

PORTFOLIO

FEI FAN

COLUMBIA UNIVERSITY

2023-2024

New York, U.S.A
Graduate School of Architecture, Planning, and Preservation
Master of Science degree in Advanced Architectural Design

01	FROM CANYONS TO THE STARS Armory refurbishment design studio Studio ADV VI-3 Team of two Spring 2024	01-14
02	GAZE REVERSED Armory refurbishment design studio Studio ADV VI-2 Team of two Fall 2023	15-24
03	URBAN SOIL SOIL-FRIENDLY RESEARCH AND DESIGN Studio ADV VI-1 Individual Summer 2023	25-36
04	SEMINAR OF SECTION SEMINAR DISCUSSION AND PRACTICE Elective Individual Spring 2024	37-38
05	TENSION - COMPRESSION TENSION COMPRESSION ELECTIVE PROJECT Elective Individual Fall 2023	39-40
06	1:1 FABRICATION OF DETAILS CRAFTING AND FABRICATION OF DETAILS Elective Team of three Spring 2024	41-42
07	PROFESSIONAL PRACTICE PROFESSIONAL PRACTICE SEMINAR Elective Individual Spring 2024	43-48
08	HISTORY OF ARCHITECTURE THEORY METABOLISM IN ARCHITECTURE ANALYSIS Elective Individual Fall 2023	49-54

From Canyons to The Stars

STUDIO ARCHITECTONICS OF MUSIC | MUSIC CHAPEL DESIGN

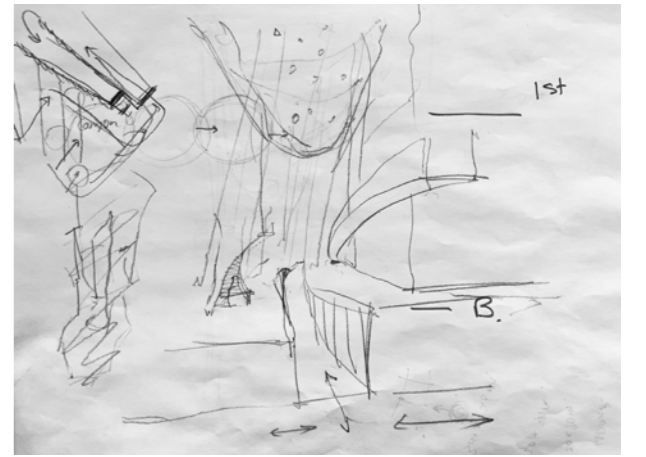
PROJECT TYPE | *Team of two|Fei Fan, Gio Kim*
 STUDIO ADV 6-3 | *Critic: Steven Holl, Dimitra Tsachrelia, Maria Candelaria Ryberg*
 DATE | *Spring 2024*
 LOCATION | *Granada, Spain*

The project was inspired by Olivier Messiaen's *Des Canyons aux étoiles...* (From the canyons to the stars...) composed in 1976. The twelve-movement orchestral work is divided into 3 large parts. The piece is in response to Messiaen's visit to the three canyons he visited in the U.S. which are the following: Cedar Breaks, Bryce Canyon and Zion Park. With the majority of the movements inspired by the birds, the landscape, stars and the colors of the canyons, the project strives to create an architectural space that responds to the music. The architectural language of tripartite interconnected massing is conceptualized in direct response to the trilogy of the composition with an exploration of space through a specific sequence just like the composition.

Like the composer Messiaen's creation from the Canyons to the Stars after his visit to Bryce Canyon, the Project is a storytelling of his music, Granada city and the Alhambra palace through architecture by spacemaking, materials, form and light. The architectural language connects with the musical gestures and reflects these moments of 'awe'



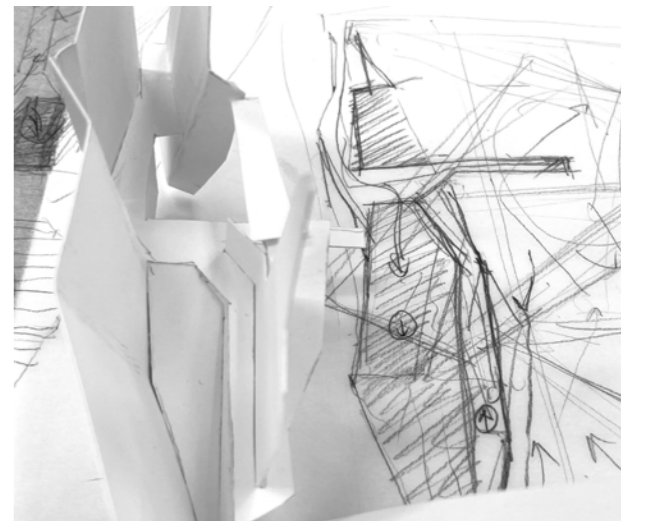
▲ Render by Fei: Vray+PS



The building can be understood from front to back but also in reverse. The architectural move is a response to Messiaens' composition of *Des Canyons aux étoiles...* where the composition deals with the concept of time as not just forward but also backwards.



The exploration through model making allowed us to explore how the model was perceived horizontally but also vertically, creating a physical model that can be read in two different perspectives where a massing model could also become a sectional model.

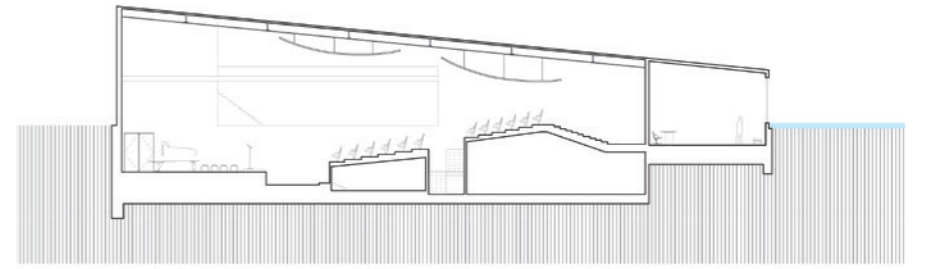




▶ The extruded seating gives contrast to the deep and 'canyon'-like walkway, resembling the feeling of walking inside the cliffs of the Bryce Canyon.



▶ The gradually increase in height as you go closer to the stage is inspired by the spacial characteristics of walking deeper into the Bryce Canyon.



▲ The Bryce Canyon Music Hall is inspired by the feeling of 'awe' expressed in the music piece after the composer's travel to the Bryce Canyon.

LEFT TOP
Bryce Canyon Music Hall Render
By Fei

LEFT BOTTOM
Physical Model Photography
By Fei

RIGHT TOP
Physical Model Photography
By Fei

RIGHT MIDDLE
Section
By Gio

RIGHT BOTTOM
Physical Model
By Frank+Gio





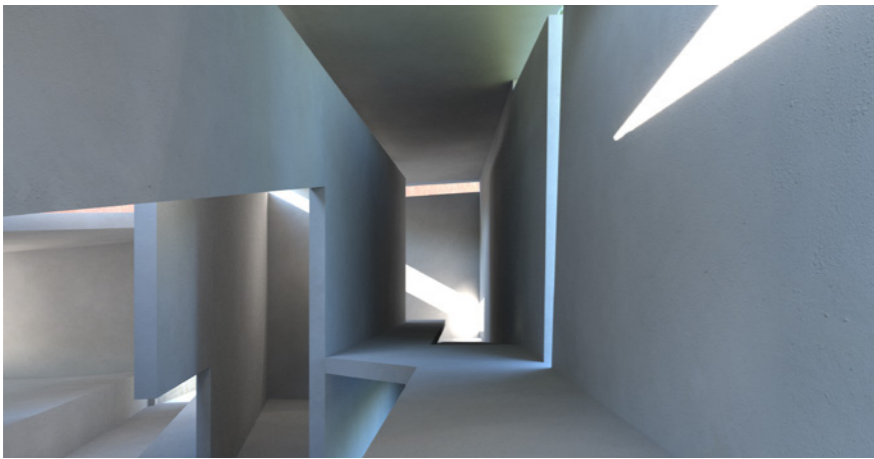
LEFT TOP
Stepped Garden Perspective

LEFT UPPER
Reception Perspective

LEFT LOWER
Reception Entrance perspective

LEFT BOTTOM
Section

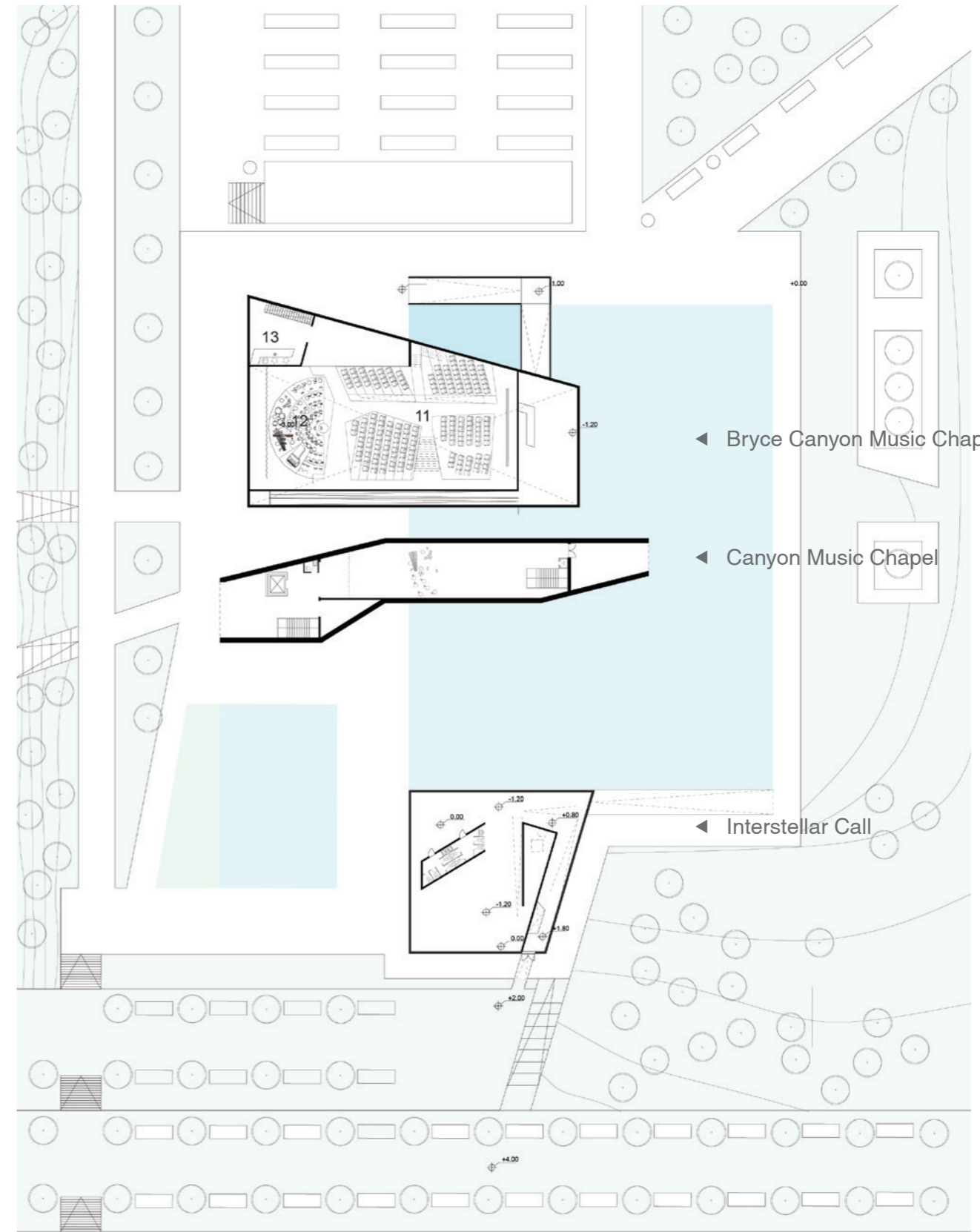
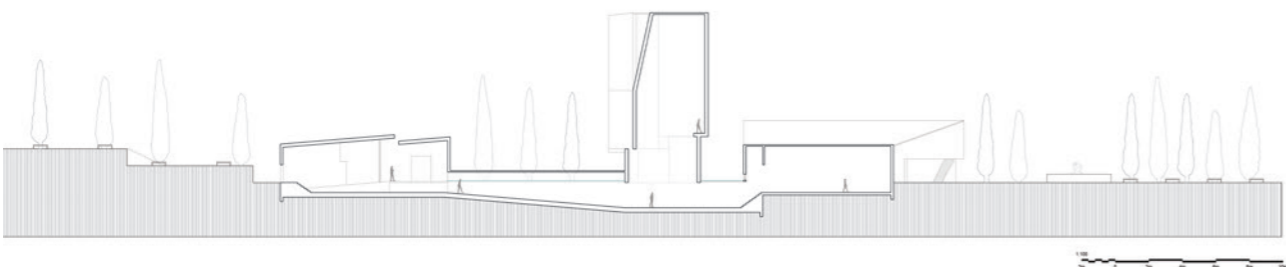
RIGHT
Ground Floorplan



◀ The architectural language of slopes, ramp, and light is continued from the mid-term language studies, a pure exploration of architectural language solely from the music piece 'From Canyons to The Stars' by Messiaen.



▶ The rays of light are inspired by one of the twelve movements from 'From the Canyons to The Stars', 'Interstellar Call' which was composed intended to mourn a passed away friend of Messiaen. In the movement, the long silence is the most important.



1:500
10m 0 10m 20m 30m 40m 50m

- | | |
|--------------------------------------|-----------------------------|
| 1. Lobby & Information | 8. Canyon Music Chapel BOH |
| 2. Interstellar Call | 9. Orchestra Hall Entrance |
| 3. Canyon Music Chapel Connection | 10. Orchestra Hall Lobby |
| 4. Canyon Music Chapel Seating | 11. Orchestra Hall Seating |
| 5. Canyon Music Chapel Stage | 12. Orchestra Hall Stage |
| 6. Viewing Platform | 13. Orchestra Hall BOH |
| 7. Canyon Music Chapel Service Entry | 14. Orchestra Hall Entrance |



▲ The project with its series of sequence within the building is a curation of both large and grand spaces as well as a space of serenity and silence coexisting with one another.

