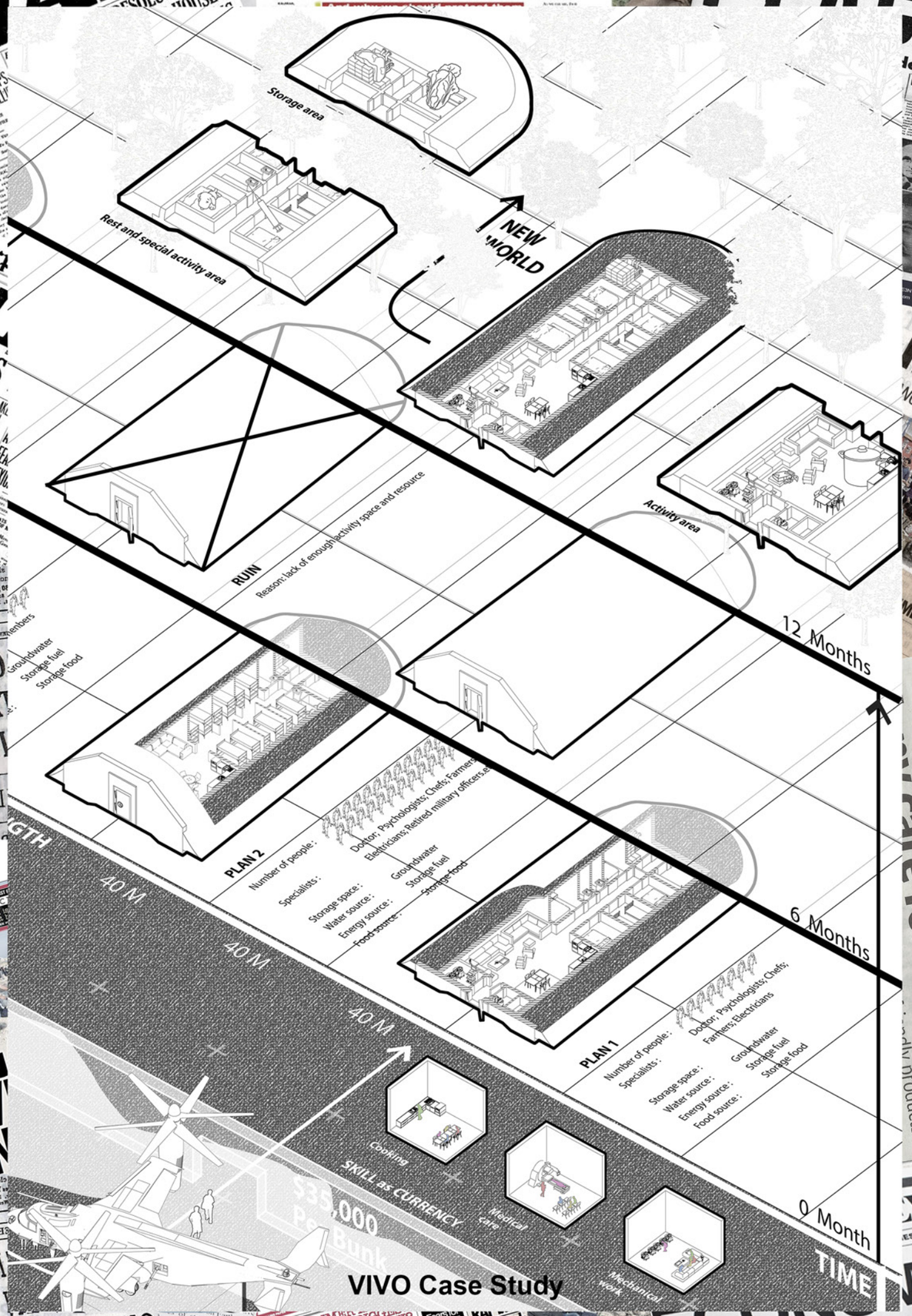
PORTFOLIO

by Xinyi Zhang

Wall Market

The world is not perfect. Land pollution is one of the biggest issues faced by the United States. The types of land pollution are very wide. Covers oil spills, heavy metal pollution, eutrophication of water bodies and so on. In 2001, companies in the united states spent more than 700 billion annually to clean up thousands of toxic sites. These sites are not away from us. But only a few people know about them. However, from our social study, vivos and hancock shaker village, we find that most people choose a negative attitude when facing this imperfect world. People in vivos tried to escape the harsh environment by establishing a shelter. while people in hancock village tried to build their spiritual home which is different from outside world. They want to escape and build a new ideal society. But eventually both of them failed.

Therefore, in our market, we want to practice a new attitude. We should face the problem positively. To change the situation that land pollution is ignored by public. Our design proposes a market that is a medium/mediator to raise peoples' awareness of land pollution issues.



“As of 2001, companies in the United States were spending more than 700 billion annually to clean up thousands of toxic sites.”

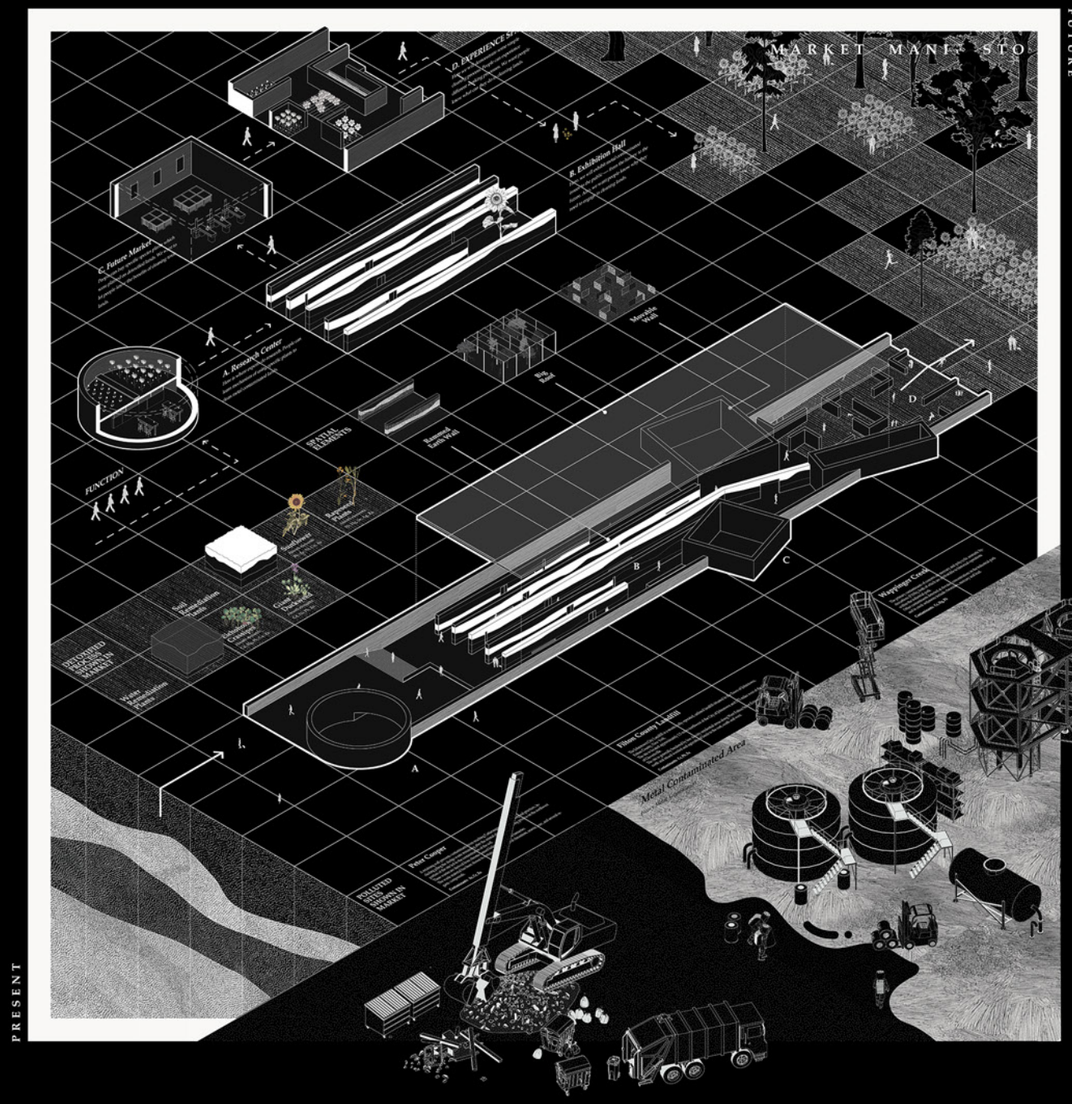
NYC Department of Environmental Protection Public Affairs
March 20, 2013.

by Christopher Gilbride

However, when facing this in-perfect world. Many people choose a negative attitude. They try to escape and create a new ideal utopia society. But most of them failed at last.

