep the students engaged and motivated the school will be a place where the students discover options, solve problems and design solutions through play structures to enhance kinesthetic awareness.

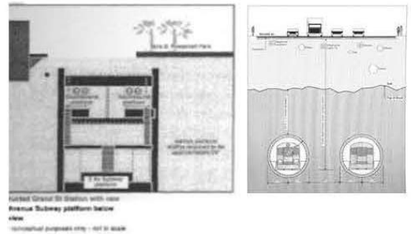




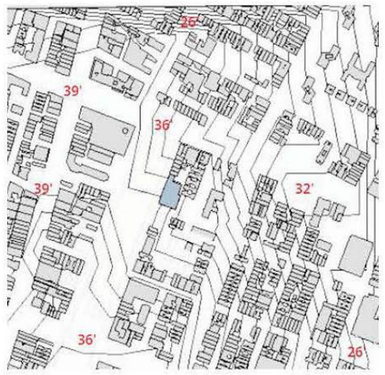


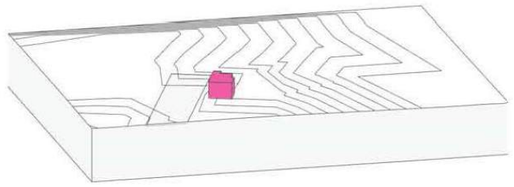
Sun Analysis



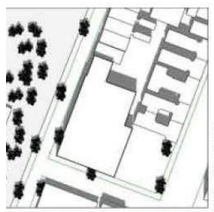


Second Avenue Subway in the Borough of Manhattan, NY County, Volume 1

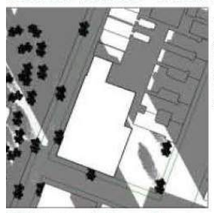




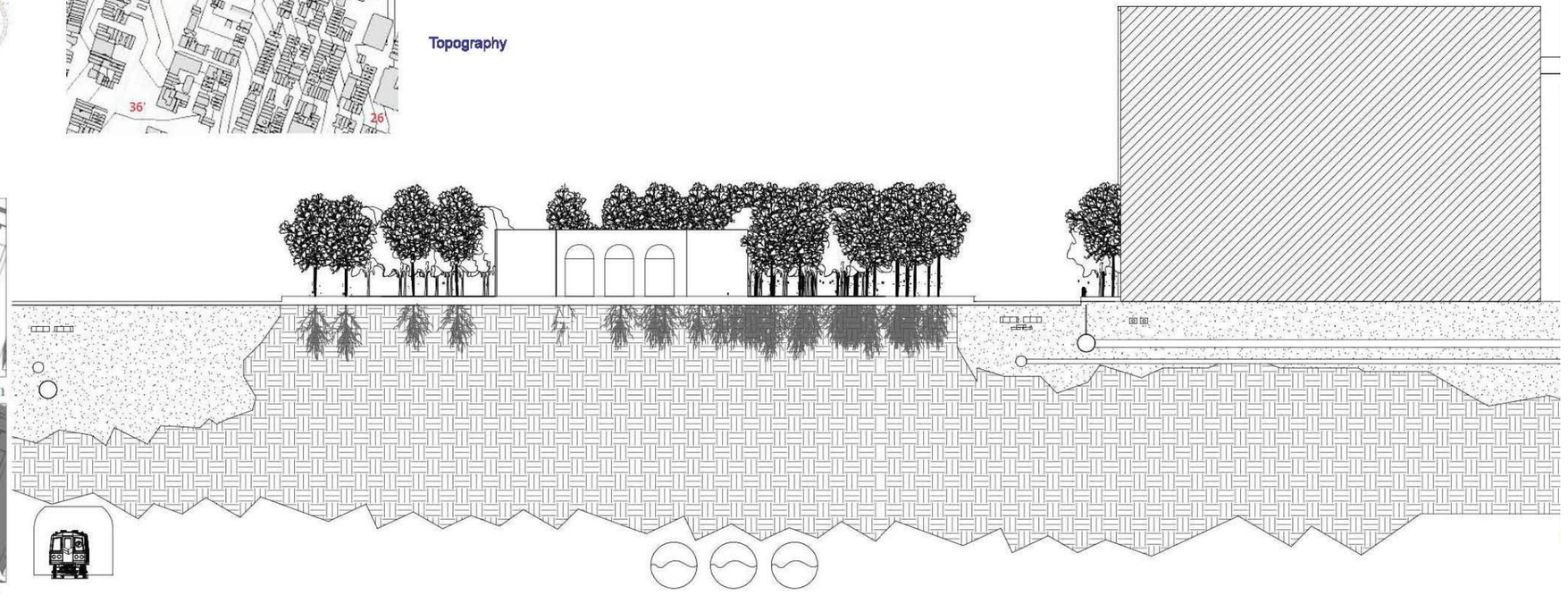
Topography



Summer solstice - Noon



Winter solstice - Noon



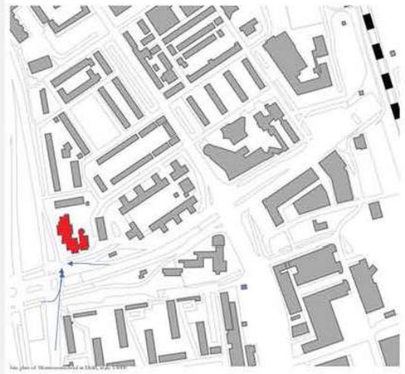
PEDAGOGICAL APPROACH

"Do not tel them how to do it. Show them how to do it and do not say a word. If you tell them, they will watch your lips move. If you show them, they will want to do it themselves."
Maria Montessori

The Montessori education is founded in 1907 by an Italian woman, Maria Montessori. In 1896 she finished her study and started working in a hospital in Rome. There she met the 'idiot' children. But she was aware these children were not 'idiot' in reality. They were very poor children and they had not the right opportunities to evolve themselves. **So she started a research for sensory development material.** Year after year she created her education method for these special children: the Montessori education. She spread this education through the world.

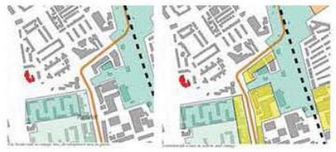
Programs at our Montessori schools are defined by the practical application of sensory-based and self-directed learning

Infants	Toddlers	Primary	Elementary
Their space is cozy, a warm environment is specially designed for mobility and to **foster growing independence**	Toddlers use their bodies, senses, and emerging problem-solving skills to learn about their world	Tangible academic experiences and practical life exercises engage children in learning, in a mixed-age classroom.	Children work at their own pace in a non-competitive environment, to begin learning abstract principles

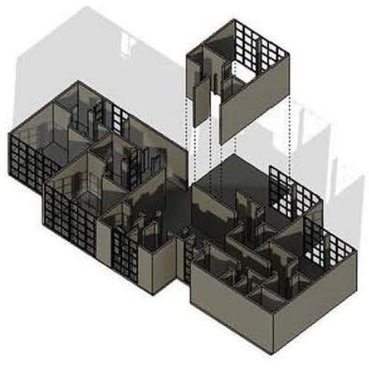


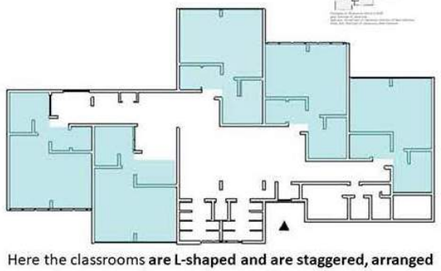
SITE
ADJACENCIES AND ACCESS

This area has been developed very fast from the 1960's onwards with a lot of apartments because of **the housing shortage**.
The Montessori school is situated towards a **crossroad**. This crossroad is now **a busy traffic artery** because the Provincial way flows here. **This causes a lot of traffic noise for the school**.
The school is an autonomous building, but the orientation is parallelized to the two buildings facing the school.

