

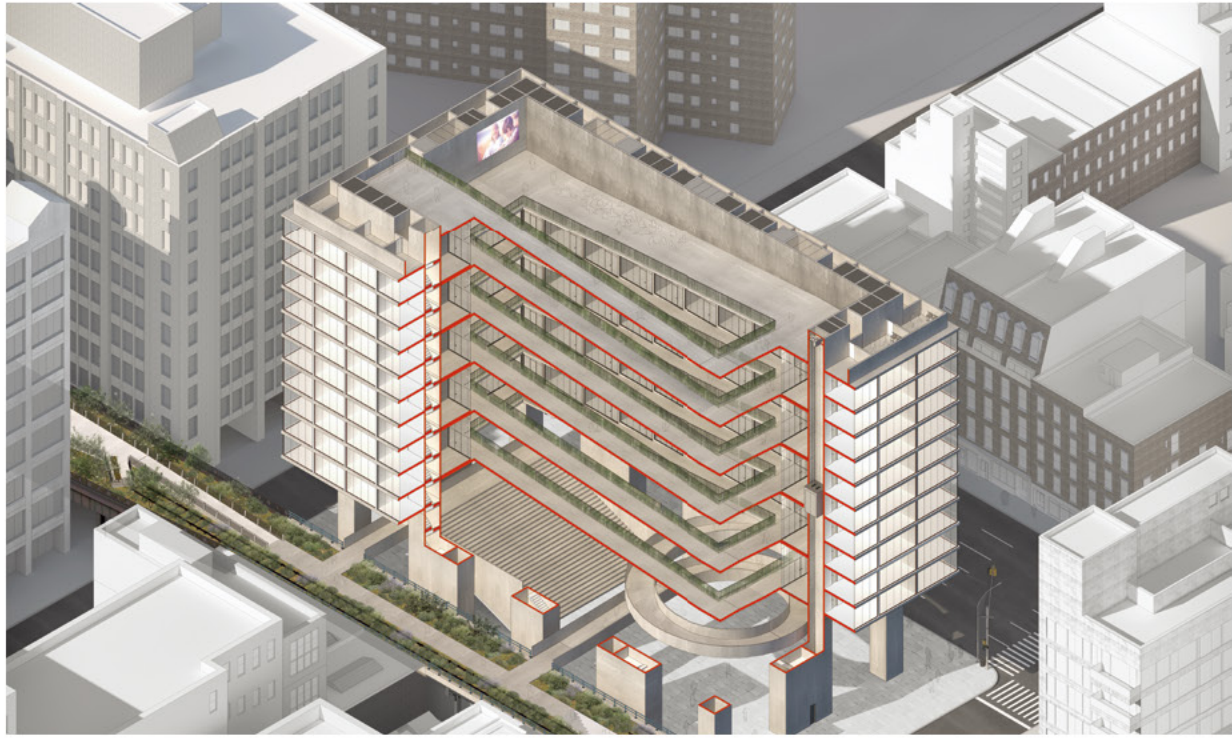
KYUCHAN KWAK

Columbia University GSAPP 2020

Spreads

Table of Contents

4	Associative Space in Dissociative Urban Frame
24	New Symbiotic City: Conversing Art and Nature
38	New Dentsu Headquarters : Double its Surface
63	Transscalarities: Freshkills Park
67	Techniques of the Ultrareal: Hill Side House
75	Transitional Geometries: Tiles
81	Architectural Daylighting: Covid-19 Refuges



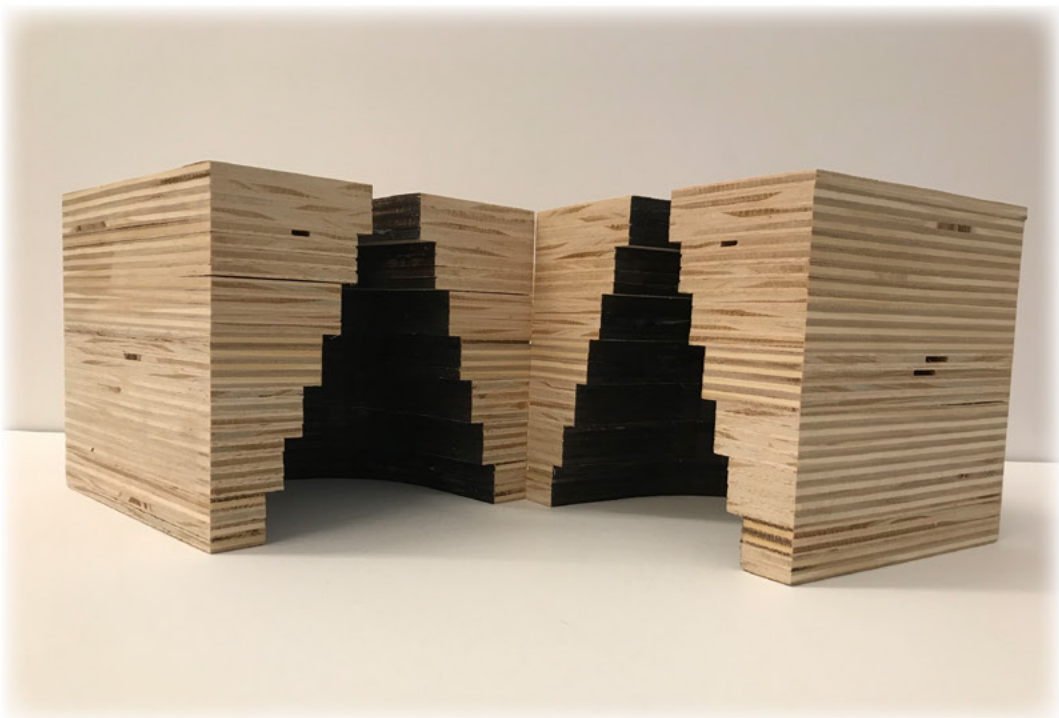
ASSOCIATIVE SPACE IN DISSOCIATIVE URBAN FRAME

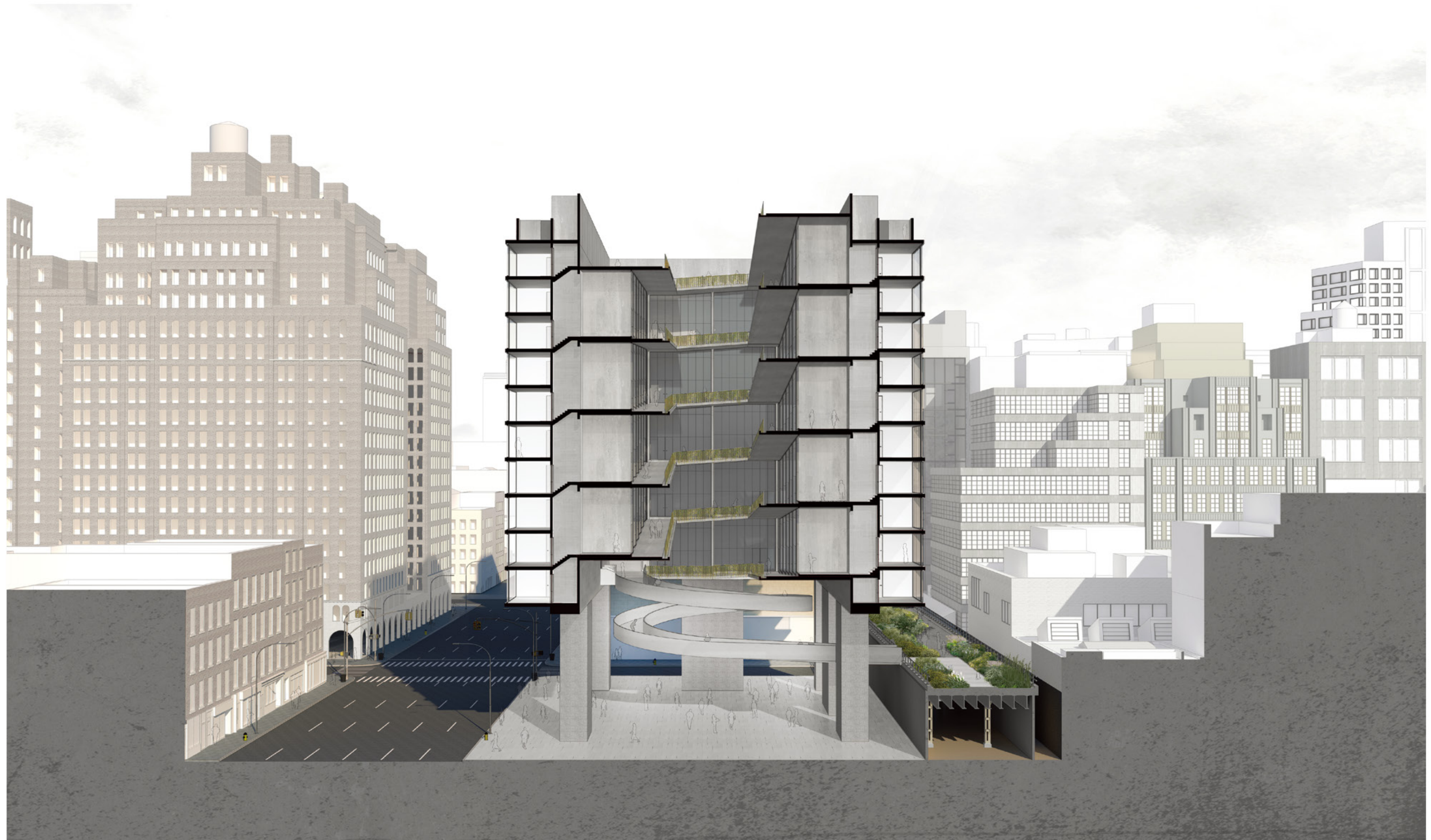
Columbia University GSAPP | Graduate School
Towards a Newer Brutalism Studio
Summer 2019

Critics : Emmett Zeifman
Partner : Yukon Kim

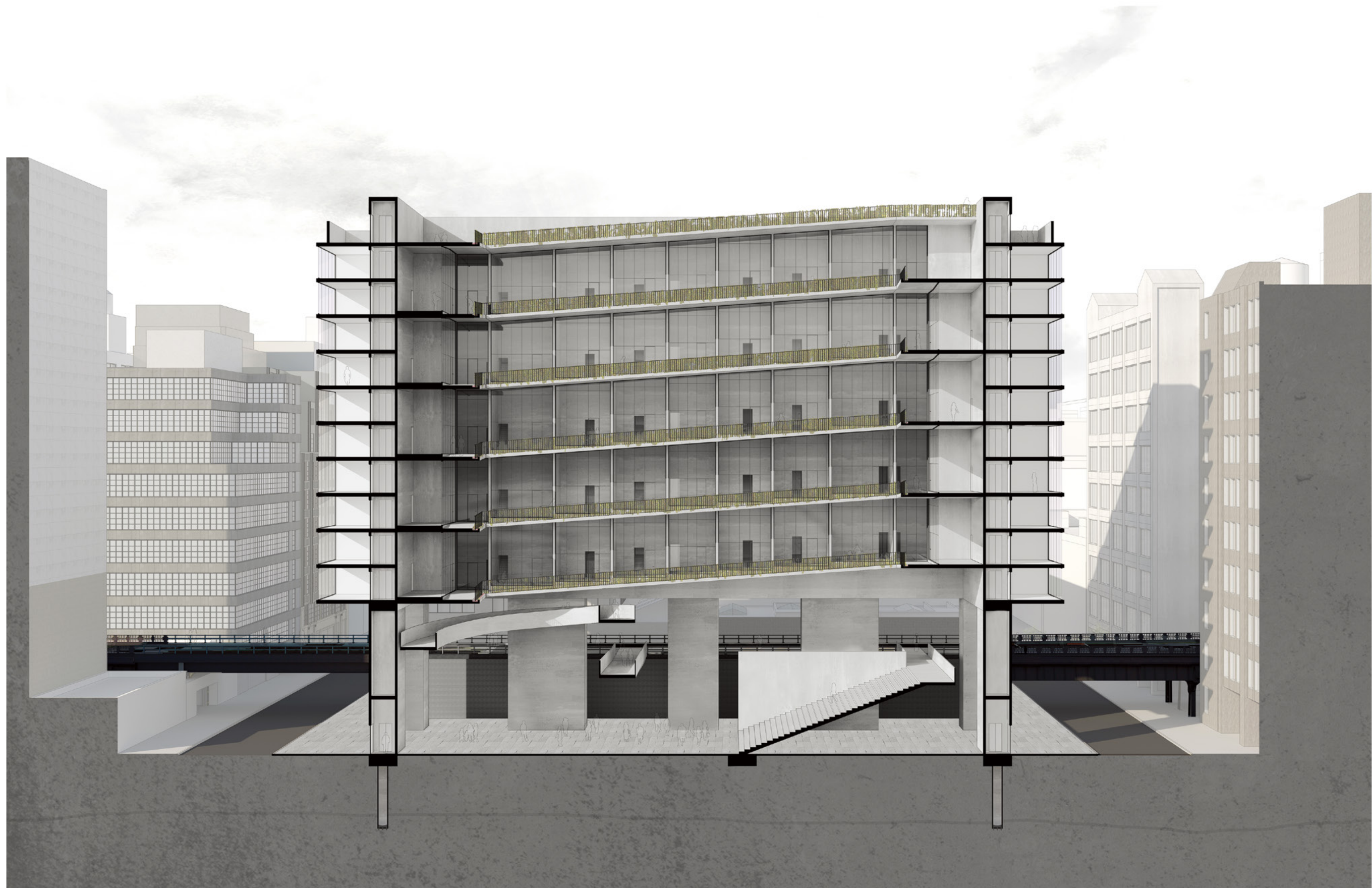
Program: Living & Working
Site: 245 105h Ave, New York

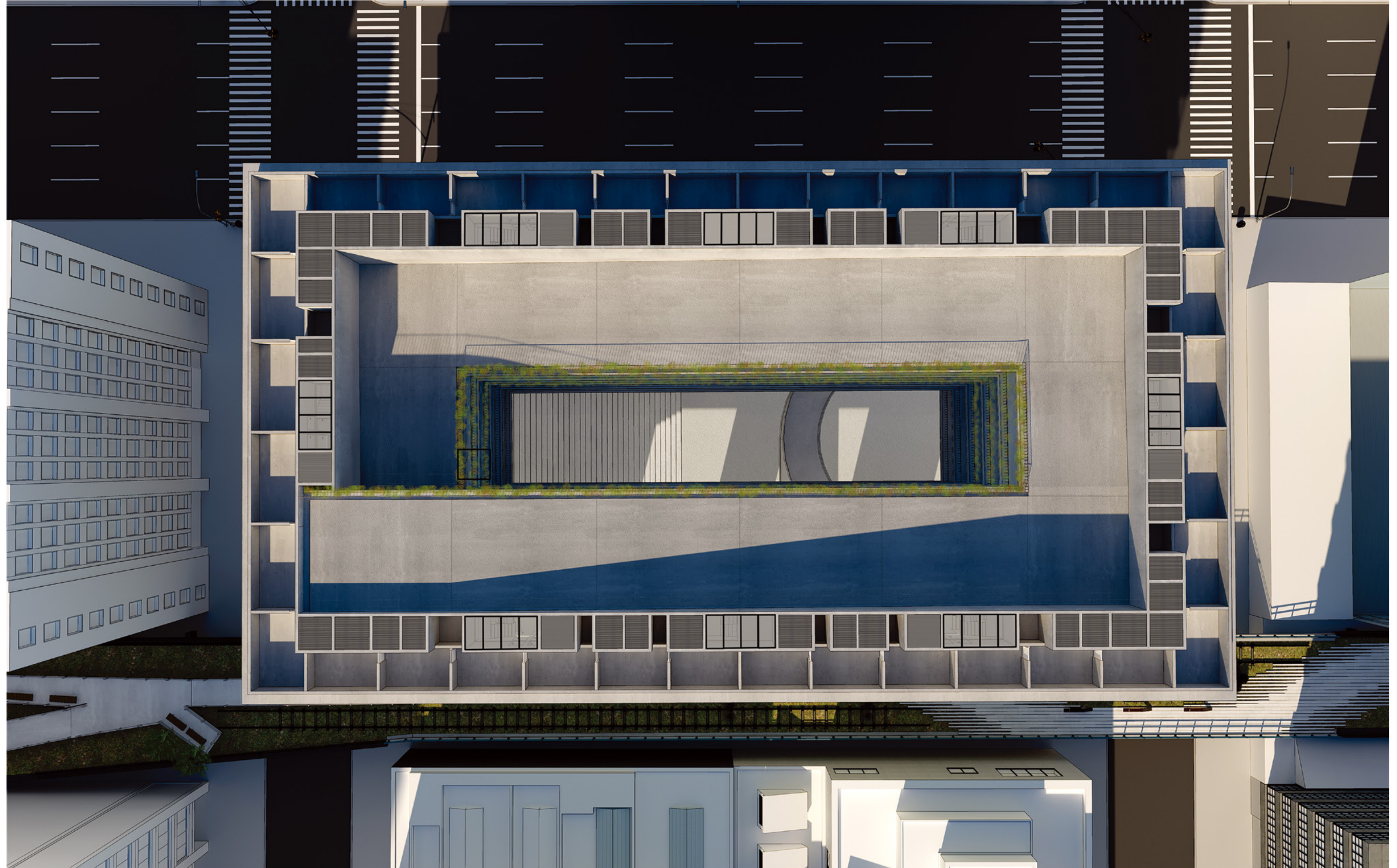
Our idea is to create two different worlds in one space: a combined live/work area. The living area—the outer world—is private, visually connected to the city, and receives natural light. The work area—the inner world—is public and connects to the city. As an extension of the street, the inner world functions as a commercial space. A “mechanic belt” combines these two different worlds into one space, serving as a threshold between the inner world and the outer world.