▲ Render by Fei: Vray+PS

▲ Through the various use of light such as diffused light, directional light and star-like light as well as the the exploration of various relationships between the human scale to the built environment through elongation of height with varied width designed in the project, this idea of grandeur of nature as well as the silence is explored in the project.



LEFT TOP

Section perspective

LEFT UPPER

West section perspective

LEFT LOWER

North section perspective

LEFT BOTTOM

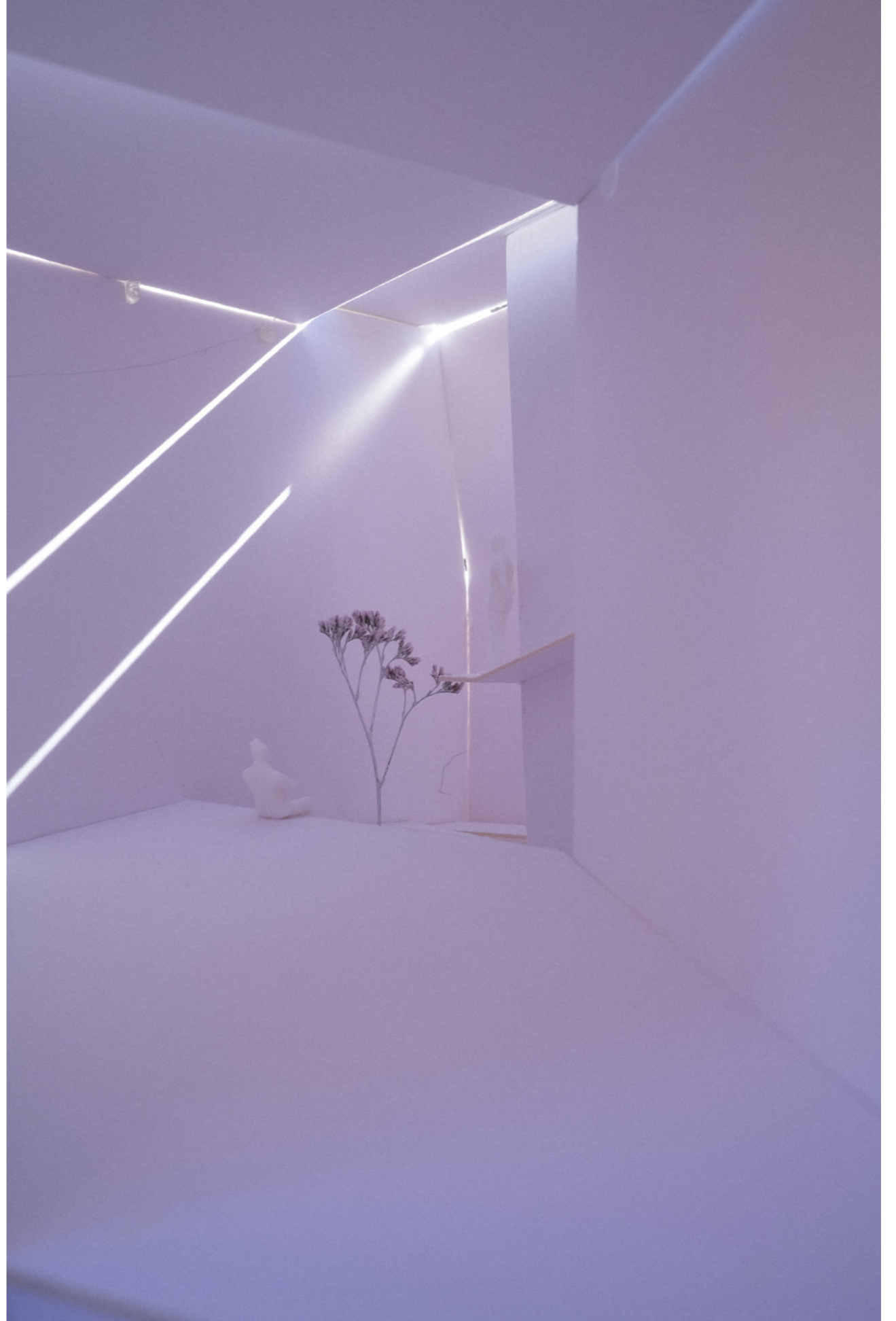
West elevation perspective

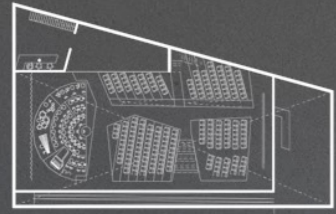


The repeated testing on light is to achieve the feeling of sun shining through trees, hitting on the cliffs of the canyon. Occasionally the sun hits through the narrow crevice in between the canyon cliffs.



The tree in the end of a ramp is inspired by a photography taken inside the Bryce Canyon Park where tourists walk down the slope in between the narrow cliffs and a head of them stood sparcely some very tall trees.





Interstellar Call

In the mid-term, we tried to create the space that was given inspiration from the movement "Interstellar Call". The introduction of ramps and slopes resembles the sloping path in the bottom of canyons. The language of tightly arranged walls are created to enhance the serenity of canyon cliffs.



▲ Mid-term Study Model



▲ "Canyon" Space



▲ Study of Ramps



▲ Sketch and test model for mid-term

It was at mid-term when we rotated the physical model 90 degrees, and the horizontal oriented space suddenly transformed into a canyon cliff-like space. This specific angle pushed us to expand the architectural space internally, gradually figuring out the exterior.

GAZE REVERSED

STUDIO KINGSBRIDGE ARMORY REFURBISHMENT DESIGN PROJECT

PROJECT TYPE | Team of two|Fei Fan,Zhuorui Li
 STUDIO ADV 6-2 | Professor Wonne Ickx
 DATE | Fall 2023
 LOCATION | 29 W Kingsbridge rd, Bronx, New York, U.S.A

In embarking on the redevelopment design project for the Kingsbridge Armory, our initial inspiration was deeply rooted in appreciating the unique character of the Armory itself. Through thorough research, including map studies and on-site inspections, it became clear that the Kingsbridge Armory stands as a significant feature in the cityscape, attracting attention from all surrounding viewpoints.

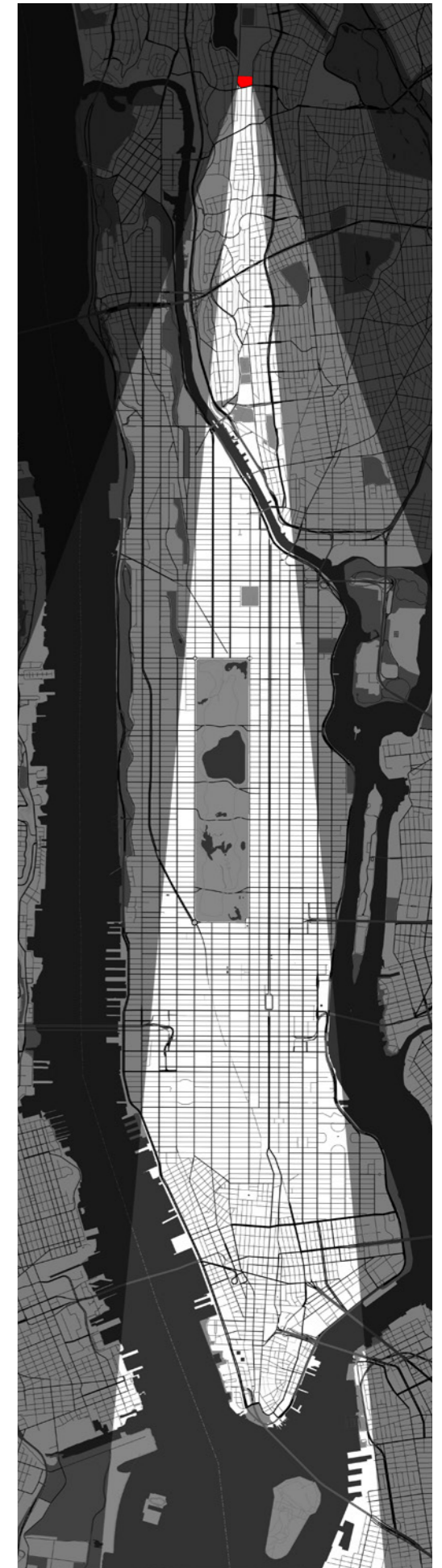
The design will foster a mutual relationship between the Armory and the city, preserving and celebrating the Armory's historical essence while introducing modern functionality that emphasizes its inherent grand scale and visual prominence in the urban environment. Through careful design strategies, new visual pathways will be created, establishing a dynamic interaction between the interior spaces and the continually changing urban scenery beyond, positioning the Kingsbridge Armory as both a protector and a narrator of the urban story.

15

Fei Fan

▲ Render by Fei: Vray+PS

This observation led us to an intriguing design concept - transforming the Armory from being observed to an observer, utilizing its significant vertical height to bring the cityscape into the architectural space. Our design aims to turn the Armory into an urban observatory, a focal point where the energy of the city becomes a fundamental aspect of the architectural experience.



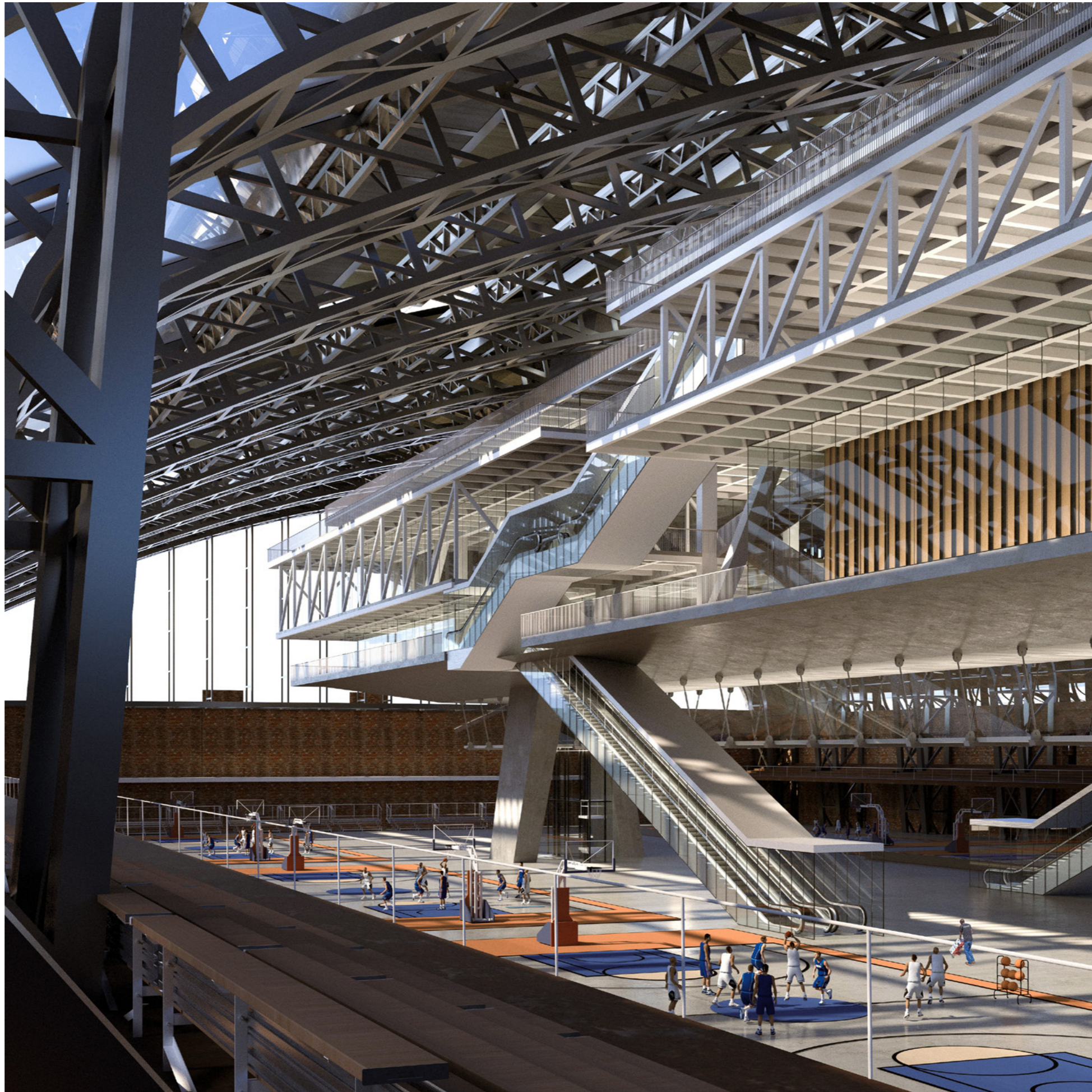


From the site of the New York State's expressed intention and...
October 1910, officially designated as the 1908 Field Armory. The...
On 10 August 1914, the Eighth United States Cavalry was...
The unit was converted into a mounted field artillery unit and, on 11...

▲ This is an old photograph taken in 1910, showing workers celebrating the completion of the Armory's steel structure. The photo allows us to vividly appreciate the grandeur of this steel giant.



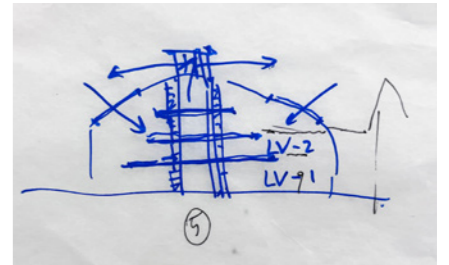
▲ The Armory was a major place for large events during its most glorious days. We wanted to preserve this aspect in our design, so we amplified the advantages of our initial concept, increasing the overall volume of the building to gain more ground space and to integrate the functional units more closely with the cityscape.