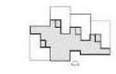


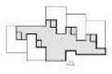
SPATIAL ARRANGEMENT





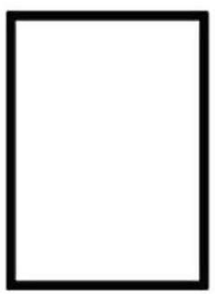
Here the classrooms **are L-shaped and are staggered, arranged around a communal space**. The school is extended many times. By every extension the classrooms are arranged around a communal space. With every extension the shape of the classroom changed. **The hallway forms the internal street of the school and makes space for different activities.**

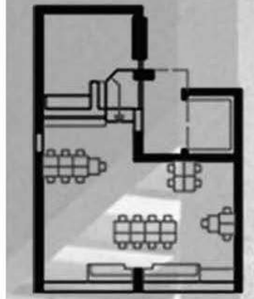

1960


1966

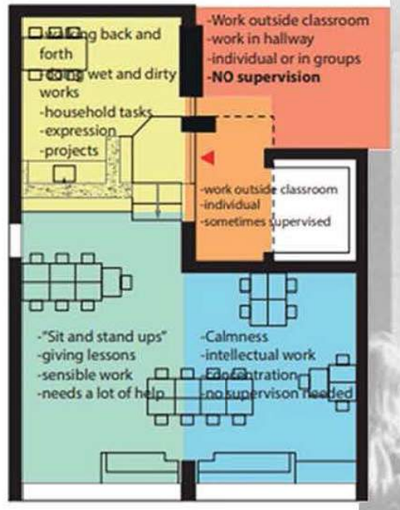

1968

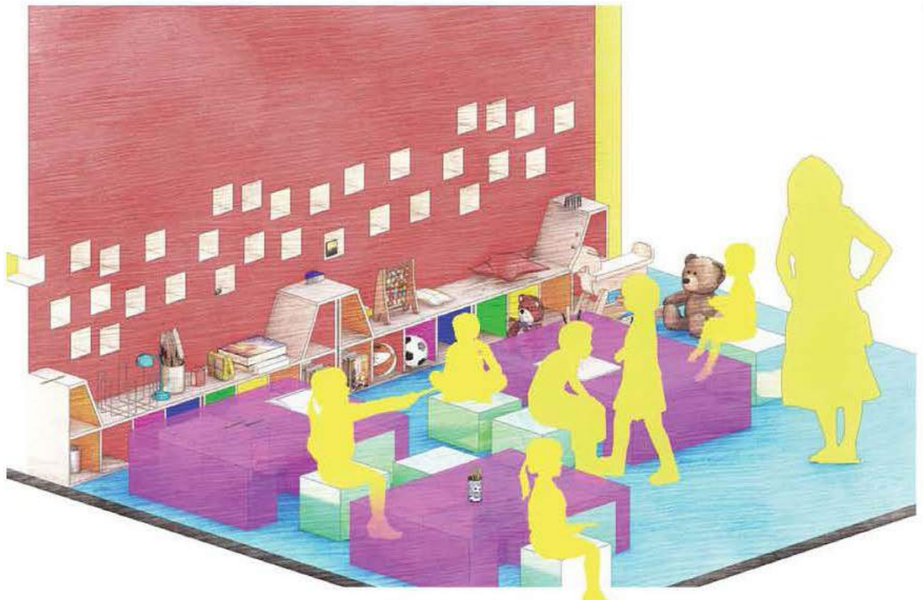

1970



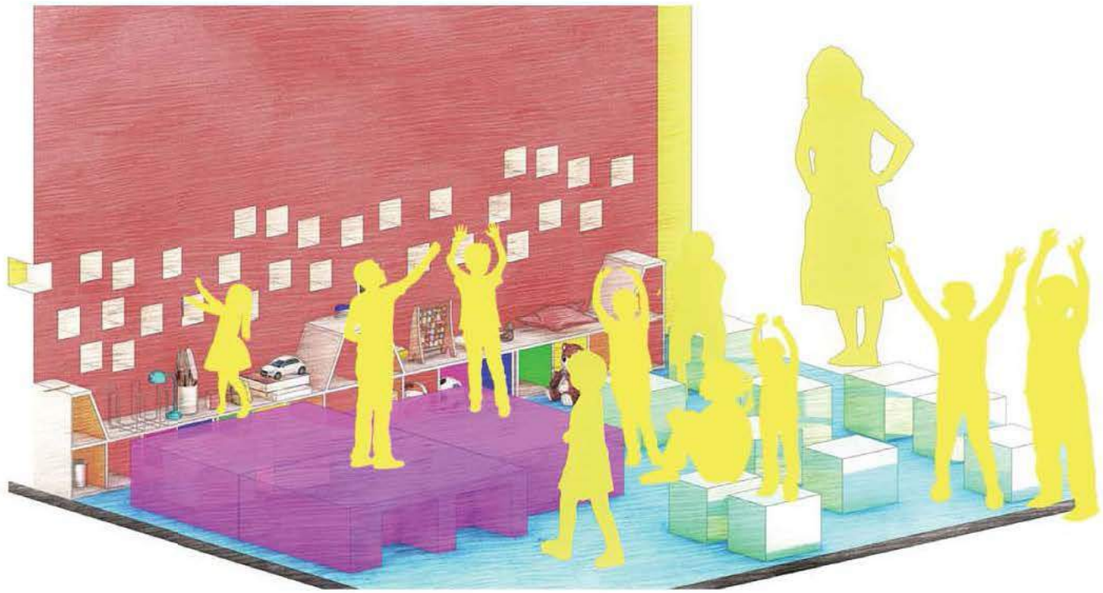


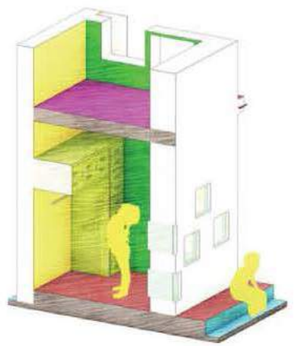
From his educational experiences, Hertzberger knows how the architecture of the school can respond the best to the Montessori education. At a Montessori school the children work individual for their self-chosen tasks. The tasks differ in the need of concentration and not every child has the same concentration capacity, so distraction by the child occurs pretty fast. To eliminate this distraction to the lowest Herztberger introduces an articulated classroom and turned himself off from the traditional rectangular classroom. He believes the classroom should consist few edges and niches, like a home. A house has different types of rooms, and the users can find their favorite place.