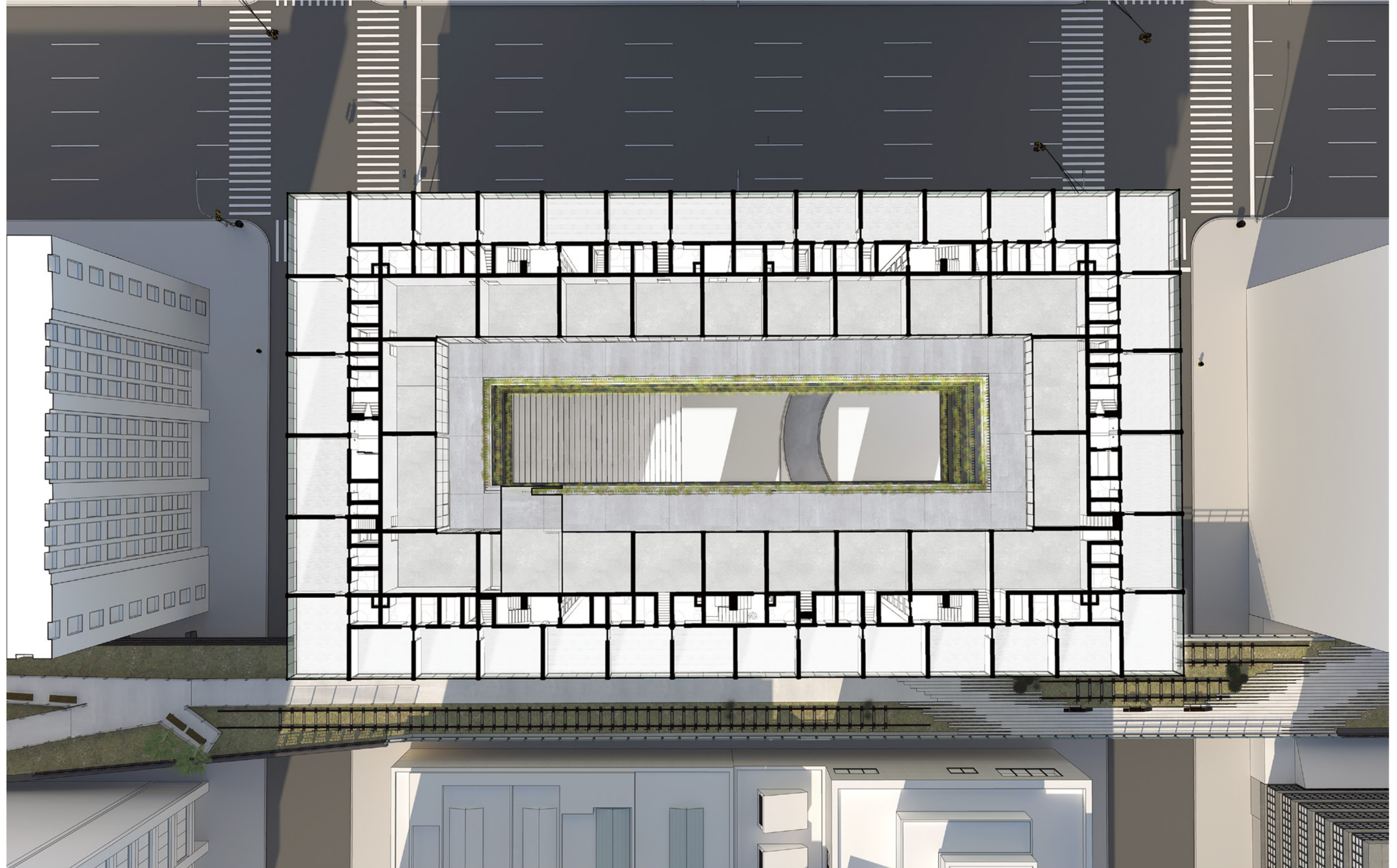


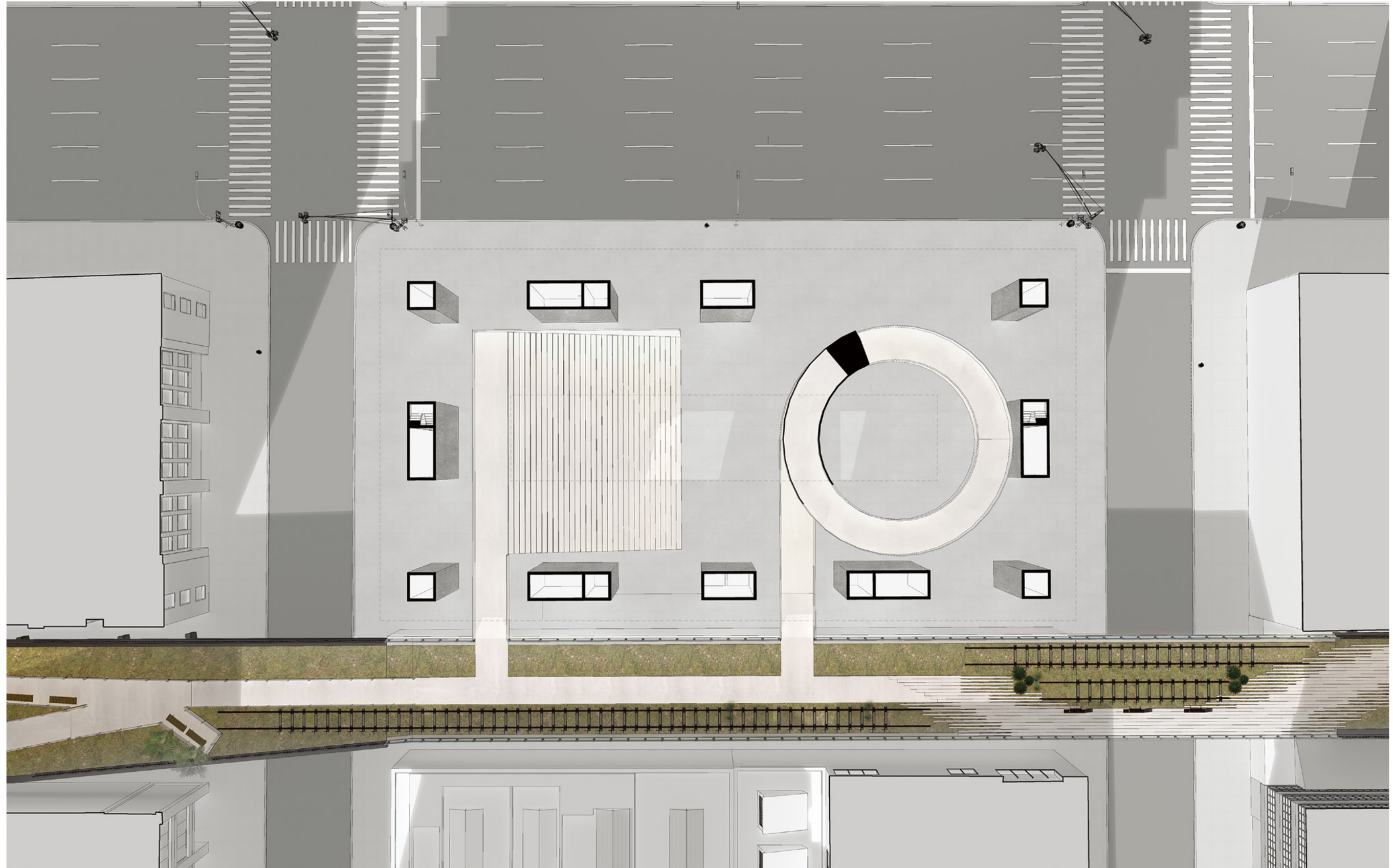


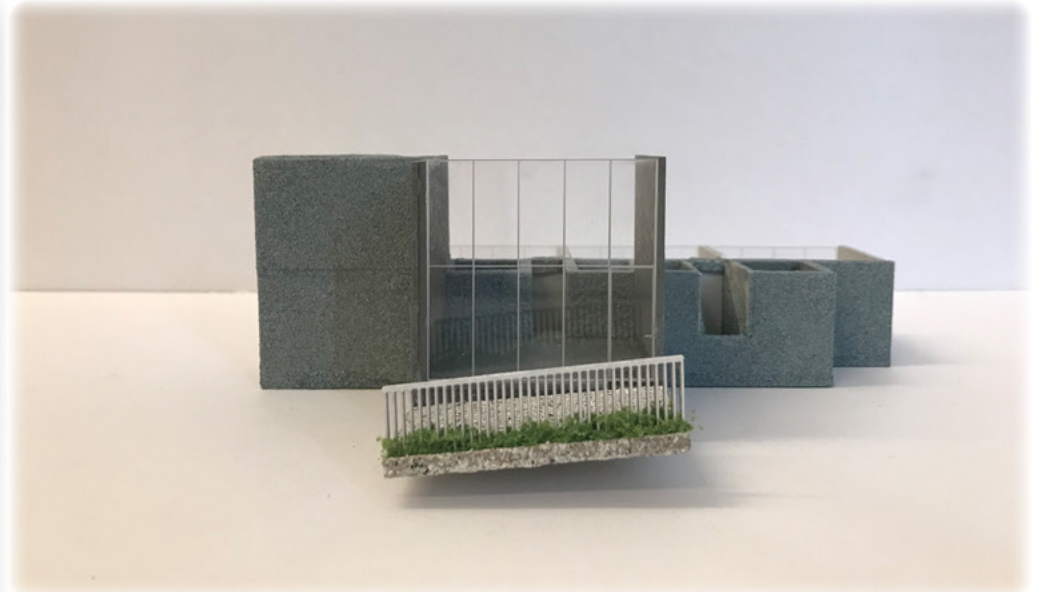
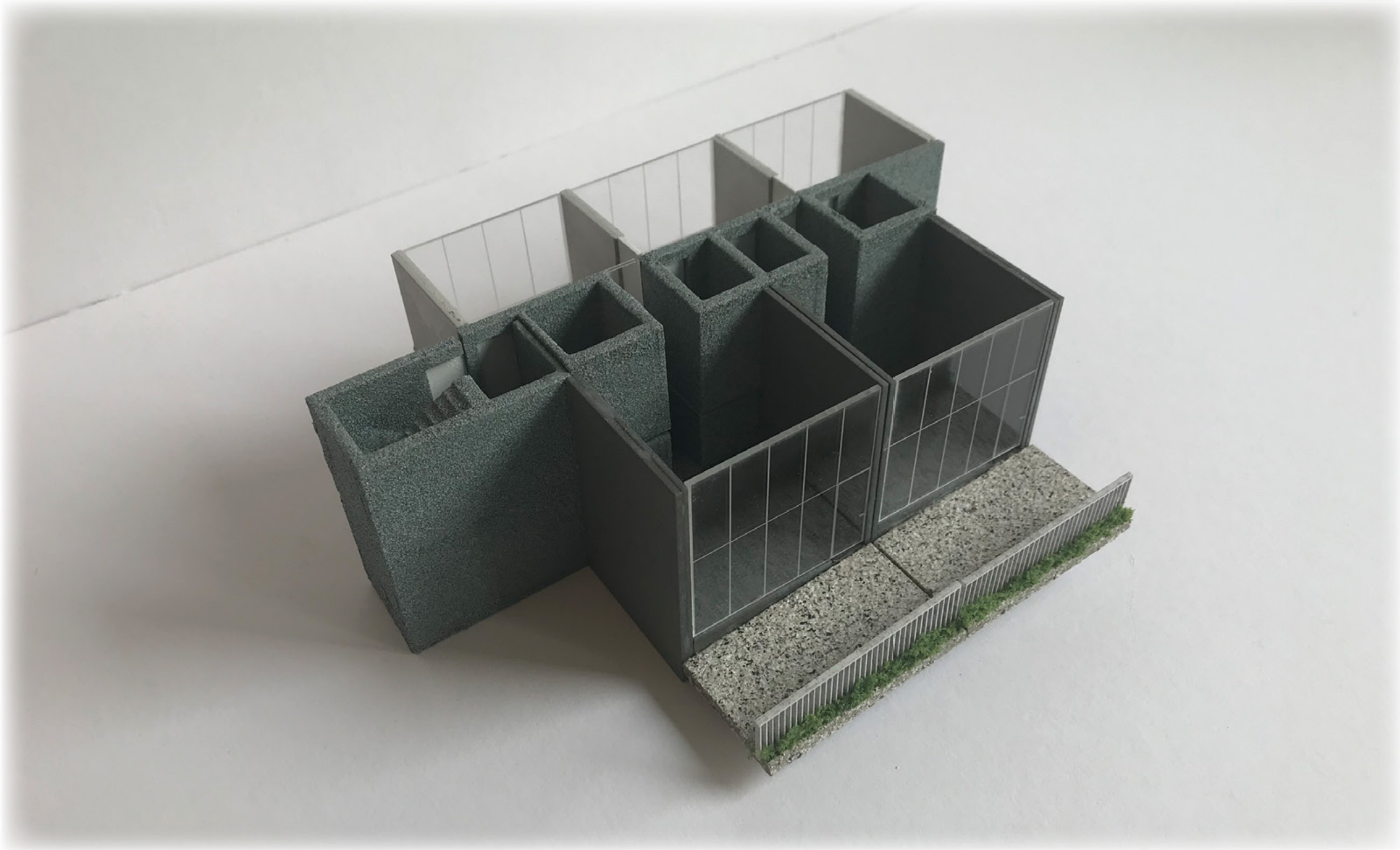




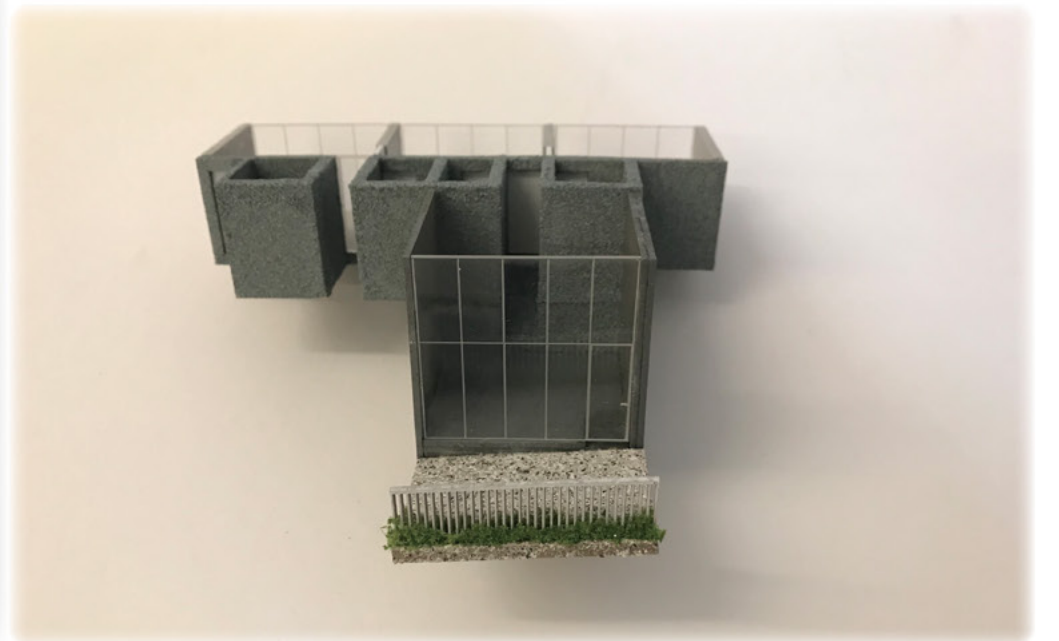








Unit A



Unit B

Unit A + Unit B

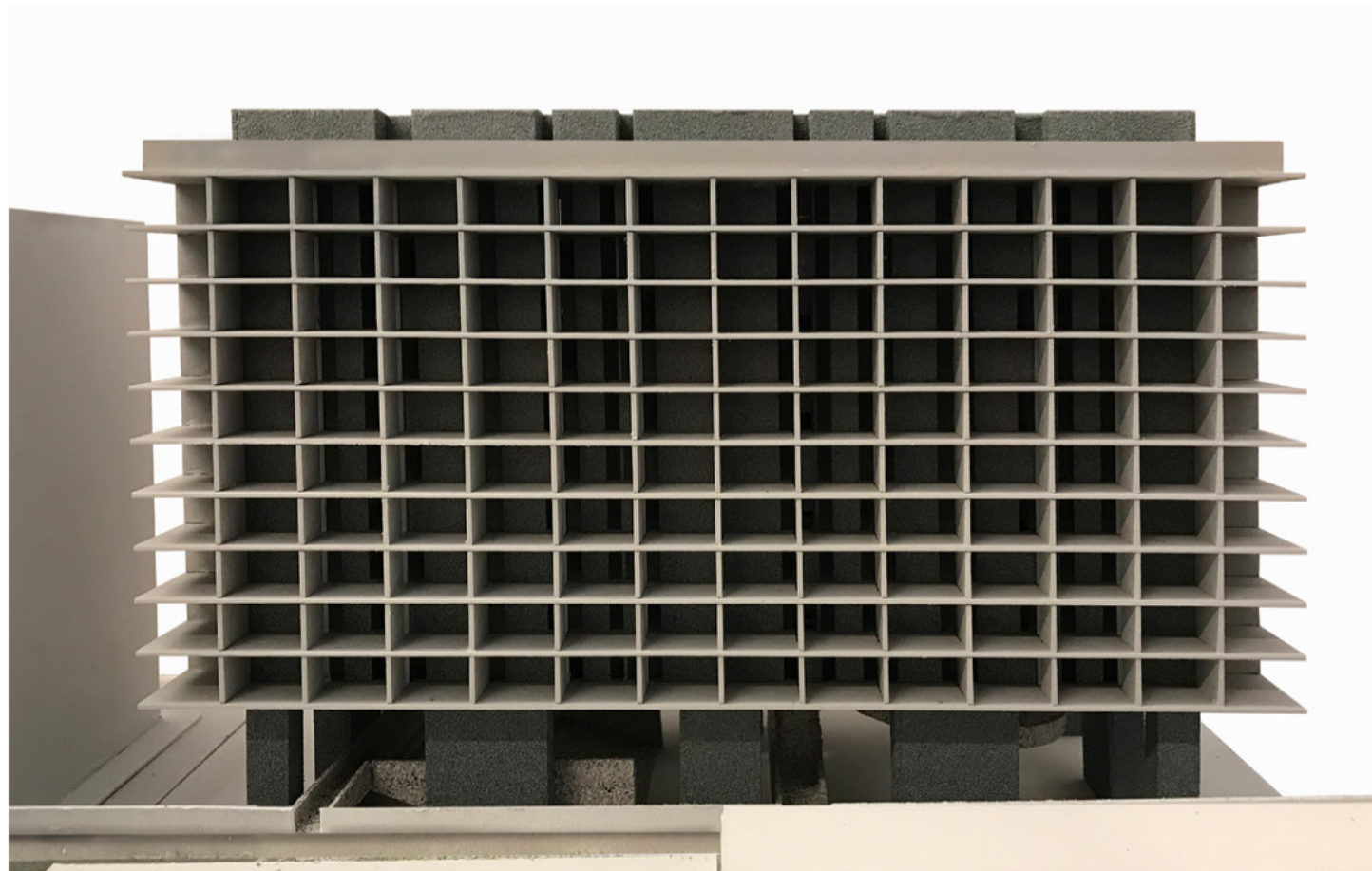
Unit Detail Model



Living



Working



Living



Working



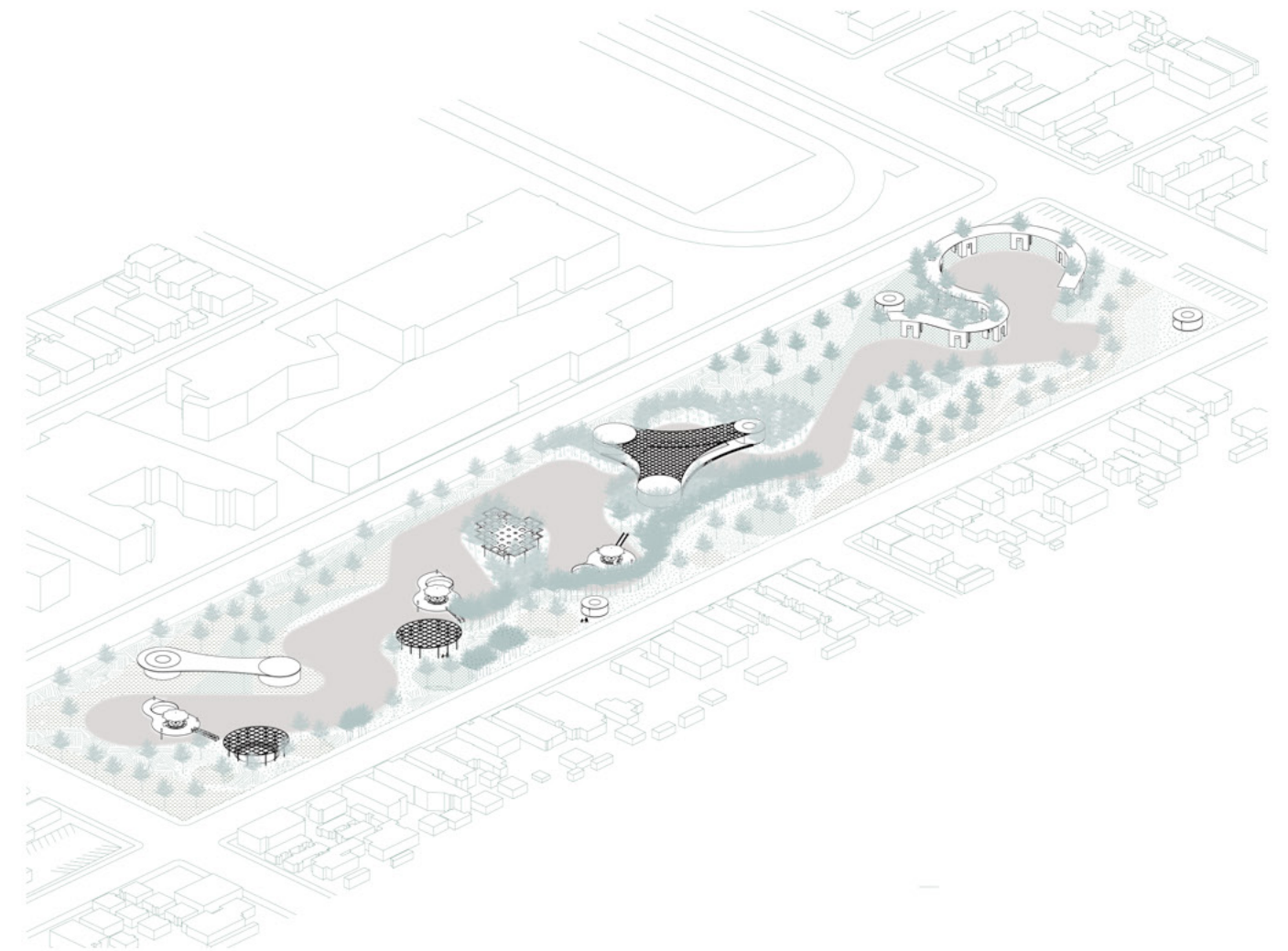
NEW SYMBIOTIC CITY: CONVERSING ART AND NATURE