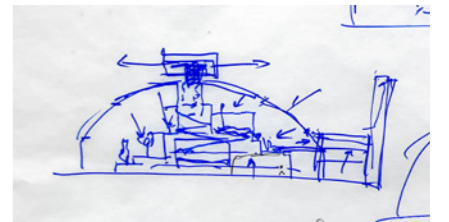
▲ Render by Frank: Vray+PS



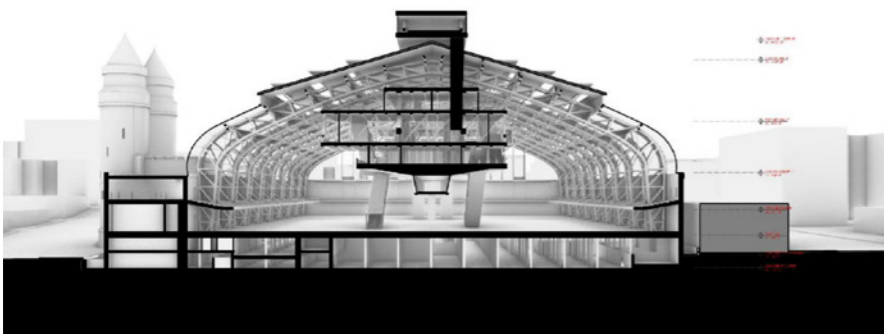
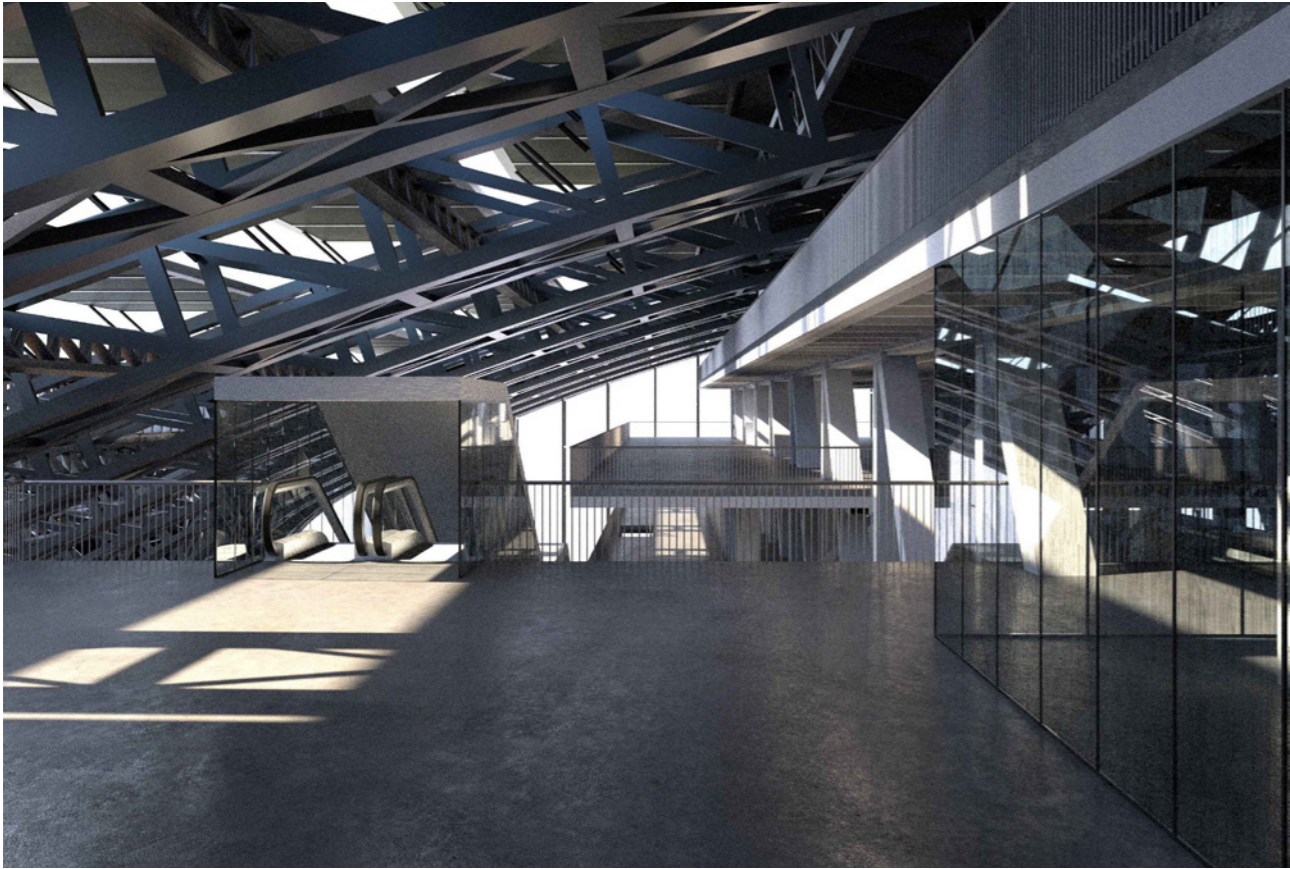
▲ What if the Armory in the Bronx has always played the role of an observed entity, attracting everyone's attention. What can be seen after you reach 100 ft?



▲ We defined two extremes: a cityscape hall at the top and a broadcast center at the bottom while the structure hovers above ground level.



▲ Based on this, we began to consider the linear relationship of the space vertically, searching for the most relevant programs like solving a crossword puzzle.



Bring people to the top of the structure, allowing them to reach out and touch the historically rich old structure.

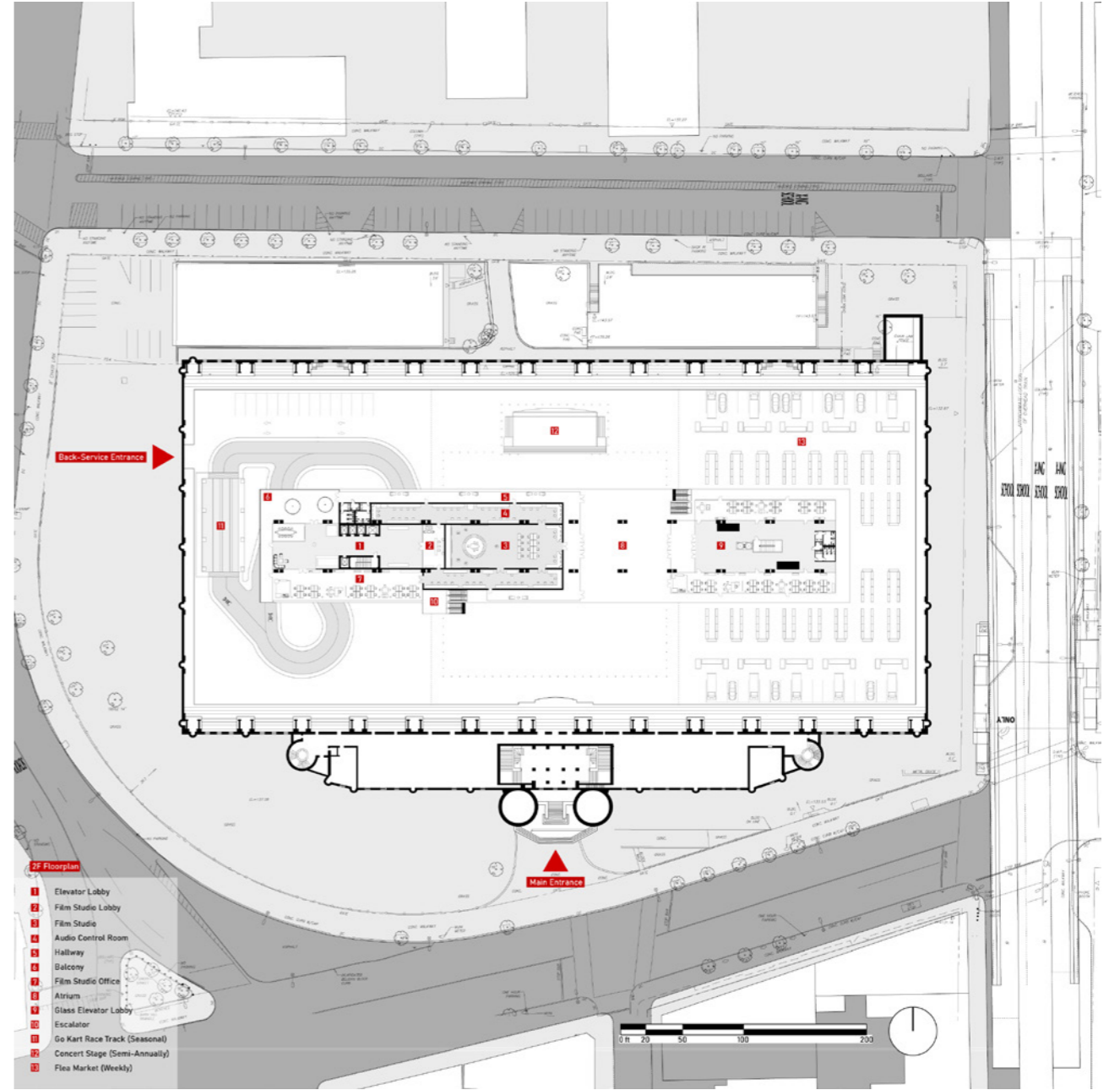
LEFT TOP
5F Interior Render
By Frank

LEFT MIDDLE
4F Interior Render
By Frank

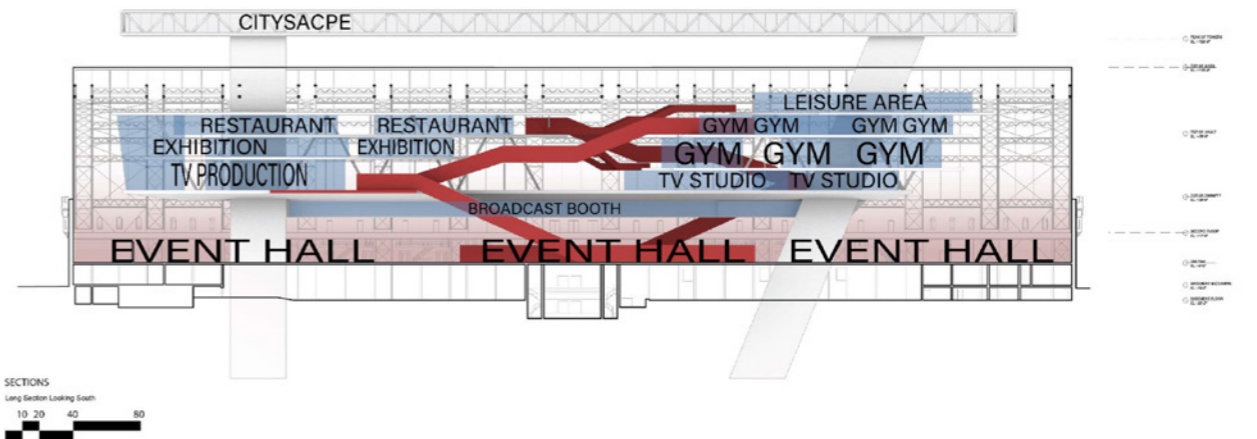
LEFT BOTTOM
Section Perspective
By Frank

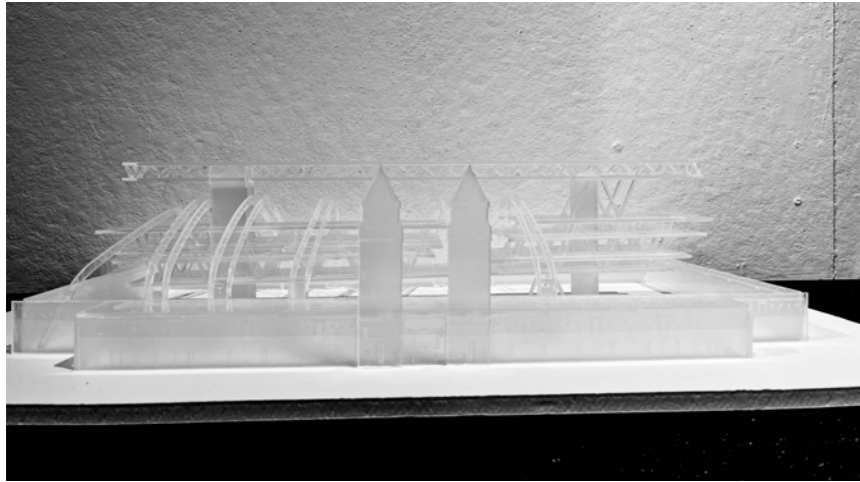
RIGHT TOP
2F Floor Plan
By Frank

RIGHT BOTTOM
Section Diagram
By Cedric



This second-floor plan illustrates the layout of the TV studios, while also showcasing three different possibilities for the first-floor Drill Hall, such as a go-kart track, concerts, and a flea market.