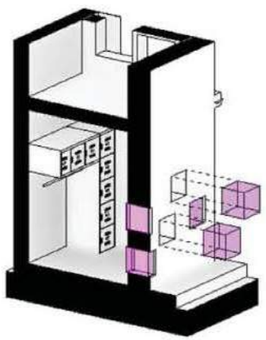


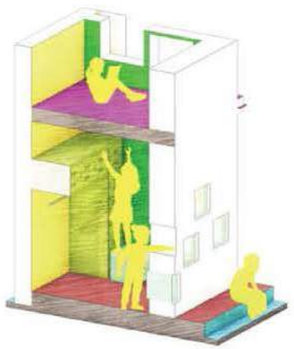


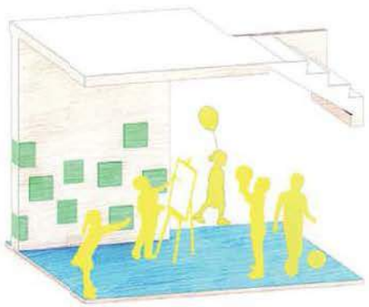
ROOM ADAPTABILITY

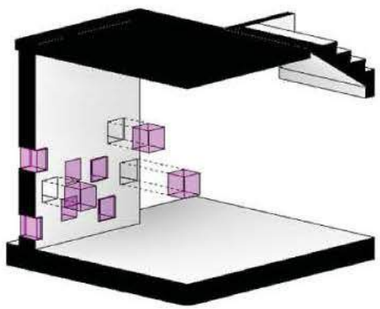


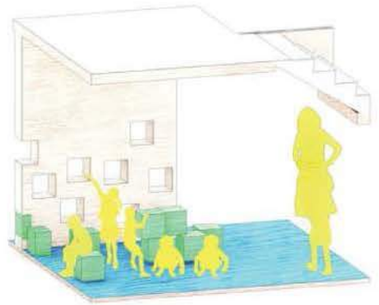












WALL CUTOUTS

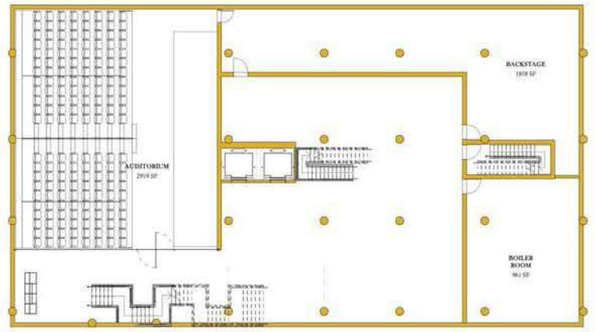
11' - 6"
12' - 6"
LOCKERS
WET ZONE
GROUP ACTIVITES ZONE
OPEN ZONE
24' - 0"
13' - 8"
10' - 4"
INTELLECTUAL ZONE

Independency
High Supervision

Phisical Separation
Visual connection

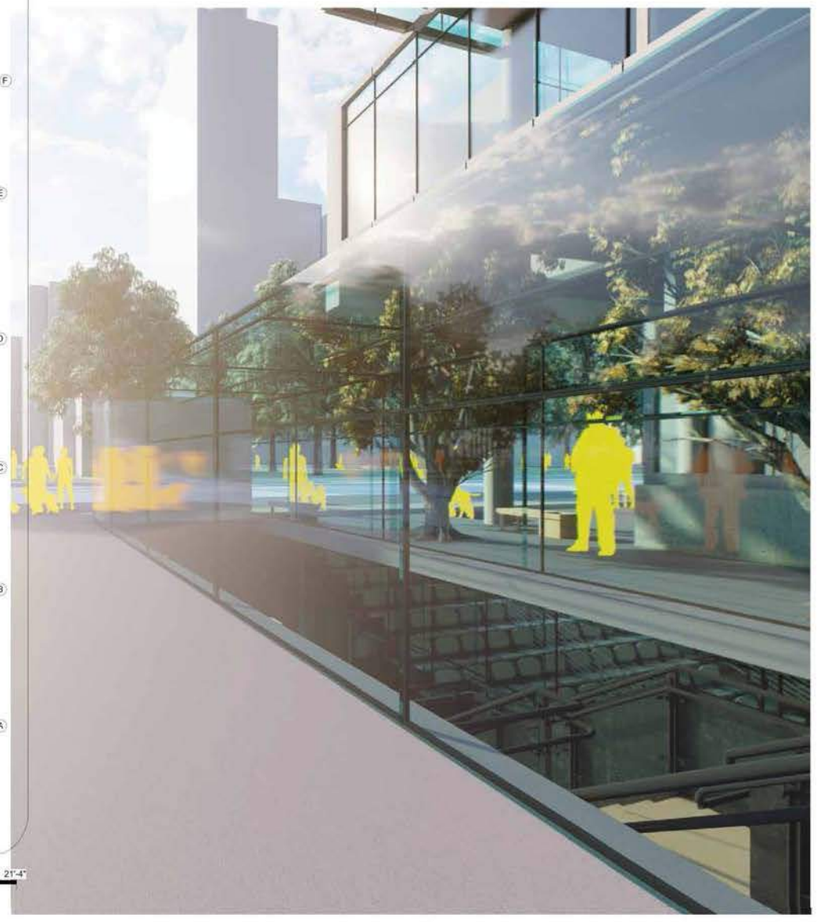
CIRCULATION

GROUND FLOOR



LOWER LEVEL

0 8'-0" 16'-0" 32'-0"
SCALE: 1/16" = 1'-0"