Columbia University GSAPP | Graduate School
Culture Containers | A Contemporary Art Non- Institution
Fall 2019

Critics : Leong Dominic & Leong Christopher
Individual Work

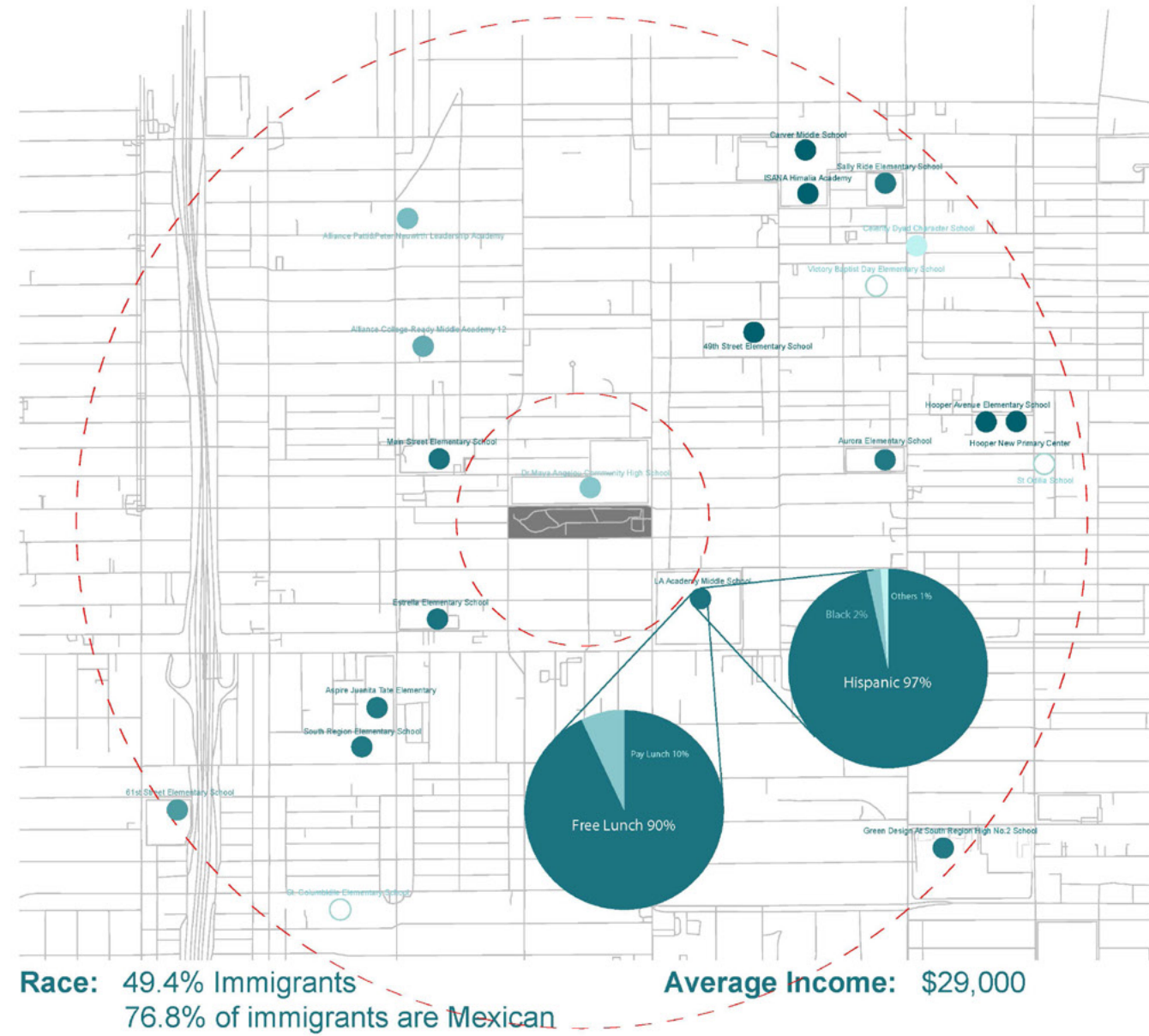
Program: Permaculture & Relational Aesthetics
Site: South Los Angeles Wetlands Park

My project is a proposal for a permaculture park that reconsiders preparing, eating and gathering around food as a form of art. This project supports the LA Southern community where is suffering lack of access to nature and fresh produce. From the closure of South Central Farm, these phenomena have worsened and a response is needed. Escaping clear boundary spaces in the city, six new pavilions greatly increase contact with nature with minimal installation within boundaryless Permaculture. Public encounters a variety of unexpected moments that naturally flow within the pavilions. They will interact with people or nature on the stage, and become actors to express the relationship as art. This park encourages constant meetings to invite public in art.





Alternative Solutions ?



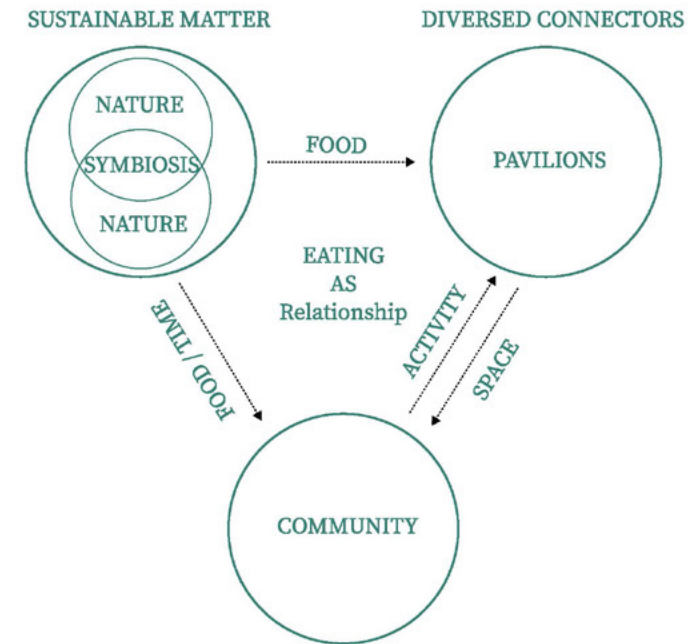
TYPICAL COMMUNITY GARDEN SYSTEM



PERMACULTURE & RELATIONAL AESTHETICS



Borderless | Art & Nature

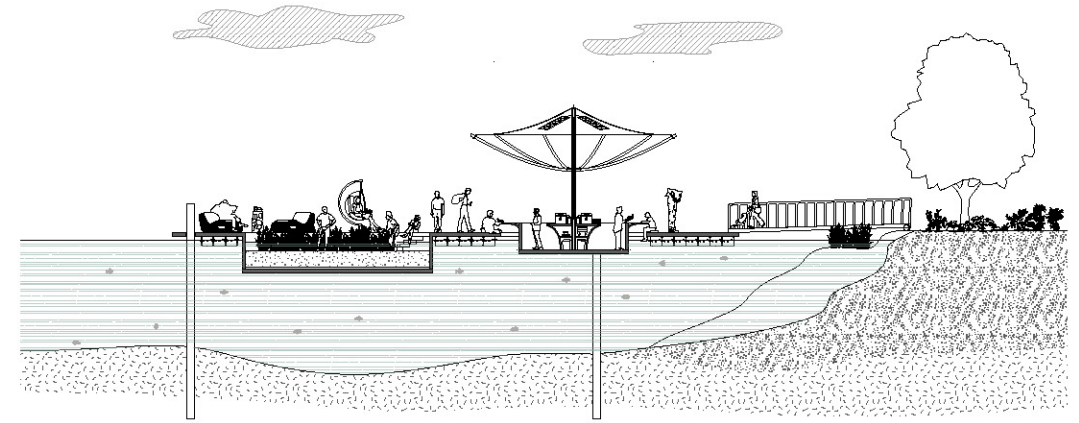
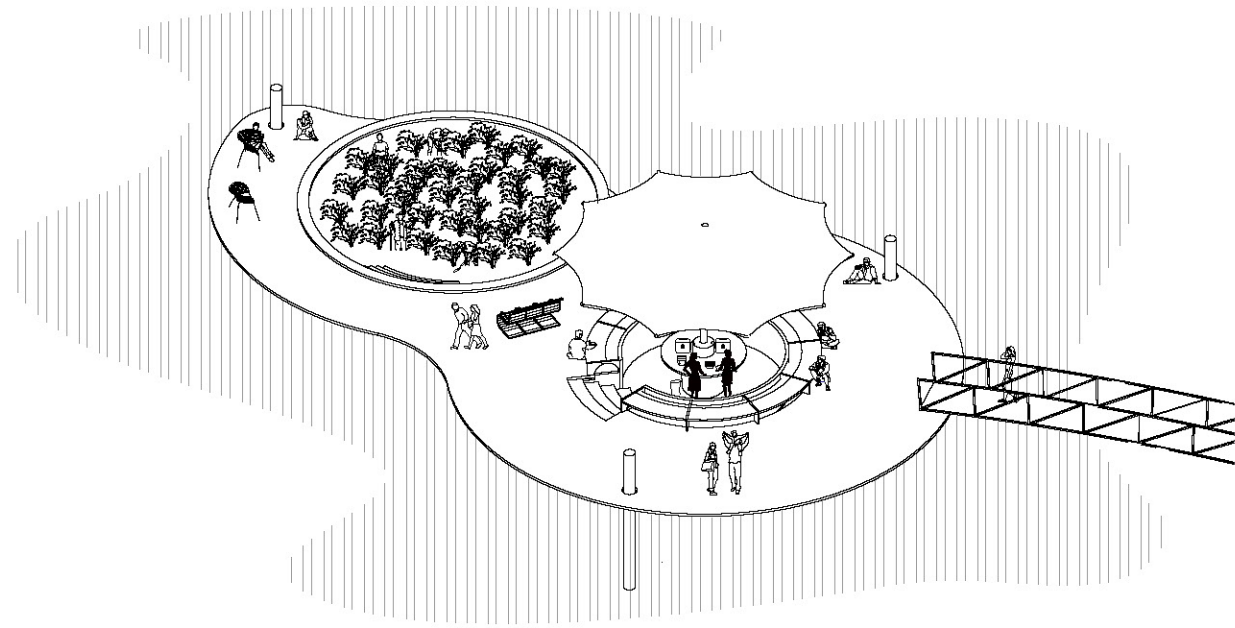




COOKING

X 10

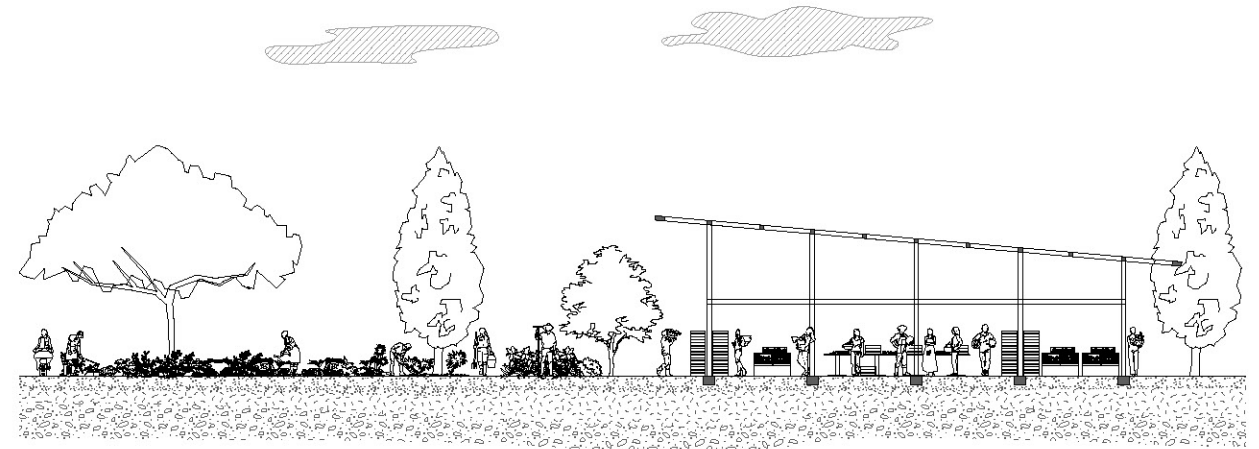
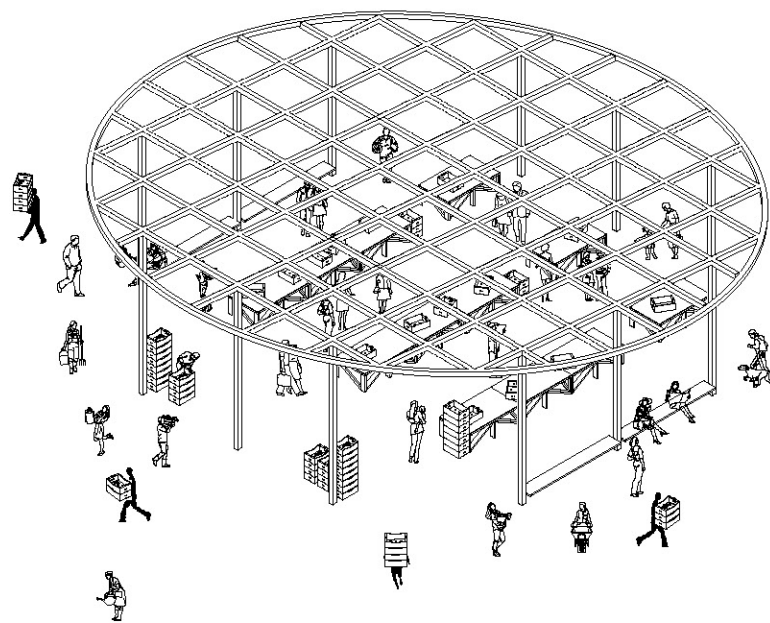
ARROZ ROJO