Therefore, in our market, we want to practice a new attitude. Instead of escaping, we want to face the problem positively.

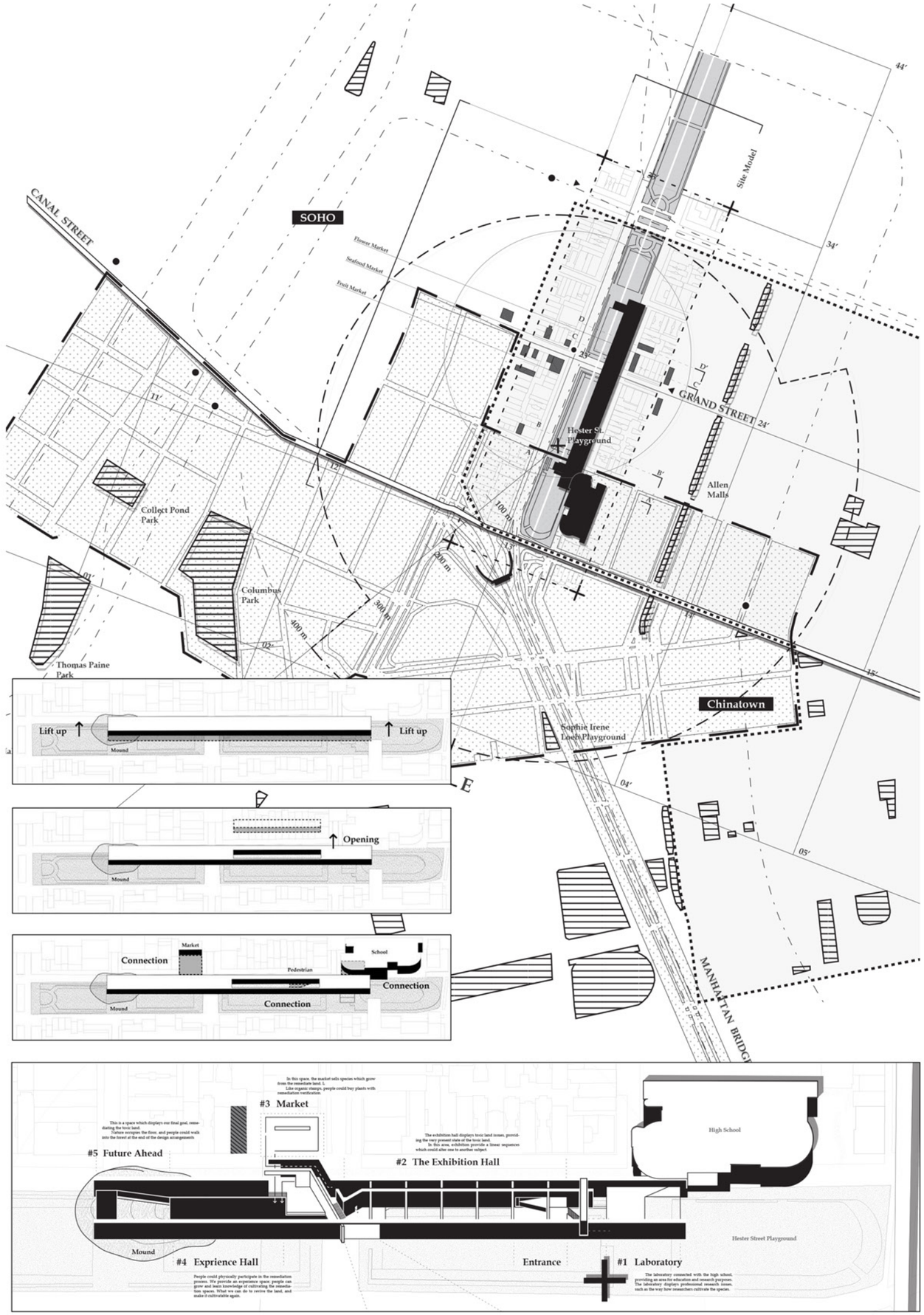
In our design, we choose the land pollution issue and try to change the situation that it’s ignored by the public. Our market will be a medium to raise awareness and engage the public with the issues surrounding re-mediating toxic land.

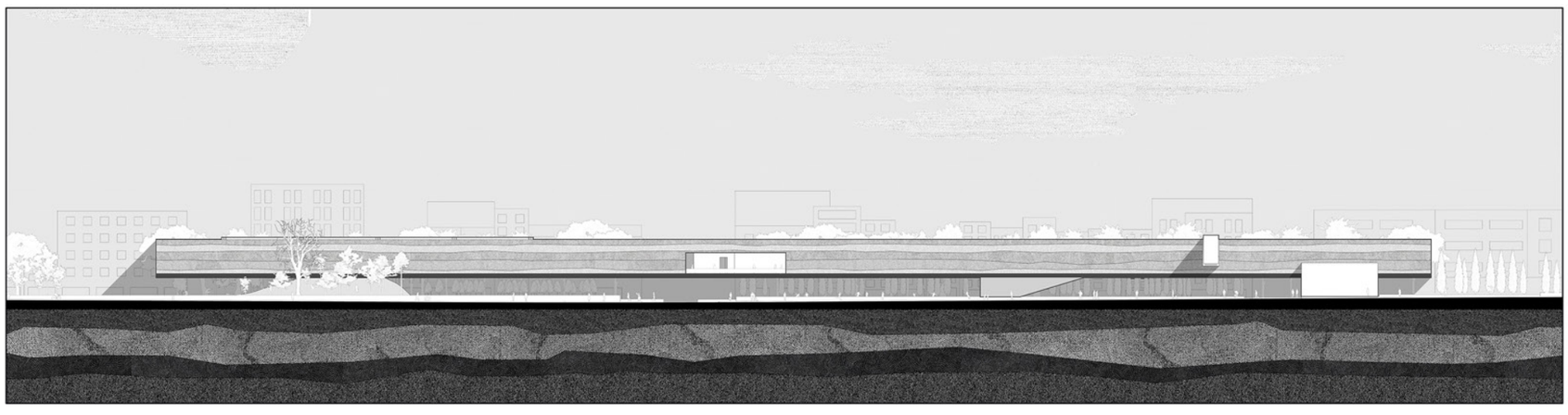


Manifesto

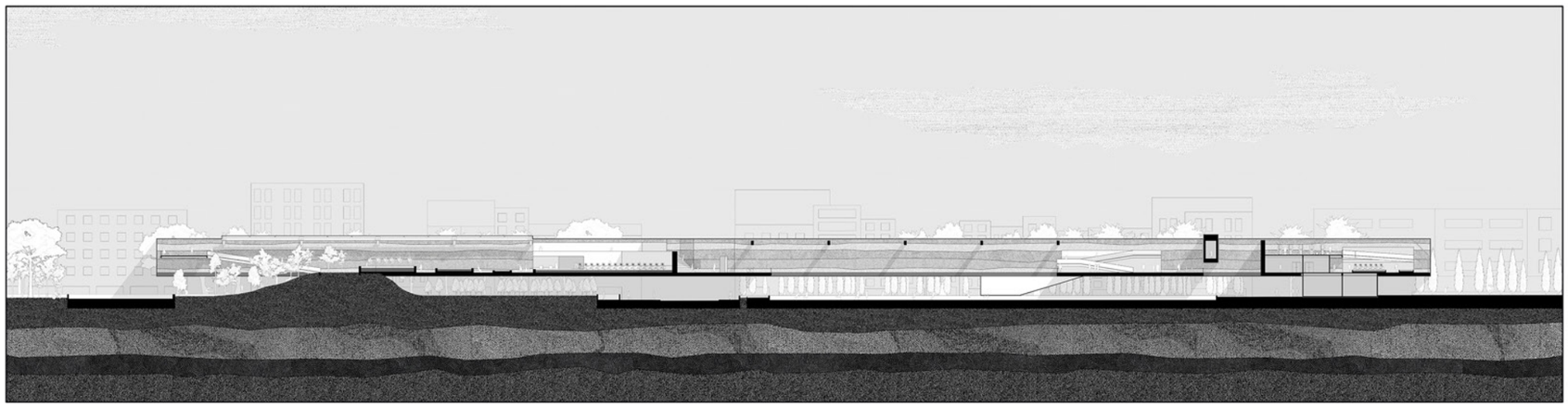
Here we will demonstrate land pollution issues through the process of shearing knowledge about the polluted land and certain plants' seeds to the public. And regard the raising in public's awareness of land issues as a reward. We wish our market can becomes a medium which connect present and future.