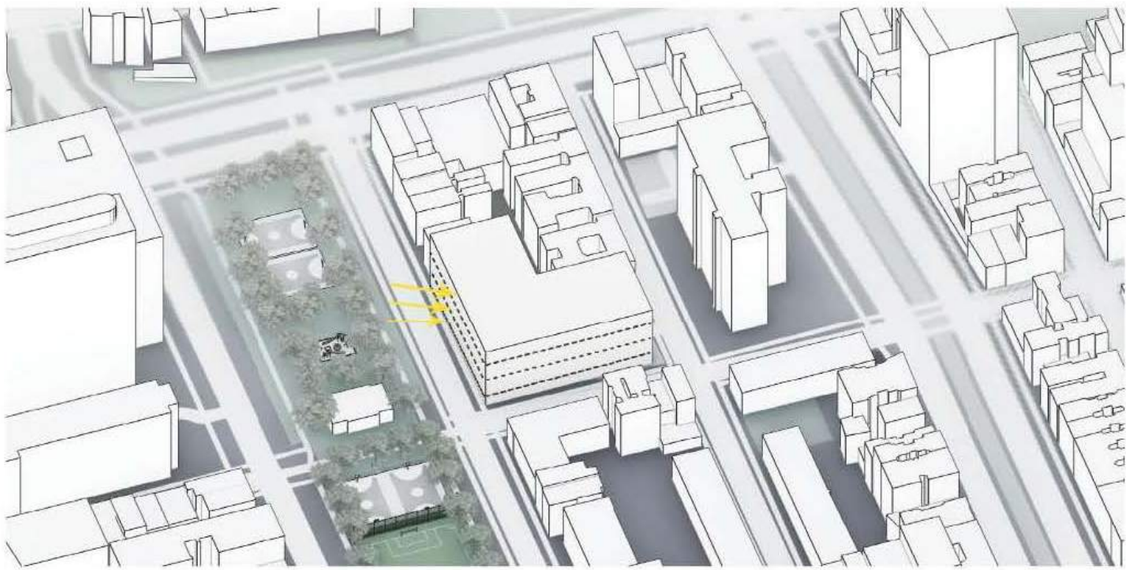


SECOND LEVEL

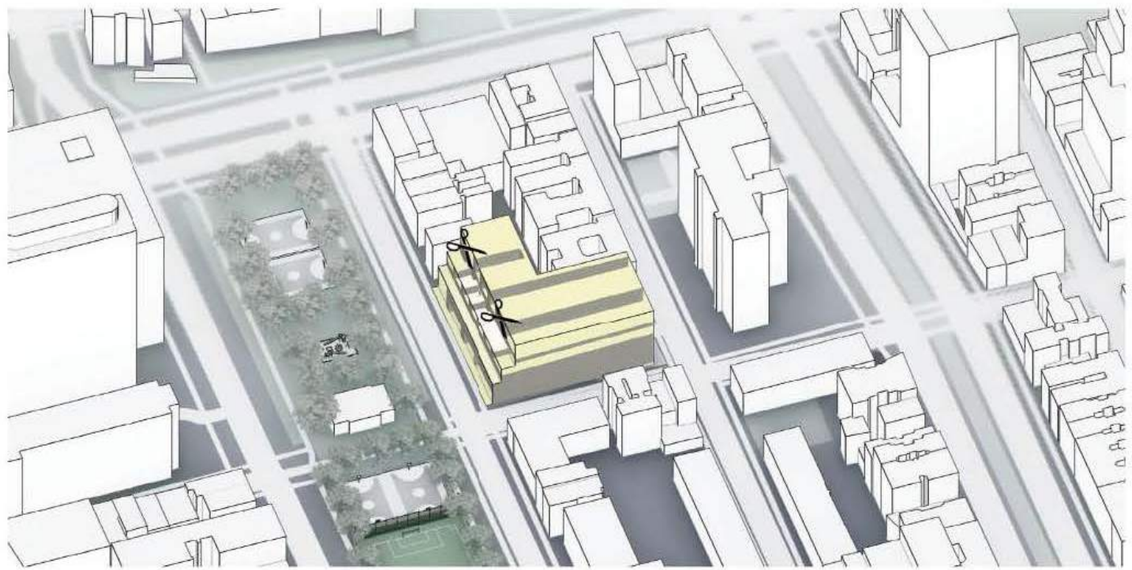
THIRD LEVEL

FOURTH LEVEL

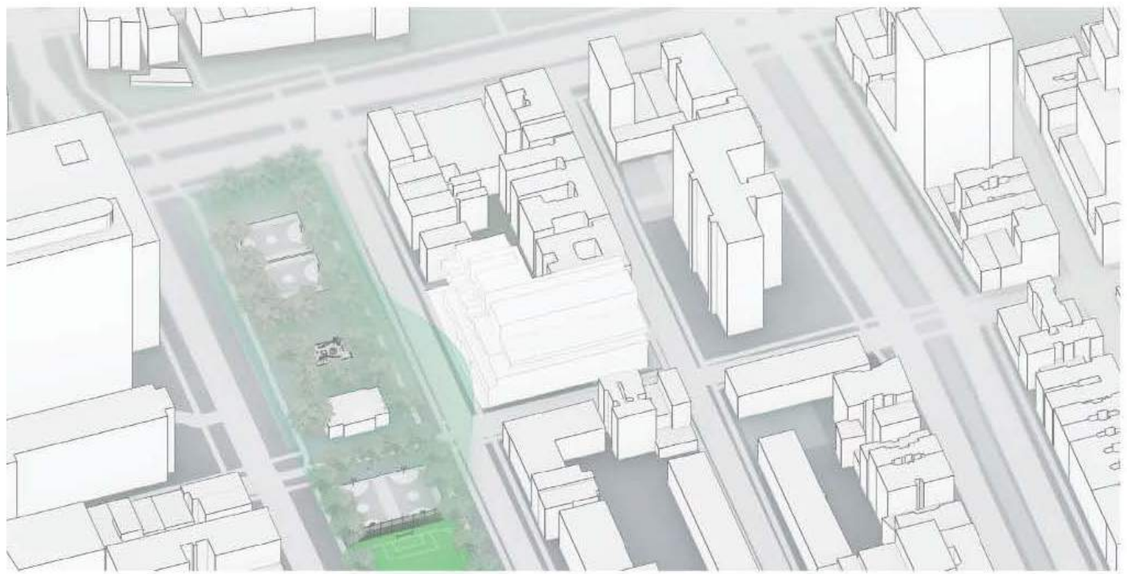
FIFTH LEVEL



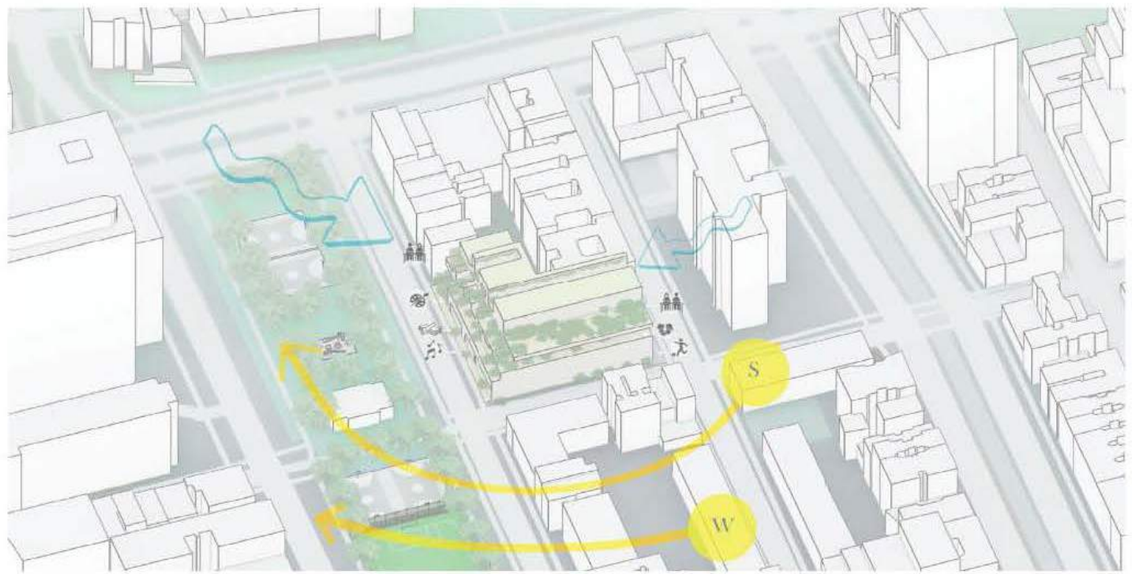
RETRACT



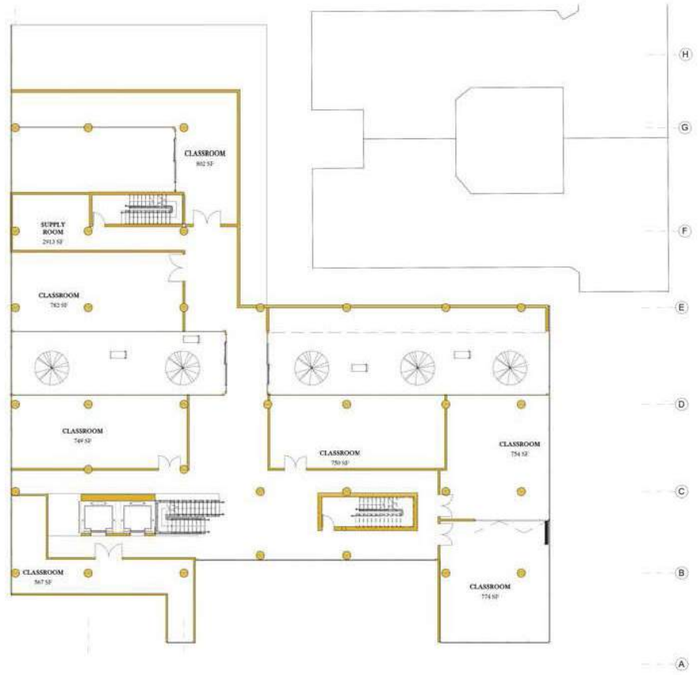
EXTRACT



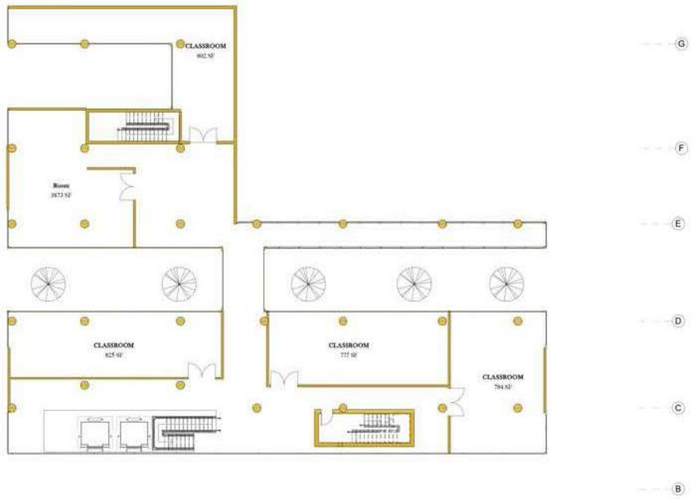
PARK EXTENSION



DISTRIBUTION



SIXTH LEVEL



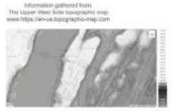
SEVENTH LEVEL

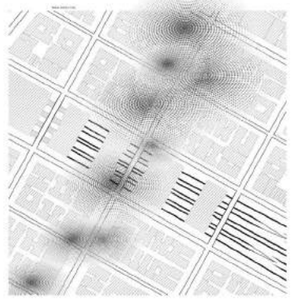
0
1
2
3
4
5
6
7
8
9
10
ROOF
85' - 0"
Roof
76' - 6"
Level 7
66' - 6"
Level 6
55' - 0"
Level 5
44' - 0"
Level 4
34' - 0"
Level 3
20' - 0"
Level 2
12' - 0"
Level 1
0' - 0"
LOBBY
2062 SF
0
8'-0"
16'-0"
32'-0"
SCALE: 1/16" = 1'-0"