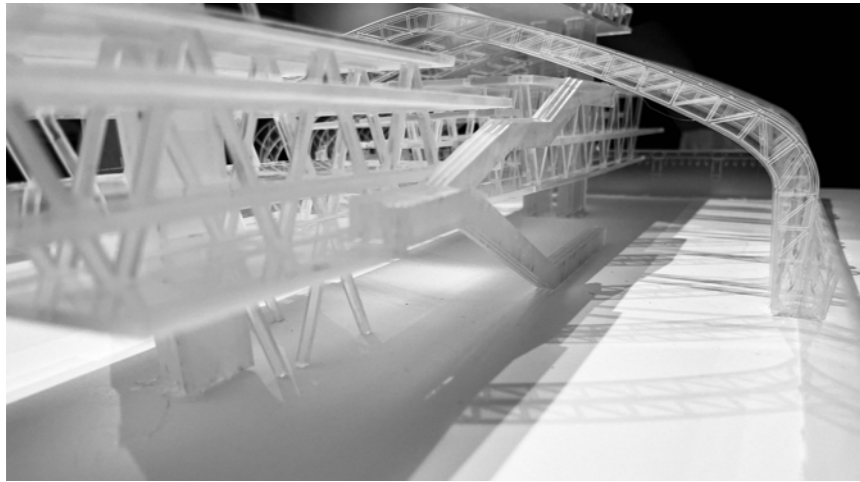


LEFT TOP
Physical Model

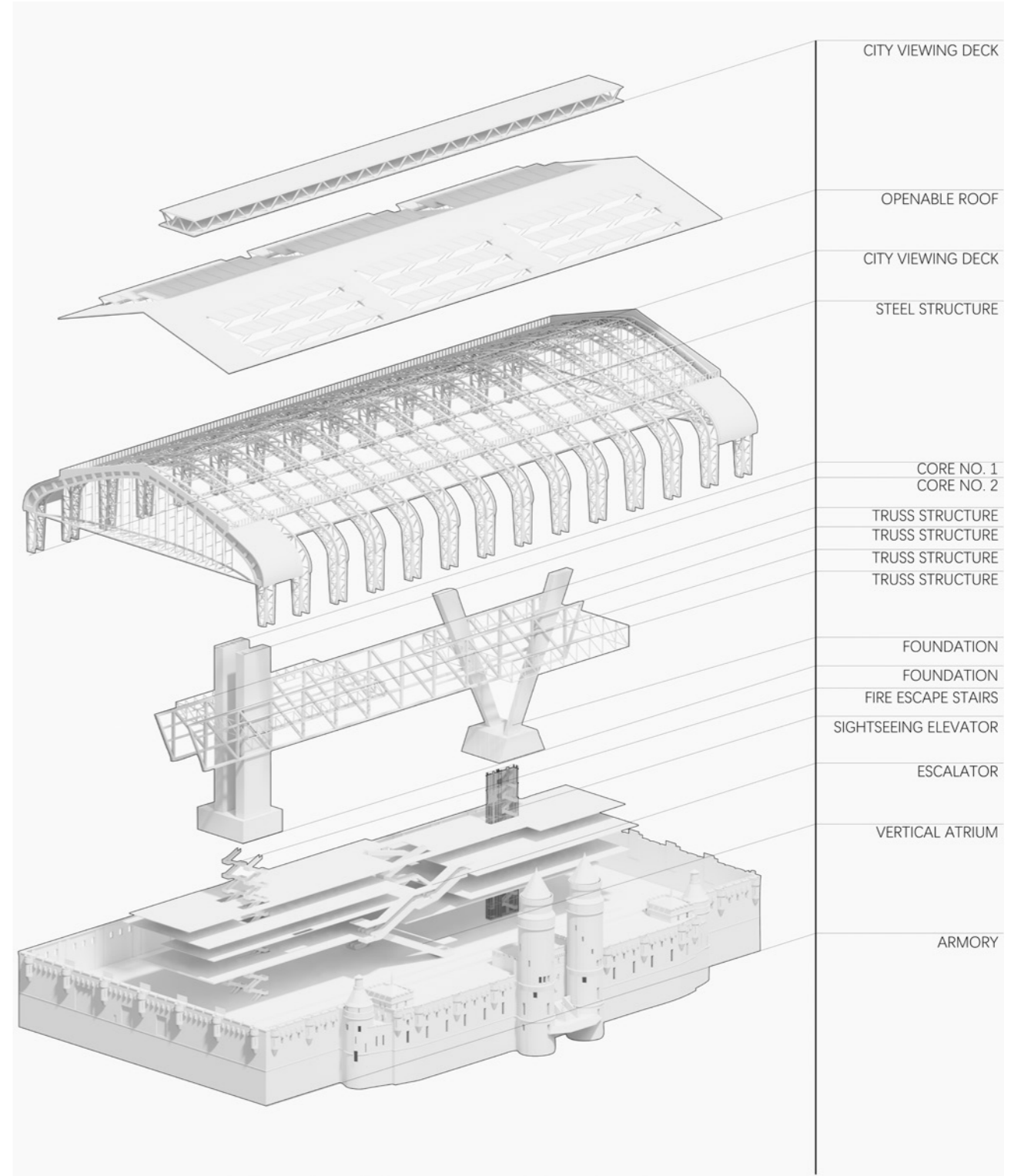
LEFT MIDDLE
Physical Model

LEFT Bottom
Exhibition

RIGHT
Explode Diagram
by Cedric



◀ The physical model was made using laser-cut acrylic panels. We redesigned the support details of the structure to test its feasibility at different scales. It turned out that our structural design was sound, and the model stood perfectly.



▲ For a skyhall with a span of 120 meters, at least three support points are required. However, to maximize the openness of the first-floor drill hall, we utilized two core cylinders in the structure. One of the core cylinders is composed of two structures intersecting like scissors, forming two support points for the skyhall.

▲ One major highlight of the structural design is the seamless integration of the new and old structures. Particularly, the core cylinders and structures such as fire escape stairs elegantly intersect with the original roof truss through precise calculations. They stand independently, not relying on the old structure for support.



▲ The fun aspect of vertical transportation is also one of the design themes. We combined transportation with landscaping and designed a scenic escalator to serve the community.

▲ The stairs between staggered levels serve as a visual guide, forming a bridge that connects various programs. In terms of form, they are lively and contribute to an animated atmosphere in the atrium.

▲ The giant truss structure extends from the atrium, and its exposed elements convey a rugged feeling while emphasizing its structural significance.

▲ Render by Frank: Vray+PS

URBAN SOIL

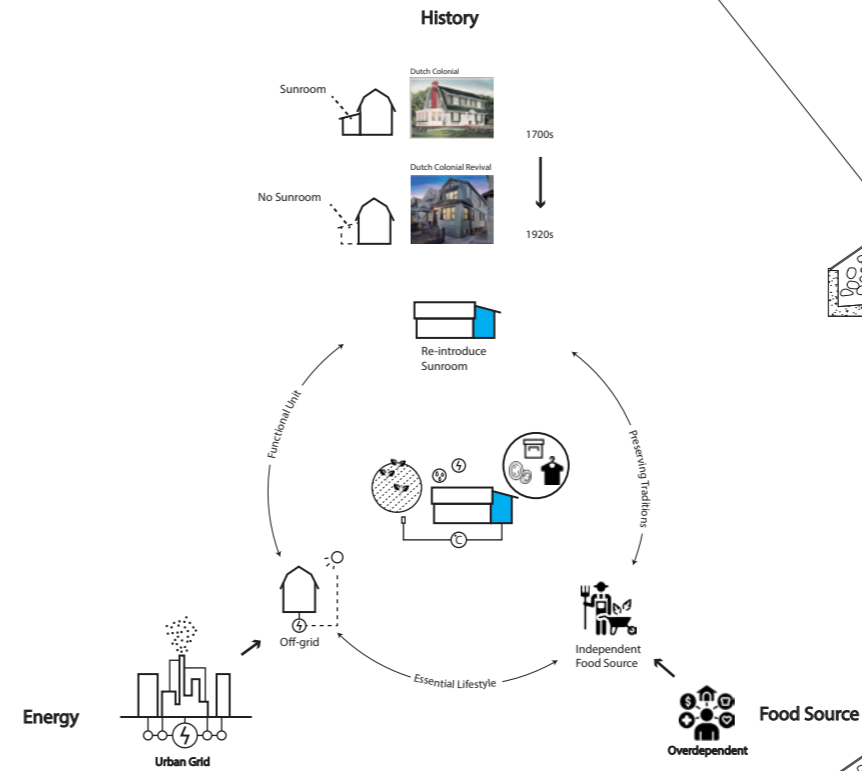
STUDIO SOIL-FRIENDLY RESEARCH AND DESIGN

PROJECT TYPE | Individual
 STUDIO 6-1 | Critic: Mio Tsuneyama, Fuminori Nousaku
 DATE | Winter 2020
 LOCATION | Kensington, Brooklyn, NY, U.S.A

When looking at the foundations of traditional wooden houses, the stone foundation was replaced by a concrete continuous footing, and then by a solid slab foundation with improved moisture proofing and earthquake resistance.

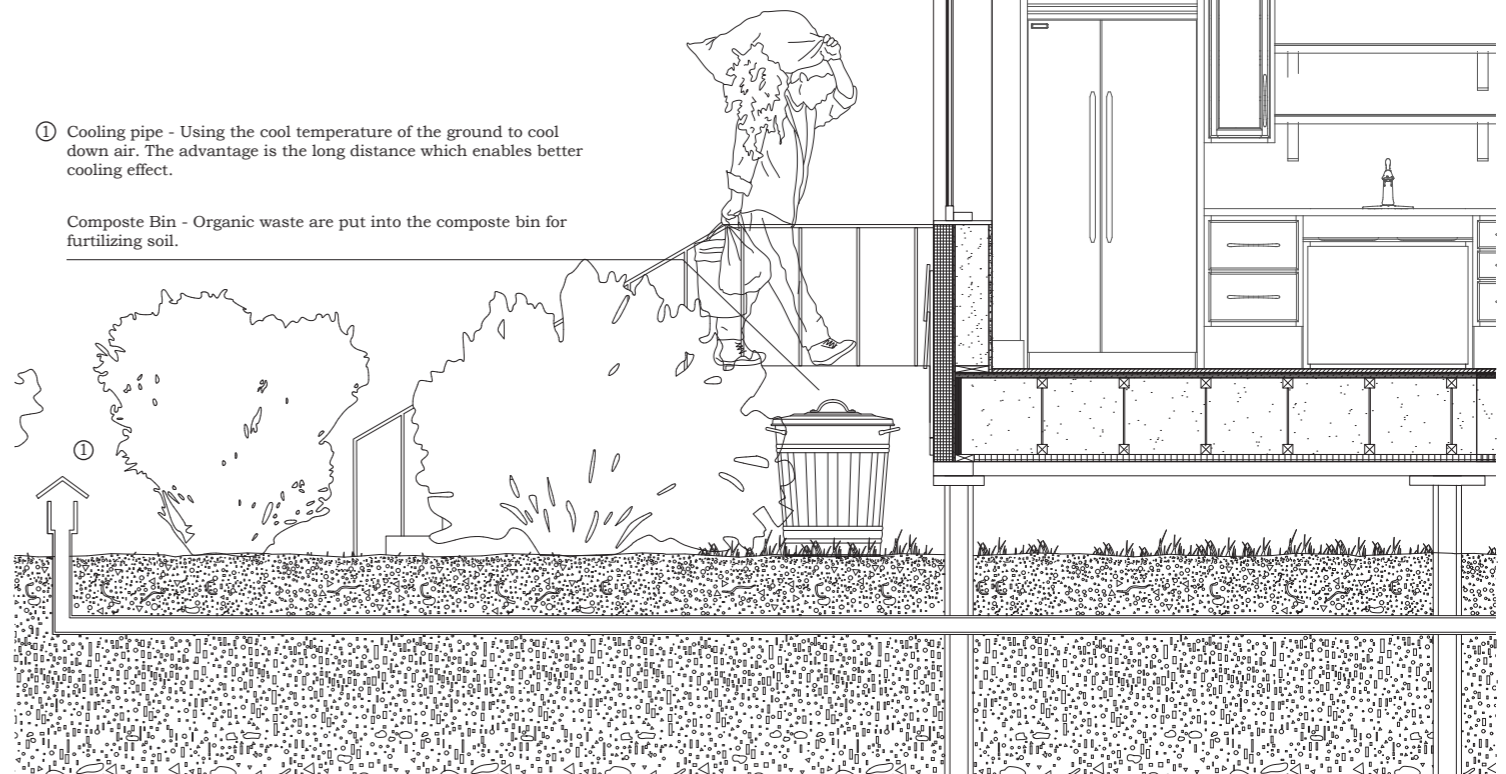
Inspired by traditional The Studio dives into the history of Kensington area and works to come up with a community centered redesign of existing neighborhoods, aim to free up the soil that has been blocked by concrete roads and foundations.

Passive heating system - Stone pebbles absorb solar energy in day time, and release the heat at night. Cold air enters from the openings at the end of the floor panels and travels through the gaps between stone pebbles to be heated up. Hot air rises and enters the room.



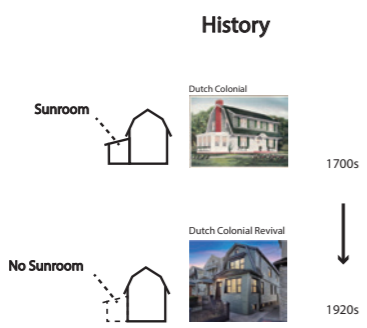
① Cooling pipe - Using the cool temperature of the ground to cool down air. The advantage is the long distance which enables better cooling effect.

Composte Bin - Organic waste are put into the composte bin for fertilizing soil.