Within this mechanism, the market itself becomes a manifesto that claims that while toxic land is typically forgotten and underused, instead we are bringing new value to toxic land.





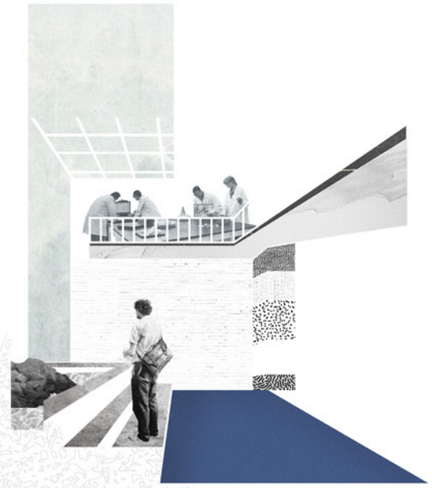
Elevation

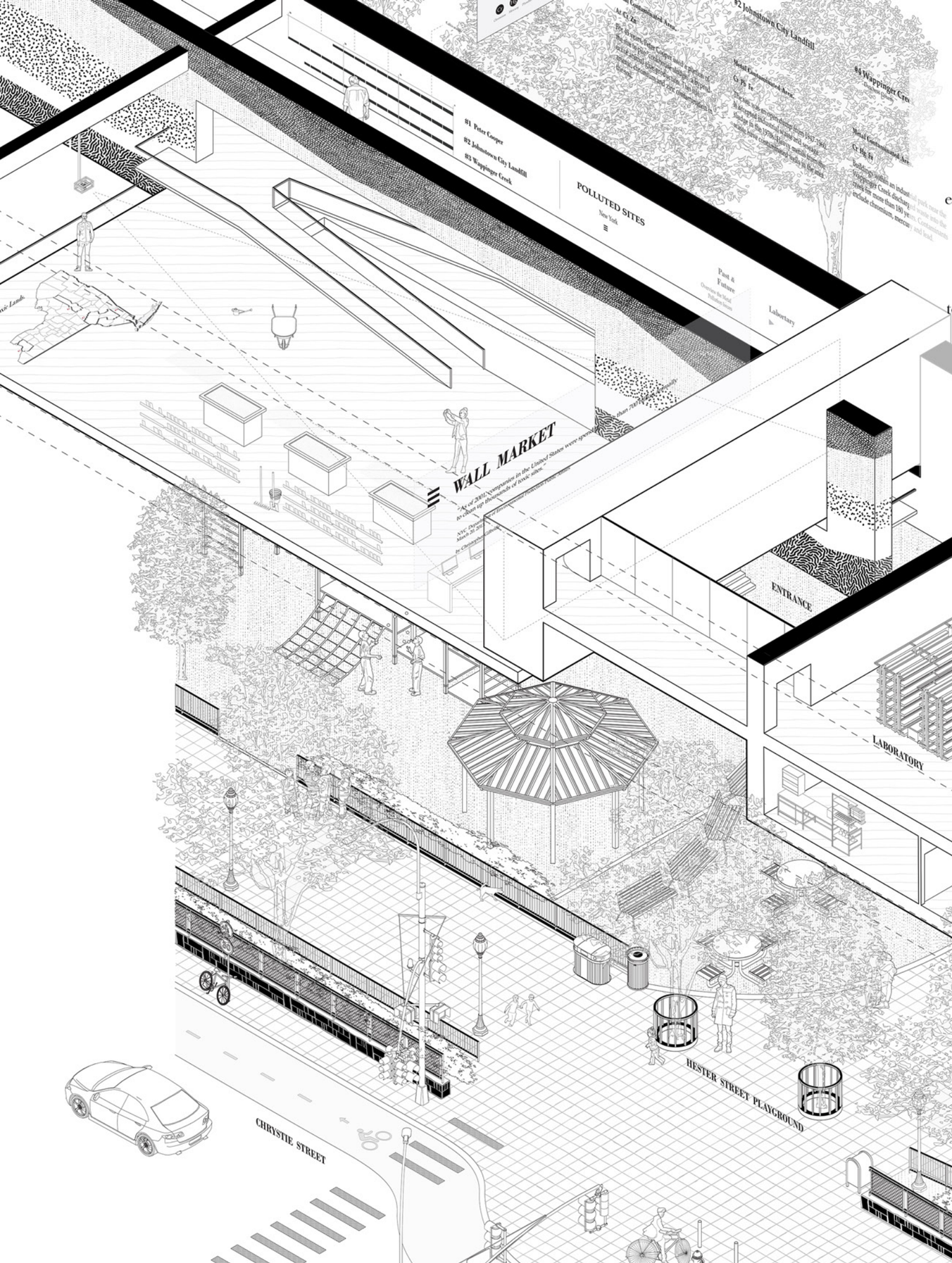


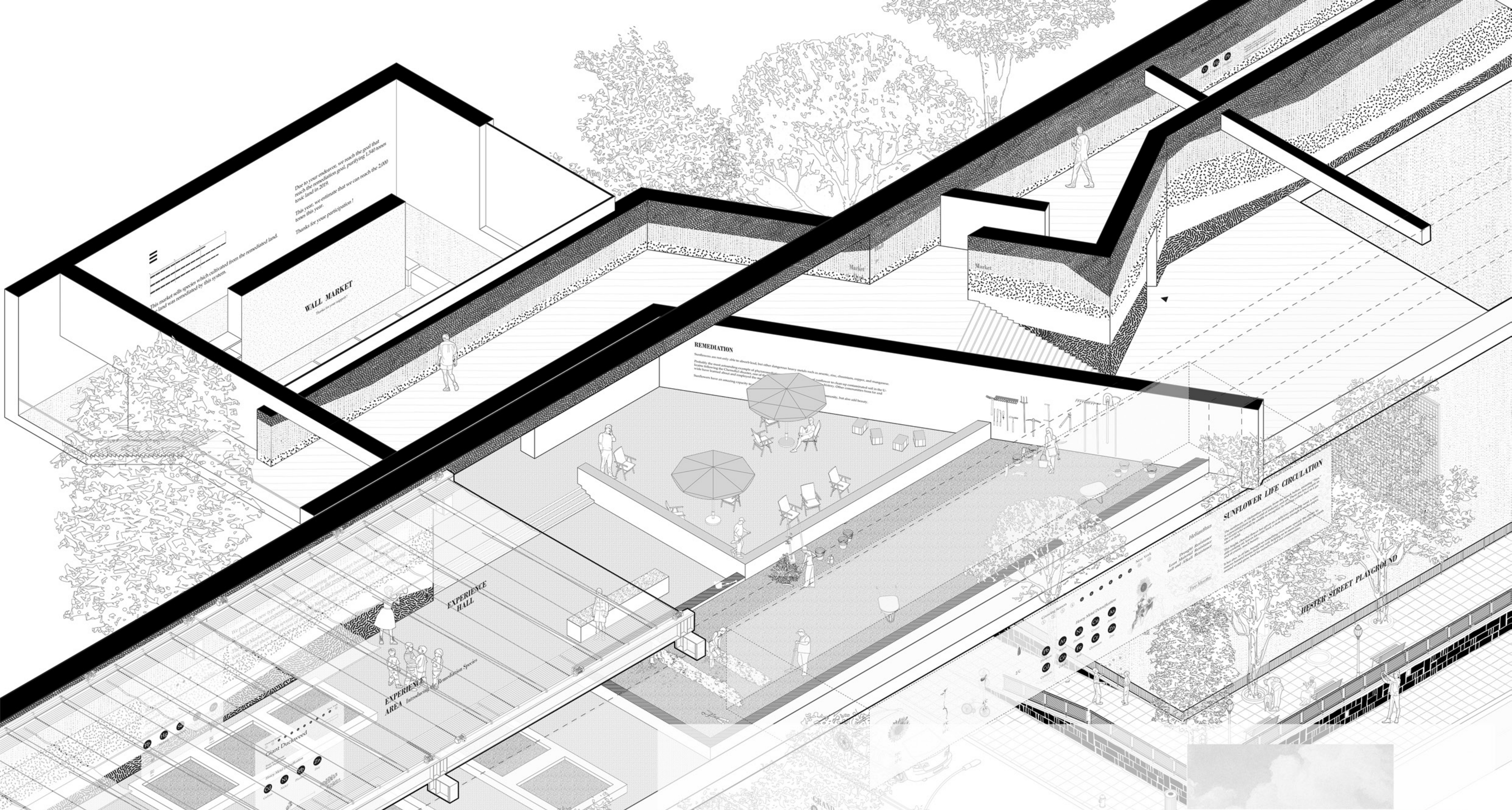
Section

The Laboratory

The laboratory connected with the high school, providing an area for education and research purposes. The laboratory displays professional research issues. Researcher plants a variety of species which re-mediate the land in the laboratory. For instance, the sunflower, giant duck weed, crassipes, and rapeseed plant. Due to the technical issues, visitor needs the researcher's accompany, they could not complete the re-mediation process by their own. So, people could learn that there are still a must to use the specialization process to re-mediate the toxic lands.