DISTRIBUTING

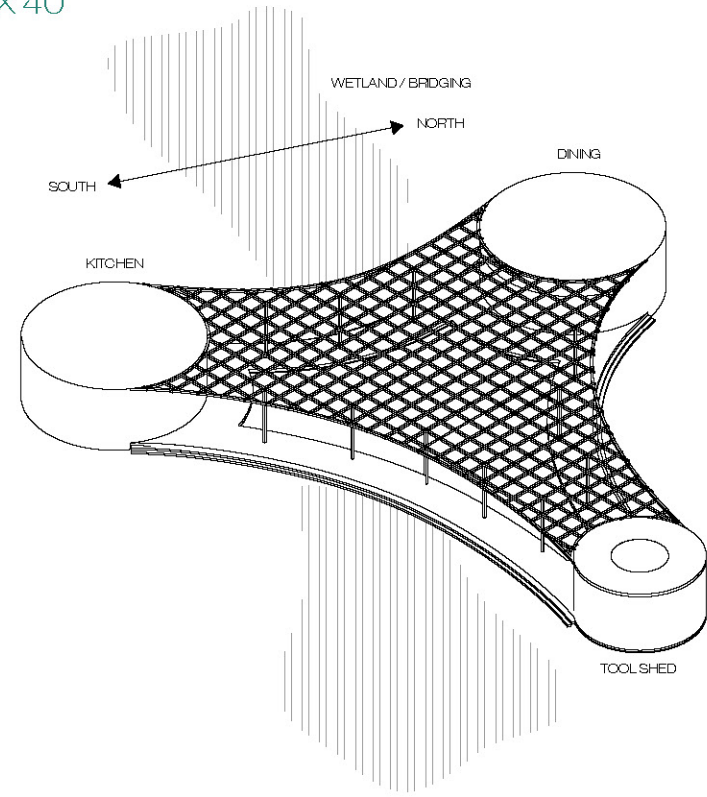
X 30

SALAD

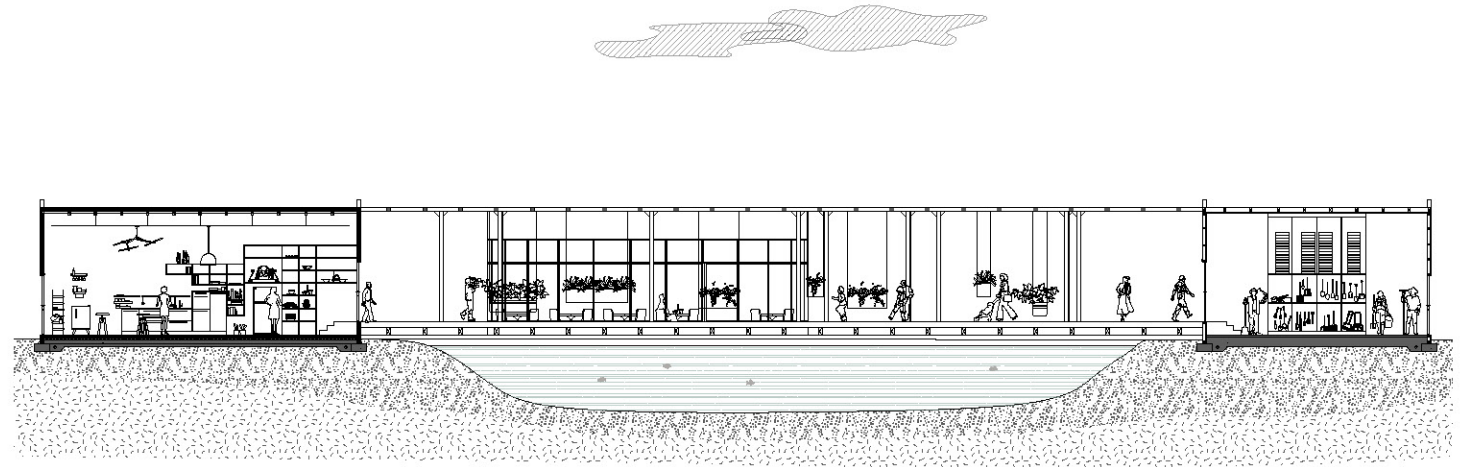




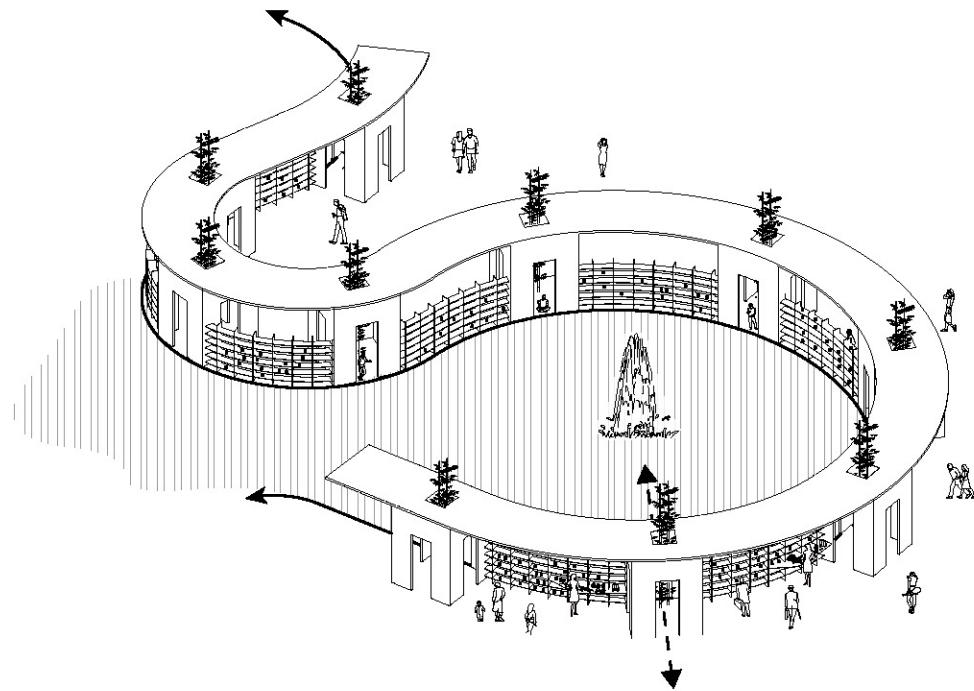
SHARING



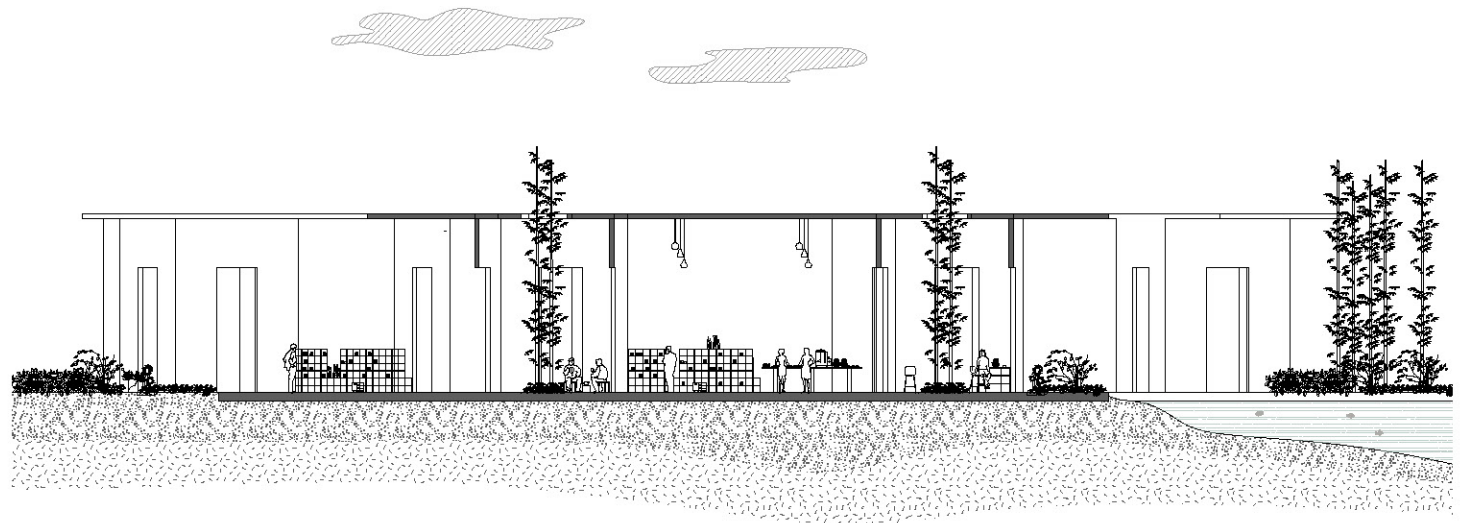
TOOL / SEAT / CUISINE



HEALING



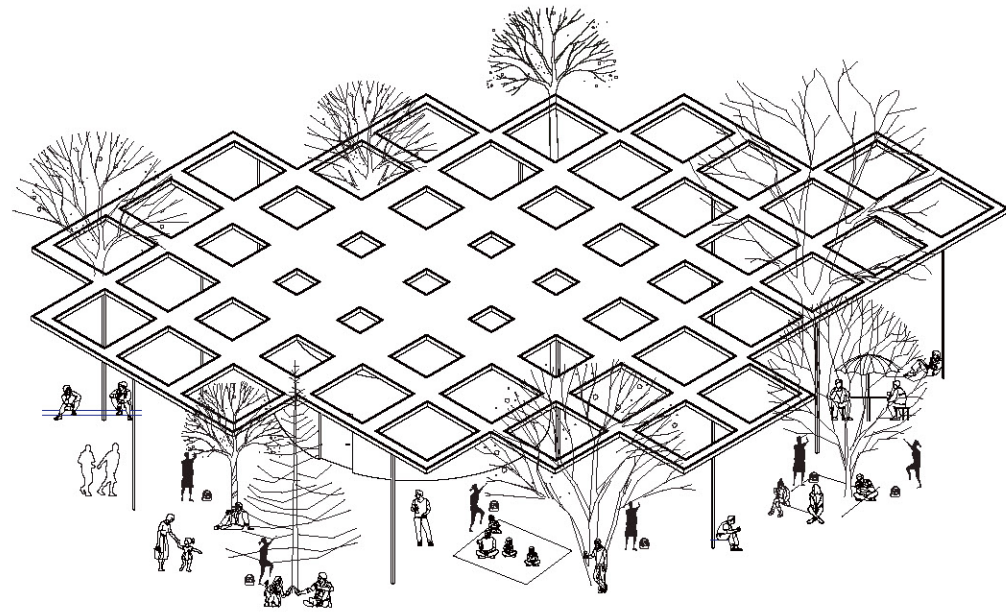
HERBAL TEAS





HARVESTING

X 15

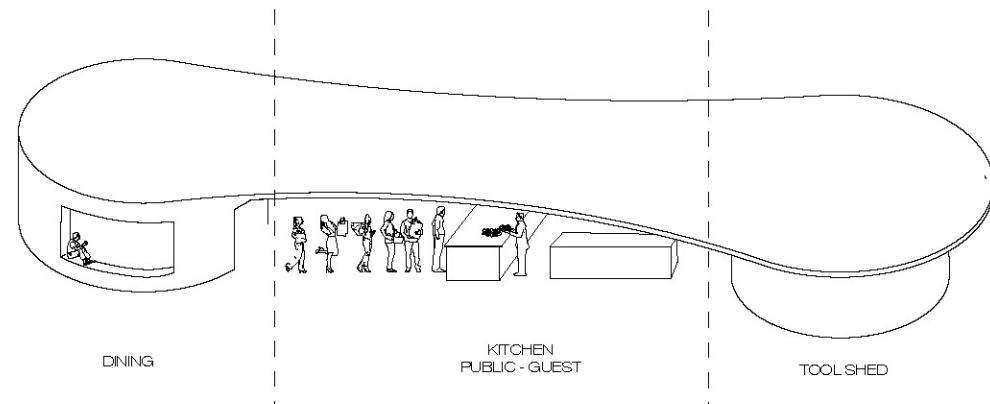


AGUA FRESCAS

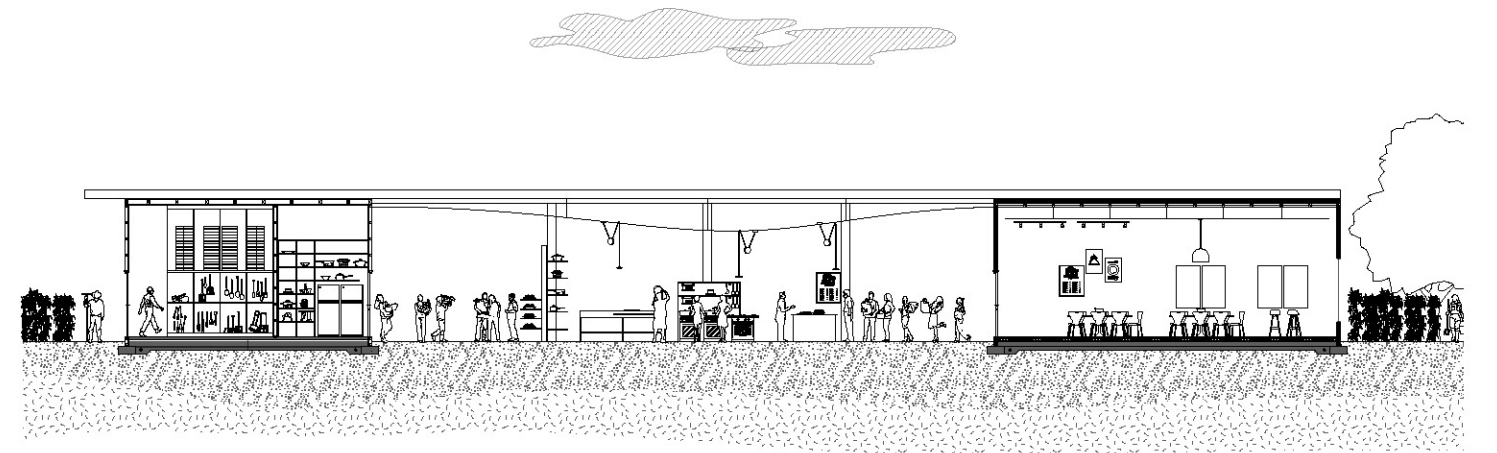


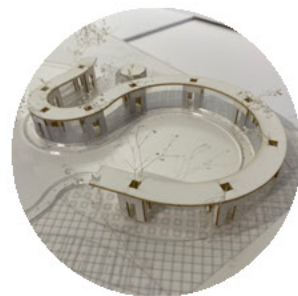
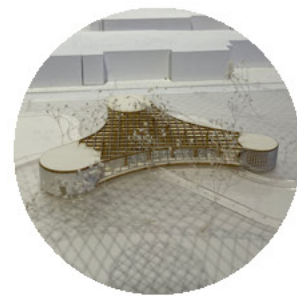
EXCHANGING

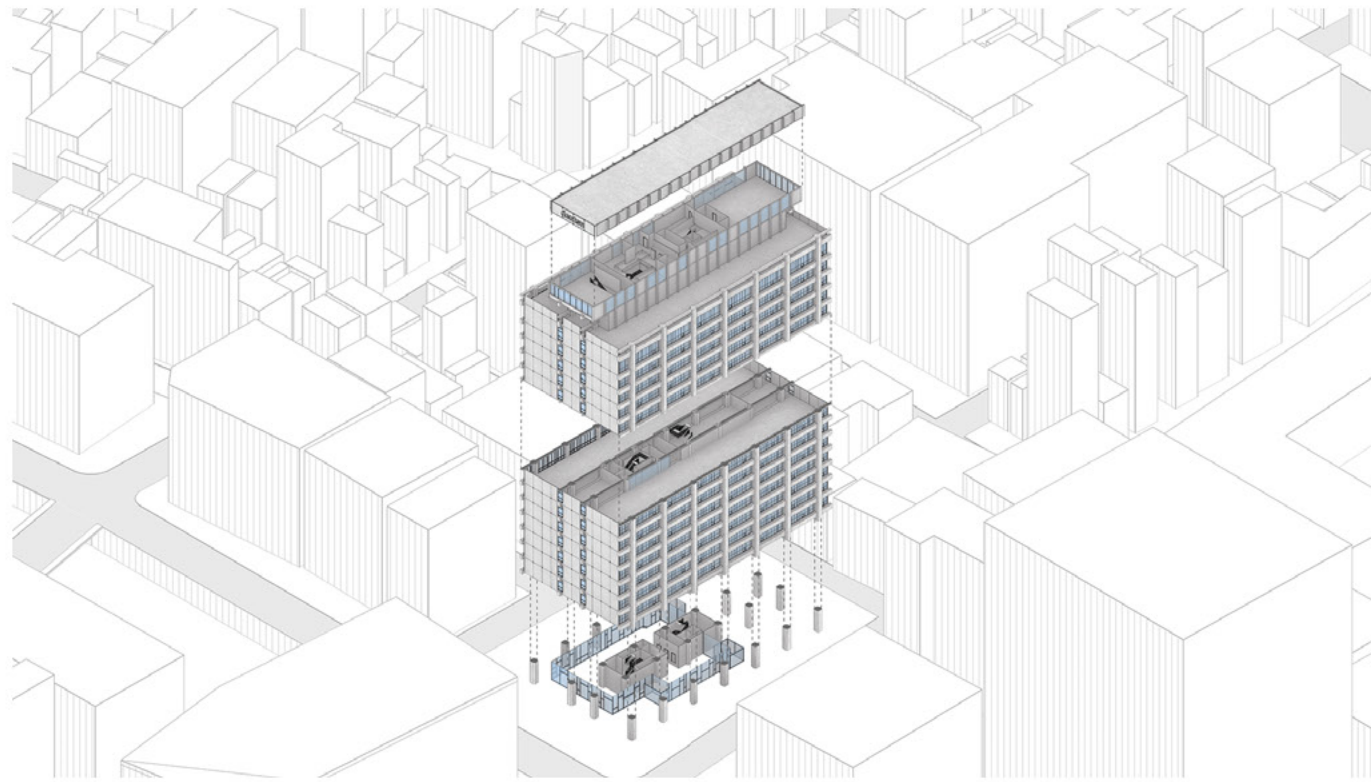
X 25



TACOS







NEW DENTSU HEADQUARTERS Double its Surface

Columbia University GSAPP | Graduate School
Open Work
Spring 2020

Critics : Enrique Walker
Partner : Yukon Kim, Helena Urdaneta, Chenyan Zhou

Program: Public & Office
Site: 1 Chome-11-1 Tsukiji, Chuo City, Tokyo, Japan

Dentsu Headquarters by Kenzo Tange was originally envisioned to generate a condition in which the city would happen below as programs float above ground. We aim to bring back this public quality. Now, services, mobility and structure will engage with the public. Flexibility, light and movement become the new language.

The First Scheme

It is important to note that this building is a byproduct from Tange's Proposal for the expansion of the city of Tokyo to float above the waters of Tokyo Bay

The Second Scheme

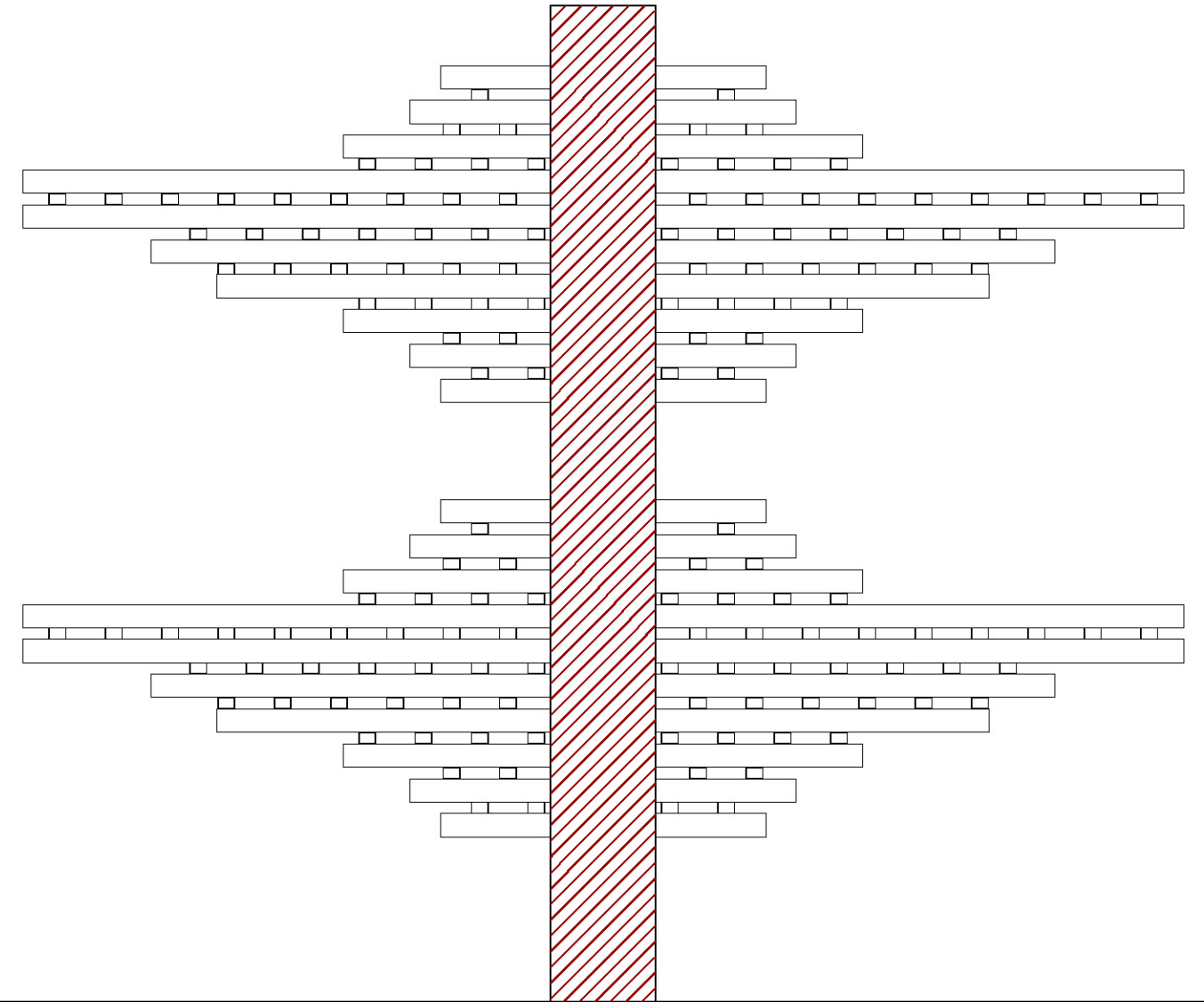
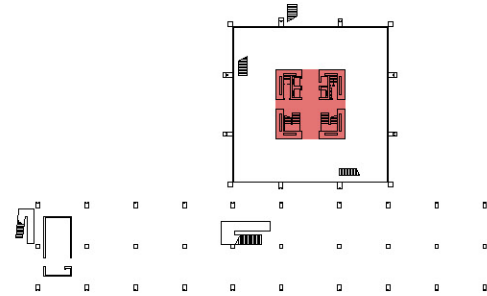
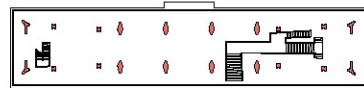
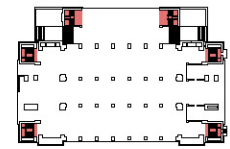
Providing a free plan in which the city would happen below as the buildings float above ground To free the area these large scale constructions would be elevated by vertical structures