Dutch Colonial



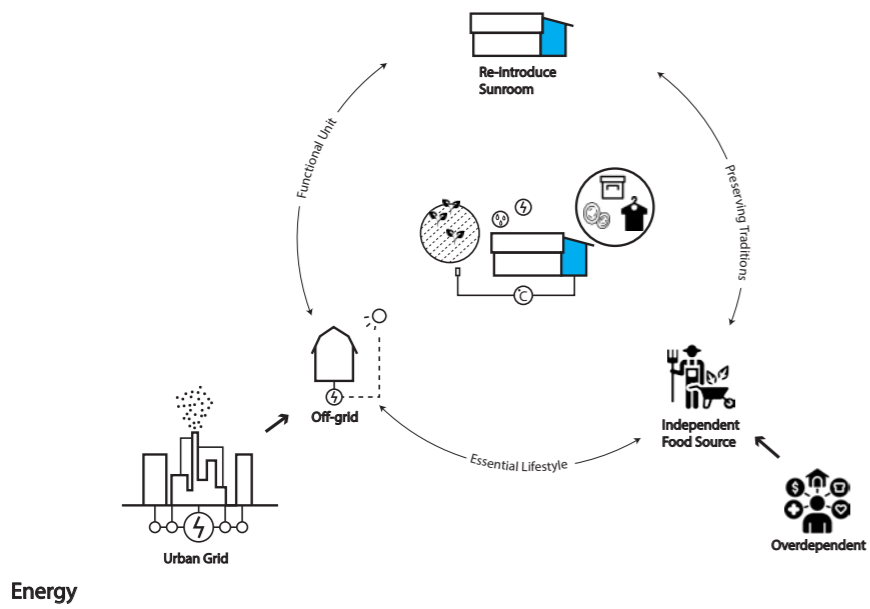
LEFT TOP
Site Photo

LEFT BOTTOM
Design Logic Diagram

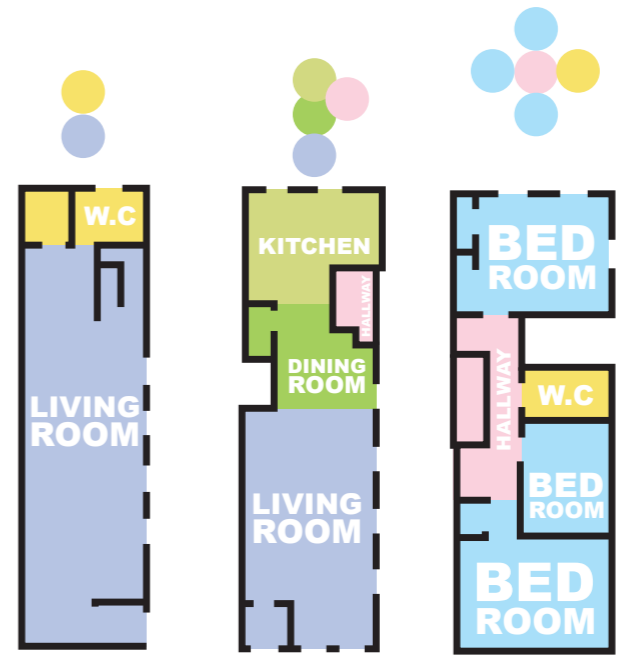
RIGHT
Dutch Colonial Floorplan Analysis



Dutch Colonial Revival

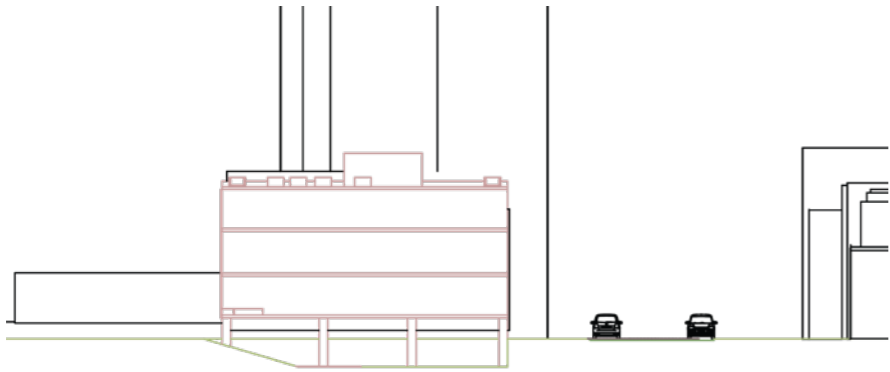
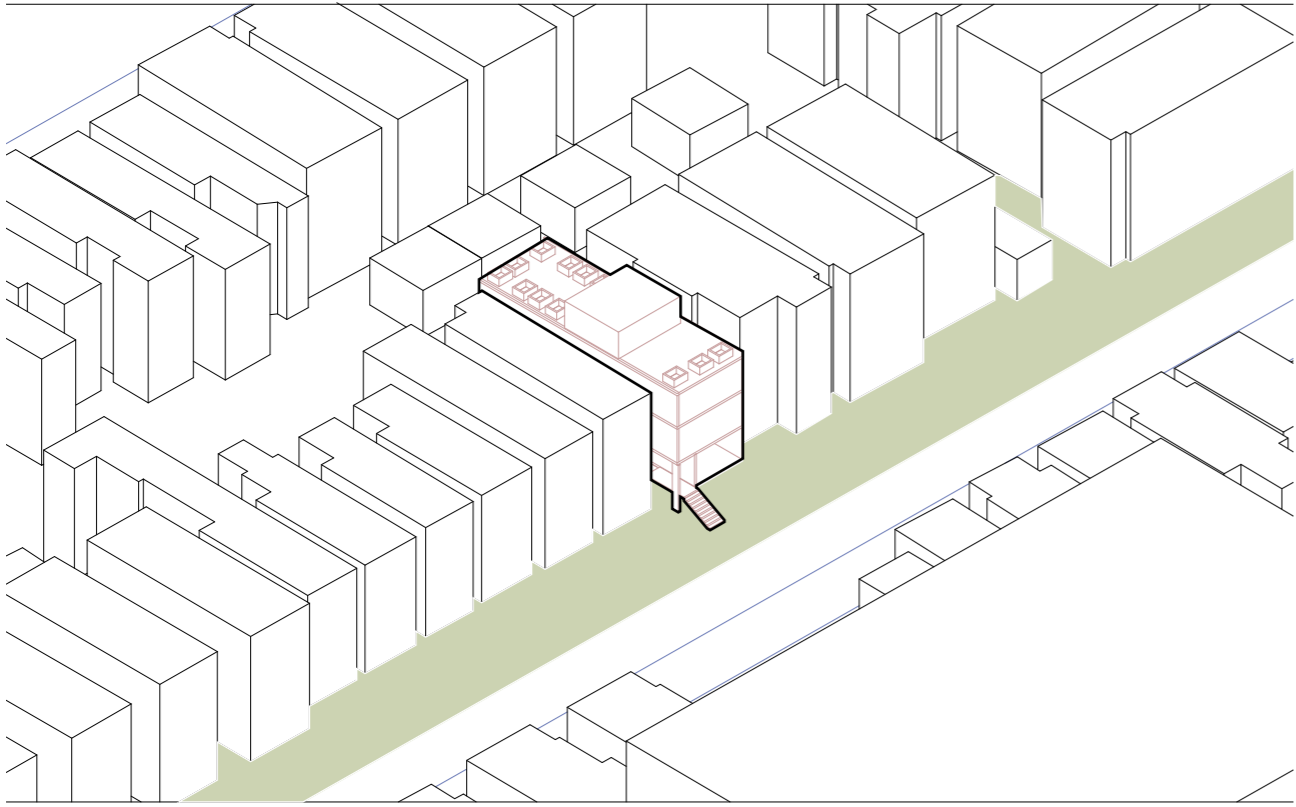


Energy

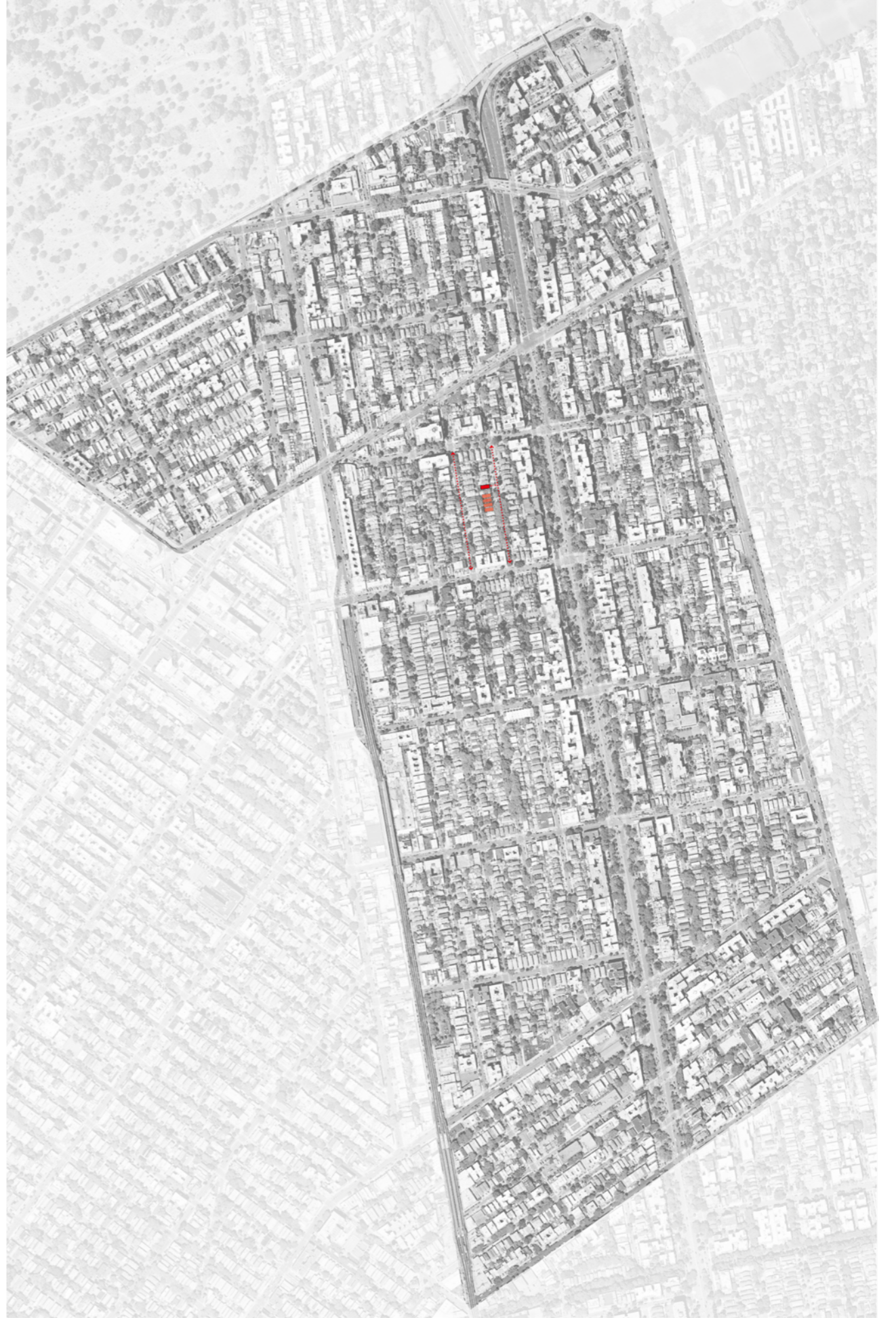


Dutch Colonial Revival Rowhouse



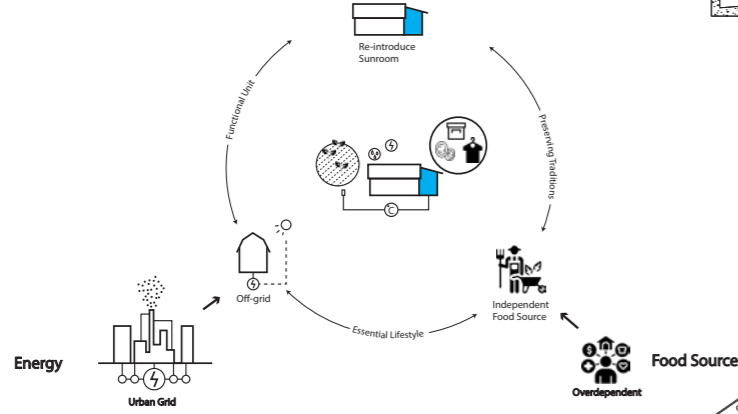


- LEFT TOP**
5F Interior Render
By Frank
- LEFT MIDDLE**
4F Interior Render
By Frank
- LEFT BOTTOM**
Section Perspective
By Frank
- RIGHT TOP**
2F Floor Plan
By Frank
- RIGHT BOTTOM**
Section Diagram
By Cedric



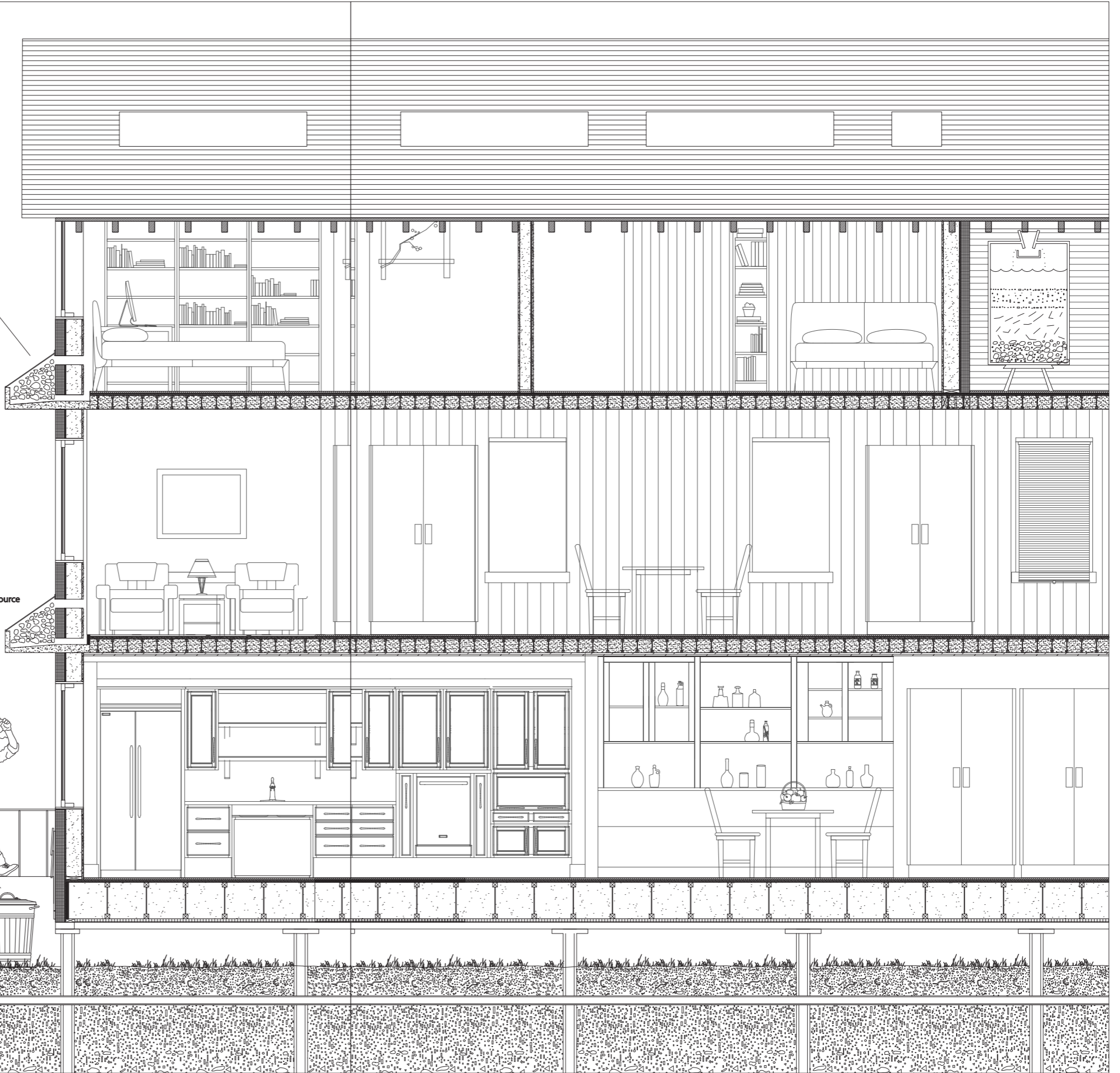
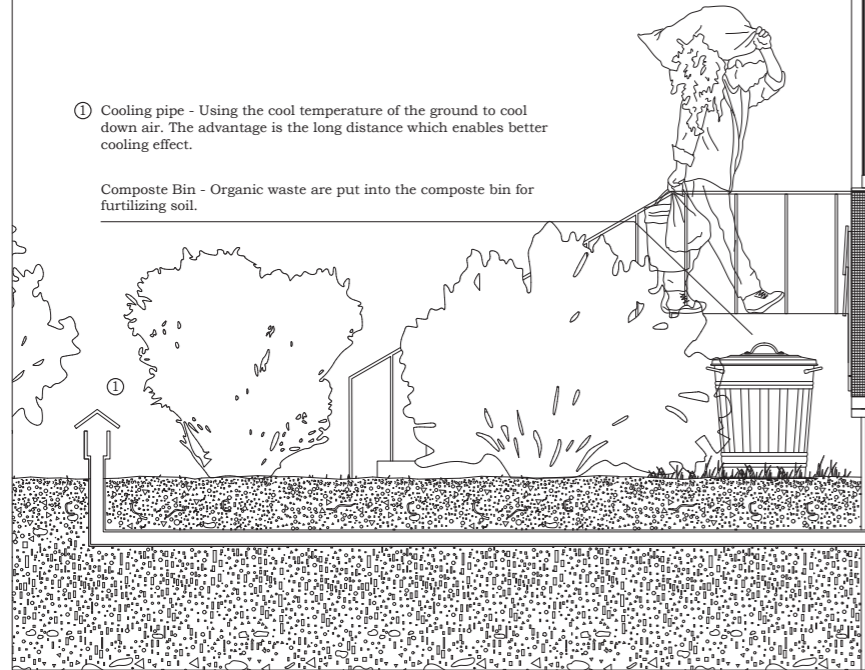
Passive heating system - Stone pebbles absorb solar energy in day time, and release the heat at night. Cold air enters from the openings at the end of the floor panels and travels through the gaps between stone pebbles to be heated up. Hot air rises and enters the room.