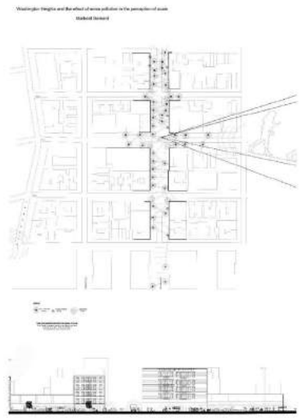
J
I
H
G
F
E
D
C
B
ROOF
85' - 0"
Roof
76' - 6"
Level 7
66' - 6"
Level 6
55' - 0"
Level 5
44' - 0"
Level 4
34' - 0"
Level 3
20' - 0"
Level 2
12' - 0"
Level 1
0' - 0"
0
4'-0"
8'-0"
16'-0"
SCALE: 1/8" = 1'-0"

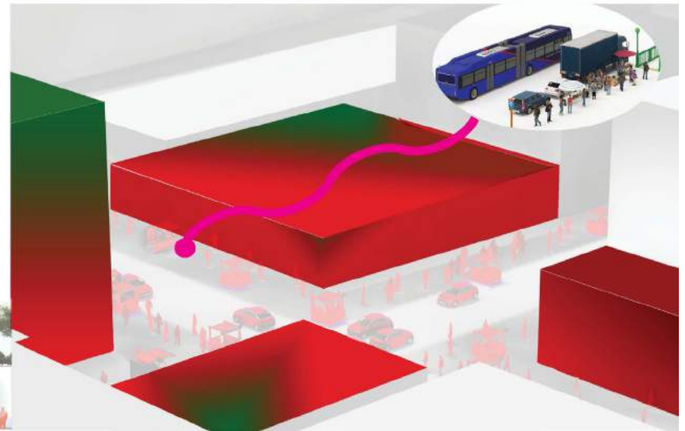