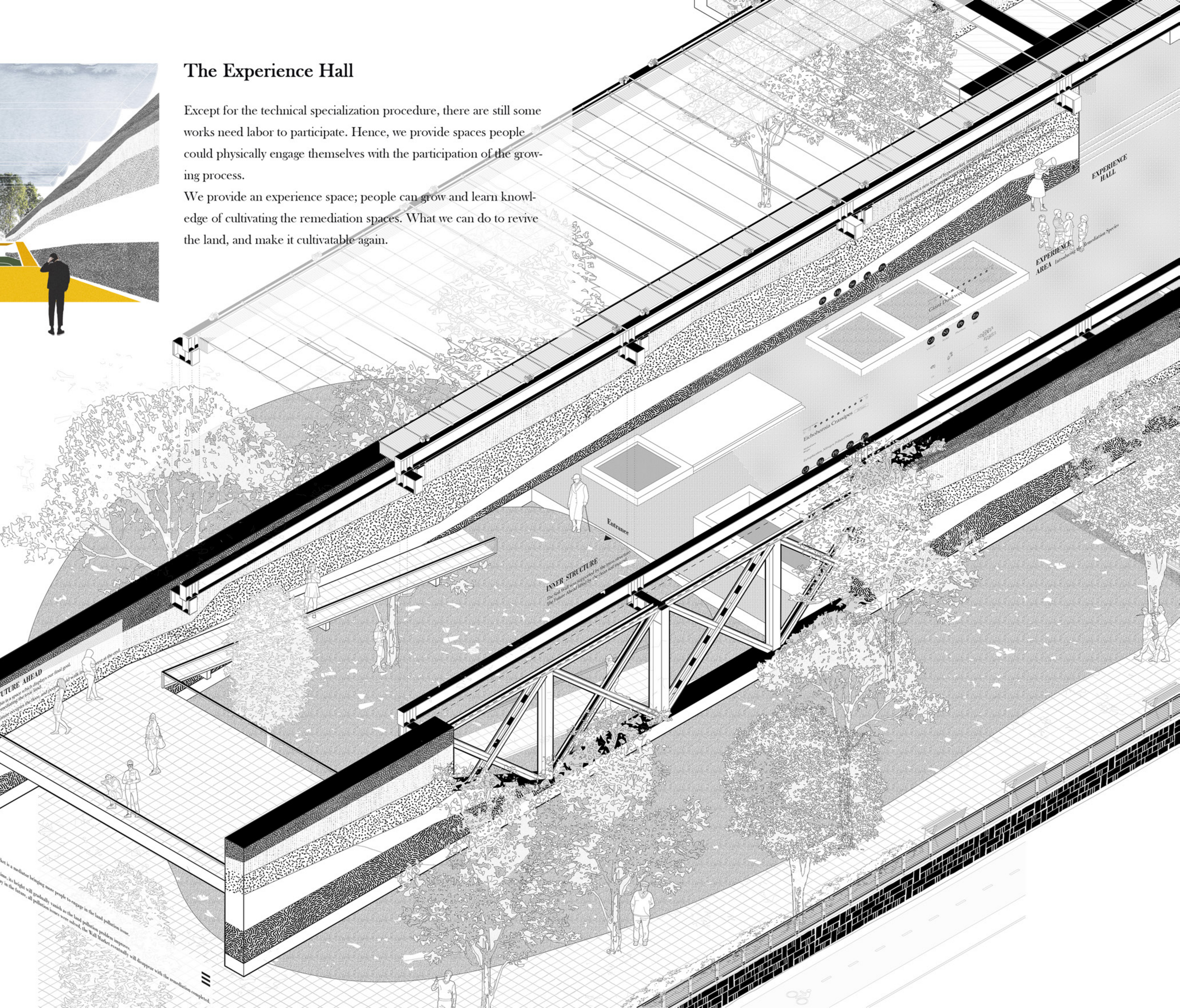
Market Space

In this space, Visitors could purchase goods grows from the re-mediated land. Like organic stamps, people could buy plants with remediation verification. The market locates between the exhibition hall and the experience spaces. Also, it connects the original flower market with the Wall market. People are able to reach this space from the original flower market; they can enter the market after the exhibition.

The Experience Hall

Except for the technical specialization procedure, there are still some works need labor to participate. Hence, we provide spaces people could physically engage themselves with the participation of the growing process.

We provide an experience space; people can grow and learn knowledge of cultivating the remediation spaces. What we can do to revive the land, and make it cultivatable again.

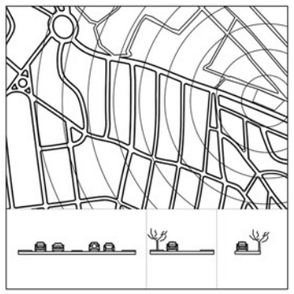


Rwanda Women Collage

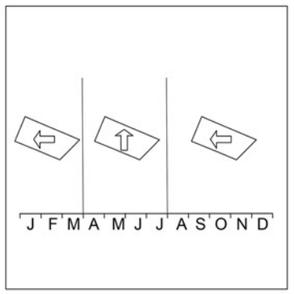
Before the design our research about the African Architects revealed several questions: what is the identity of the African architecture, how much is it defined by the architecture of the west, and how should a contemporary building in Africa connect to its context's architectural past? To answer these questions we looked at the past. So we found out about the importance of yards in vernacular architecture and realized that their typology was worth further exploring. This is why we investigated the typology of the yards in African architecture: their typology, their spatial relation and their functional connections. There are three key points that characterize the yards.

1- The yard is an extremely important element of the house. It connects different parts of the house, serves as a space of gathering, and has different forms that fit the functions in it.
2- The relationship between yards: They do not simply touch with each other, but may overlap.
3- The connection between the yards: The yards have a transitional space between them, or they will directly connect with each other, making this space more fluid.

In the project we try to translate the traditional form into a use-able one in modern architecture. And connect it closely with actual needs.



The site is surrounded by a 4-lane and a 2-lane road.



The wind direction throughout the year.

The site as seen from the 4- lane road.

The natural slope of the site.

FOMAL EDUCATION
Yard 3

Closed classroom

Outdoor studying area

Open classroom

Cafeteria

Admin, Exec, Faculty office and Faculty lounge

Libary & archive center

INFOMAL EDUCATION
Yard 2

Outdoor classroom

Outside studying area

Cafeteria

PUBLIC EDUCATION
Yard 1

Civil-Class room

Multipurpose event space

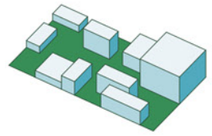
Reception

Kinder garden

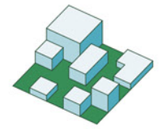
PHASE 1

COURT UNITS

Public Education Court



- Horizontal Court

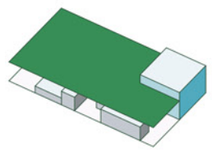


Yard:
gathering space
circulation
landscape

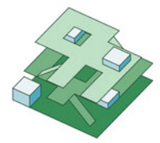
- Prototype

Multiple

Informal Education Court



- Fluid Court

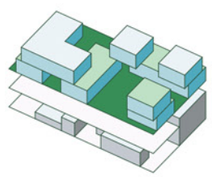


Yard:
outdoor classroom
outdoor studying area
gathering space
circulation

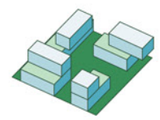
- Prototype

Single

Formal Education Court



- Vertical Court



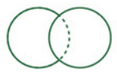
Yard:
gathering space
circulation
self-studying area
greening