The Final Built Dentsu

is less ambitious. Although it still has an elevated ground, it serves no public purpose

Timeline: Core System

*On this matter of cores and horizontal plans
We studied a series of buildings that have a conversation with each other*



1906

1945

1958

1958

1960

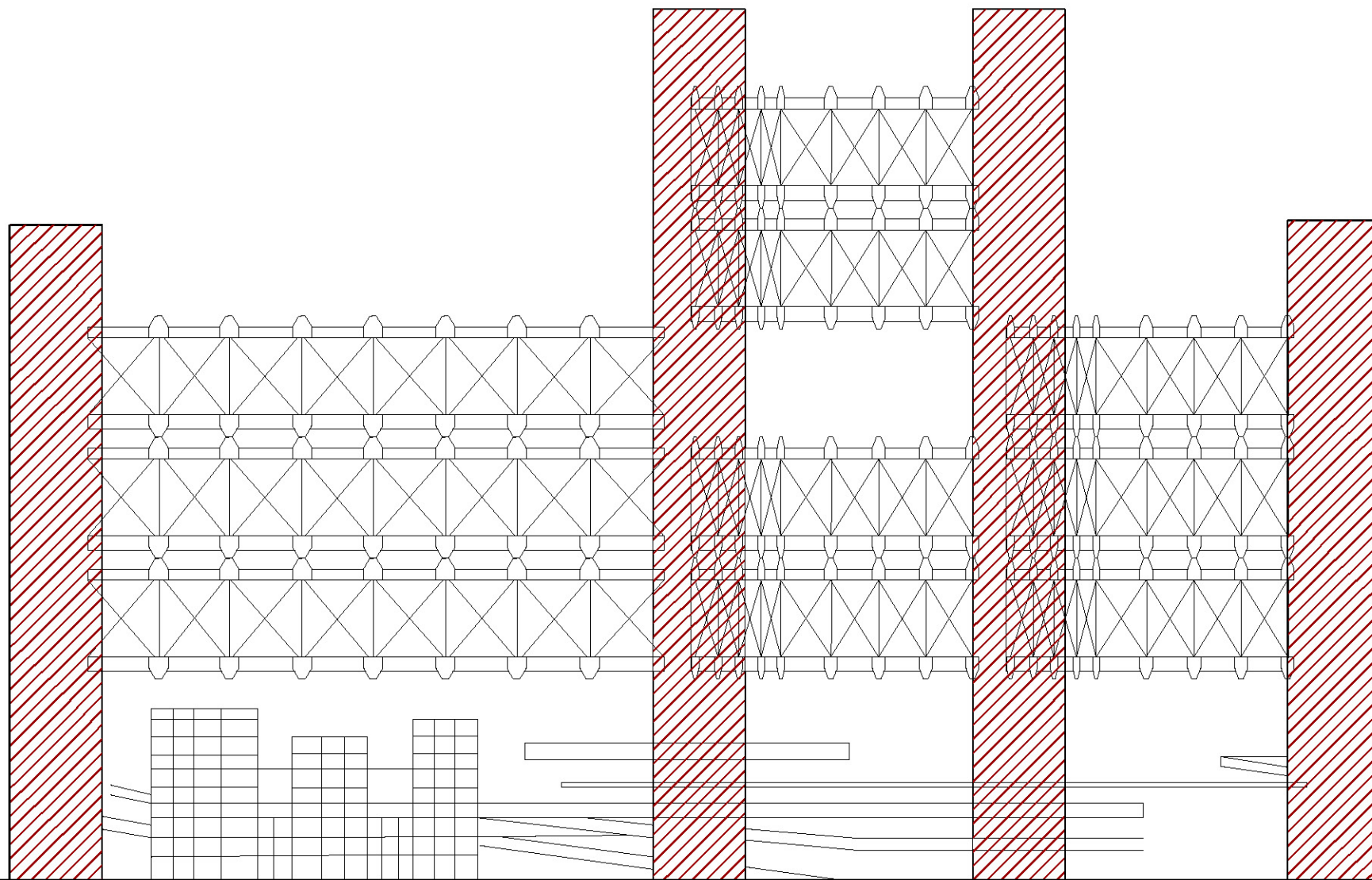
Larkin Administration Building
Frank Lloyd Wright

Hiroshima Peace Center
Kenzo Tange

Kagawa Prefectural Office
Kenzo Tange

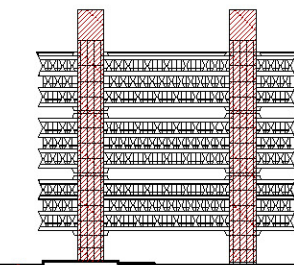
Sky House
Kiyonori Kikutake

City in the Air | Cluster in the Air
Arata Isozaki



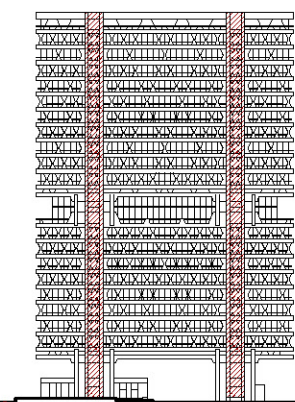
1960

City in the Air | Scheme II
Arata Isozaki



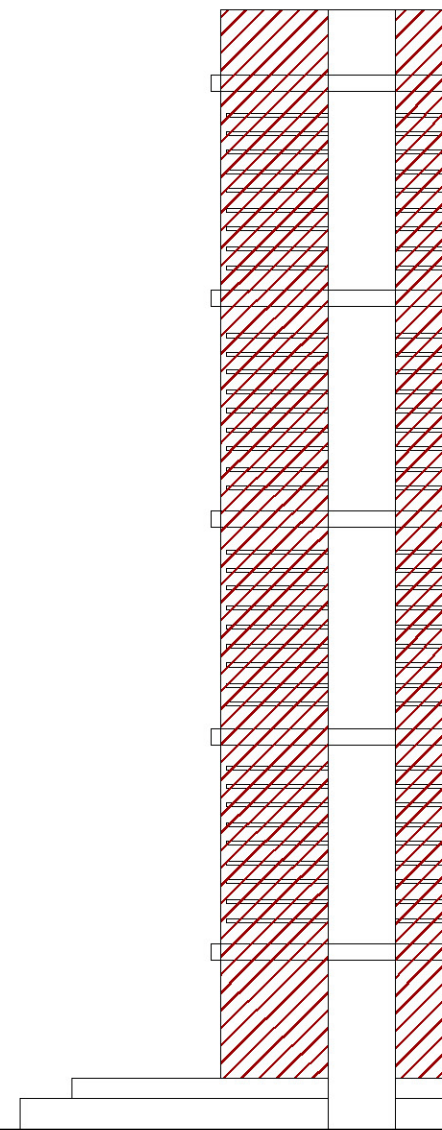
1961

Dentsu Headquarters | Scheme I
Kenzo Tange



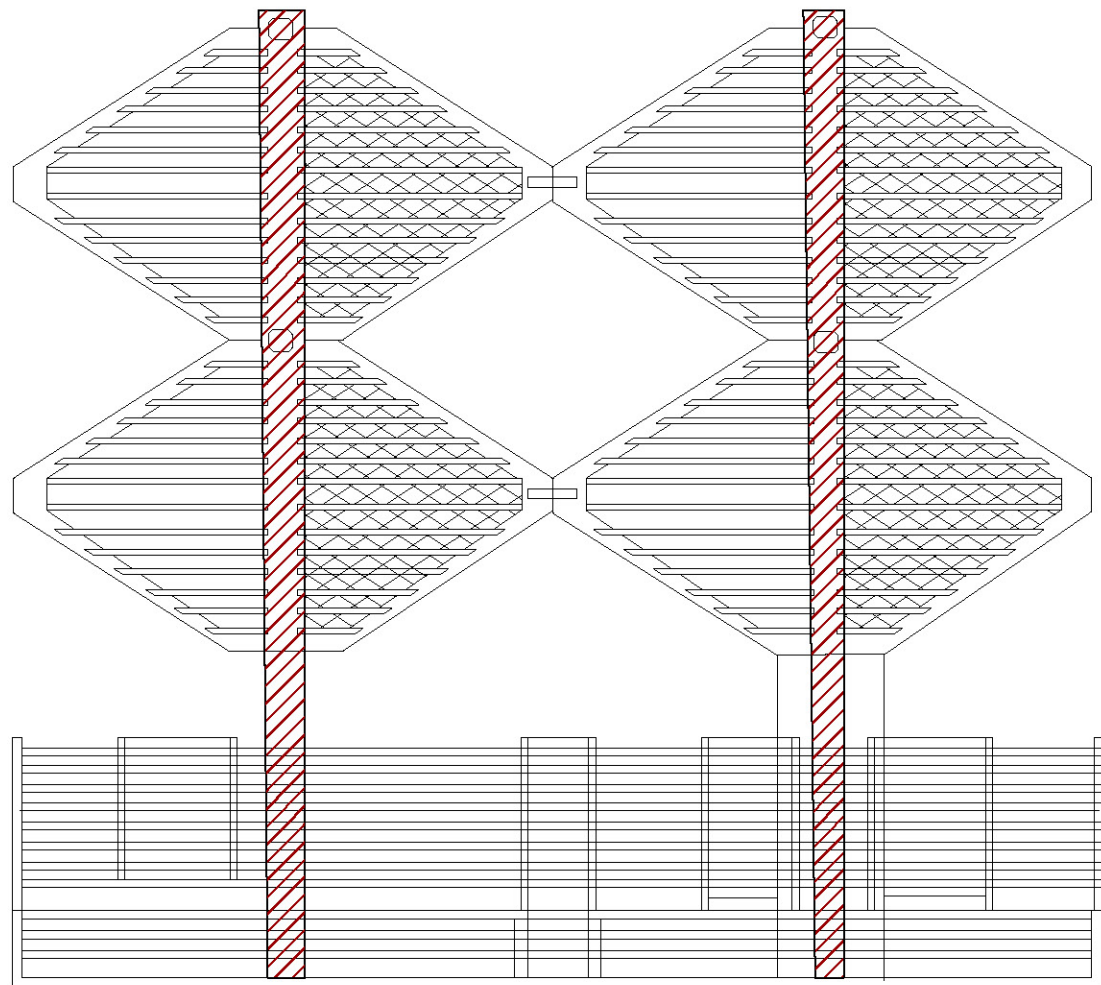
1962

Dentsu Headquarters | Scheme II
Kenzo Tange



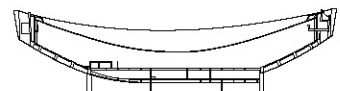
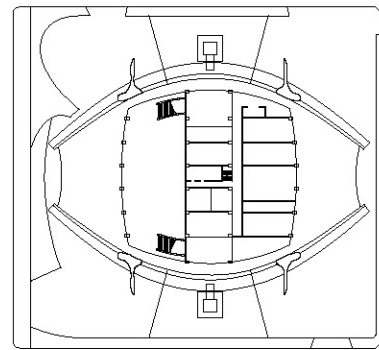
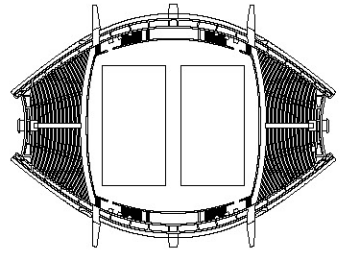
1962

City in the Air | Peugeot Building Project
Arata Isozaki



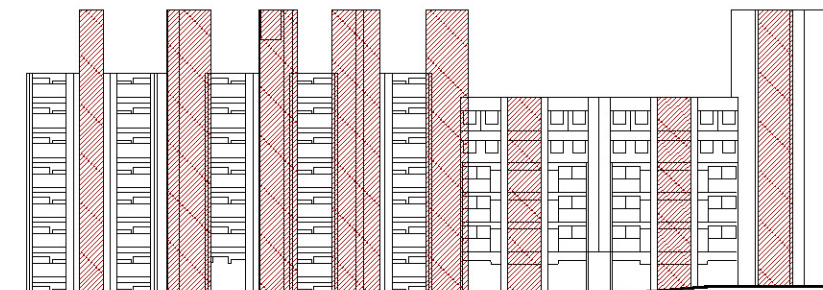
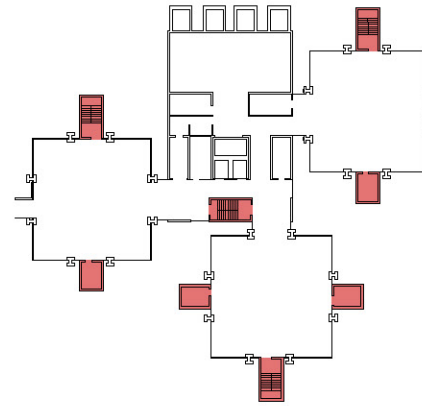
1963

City in the Air | Marunouchi Project
Arata Isozaki



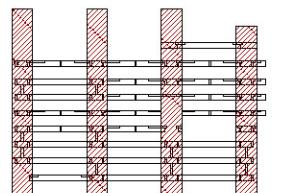
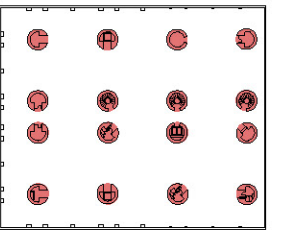
1964