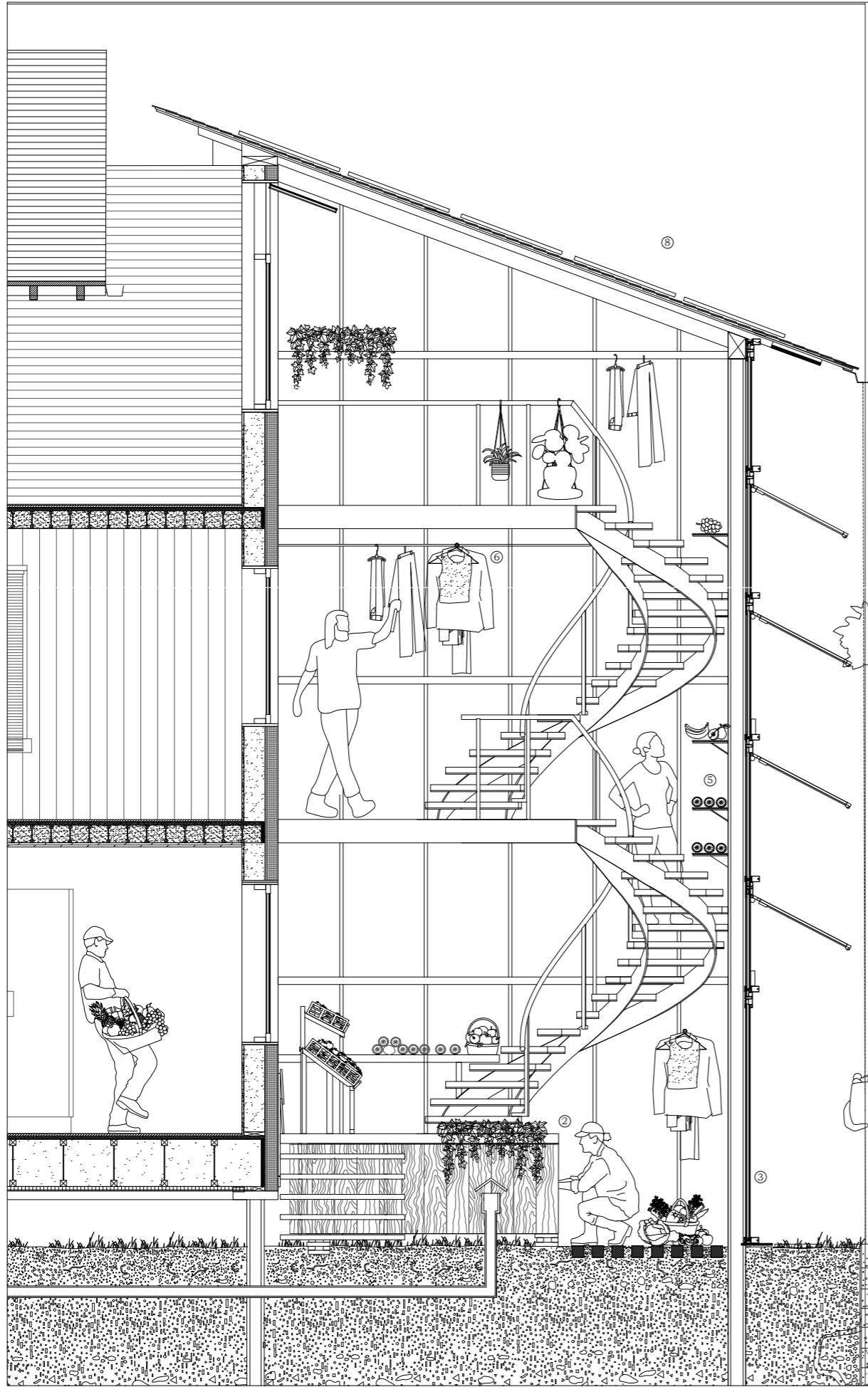
History



① Cooling pipe - Using the cool temperature of the ground to cool down air. The advantage is the long distance which enables better cooling effect.

Compost Bin - Organic waste are put into the compost bin for fertilizing soil.





② Food Storage - The sun room in winter is a natural fridge as temperature can drop to 3-4 degrees celcius.

③ Pole Foundation - The foundation supports the entire facade and the roof all the way up.

④ Bamboo Water Drainage - Helps to transport water to deeper soil and enable the revitalization of micro organisms.

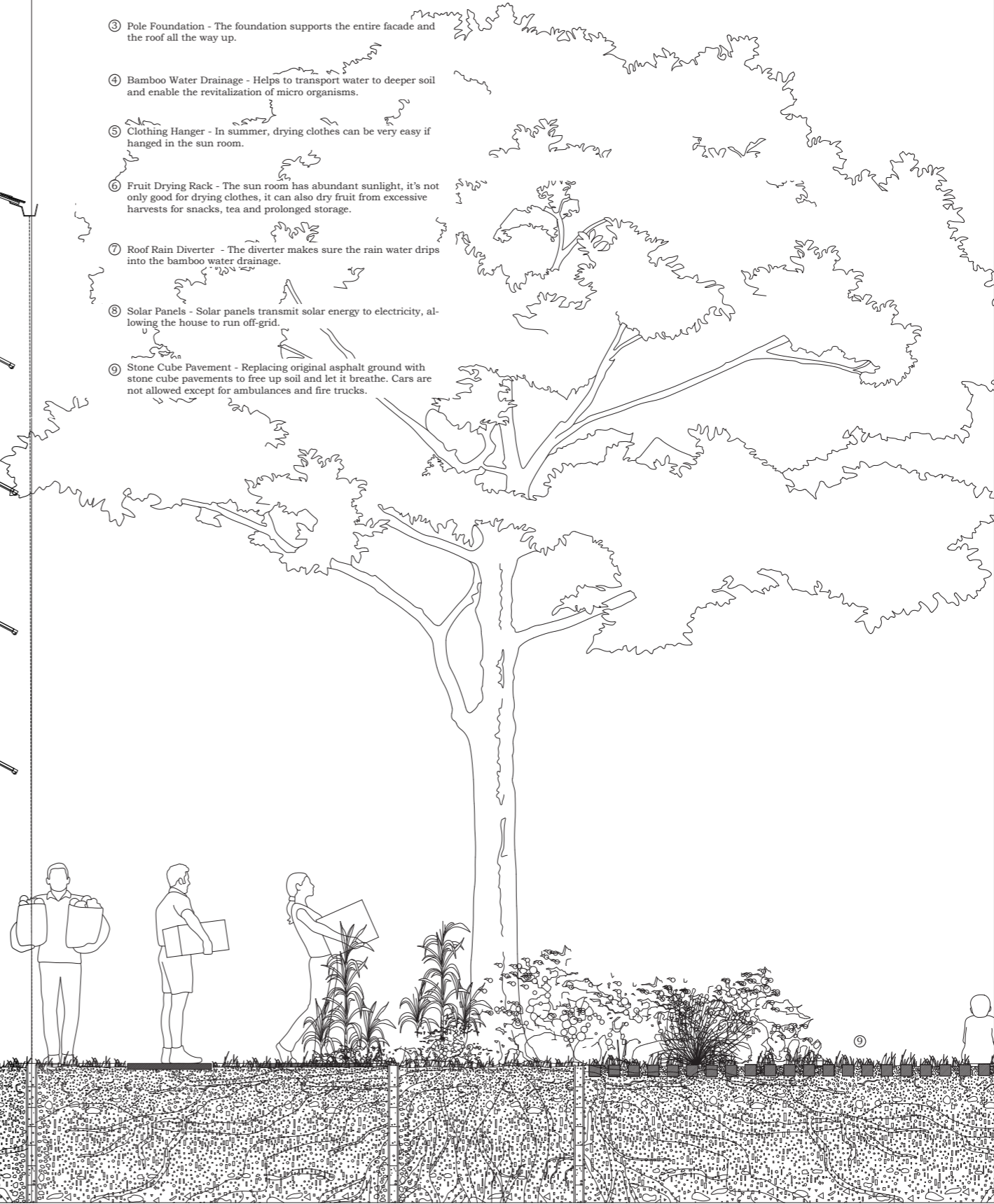
⑤ Clothing Hanger - In summer, drying clothes can be very easy if hanged in the sun room.

⑥ Fruit Drying Rack - The sun room has abundant sunlight, it's not only good for drying clothes, it can also dry fruit from excessive harvests for snacks, tea and prolonged storage.

⑦ Roof Rain Diverter - The diverter makes sure the rain water drips into the bamboo water drainage.

⑧ Solar Panels - Solar panels transmit solar energy to electricity, allowing the house to run off-grid.

⑨ Stone Cube Pavement - Replacing original asphalt ground with stone cube pavements to free up soil and let it breathe. Cars are not allowed except for ambulances and fire trucks.



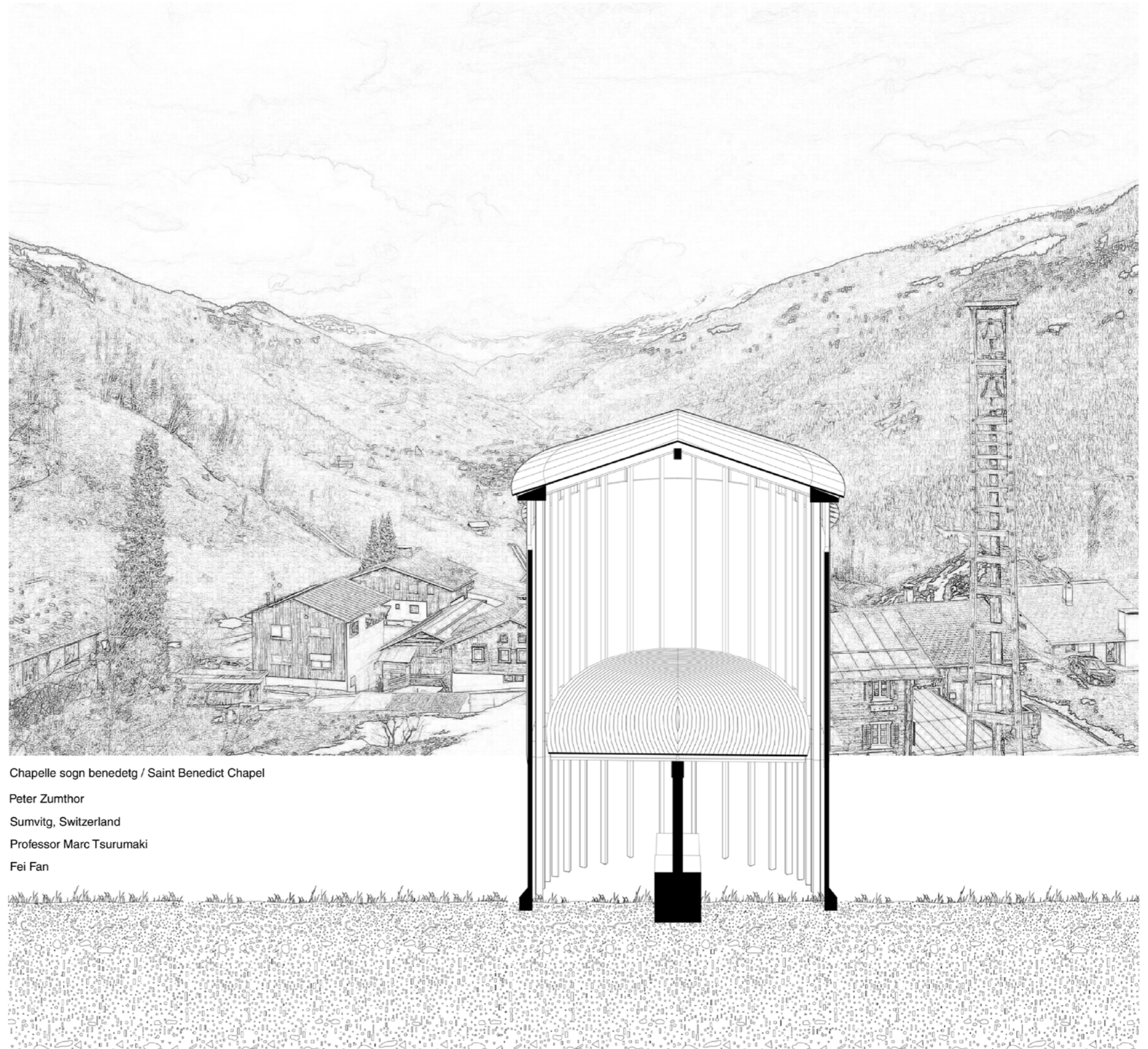
SEMINAR OF SECTION

SEMINAR DISCUSSION AND PRACTICE

PROJECT TYPE	<i>Individual</i>
ELECTIVE	<i>Professor Marc Tsurumaki</i>
DATE	<i>Spring 2024</i>
LOCATION	<i>Columbia University, NY</i>

The seminar discussed the history of section representation, and the gradual development of creativity in representation. The final project is to create a hybrid sectional drawing on an architectural piece. The piece I selected is the Saint Benedict Chapel in Sumvitg, Switzerland, by Peter Zumthor. I chose it because I was traveling to Switzerland and could visit the place.