10
J
I
H
0

STORIES OF BROADWAY STUDIO | MERCADO MODELO





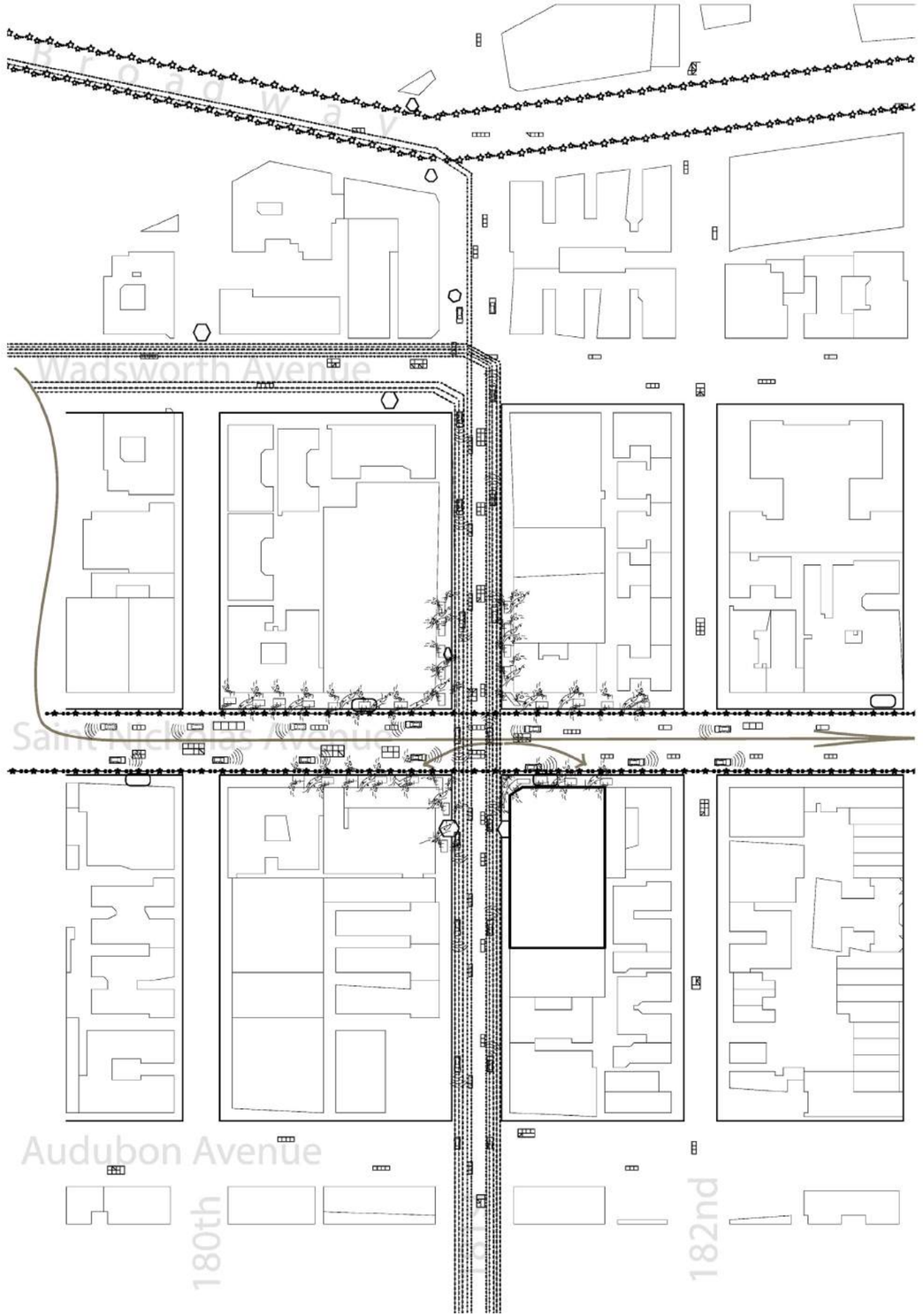




MIXED USE BUILDING

Exe. 1:
A set of black and white drawings

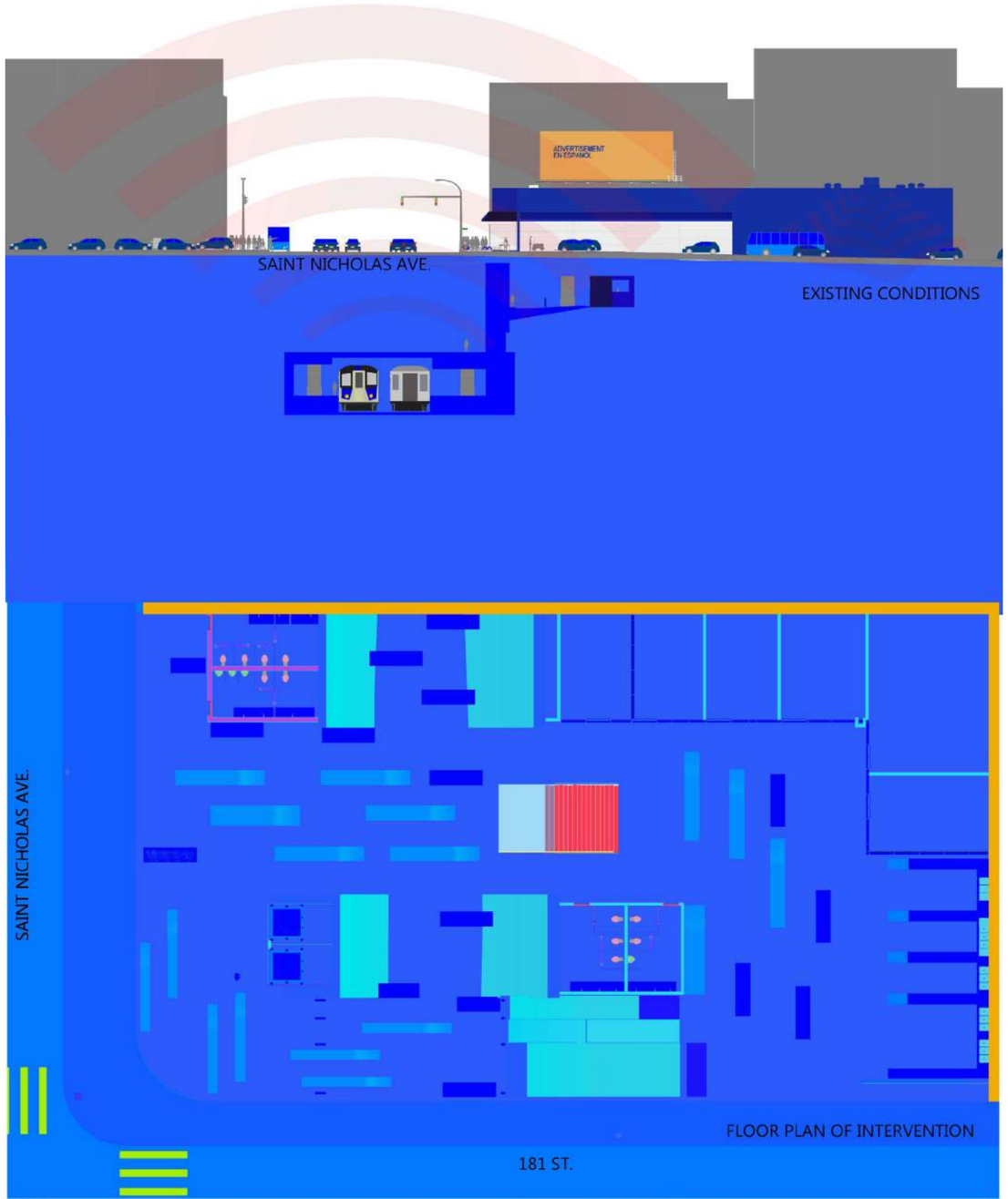
Transit, Traffic & Street Vendors