- Prototype

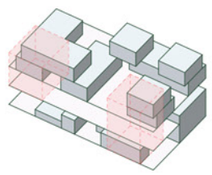
Multiple

PHASE 2

COURT RELATION



Overlap Space



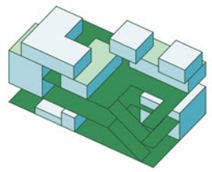
- Prototype

Overlap

PHASE 3

CONNECTION

Connection

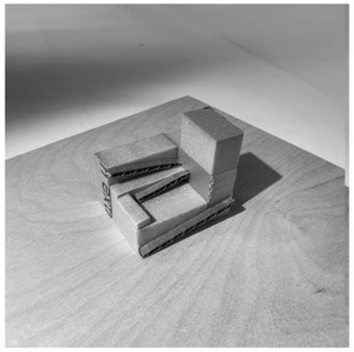


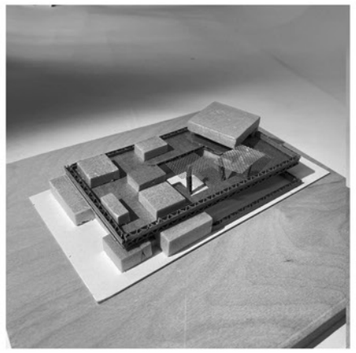
- Prototype

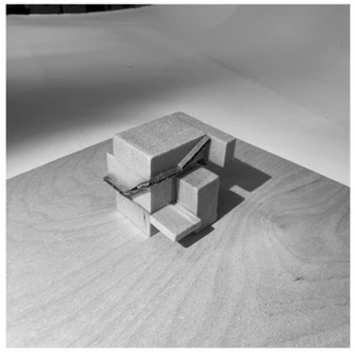
Directly connect

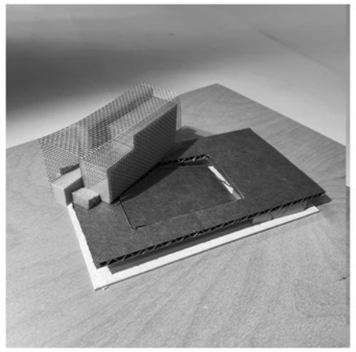
Connected by function

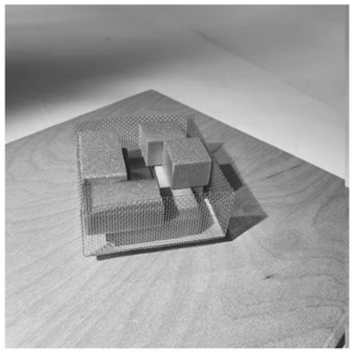
Yard Form Experiment

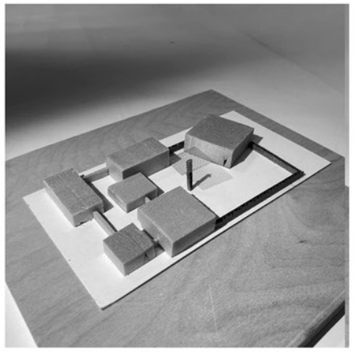


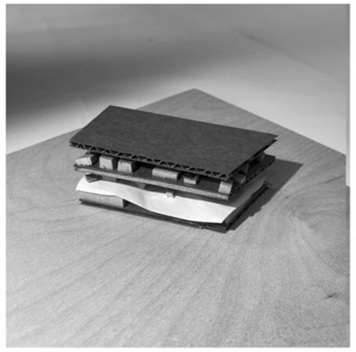


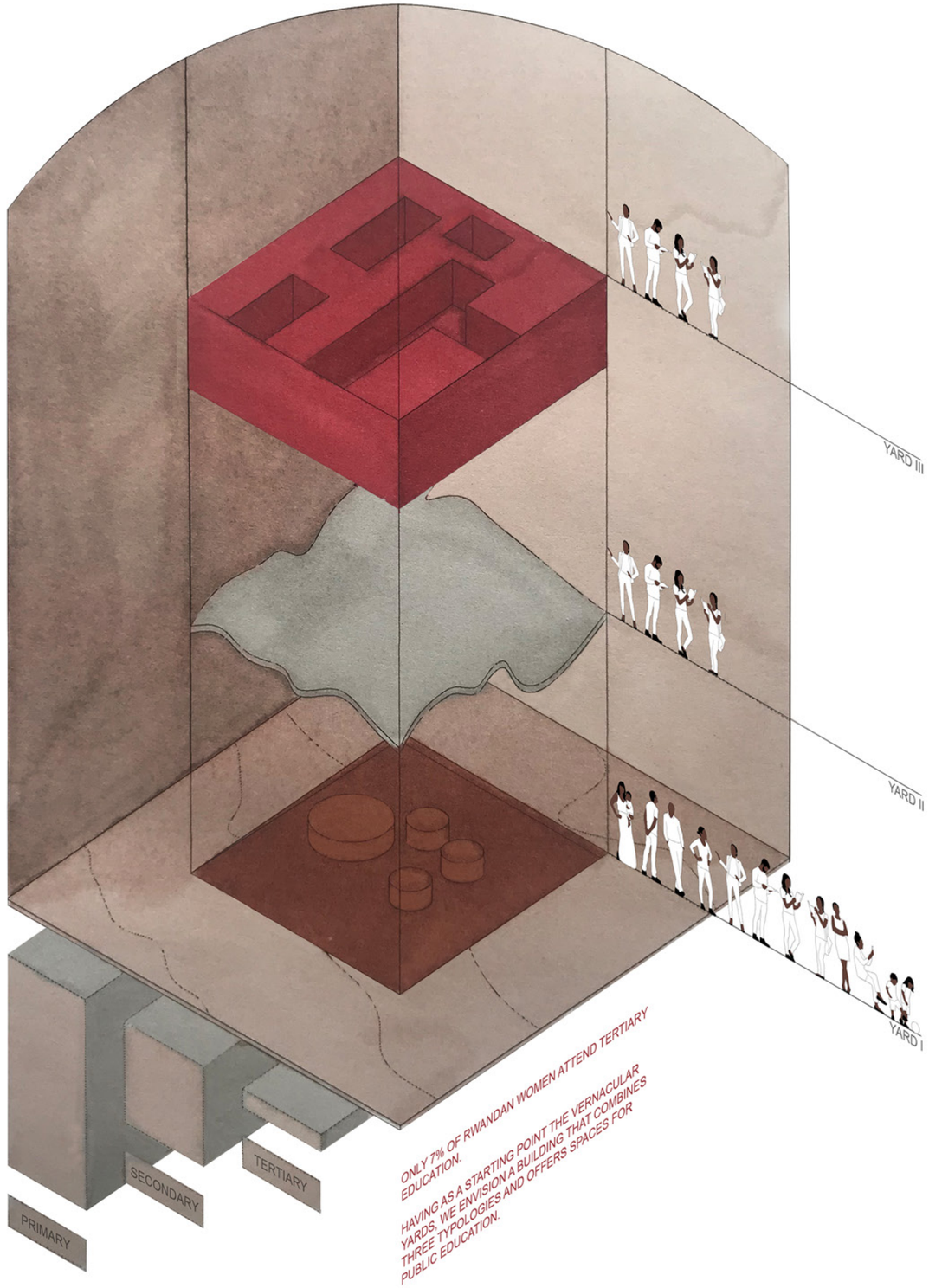


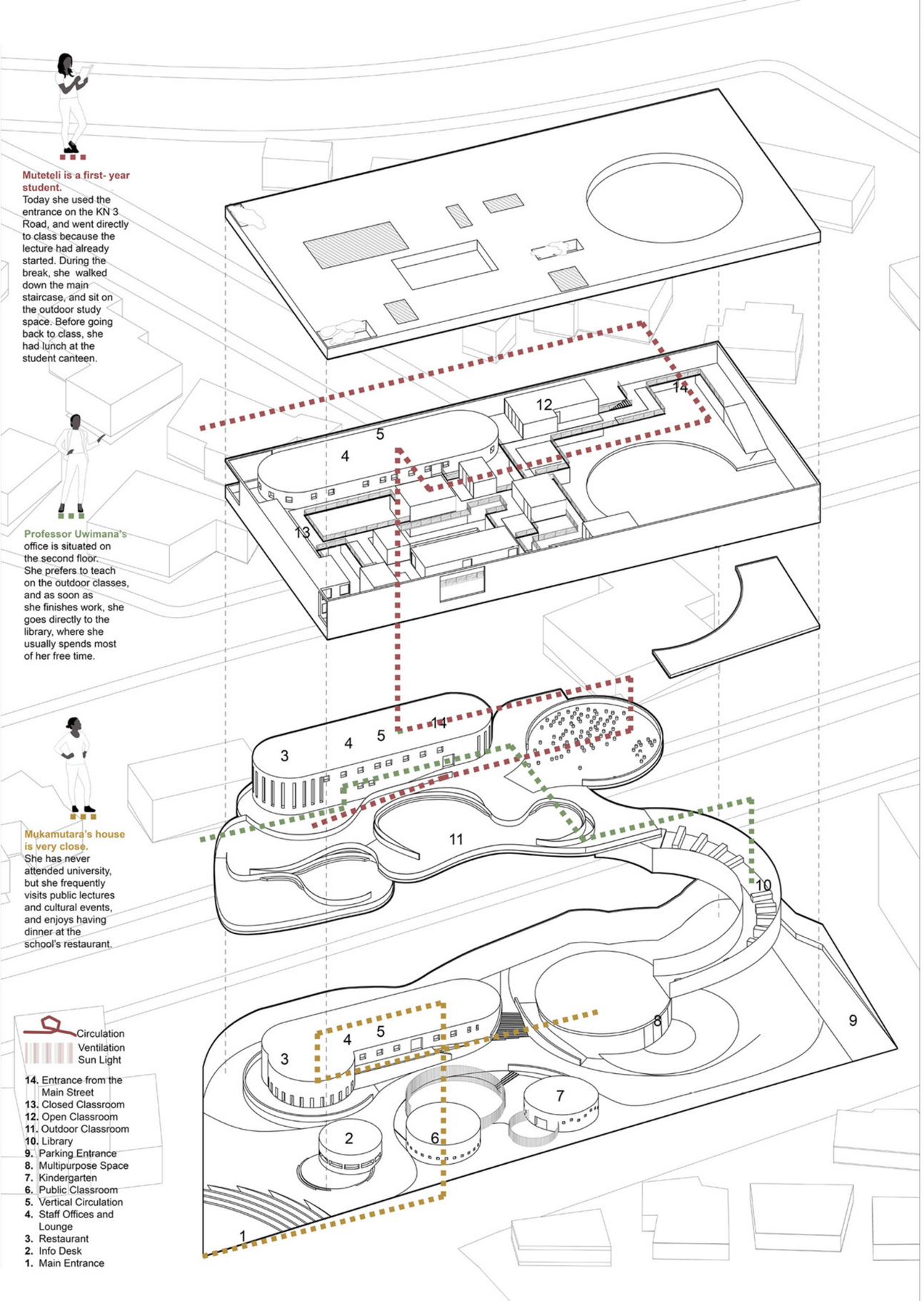











Muteteli is a first- year student.
Today she used the entrance on the KN 3 Road, and went directly to class because the lecture had already started. During the break, she walked down the main staircase, and sit on the outdoor study space. Before going back to class, she had lunch at the student canteen.
Professor Uwimana's office is situated on the second floor. She prefers to teach on the outdoor classes, and as soon as she finishes work, she goes directly to the library, where she usually spends most of her free time.
Mukamutara's house is very close.
She has never attended university, but she frequently visits public lectures and cultural events, and enjoys having dinner at the school's restaurant.
Circulation
Ventilation
Sun Light
14. Entrance from the Main Street
13. Closed Classroom
12. Open Classroom
11. Outdoor Classroom
10. Library
9. Parking Entrance
8. Multipurpose Space
7. Kindergarten
6. Public Classroom
5. Vertical Circulation
4. Staff Offices and Lounge
3. Restaurant
2. Info Desk
1. Main Entrance


Formal Education


Informal Education

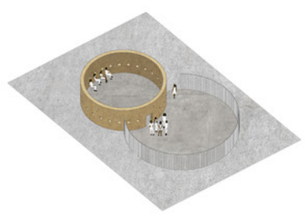

Public Education

RWANDA WOMEN COLLAGE

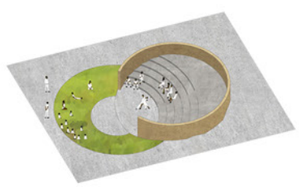
building that consists of three distinct layers, that are placed on top of each other. These layers have different purposes, different materiality, and reveal different ambiances. The first is dedicated to the public and the volumes are made of earth. The second facilitates the open classrooms and seems like a concrete landscape which has no walls, allowing for an uninterrupted view and relation not only inside it, but also with the surroundings. The third is a monolithic, continuous, orthogonal brick volume, the interior of which operates as a “city inside a building”.

PUBLIC EDUCATION

At the first floor we place the functions that are dedicated to the public. These are a kindergarten, a public classroom, and a multipurpose space, that can partly open and facilitate more people on its exterior. We can see how the volumes of the first level are placed. At some points the ground are planted, while others are concrete path. The volumes can be seen in different perspectives. On the right is the public classroom, that has many small openings and a private yard that is defined by bamboos.