The inspiration of the background comes from the photography I took during the visit, which I discovered the importance of the direction and background the building was facing. By turning the background into a linedrawing, the geological background of the design is given more importance, which is also the core idea of the section representation.



Chapelle sogn benedetg / Saint Benedict Chapel

Peter Zumthor
Sumvitg, Switzerland
Professor Marc Tsurumaki
Fei Fan

TENSION - COMPRESSION

TENSION COMPRESSION ELECTIVE PROJECT

PROJECT TYPE	Individual
ELECTIVE	Professor Robert E Marino
DATE	Fall 2023
LOCATION	Columbia University, New York, USA

The elective course *Tension-Compression* explores physical properties of tensile structures. While exploring the form of tension structures, students have to creatively turn tension into compression. I first made a physical "parametric" model as the threads can be adjusted by hand, and then brushed resin on the mesh layer by layer over the duration of 5 days.



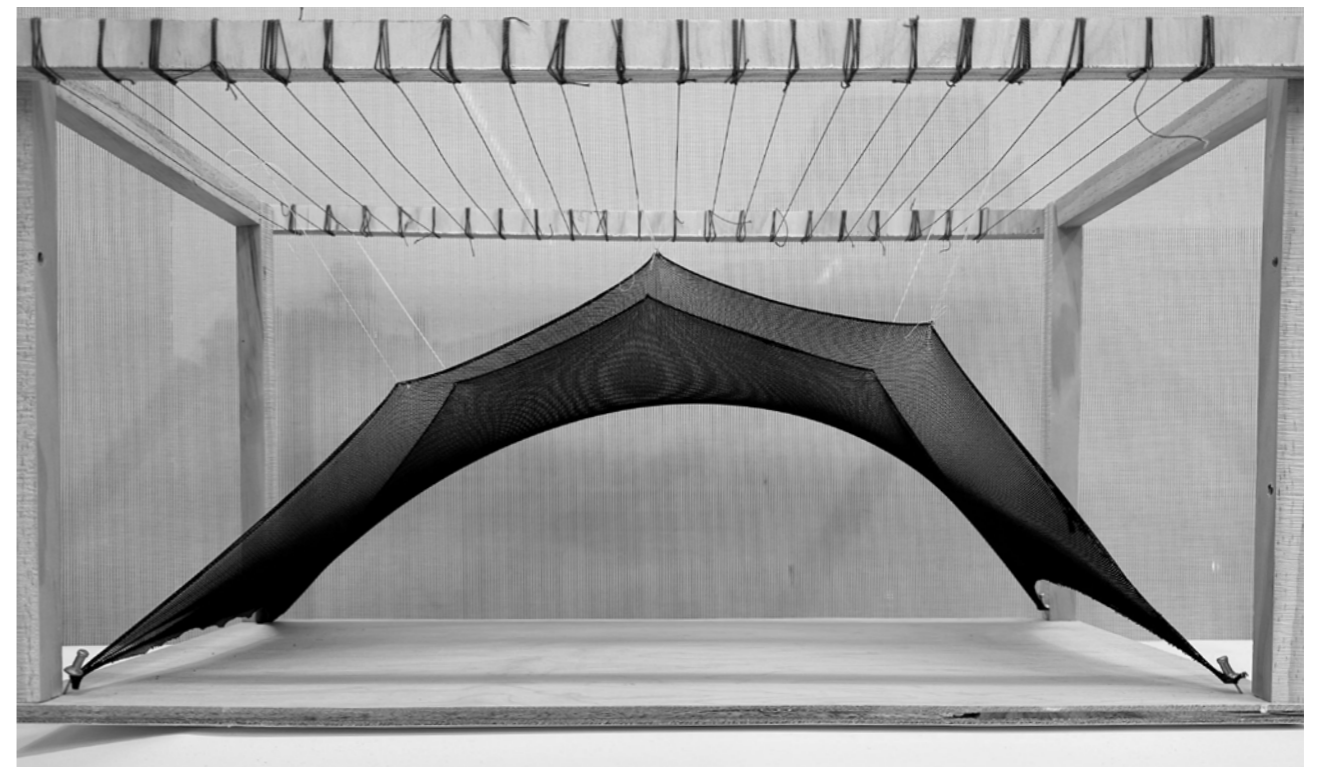
LEFT
Photo taken on final critique

RIGHT
Model axonometric view

BOTTOM
Model mesh elevation

◀
Photo taken after the resin drying process.

The final form of the tension structure was set by four anchor points and six tension points.
▼



1:1 FABRICATION OF DETAILS

CRAFTING AND FABRICATION OF DETAILS ELECTIVE

PROJECT TYPE | Team of three | Aimee Yang | Katie Lee
 ELECTIVE | Adjunct Assistant Professor Zachary E. Mulitauaoepele
 DATE | Spring 2024
 LOCATION | Columbia University, New York, USA

The elective course *1:1 Crafting and Fabrication of Details* aims to create details of a totum of choice with hands-on experience. The idea of our totum is a wall of shelves, redefining the concept of a wall. Bookshelves bring a dynamic change in permeability of space with the number of books as variable.



LEFT
Totum Front View

RIGHT TOP
Close up of Skin

RIGHT BOTTOM
Shelf Handle Design



The threaded skin brings another thin layer of space.

The double curve handle design allows grip on both closing and opening directions.



PROFESSIONAL PRACTICE

PROFESSIONAL PRACTICE SEMINAR ELECTIVE

PROJECT TYPE	<i>Individual</i>
ELECTIVE	<i>Professor Robert Herrmann</i>
DATE	<i>Spring 2024</i>
LOCATION	<i>Columbia University, New York, USA</i>

The elective course *Professional Practice* aims to bring students to the "real world" of architectural design industry. Guest speakers were invited to give speeches and presentations of real world situations and even law cases. The final project submission is a project proposal as if you are trying to get a condominium project.

Fei Fan Architects

Architectural Designer
New York City
929-526-7701
feifan7777@outlook.com

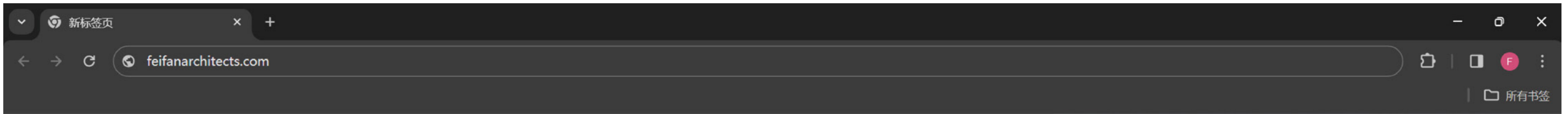
Who we are	We are an award-winning design firm that aim to create architecture that harmoniously combines art, form, and function with the natural environment and local culture, utilizing innovative design and technology to enhance human experience and promote sustainability.	
Why us	We have our expertise in residential while expanding towards large-scale multi-story condominiums after completing two ten-story office-to-condominium refurbishments. More than ten years of practice, the fluid workflow among core team members has proven to be outstanding.	
Projects	Ten-story office building refurbishment #1 Brooklyn, New York City, NY	Jan. -Aug. 2020
	Ten-story office building refurbishment #2 Brooklyn, New York City, NY	Mar. -Dec. 2020
	Residentials The Alice house FL residence Cabin by the lake The watercolor house Fei Fan Residence	2014 - 2022
Awards	Honors award New York AIA Outstanding Six story rental apartment building design	Apr. - Jun. 2022
Team	Fei Fan - Principal/Licensed Architect Yale Architecture PLLC - Project Architect Condominium#1 Boston Condominium#2 New Haven Condominium#3 Chicago	2014 - 2018
	Alex - Licensed Architect Yale Architecture PLLC - Project Architect	2014 - 2018
	Wendy - Licensed Architect Yale Architecture PLLC - Project Architect	2014 - 2018
	Lilian - Project Architect Yale Architecture PLLC - Project Architect	2014 - 2018
	Gareth - Architect HKS Architects	2014 - 2018
	Charlott - Architect HKS Architects	2014 - 2018
	David - Architect SHA Architects	2011 - 2018

Fei Fan Architects
 Architectural Designer
 New York City
 929-526-7701
 feifan7777@outlook.com

Proposal	
Fee	The design service charges 9% (4.7Million\$) of the Total Project Cost (52 Million \$)
Consultants	Structural Engineers MEP (Mechanical,electrical,plumbing) engineers Landscape architects Sustainability experts
Critical Services	Deep site analysis environmental impact studies specialized design features heritage conservation expertise
Drawing Ownership	The client will own the final drawings and have the right to use them for construction and maintenance of the building, the intellectual property rights of the preliminary sketches, detailed drawings, and other documents remain with Fei Fan Architects.
Liability	The client will own the final drawings and have the right to use them for construction and maintenance of the building, the intellectual property rights of the preliminary sketches, detailed drawings, and other documents remain with Fei Fan Architects.
Dispute resolution	Fei Fan Architects are willing to engage in a constructive and proactive manner to resolve disagreements.
Advantage	Fei Fan Architects, as a smaller firm, offers more personalized service and responsiveness. Our innovative techniques and processes set us apart from others. Without compromising on quality, our firm offer more competative pricing structures than larger firms. We have successful past project experiences with exceptional value for solving complex design challenges effectively.

Schedule

1. Initial Consultations and Brief Development Meetings with clients: Understanding client needs, project scope, and expectations. Site visits: Assessing the location for design opportunities and constraints. Preliminary research: Looking into local regulations, environmental impact, and historical significance of the site.	Jan. -Mar. 2024
2. Concept Development Sketching and conceptualizing: Developing the initial design ideas. Internal reviews: Collaborative discussions within the team to refine concepts. Client presentations: Presenting initial concepts to the client and gathering feedback.	Mar. -Jul. 2024
3. Design Development Detailed drawings: Creating more detailed architectural drawings based on the approved concept. Material and technology research: Selecting suitable materials and technologies for construction. Coordination with engineers: Working with structural, mechanical, electrical, and environmental engineers.	Jul. - Dec. 2024
4. Construction Documents Technical specifications: Detailed descriptions of materials, finishes, and construction techniques. Permit drawings: Preparing drawings and documents required for building permits. Contractor bidding: Assisting the client in the contractor selection process.	Jan. - Mar. 2025
5. Construction Administration Site visits: Regular visits to the construction site to ensure fidelity to the design. Client meetings: Regular updates and discussions with the client on progress and any required changes. Coordination meetings: Frequent coordination with the construction team and consultants.	Mar. - Dec. 2025
6. Post-Construction Building handover: Ensuring that everything is built according to plans and functioning as intended. Evaluation: Post-occupancy evaluation to learn how the building performs and how it could inform future projects. Client debrief: Final meeting with the client to close out the project formally.	Jan. - Mar. 2026



Fei Fan Architects

WHAT WE DO

We provoke conversations about what architecture is, and what architecture can be. It is a dialogue between the building and the surrounding environment about relationship, health, and peacefulness. It is a dialogue between the client and the users about experiences and memories.

We specialize in delivering highly personalized architectural design services. Our approach is deeply rooted in the philosophy of simplicity, mindfulness, and the intrinsic beauty of natural materials. We are dedicated to creating spaces that not only resonate with your personal aesthetic but also harmonize seamlessly with nature, inviting tranquility and balance into every corner of the design.



PORTFOLIO

ABOUT US

RECRUITING



HISTORY OF ARCHITECTURE THEORY

METABOLISM IN ARCHITECTURE ANALYSIS

PROJECT TYPE	<i>Academic/Individual</i>
ELECTIVE	<i>Professor Mark Wigley</i>
DATE	<i>Fall 2023</i>
LOCATION	<i>Columbia University, New York, USA</i>

Kisho Kurokawa begins the first chapter by using his own childhood memories as a guide to the text, helping the reader to understand how it all began from his perspective. "War helped me discover Japanese culture." This is a sentence with high contrast. As a Japanese born in Japan, it is as if he did not discover or even realize the true Japanese culture before the war. This statement shows that the war for him seems to have pushed him to discover a deeper, more original and pure Japanese culture. This quote also makes the reader wonder what Japan is and why the war helped the author to discover Japanese culture. "As I stood amidst the ruins of Nagoya, the third largest city in Japan, there was nothing but scorched earth for as far as I could see. "

The second sentence of the article strikes straight to the heart, and a strong sense of image appears in the reader's mind, imagining a childhood architect standing amidst the ruins of the city, and how much of an impact such a scene would have on a child. Complex emotions such as sympathy, fear, apprehension, anger, regret and so on come to the mind like a tidal wave of indescribable feelings. "In contrast to the desolate surroundings, the blue of the mountain range on the horizon was dazzling to the eyes." "Desolate" and "Blue" form a vivid contrast, the author describes that the blue color of the mountain range was dazzling to the eyes, which implies the darkness of the ruins and emptiness, as if they were looking at heaven from hell. In just a few sentences at the beginning of the article, through vivid descriptions and scenes, the author creates an unshakeable setting, a setting that is his own. This setting infinitely magnifies one side of a factual corner, like the author's shadow, existing in the corner of his heart.

The target audience for this book includes and is not limited to anyone interested in architecture, philosophy, and human history. It may even be aimed at everyone. There is not much in the way of technical drawings or terminology in the beginning of the book, but more in the way of conveying an idea. In the further back of the book, technical drawings and more specific terms emerge as the author starts to explain some of his own works. For example, in the beginning, when the author describes the origins of his architectural career, most of the depictions are very vivid and graphic, and it is effective in capturing the reader's curiosity and sympathy. If it were a very academic and professional text, it is likely that the author would not have started from his own childhood memories. Again, still in the first chapter, the author begins to describe how he was exposed to the earliest Japanese culture. He begins with the Meiji Restoration and summarizes this historical journey into four different generations, citing himself as the fourth generation. "I belong to the fourth generation, whose point of origin is the defeat and destruction in the war. In the hearts of all the members of this generation are traumatic images of events that took place when we were in our formative years: the sudden, tragic destruction of Hiroshima and Nagasaki by atomic bombs and the virtually total reduction of cities and buildings to ashes. ashes." This way of dividing up the historical timeline is more than helpful to those who are not as familiar with modern Japanese history, or even those who are not sensitive to the concept of historical timeline. Based on this, the author describes the main socio-demographic characteristics and historical events of each of the four generations very briefly and directly, which not only describes the Meiji Restoration and beyond very concisely, but also allows the reader to understand the author's own perspective and ideas more clearly.