Kagawa Prefectural Gymnasium
Kenzo Tange



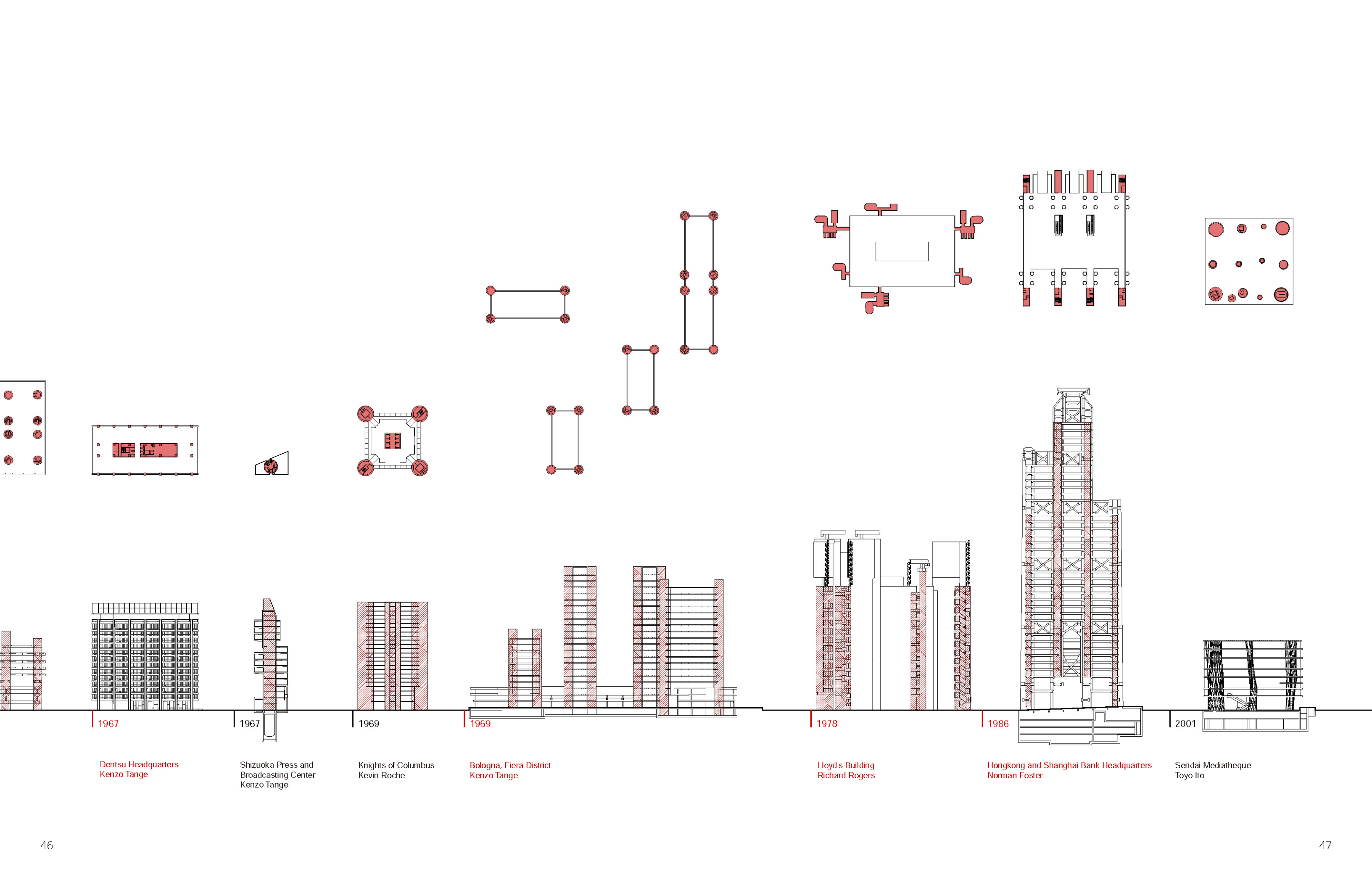
1965

Richards Medical Research Laboratories
Louis Kahn



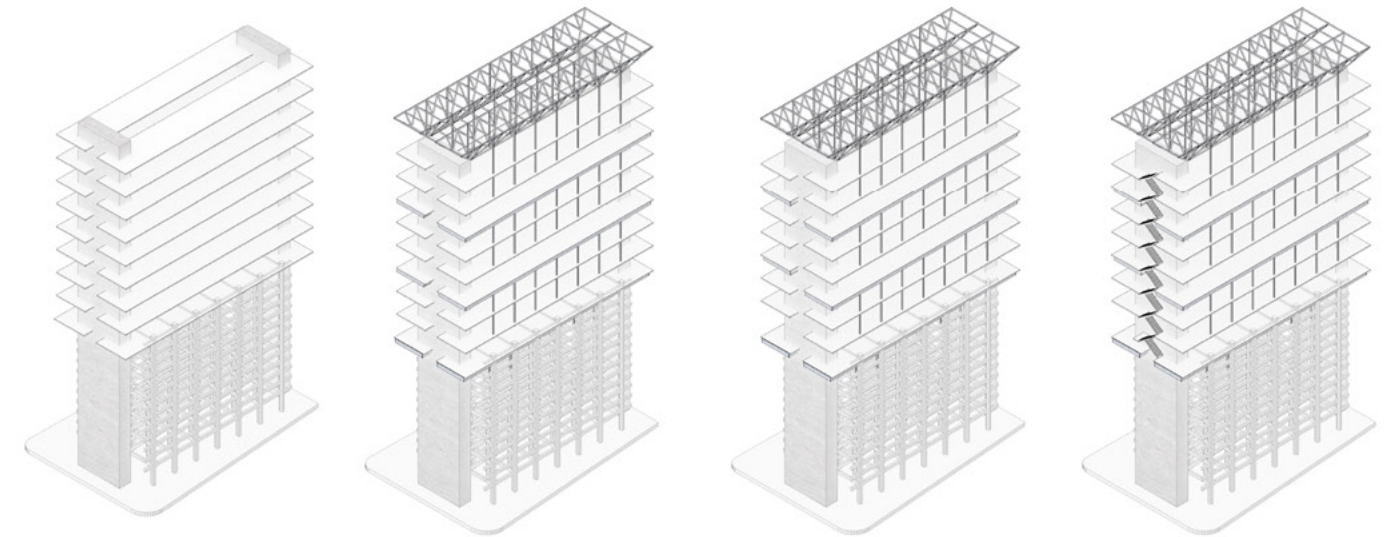
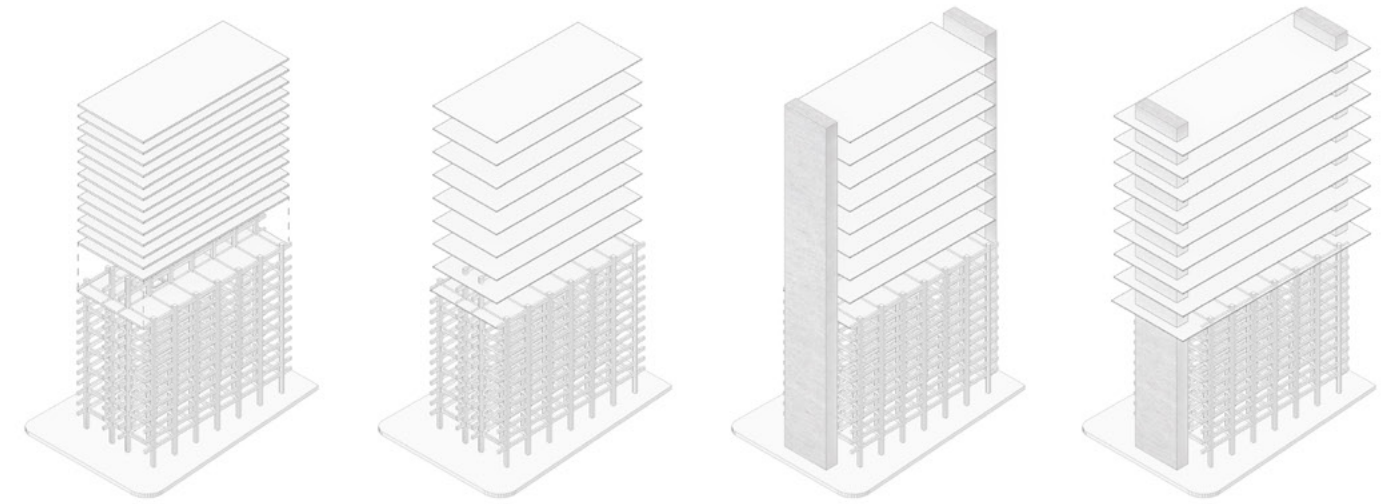
1966

Yamanashi Cultural Hall Building
Kenzo Tange

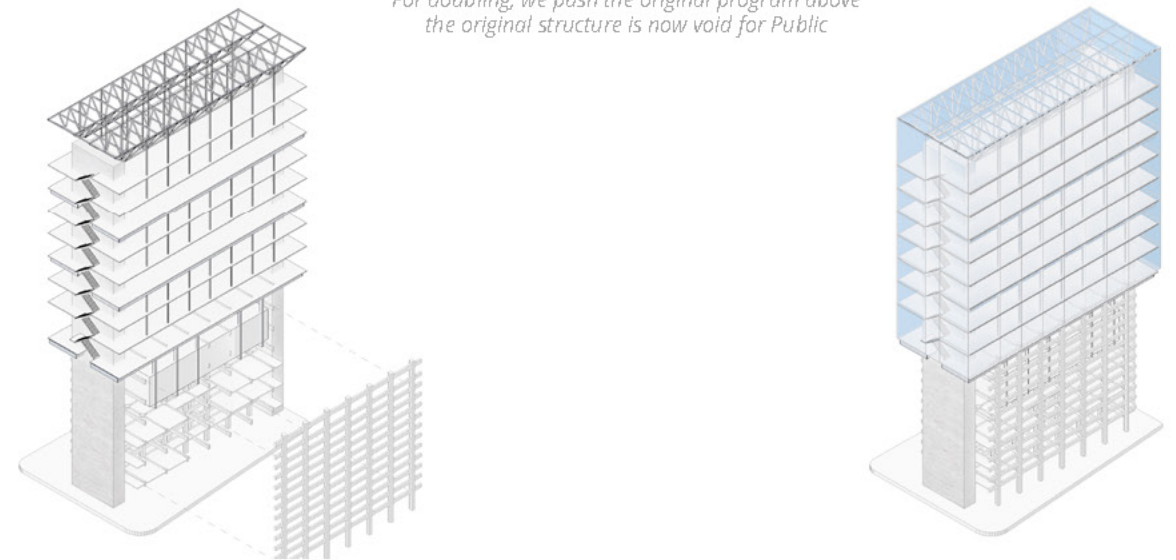


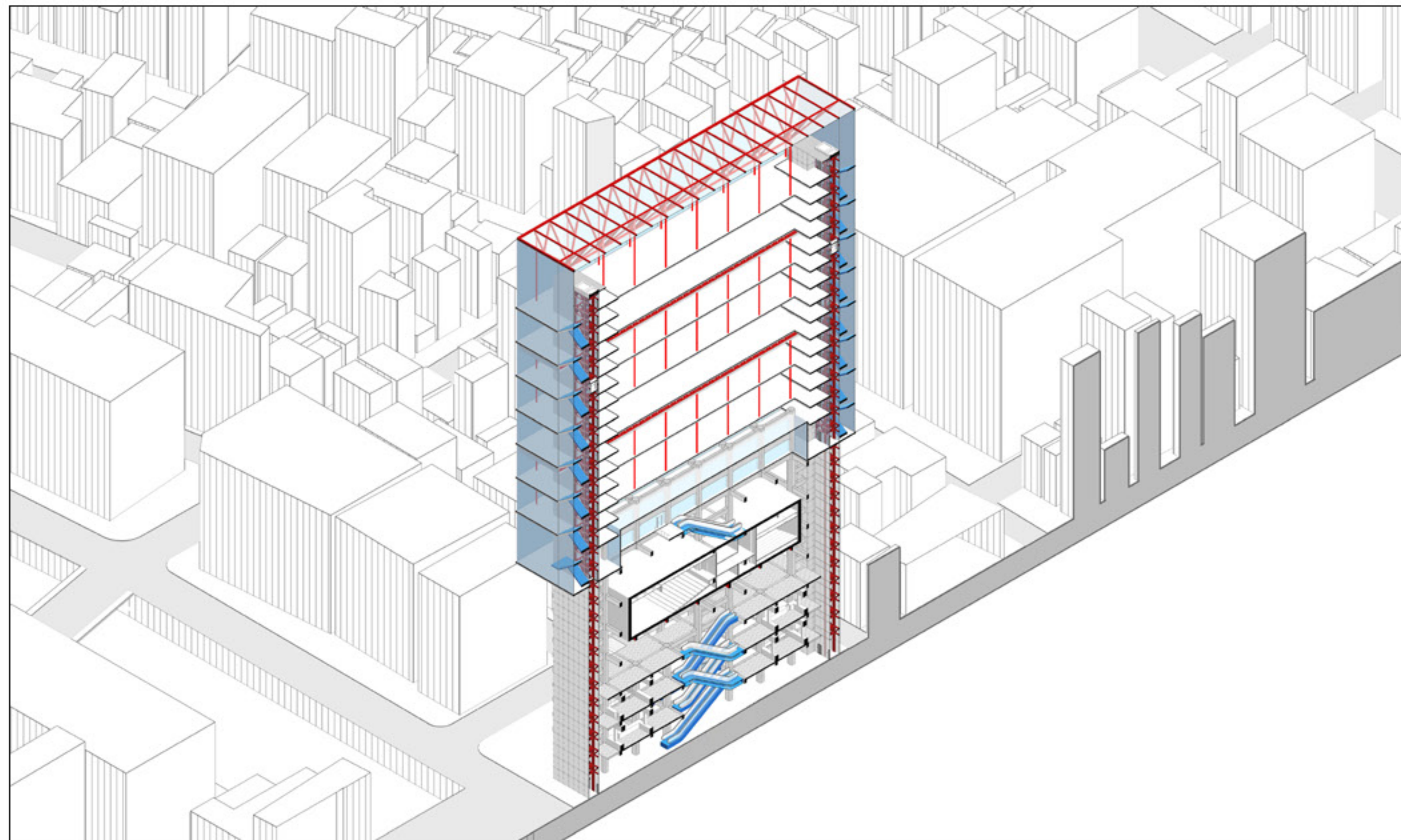


How to Double its Surface..



For doubling, we push the original program above the original structure is now void for Public

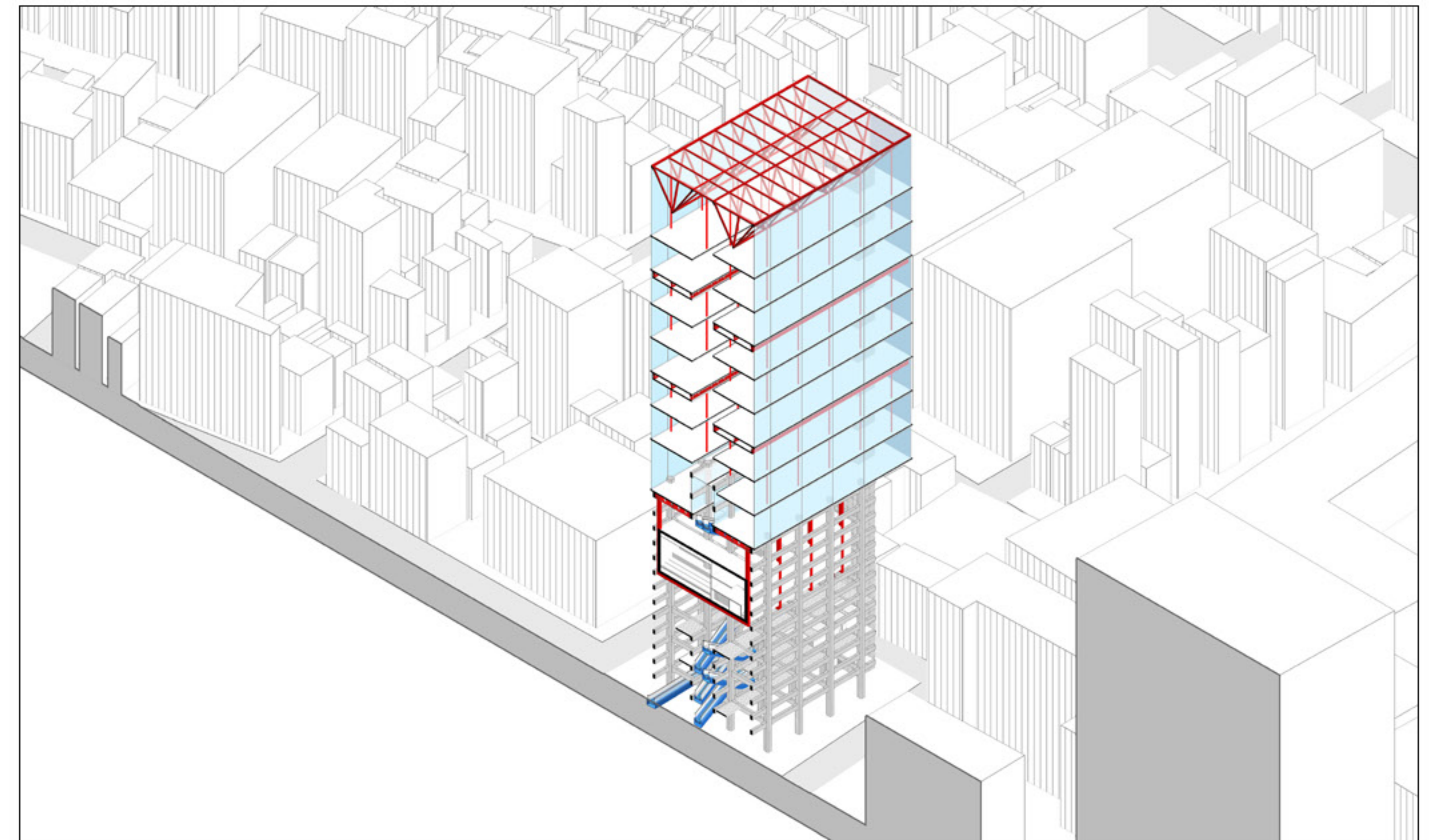




The Movement

*From our movement cores,
users will be able to only access the auditorium
from the top part of building*

*and from the ground
By celebrating our movement component
Users are invited to transit the air square
The building is now open to the public*



The Conversation

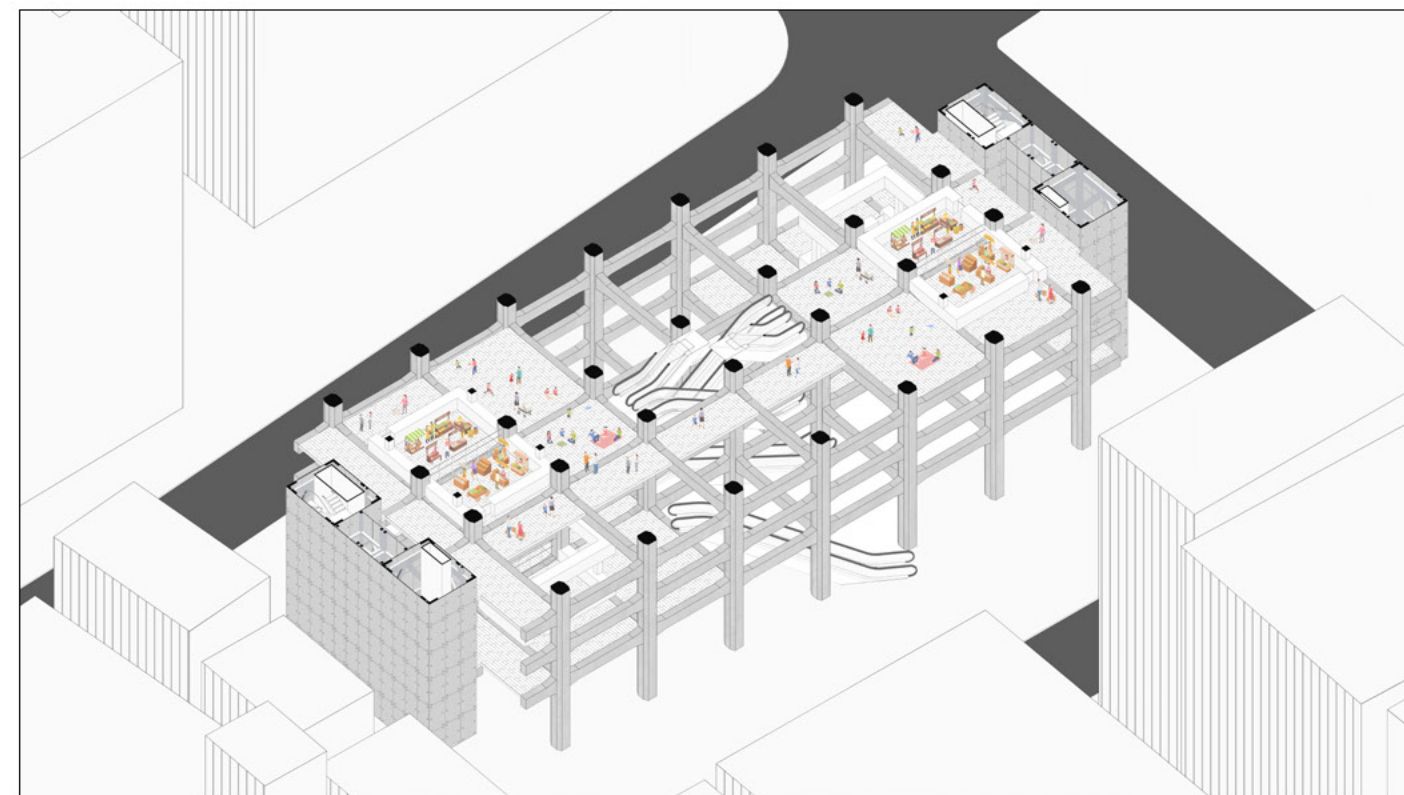
*It is a conversation between our new
building and dentsu*

*Two buildings collide and the formal
aspects are the result of the interplay
of its functions and components*



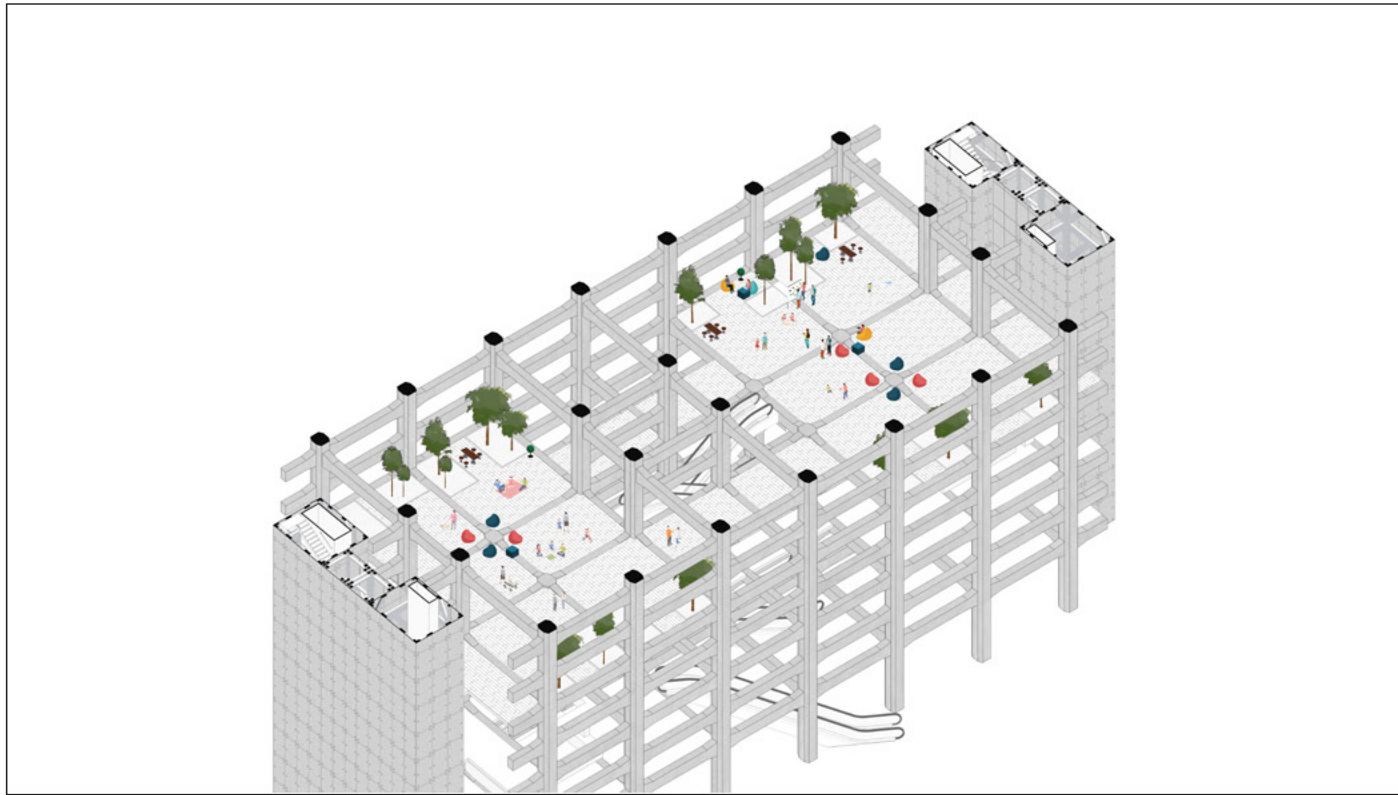
The Ground

While maintaining the grid of our original Dentsu. The column spans allow for extensive public circulation on the ground level.