Public Classroom



Multipurpose Space

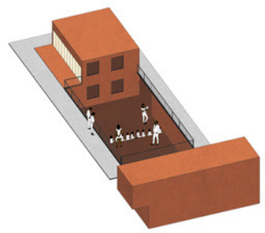
INFORMAL EDUCATION CLASSROOM

On top of public education part, we created a slab for open classrooms that contains different shapes and heights of concrete, becoming in other words, a concrete landscape which has no walls, allowing for an uninterrupted view and relation not only inside it, but also with the surroundings. At this level we also choose to put glass handrails in order to keep a continuous and uninterrupted view. Some gaps on the slabs define the limits of each part. For us the existence of the gaps do not only allow for the air circulation and the entrance of natural light, but also they connect visually the different levels.

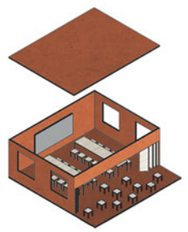
Concrete Slab

FORMAL EDUCATION CLASSROOM

The third floor is a monolithic, continuous, orthogonal brick volume, the interior of which operates as a “city inside a building”. That consists of two levels and some double heights spaces. With its double height creates interesting visual connections and allows for various gatherings and events. Some classrooms are expandable, meaning that a door is created out of wood panels, that can open entirely and allow for more people to attend lectures. At some points we have openings in the facade, so that we are visually connected with the context.



Public Space



Classroom Unit

PIER OF MANAUS

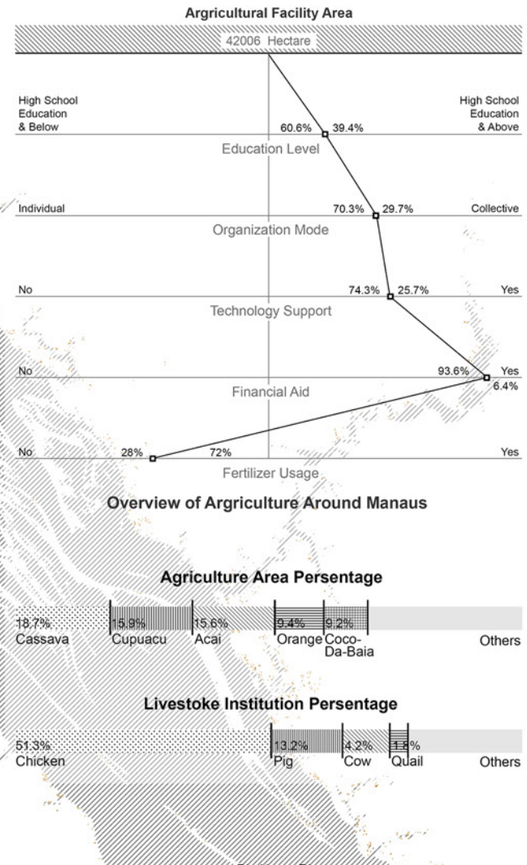
Co-Market

In the system of agriculture industry. Markets work as a strong connection between the city and the rural area. Here is the place where the farmers will gather and bring their products to the city. However the market now is working as a machine. Continuing Absorbing nutrients from the suburbs without giving any return.

Our hypothesis is to design a connection near the Amazon rainforest city Manaus to connect rural areas and cities. This is no longer a one-way trade market. We'd like to utilize the advantage of the city and feed them back to farmers, to finance or educate them about how to manage their lands more efficiently and healthier.

Besides the agriculture trading and finance, we also like to provide the latest technology such as breeding. Equipment such as drones. Knowledge such as intercropping in our market. We can help farmers to keep their land in better condition, to produce more products in current farmland and slow the land degradation.

MANAUS FAIR MAEKET



Overview of Agriculture Around Manaus

souvenir

Cooked Food

Port

Fertilizer

Warehouse

Uncooked Food

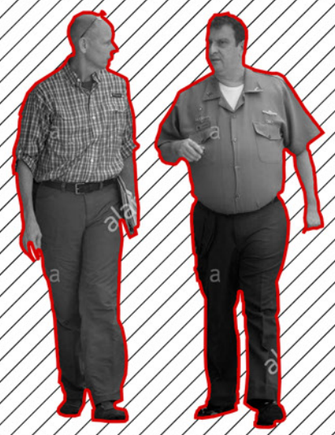
Equipment

Car Parking

An Improved Port

All kinds of boats are gathered by the river, and a beautiful and orderly port needs to be redesigned.