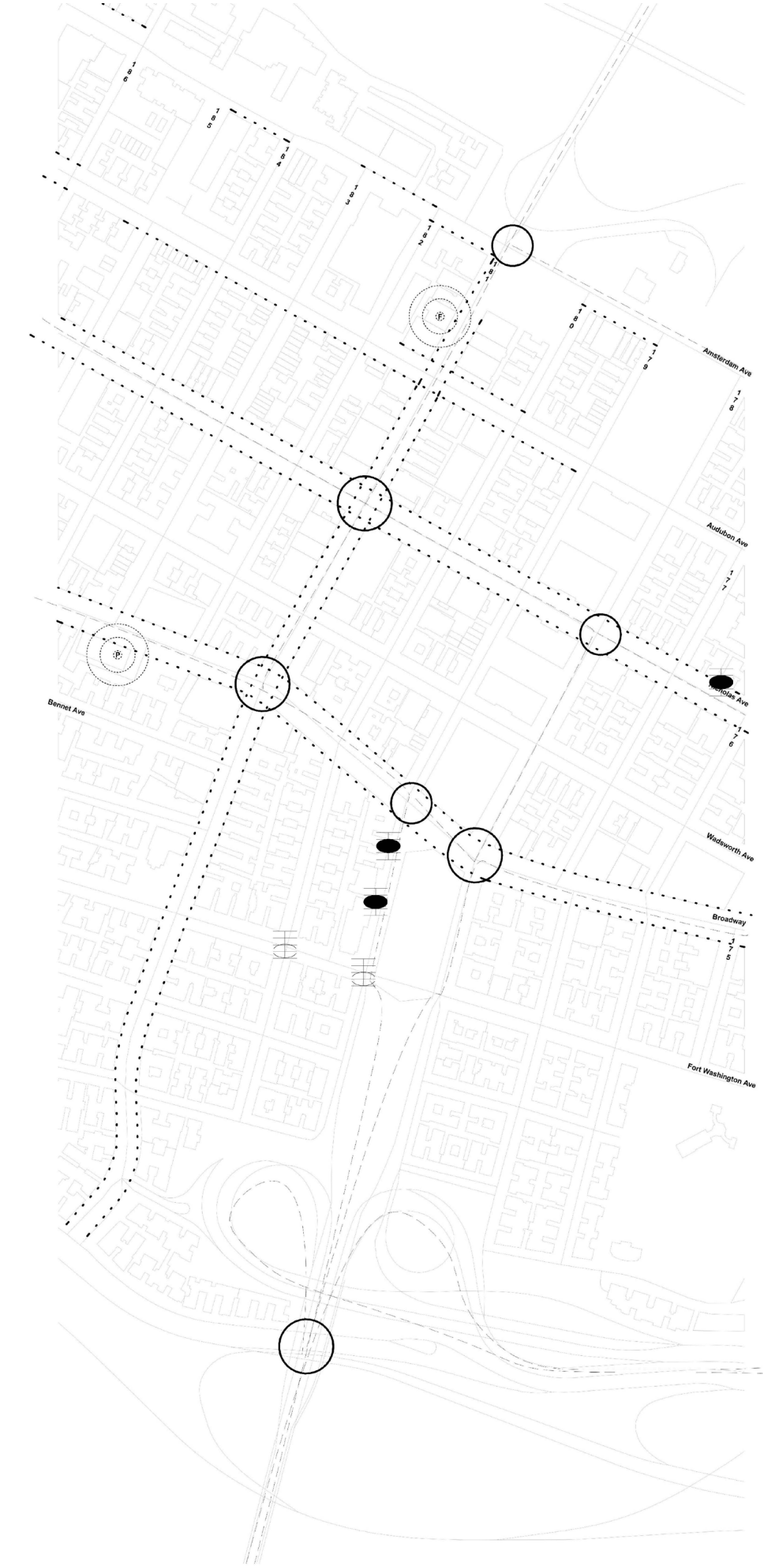


181st

Vehicle Horn
Loud Voices
Loud Music

Exe. 2:
A set of color drawings





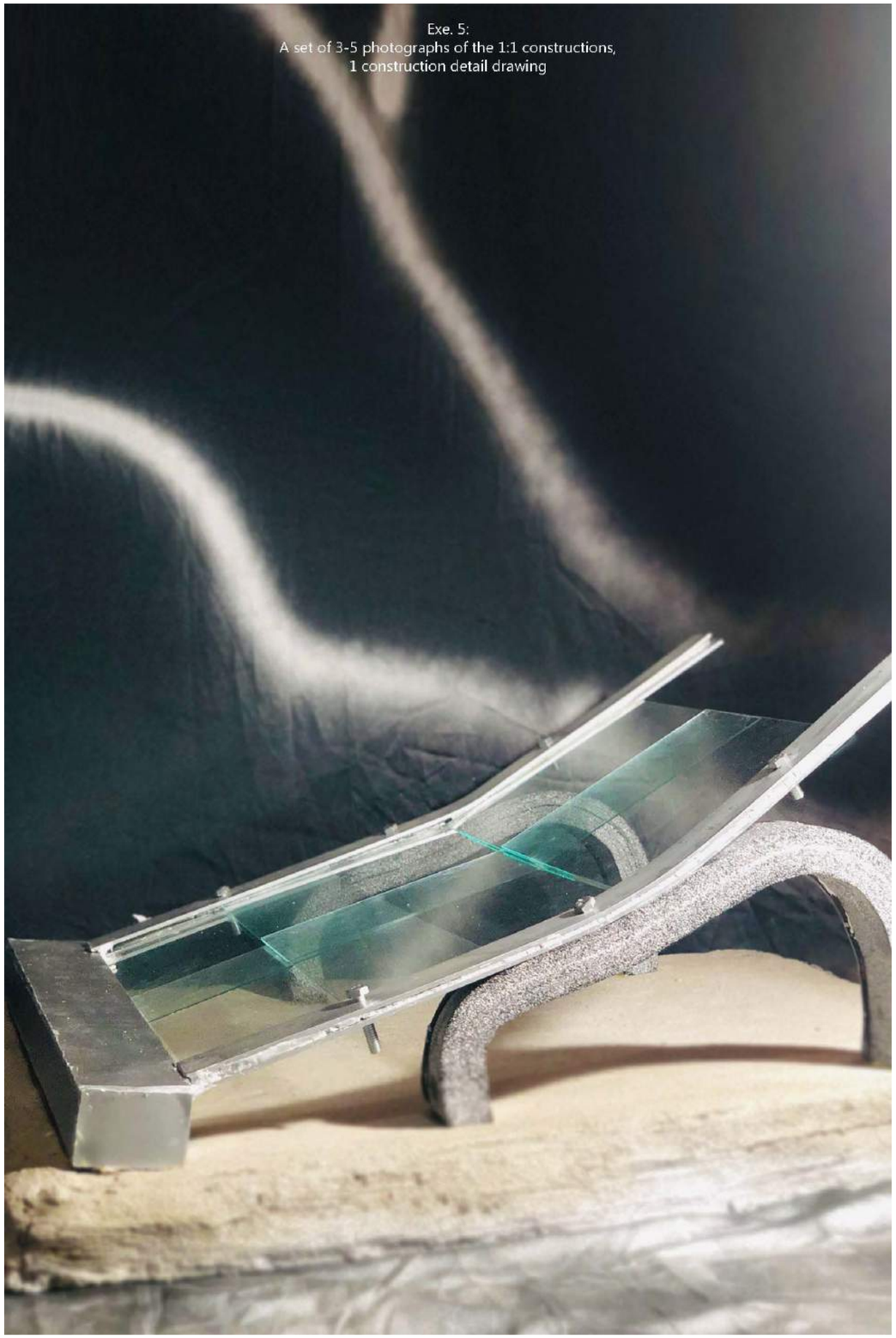
MOBLIA
claire's

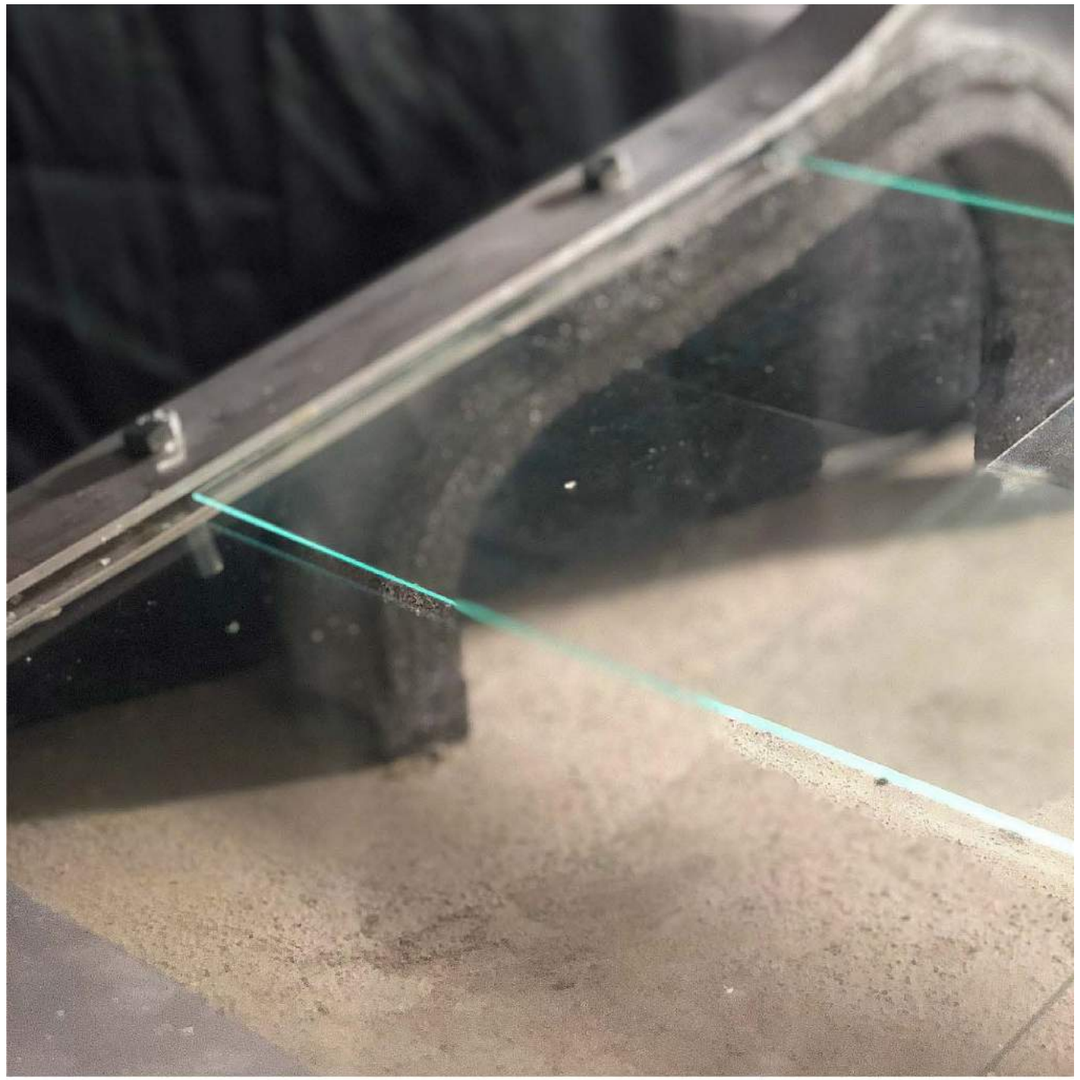
claire's

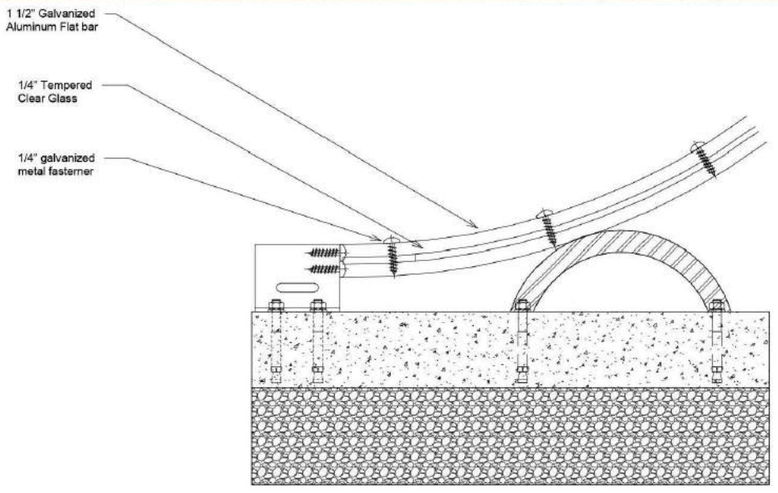