The Market

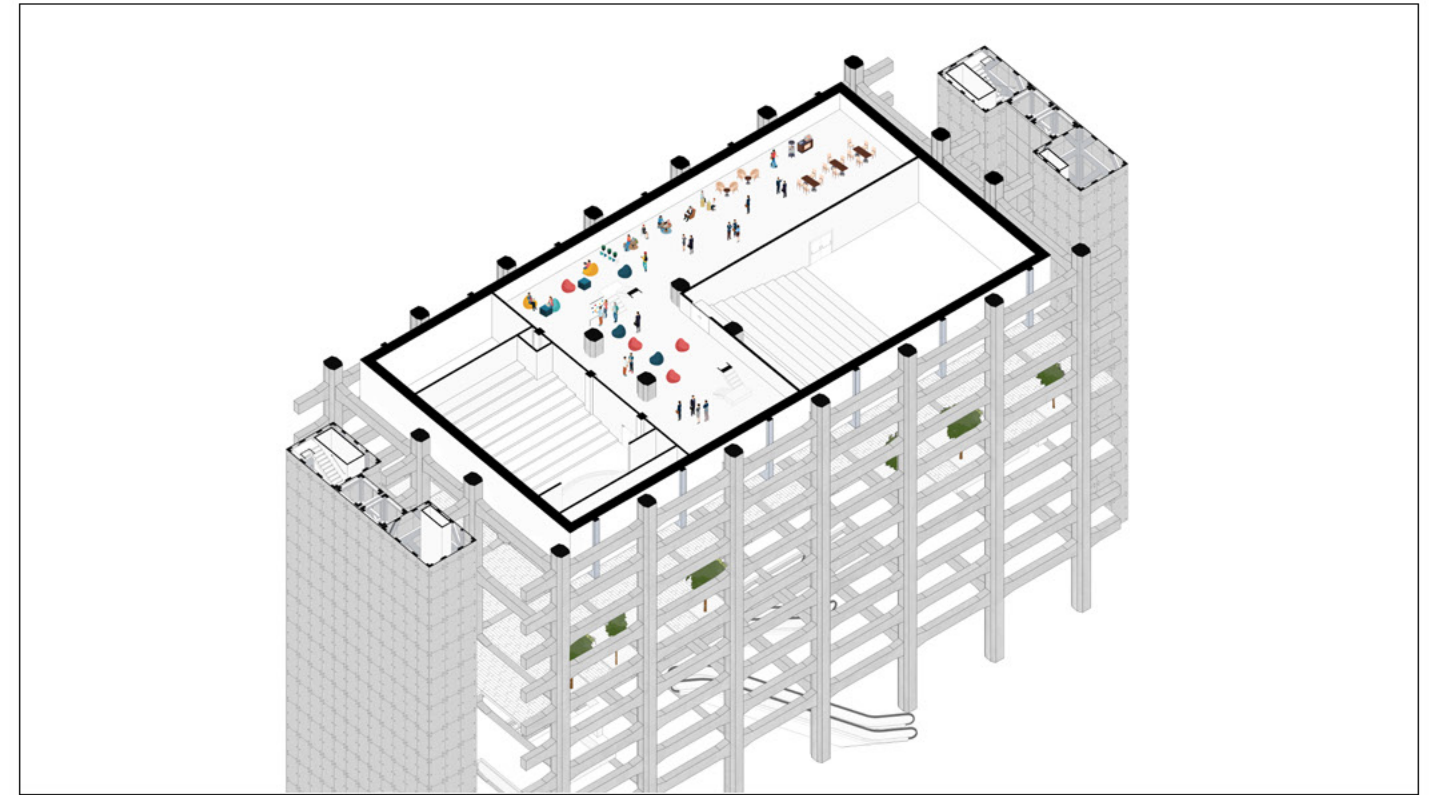
The building is open to the public. The city is now connected through escalators to a double height market space in two floors. Planned to complement fish markets on the Tsukiji area. Two areas on each floor and no walls.



The Garden

*Above the market space
A main congregation garden space is
created*

*Enough Daylight and high ceilings
create an optimal environment for
trees to grow.*

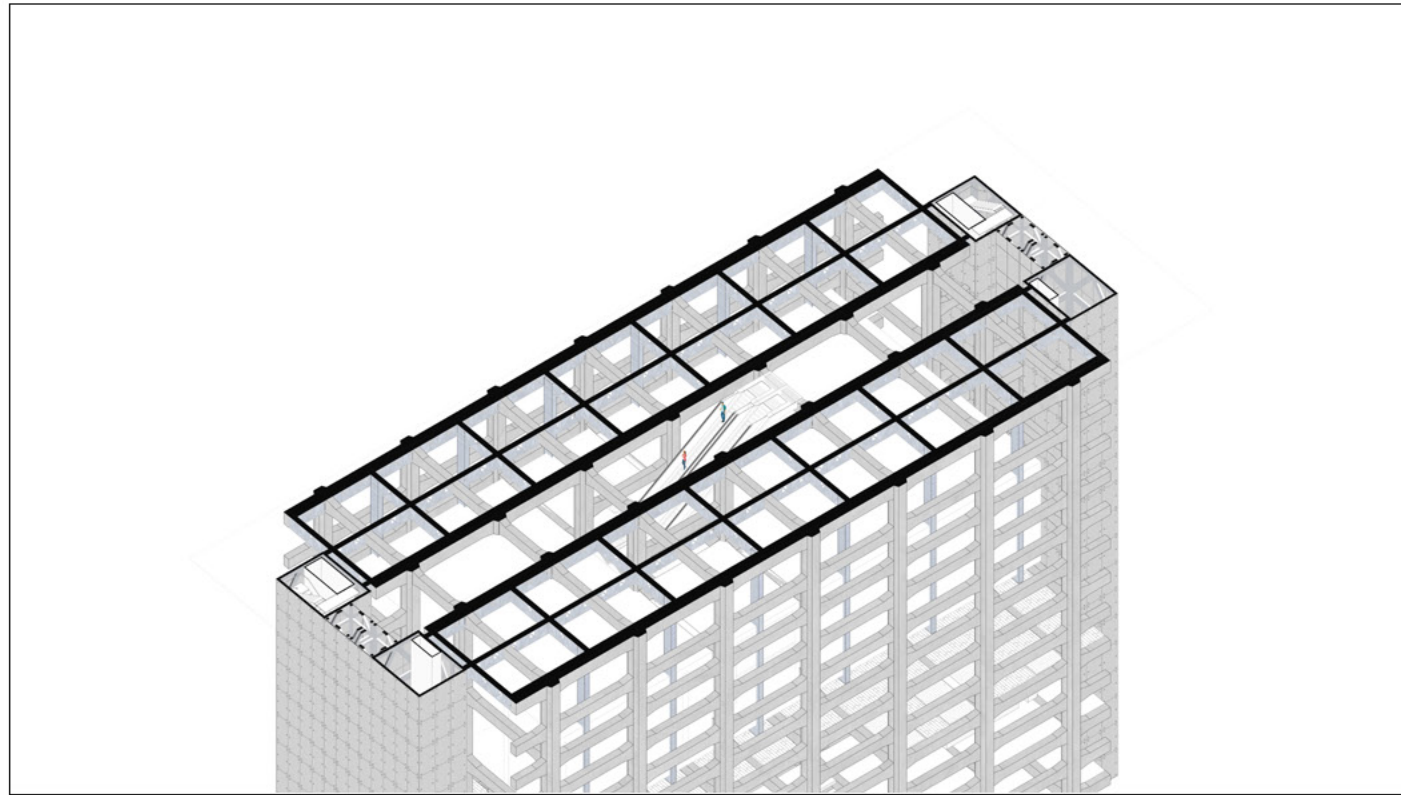


The Auditorium

*By increasing the gap between this
space and our auditorium
Users can move below our floating
box*

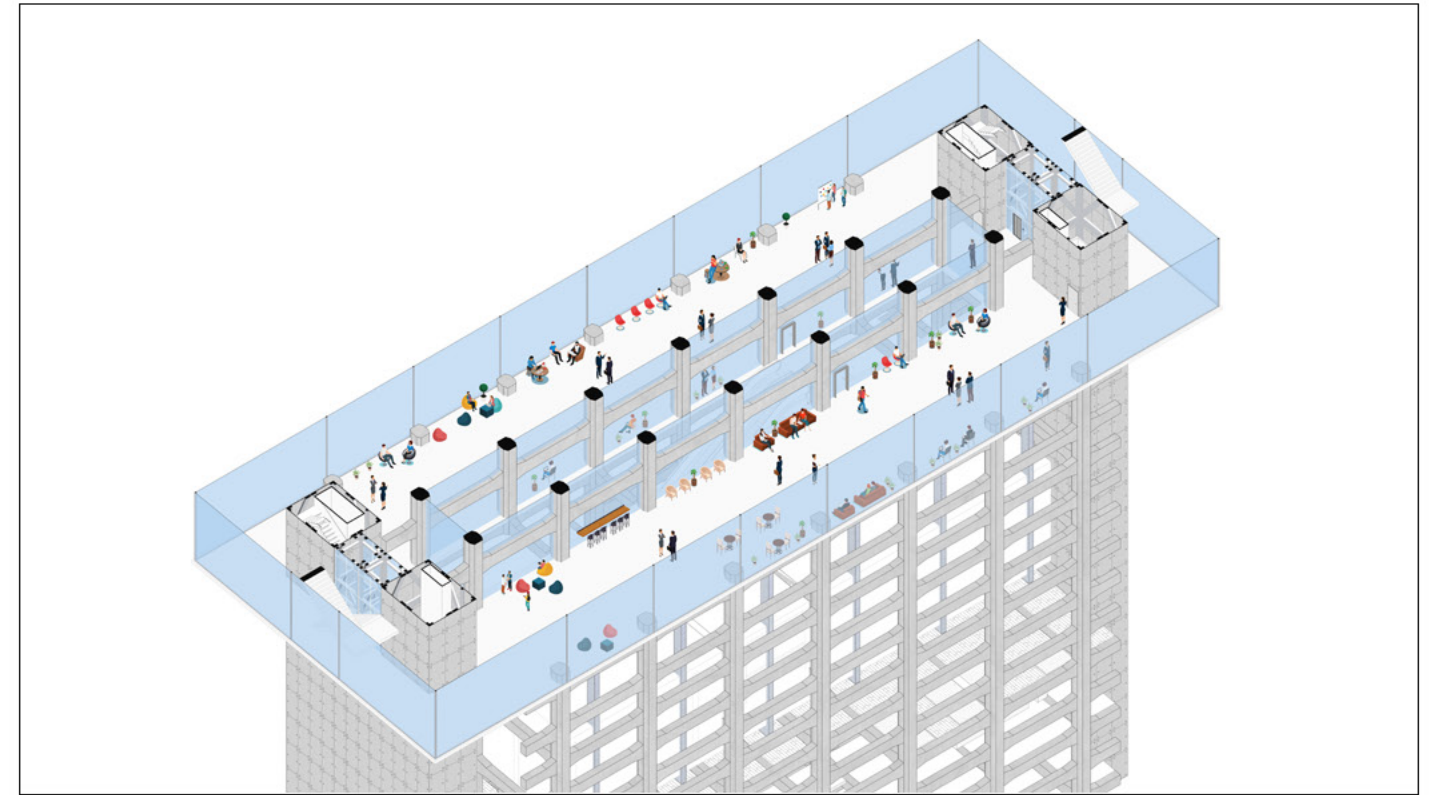
*Dentsu's columns will not obstruct
the auditorium spaces*

*As the box is suspended from the
upper steel truss*



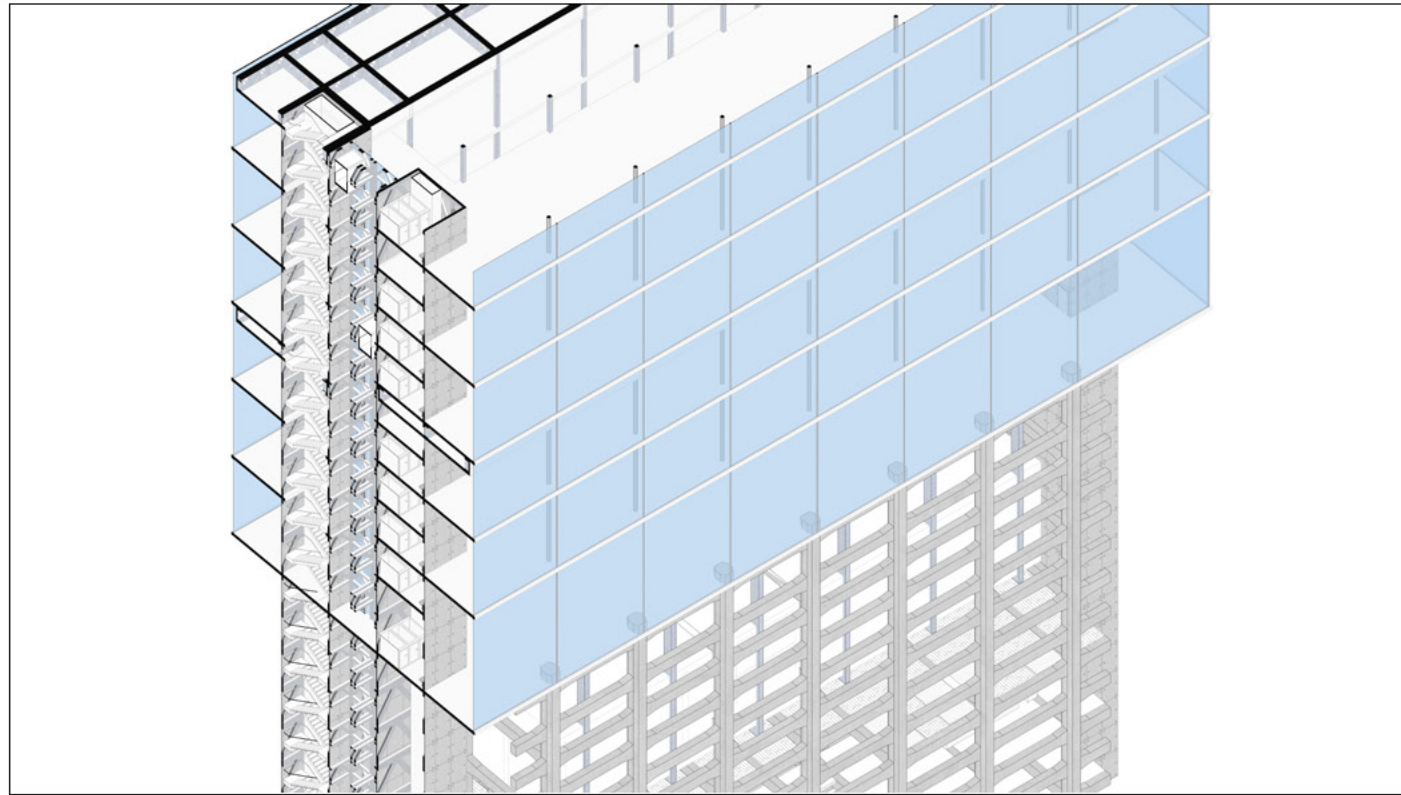
•
The Escalator

Will connect it to our lobby



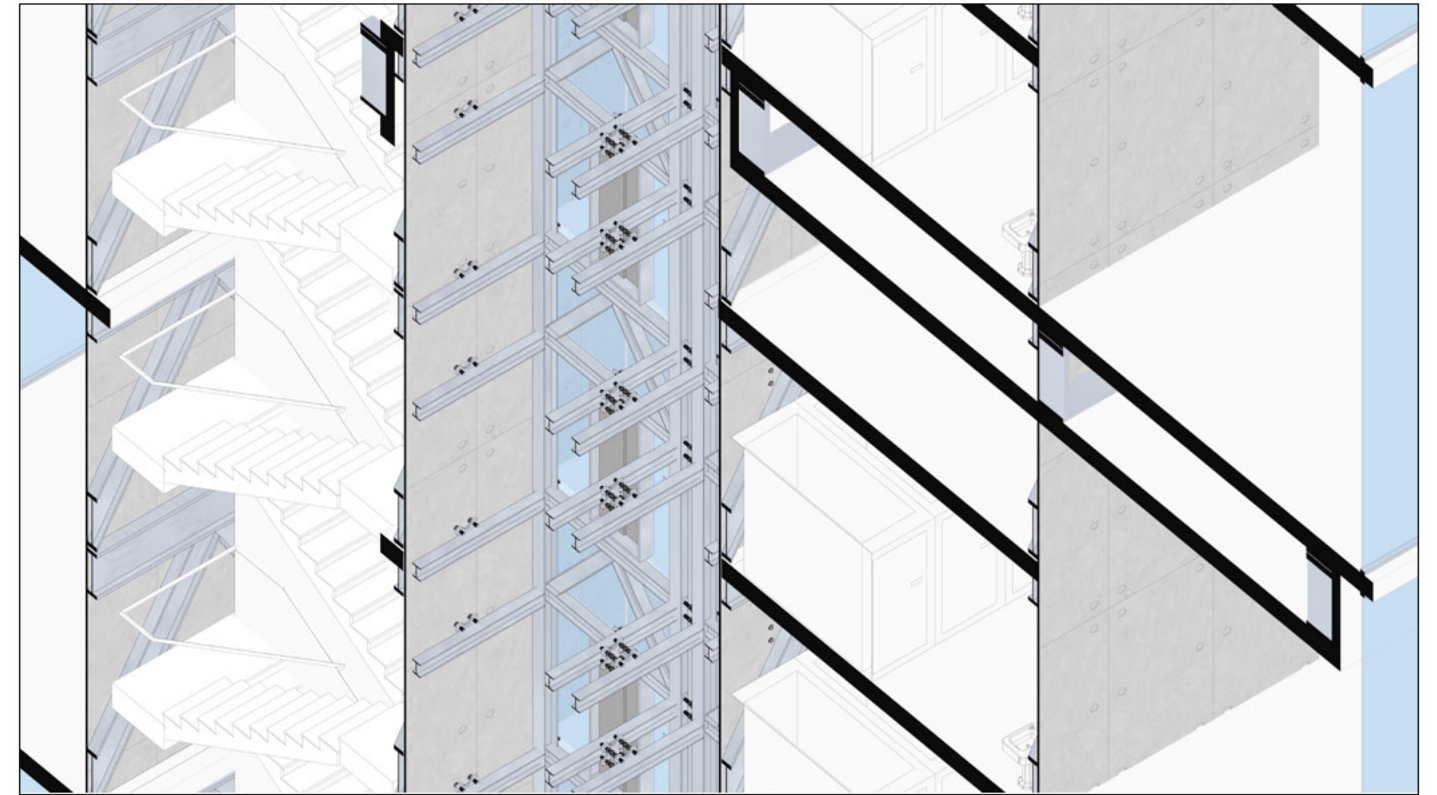
•
The Lobby

*The moment where our two buildings collide
Users are able to experience both systems*