Classroom, lecture, office



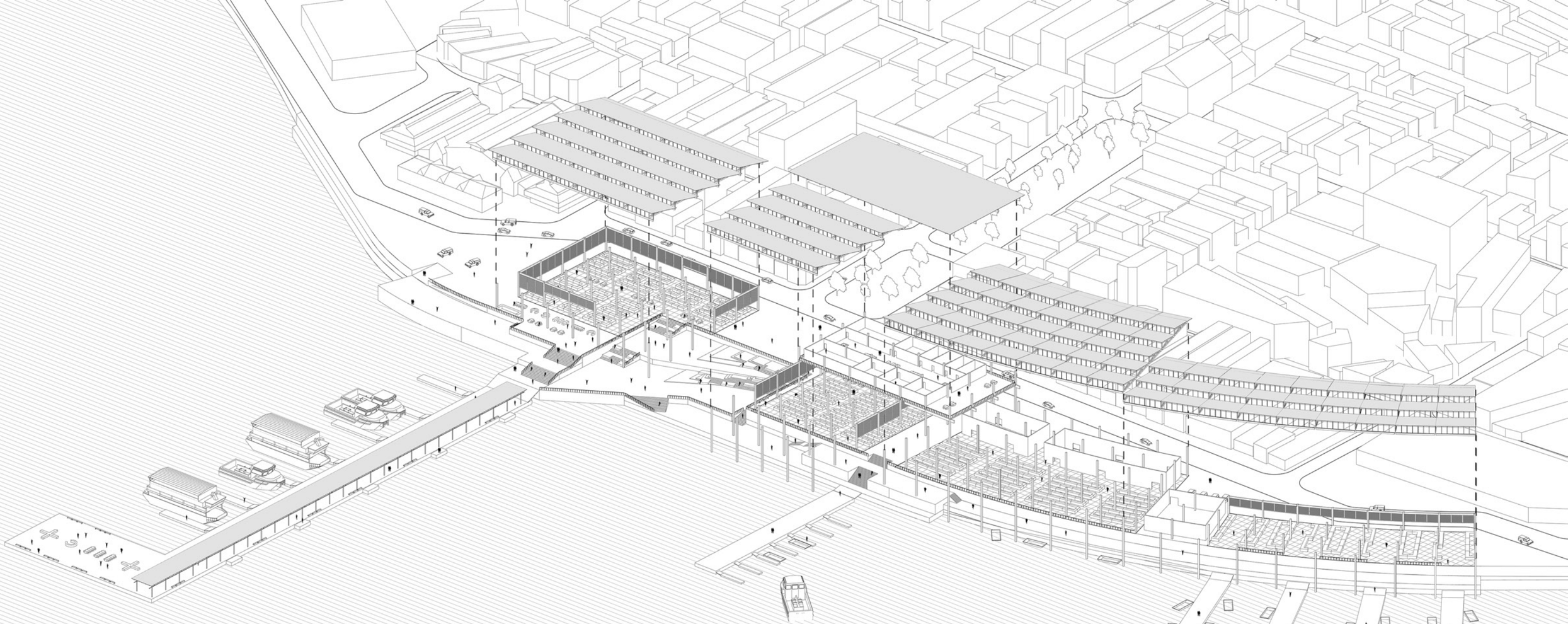
Provide farmers a place to learn the latest technology and knowledge also provide them financial loan.

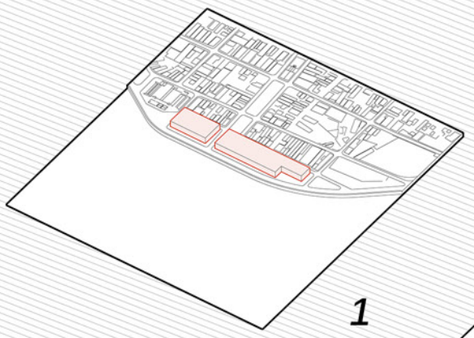
Free Water Market

Many small family farmers come to this place for small-scale trade, they do not need a fixed booth, they can complete the trade on boats.

Public Space

As the most important site of Manaus and the water gate of Manaus, public space is needed to emphasize the importance of this place.





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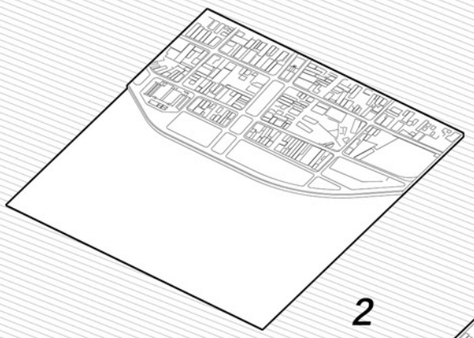

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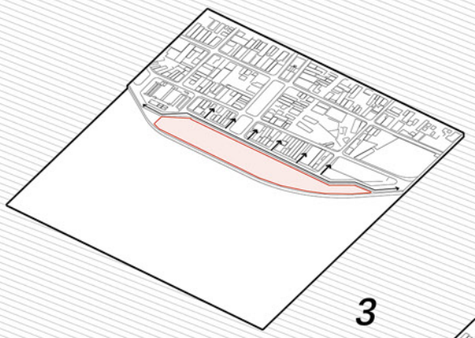

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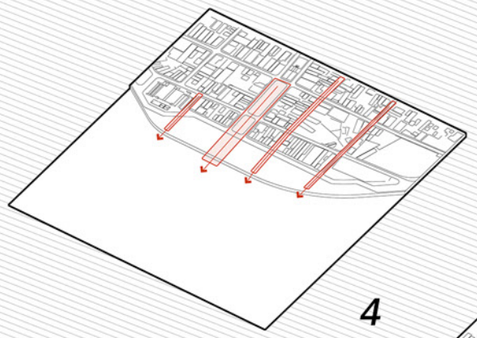

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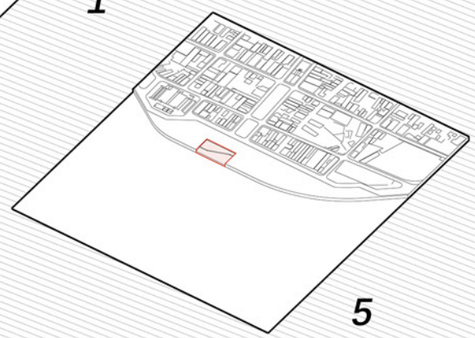

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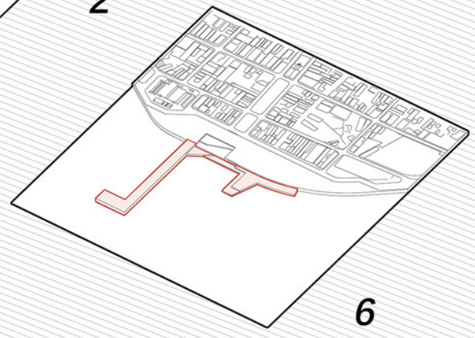

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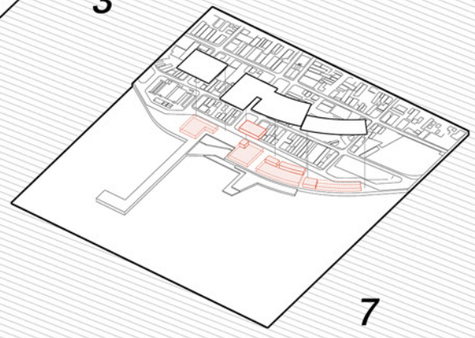