The mission of this piece of theory is to convey the philosophy of metabolism, the advantages of unitized housing, and how unitized housing is built. Obviously, in the first few chapters, the philosophy and ideas are written in a very descriptive manner. The purpose of some of the vivid descriptions is to make the reader empathize with the author and convey the meaning of the existence of metabolism.

From this passage, "For prefabricated buildings to function, temporal modules are essential because materials are consumed in a circular mechanism. After all, the term 'module' referred to individual spaces before it was used by designers." Further into the second half of the article the author begins to explore some of his own work with the intention of going more in depth with the feasibility of metabolism. For the author, theory is only the first step in practice, and he hopes to use his work to promote more research in the fields of mass production, prefabrication, and post fabrication. On page 86 of the book, the author writes in detail about his experiences and insights into mass production, entitled *Quantity and Quality in Mass Production, Meta-Architecture*. The titles are *Quality and Quantity in Mass Production, Selectivity and Variability in Meta-Architecture, Functional and Spatial Units, Dynamic Modules - Modulation Techniques, Problems in Designing Prefabricated Apartments for Mass Production, and Plans for Growth and Change*. The authors begin to use some very detailed data, such as "In my prefabricated cube unit design, it is the function, not the material, that determines the size. The prefabricated unit has a living space of 2.7 meters x 1.35 meters. The presence of this data reinforces the purpose of this theory: to educate as well as share experiences.

The definition of a theory is a methodology, a method that should be followed. The author of a theory intends to persuade the reader to adopt his or her own approach because it is persuasive and influential. Based on these observations, the author, Kisho Kurokawa's description of Metabolism is very much in line with the above description. First, the author clearly explains how and why the Metabolism came about: the displacement of populations due to war and various social problems forced architects to find ways to solve the housing problem in the shortest possible time. Metabolism, then, is an architectural methodology inspired by nature and capable of solving the housing problem. Secondly, the author also proves that this theory is very convincing because in the first chapter the author also explains the history of Japan from the Meiji Restoration to the modern day in a very profound way, passing on the essence of Japanese culture and its future in a new way. The metabolism is even interspersed with a lot of Buddhist concepts, and it can be seen that this is a very complex and developed theoretical system.

What arguments are being made?

The author argues that the architects of the first, second, and third generations, as he calls them, were very much in favor of Western philosophical and architectural thought and "copied" Western architectural forms directly to Japan, while still believing that what they were doing was correct. However, Kisho Kurokawa believes that he, the fourth generation of architects, did not follow this Western architectural trend, but rather felt that the behavior of the previous generation of architects was very misleading, and that they brought all kinds of doubts into Japan. "I found it meaningless to revive an already destroyed city by means of a monument, I felt that it was important to let the destroyed be and to create a new Japan." The author uses two very subjective words, "meaningless" and "important" to express her opinion and explain it below. Not only did this growth strengthen Japan's economy, but it also strengthened Japan's economy. Not only did this growth strengthen Japan economically and politically, it also, for the first time in history, upset the old Japanese society. The author's use of the word "Upset" side by side depicts a rebellious mentality that existed in the minds of the author's generation. "New people became prominent in all fields, and new art movements that refused to be bound to the established orders appeared. Here we can also see a contrast between "New People" and "Old Rules". These are very subjective terms that express a very strong stance that will resonate with the reader emotionally as he or she reads.

In Chapter 2, the author introduces the concept of Capsule and names the chapter Capsule Declaration. There are 8 articles and all of them start with a declarative sentence: "The capsule is...". "The capsule is cyborg architecture.", "The capsule is a dwelling of Homo movens.", "The capsule suggests a diversified society.", "The capsule is intended to institute an entirely new family system centered on individuals.", "The true home for capsule dwellers, where they feel they belong and where they satisfy their inner, spiritual requirements, will be the metapolis.", "The capsule is a feedback mechanism in an information-oriented, a 'technetronic', society.", "The Capsule is the ultimate form of a prefabricated building - an industrialized building.", "The capsule mentality is opposed to uniformity and systematic thinking." The word "is" conveys a strong message, and acts as a link to all the claims and evidence.

At the same time, in the first sentence of the main body of the article, the author also uses the terms "Unit Space" and "Cell" in the first sentence of the main body of the article. The clear title of the chapter and the way of writing the title at the beginning of the chapter express the main idea of the article in a quick and direct way. "Unit Space" is a very architectural term, which the author associates with the term "Cell" in the field of biology, and it also reflects the connotation of a metabolic system: a system that is organic and full of life from top to bottom. The phrase "The Capsule is Cyborg architecture." is a strong statement, and the presence of the word "Is" is as if the author is telling everyone what a capsule is. The author is denying that there is an existing definition of a capsule. denying that there are other opinions about capsule and restating the correct definition. At the same time, this sentence does not give a very detailed explanation because the concept of "cyborg architecture" is also a new concept, and although the author explains it below, the impact on the reader is very strong at this point. The author is making corrections, guiding, and explaining to the reader as if he were a teacher teaching a student some common sense knowledge that he himself hadn't fully understood correctly before.

"Man, machine and space build a new organic body which transcends confrontation." The author's use of "build" in this sentence gives the impression that the author uses "build" in this sentence to give the impression that a new machine has been built, but at the same time uses the term "organic body" to describe such a built object. "Transcends confrontation" can be interpreted as the new organic body being sublimated into a new body that does not confront the machine or space. Such a marvelous description makes one wonder what kind of body, what kind of life possesses this power. But on the contrary, is there a confrontation between our physical body and the machine and space? The author then explains: "As a human being equipped with a man-made internal organ becomes a new species which is neither machine nor human, so the capsule transcends man and equipment." Here the author explains the relationship between the capsule and man in terms of the concept of cyborg. The author utilizes an already well known concept, the cyborg concept, by replacing machine with capsule, which more naturally explains the otherwise more complex concept.

"The word 'capsule' usually conjures up either a capsule containing medicine or the living quarters of an astronaut. The word 'capsule' usually conjures up either a capsule containing medicine or the living quarters of an astronaut. Usually", in order to explain a common perception of the word "capsule", and to give an example of a concept familiar to the world in architecture - the space station. The fact that such a concept is presented beforehand also reminds the reader that the author is laying the groundwork at this point, and it is almost possible to guess that the author is going to come up with some more interesting concepts based on this common knowledge. As a reader, this tactic is intriguing, and there is a desire to dig more into what the author is actually trying to say.

"A rupture in the capsule, however small, would instantly upset the internal equilibrium and destroy the strictly controlled environment in it. Such a device and the life in it depend on each other for their existence and survival." The author has been using some easy to understand scenarios in life to contrast and elaborate on a new concept, a technique that resonates a lot with the reader. The author has been using scenes from life that are easy to understand to contrast and illustrate a new concept, a technique that resonates with the reader and is relatable, not inherently resistant to a sense of unfamiliarity." "depend on each other" is like describing the "container" (which is not even a building) as being alive and dependent on its occupants. This description brings the relationship between the occupant and the building much closer, making it feel more intimate, as if it needs extra care and maintenance, and more like an object that one owns.

"Future society should be constituted of mutually independent individual spaces, determined by the free will of individuals. Systems are necessary but our policy should be to develop the possibility of acquiring greater spaces for individuals on the basis of the system, not one to reduce the spaces for individuals to conformity through the instrument of the system." In this sentence "mutually independent individual space" implies a self-sustaining self-reliant environment. The use of "mutually independent" suggests a sense of autonomy and self-reliance. This phrase implies that individuals should have their own spaces that are not only independent but also interconnected in a harmonious way. This choice of words promotes the idea of a society where individuals coexist without sacrificing their independence. Moreover, "Free will of individuals" made emphasis on "free will" suggests a commitment to personal agency and the right of individuals to make choices without undue influence. This phrase implies that architectural design should respect and facilitate the expression of individual preferences and choices. By acknowledging the necessity of systems, the passage recognizes the importance of organization and structure in societal frameworks. The use of "necessary" suggests a pragmatic understanding that some level of organization is required for a functioning society. The choice of the word "develop" implies a proactive and forward-thinking approach. It suggests a continuous process of improvement and expansion, with a focus on enhancing individual spaces rather than limiting them. "Greater spaces" conveys the idea of abundance and the potential for growth. This paragraph shows the author's positive attitude towards his vision of the future, and it also provides a vivid vision for readers. Then, the author writes "Given this proposition, each space should be a highly independent shelter where the inhabitant can fully develop his individuality. Such space is a capsule. This is the meaning of the proposition that the capsule aims at a diversified society." Again, the author uses the word "is", declaring a statement of oath. It is a strong statement as he firmly believes and persuades that the capsule is a space that should be highly independent where inhabitants can fully develop their individualities.

"How about universities? At present, campuses are spaces within a city but separated from the whole. However, Universities will increasingly take on the character of cities in the future. Universities will cease to be spaces where only the elite study but will be socially open. Campuses will no longer be places for research and education alone but will become forums for the increasingly becoming multi-purpose spaces." By answering his own question, the author "helped" readers to think about more possible scenarios that might happen in the future. The author then proceeds to help readers present a vision of universities evolving into city-like spaces that are socially open and multi-purpose. By offering an answer, the author guides the reader's thoughts and introduces a speculative perspective on the future of education and urban planning. Readers might feel surprised if the author had guessed what they were thinking, closing the distance between readers and the author. This suggests a level of connection between the author's predictions and the reader's thoughts, creating an intriguing dynamic. Moreover, the author maintains reader engagement by posing another question: "Then what type of urban space can furnish such repose?" This question extends the dialogue and encourages readers to think further about the characteristics of urban spaces that can accommodate the envisioned transformation of universities.

“The capsule is a feedback mechanism in an information-oriented, a 'technetronic', society. It is a device which permits us to reject undesired information. Our society is emerging from the industrial age and entering a technetronic age. The industrial pattern based on the manufacturing industries is changing into one based on information industries, such as the knowledge industry, education industry, research industry, publishing industry, advertising industry and leisure industry. To protect us from the flood of information and the one-way traffic in information, we should have a feedback mechanism and a mechanism which rejects unnecessary information. The capsule serves as such a space.” The language used in this paragraph is characterized by a combination of descriptive, explanatory, and persuasive elements. The paragraph employs technical terms such as “feedback mechanism” and “technetronic.” These terms suggest a level of specificity and expertise, indicating that the discussion pertains to specialized fields, related to architecture and technology. The term “capsule” is used metaphorically to describe a protective space or device that serves a specific function. This metaphor creates an image of containment and control, emphasizing the idea that the capsule shields individuals from the overwhelming nature of information in the evolving society. The paragraph also follows a cause and effect structure, presenting the societal shift from the industrial age to the technetronic age as the cause. The effect is the need for mechanisms, with the capsule introduced as a solution to address the challenges posed by the changing dynamics of information. The language carries a persuasive tone, advocating for the significance of the capsule as a protective space in the face of the “flood of information” and the “one-way traffic in information.” The paragraph seeks to convince the reader of the necessity for such a mechanism in the emerging technetronic age.

“The capsule is the ultimate form of a prefabricated building - an industrialized building. Industrial production of buildings becomes possible when the production process is divorced from the conventional building construction industry.” The passage starts by introducing the capsule as the ultimate form of a prefabricated building. It positions the capsule as an industrialized building, suggesting a departure from traditional construction methods. It then suggests that industrial production of buildings becomes possible when divorced from the conventional building construction industry. This implies a shift away from traditional methods, highlighting a need for a new and innovative approach. It draws parallels with established industrial sectors such as the rolling stock industry, aircraft industry and motor vehicle industry. By using these industries as models, it implies that the building construction process should emulate their efficiency and innovation. Terms like “mass production” and “industrial production” to highlight the scale and efficiency that the capsule concept aims to achieve. The language suggests a desire to move away from bespoke, on-site construction toward a more streamlined and standardized process. The phrase “qualitative conversion” suggests a significant and positive transformation in the way buildings are produced. This implies that the capsule is not just about efficiency but also about improving the overall quality of the built environment. The language is assertive and visionary, presenting the capsule as a game-changer in the construction industry. There’s an underlying theme of progress and the need for a paradigm shift in building construction methods.

“The capsule mentality is opposed to uniformity and systematic thinking. The age of systematic thinking has ended. Thought disintegrates, is dissolved into separate, powerful words, and is capsulized. A single word, or a single name, can spread, transform, permeate, stimulate an entire society and help to mold the thinking of an age. A building is dissolved into parts and is capsulized as functional units. A building will be defined in the future as the state of spatial-temporal docking of more than one capsule.” The paragraph discusses the “capsule mentality and its opposition to uniformity and systematic thinking, suggesting a shift away from traditional approaches to architecture. The language begins by clearly stating that the capsule mentality opposes uniformity and systematic thinking. This sets the stage for a departure from established norms in architectural thought. The author asserts that “the age of systematic thinking has ended,” indicating a paradigm shift or a rejection of systematic approaches to architecture. The use of “has ended” implies a definitive break from the past, creating a sense of transformation.

The language describes thought as disintegrating and being dissolved into separate, powerful words. This imagery suggests a breaking down of conventional thought processes into more discrete and impactful elements. The term “capsulized” is used to describe the process of breaking down and encapsulating ideas or elements. This term conveys the essence of the capsule mentality, where things are condensed into more manageable and potent forms. The paragraph suggests that a single word or name can have significant influence, spreading, transforming, permeating, and stimulating an entire society. This emphasizes the potency and efficiency of concise and focused concepts, reflecting the capsule mentality. The language then applies the capsule mentality to architecture by stating that a building is dissolved into parts and capsulized as functional units. This suggests a departure from the holistic view of a building and a move towards modular or compartmentalized structures. Throughout the paragraph, metaphors such as “thought disintegrates,” “dissolved into separate, powerful words,” and “spatial-temporal docking” are used. These metaphors serve to paint vivid pictures of the author’s ideas, making the concepts more accessible and engaging.

2023-2024