MERCADO MODELO

Exe. 4:
A set of photographs of the interior spaces

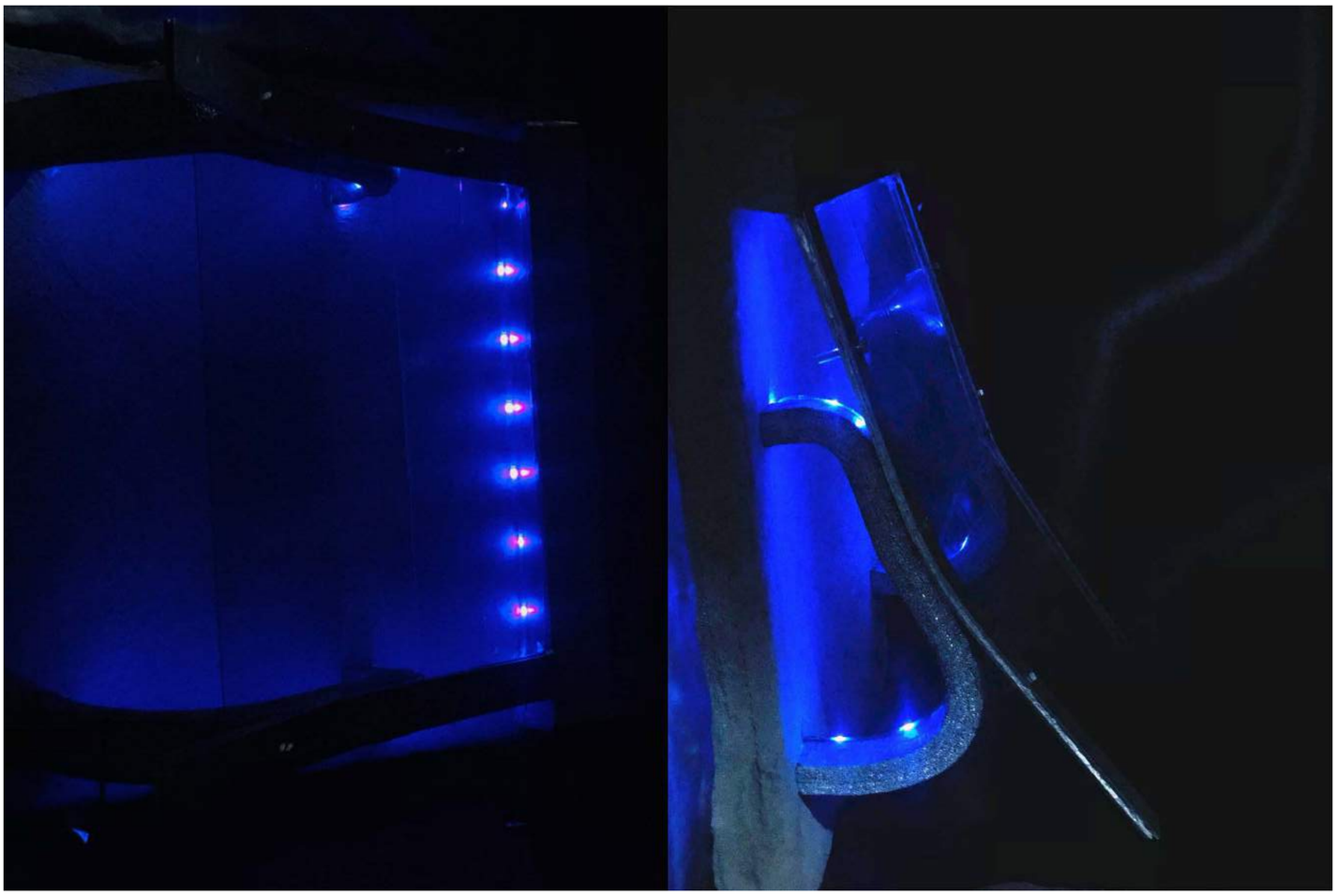
Exe. 5:
A set of 3-5 photographs of the 1:1 constructions,
1 construction detail drawing

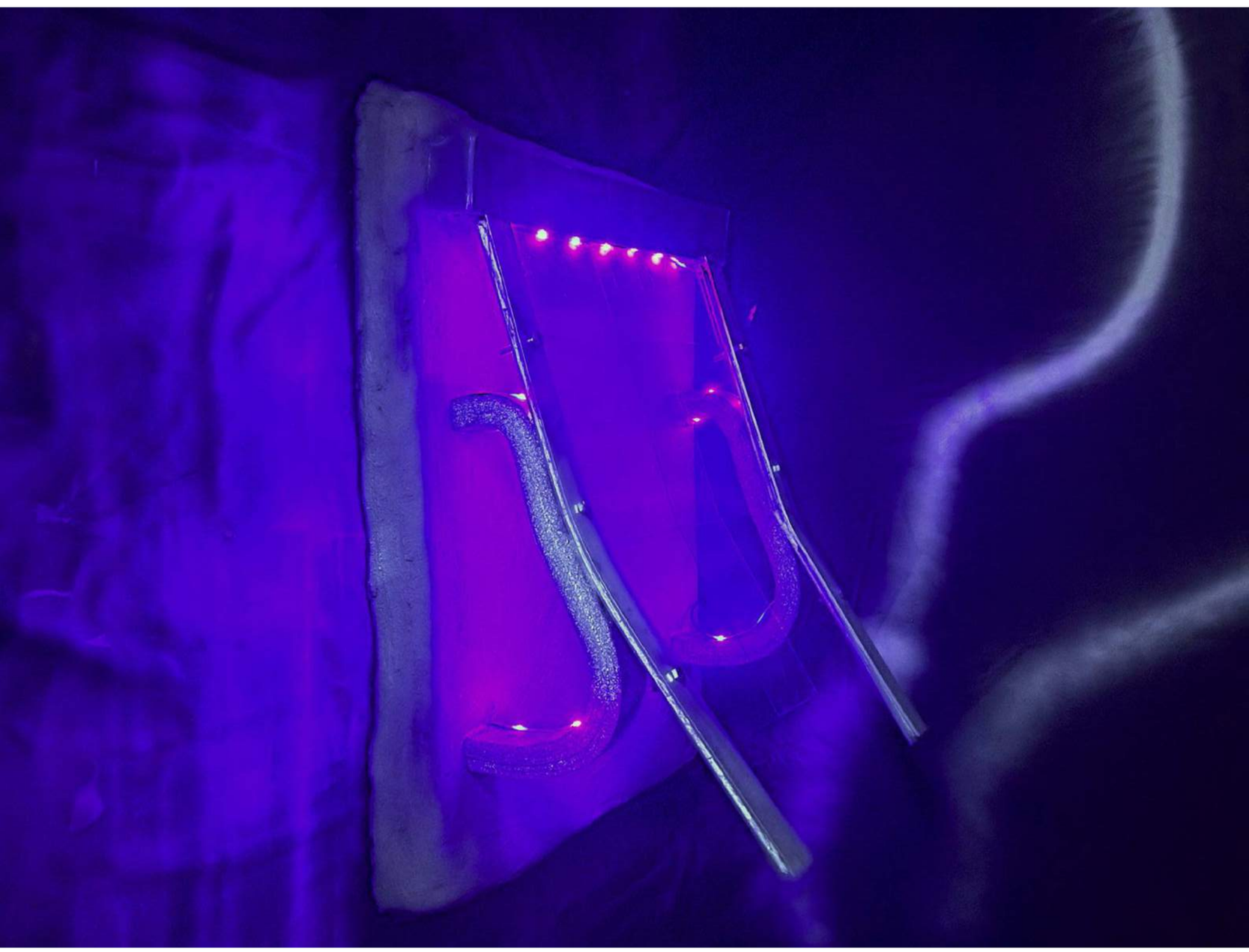






Scale : 1 1/2"





Thanks