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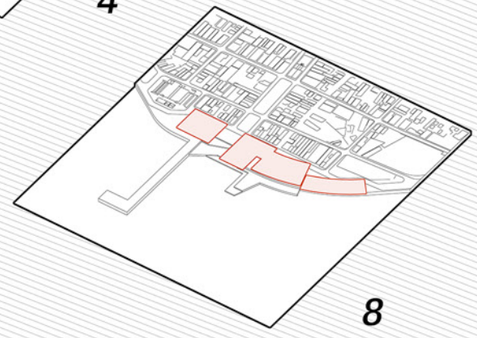
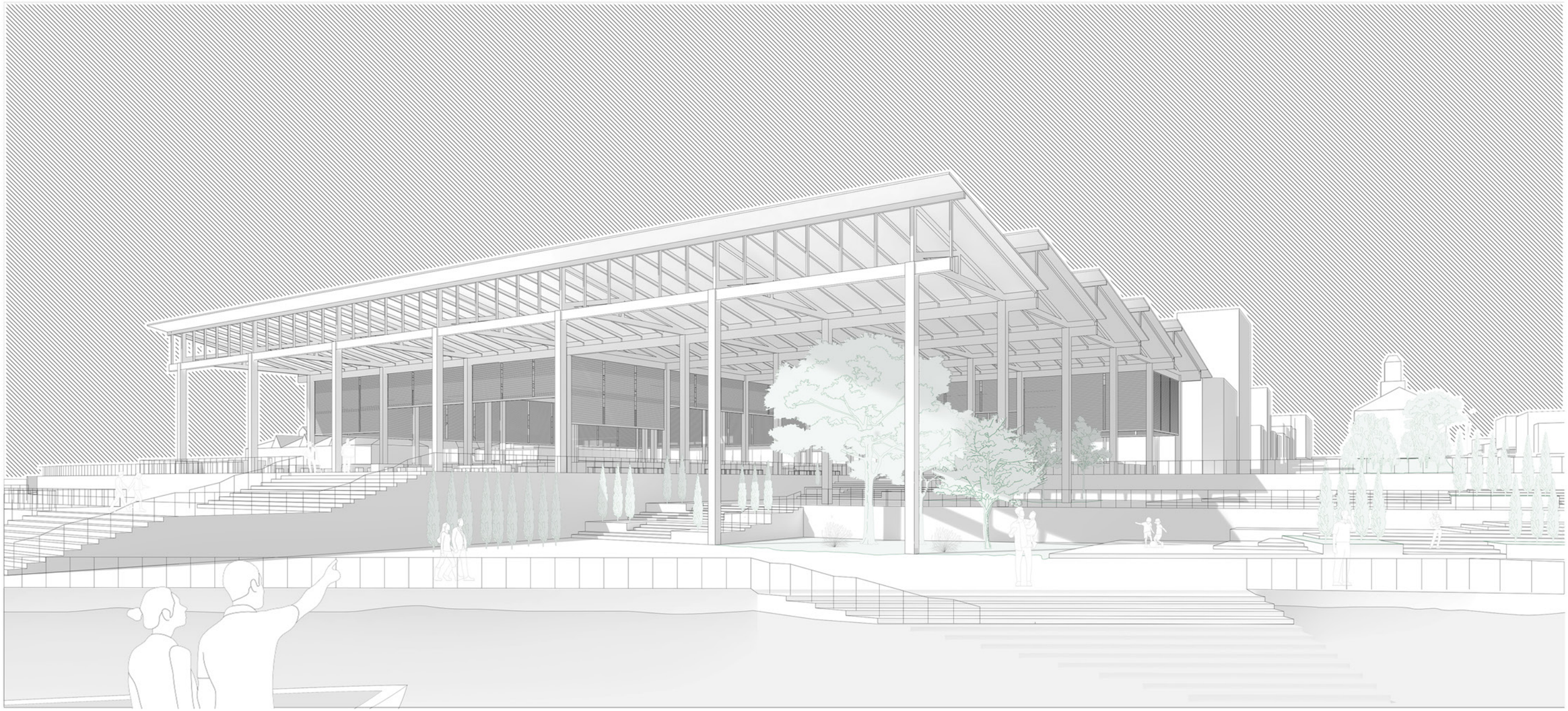


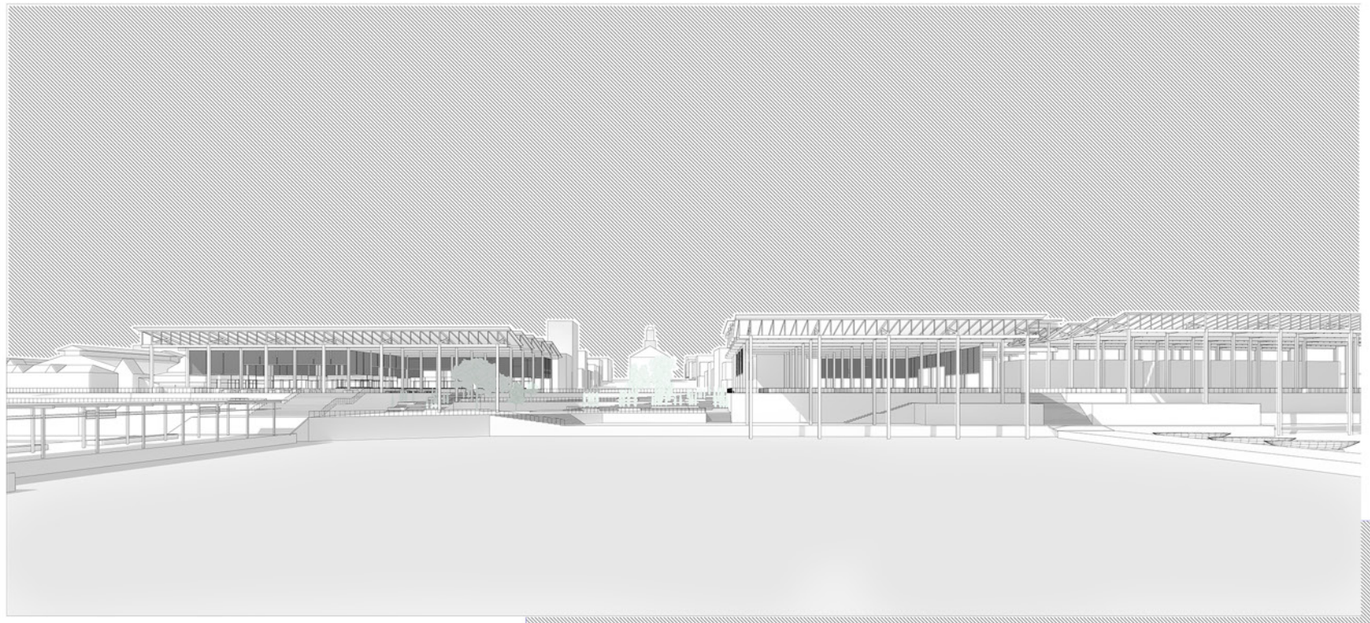
8

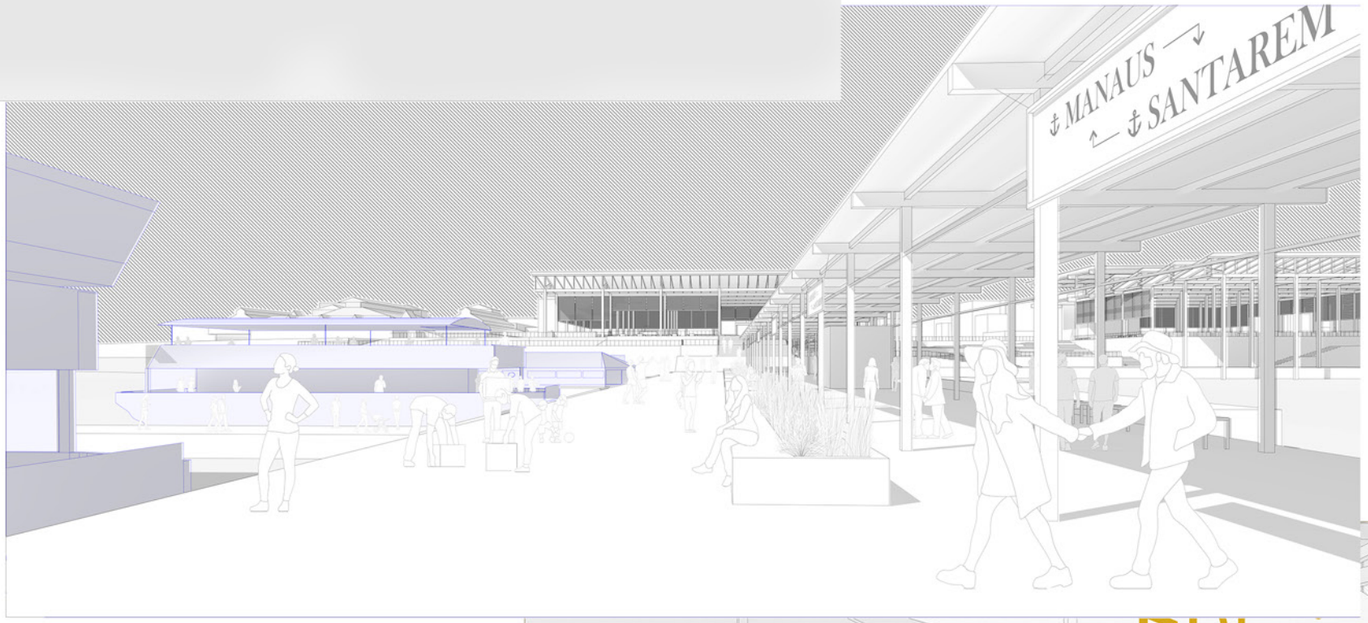
Co-Market of Manaus



Outdoor Perspective

Indoor & Water Market




MANAUS
SANTAREM


FRUITS SHOP
HONG'S
FRUITS SHOP