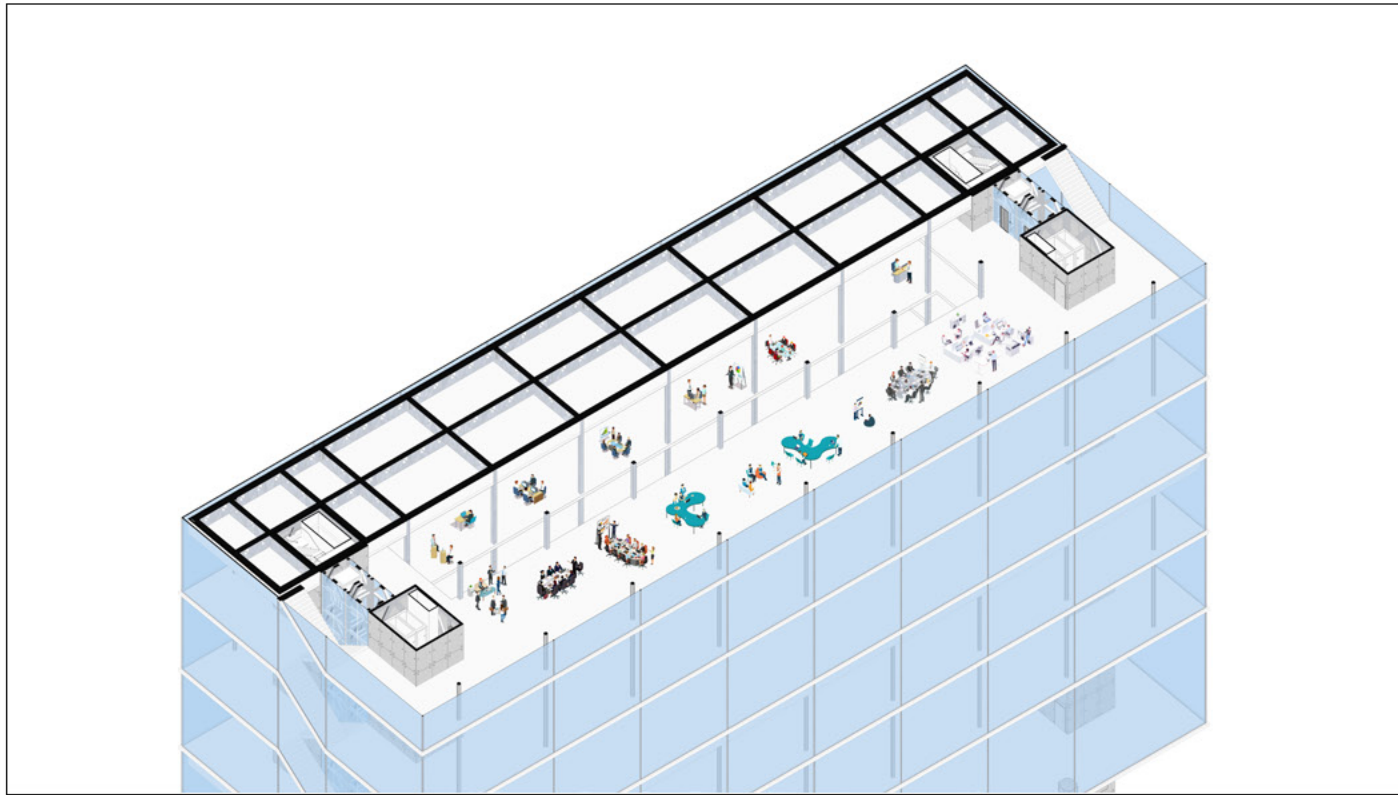
Two Steel Towers

*Will support the office part of the building
 It will consists of two elevator shafts
 Along with Services and Egress stairs*



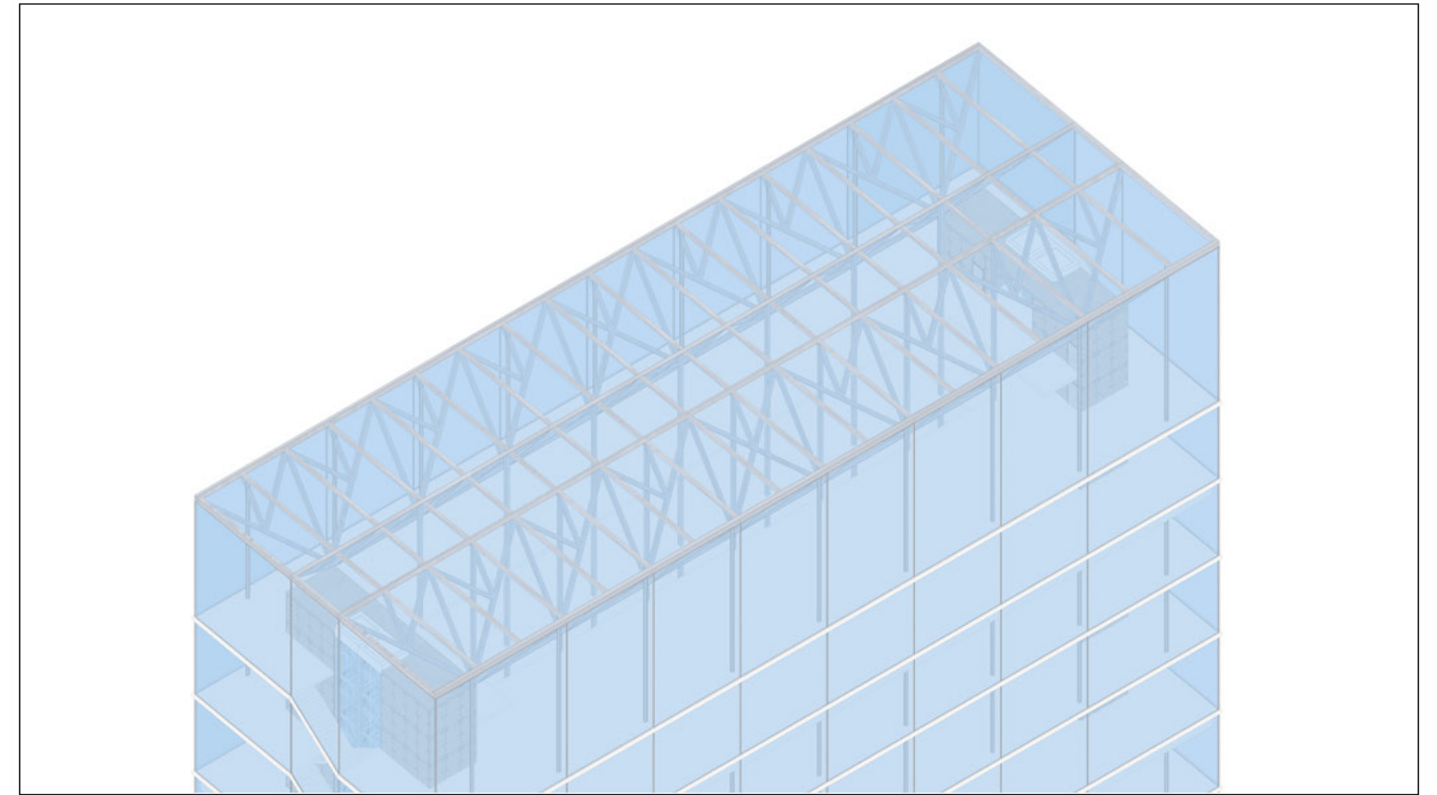
Technical Detail

*The steel towers are covered with
 concrete panels embracing the
 materiality of original Dentsu
 concrete structure, and providing a
 Servant and served quality*



•
The Office

is continuously connected amongst floors



•
The Roof Top Truss

*is the key structural component
that will maintain everything up*



TRANSSCALARITIES

Columbia University GSAPP | Graduate School
Freshkills Park, Staten Island
Summer 2019

Critics : Samuel Stewart-Halevy
Team : Kyu Chan Kwak, Manuela Siffert, Ruochen Ji

Capping the Memory

Anthropocene is a very short period of time compared to the earth's history, but the influence of humanity on Earth was the largest ever. Geologists mainly look at strata when they explore the past. It not only reveals what happened in the past but also makes predictions about future possibilities. As a story of layers being superimposed, the chronology of Fresh Kills is its geological strata. By investigating each layer of strata, we depict the memories in different periods, and the impact on the earth's land from the civilized city of humanity, which forces us to think about the real conflict embedded in its history and methodology of how humanity should change in order to sustain it.

People nowadays know Fresh Kills as a former landfill. But before its transformation to a landfill, Fresh Kills was just a rural agricultural area in Staten Island. It had been a salt marshland for thousands of years, its subsoil made up of clay, sand, and silt on top. The land contained large amounts of wildlife and natural landscapes, including swamps, forests, and wetlands. The radical humanized change process in the area started in 1946 when the government of New York City purchased this site as a temporary waste dump as incinerators in NYC were shutting down and other landfills were approaching the end of their lifespan.[1] Tunnel Authority chairman Robert Moses strongly supported this plan, wanting this area to be developed as Staten Island's industrial base, after its usage as a landfill. Meanwhile, the plan was opposed by residents in Staten Island and members, who called for the federal government to step in and stop the project.[2] City's public works commissioner Cornelius Hall had been one of them, who surprisingly turned to support the project after he became the Borough President of Staten Island, pushing the plan to reality.[3] Further in 1948, an expansion plan of the landfill project was approved by the City Planning Commission, the landfill would be used for 20 years. At the end of its usable life, new real estate would be created on the top of layers of garbage and dirt, then developed as a multi-use area with residential, recreational, and industrial components.[4]

However, Fresh Kills' lifespan turned out to be much longer than expected, as its transition to a real estate project never came true. The conflict between the landfill and neighborhood came to existence. In April 1948, the landfill accepted its first truck of garbage. By 1961, the height was increased to 25-40 feet. During its operation, the garbage destroyed the ecosystem within the site that lasted for thousands of years.[1] It was no longer a life-enhancing land that we remembered, but a horrible graveyard for millions of tons of New York City's waste. At the peak of its operation, in 1986, 29,000 tons of garbage was added to the site every day.[5] It became the only landfill to receive New York City's residential waste. This huge amount of garbage eventually led to a terrible disaster of Syringe Tide. Significant amounts of medical waste, including hypodermic syringes, and raw garbage from Fresh Kills were washed up onto beaches, causing the closing of beaches on the Atlantic coast and tremendous loss in tourism income.[6]

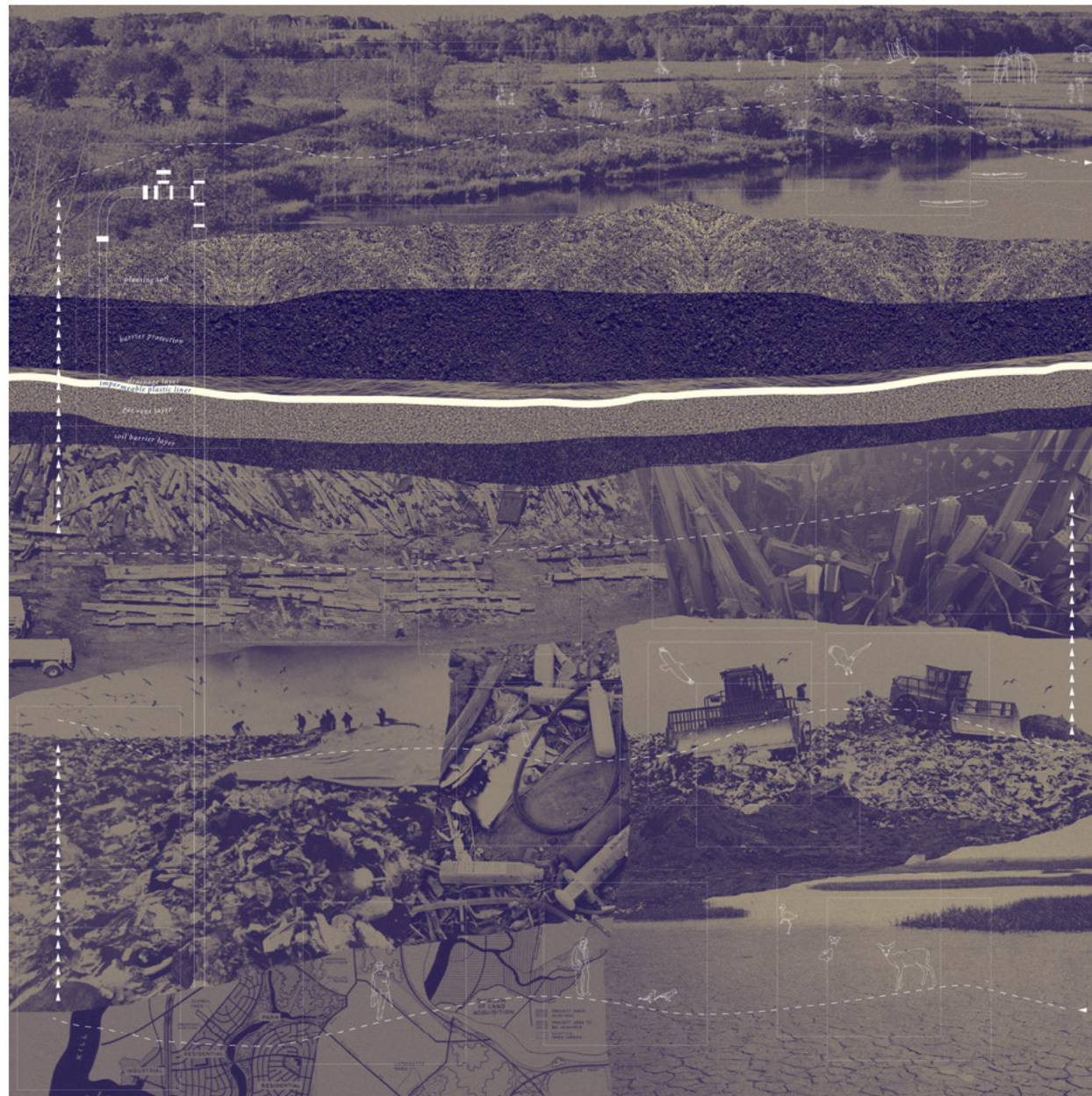
With pressure from local residents and members, and to account for consequences that landfill had caused, Fresh Kills landfill was forced to come to a point where its operation might be stopped. A state law was passed in 1996, meaning that the Fresh Kills would no longer accept solid waste after 2001. With the support from the city's mayor Rudy Giuliani, along with the governor of New York State: George Pataki and the EPA, the landfill site was finally closed on March 22nd, 2001.[1] After the 9/11 attacks, Fresh Kills was temporarily re-opened. It was used as a sorting ground for roughly one third (about 1.6 million tons) of the rubble from Ground Zero. Detectives and forensic evidence specialists worked at the Fresh Kills Landfill to recover the remnants of the victims. The remaining debris was then buried in the landfill.[7]

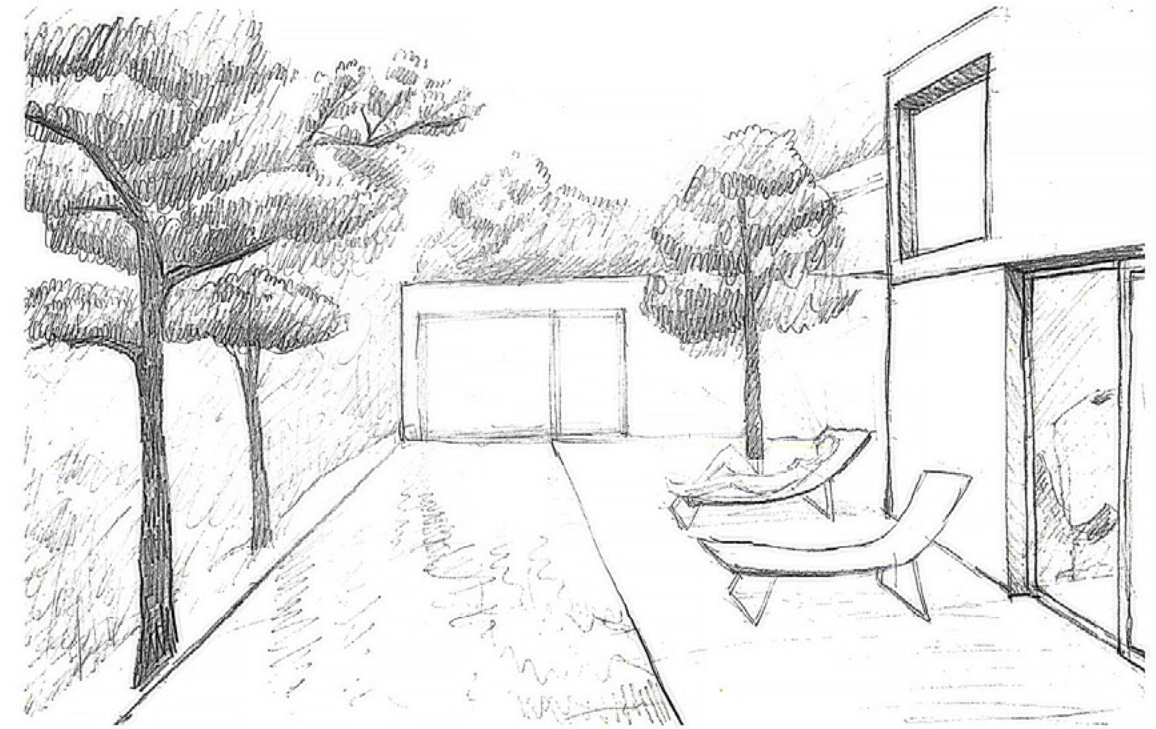
In the same year, after the definite closure of the landfill, the state decided to launch an architectural competition for a park to be developed in the area, which was won by Field Operations. According to the draft plan announced in 2004, Freshkills Park will be the largest park in New York City and will host a variety of public spaces and facilities for social, cultural and physical activity, learning and play.[8] The site is large enough to support many activities and programs, including nature hikes, kayaking, and large scale public art, among many others. The first phase of developing Fresh Kills Park would be covering up the waste properly. The layers covered on the waste would stabilize and separate them from the upper environment, and prevent the release of landfill gas into the atmosphere.[9] The waste would break down progressively, and the gas it generated would be extracted by gas control stations on the ground. This suggests the cost of covering all the trash up is all unseen from its surface.

Currently, the transformation from the unpleasant site of landfill into a natural field is successful. It is now almost impossible to recognize this site as a former landfill. Even if the west mound capping procedure is still going on, the rest of the landfill is now fully covered and plants are growing well in the site. The 40-foot-high garbage mountain now looks like a small hill. Whereas, at this time, Freshkills can hardly be recognized as a park either. First because, it is not yet fully open to the public (despite some scheduled events), it still has an unresolved relationship to the surrounding urban context (no entrances) and the unbuilt infrastructure can hardly transform this uncultivated area as a public realm.

When conflicts between the landfill and neighborhood essentially settled, however, it is still doubtful that the real conflict behind the story of Fresh Kills is resolved as well. Despite the promising ongoing transformation to a potentially public green park, the real conflict is between the city's garbage disposal system and urban environmental quality. Residents in Staten Island succeeded in driving out garbage from their neighborhood, 'Not in my back yard'. However, All New York City's boroughs garbage still needs to be going somewhere which may cause another story of Fresh Kills with extra vehicle emissions from long-distance garbage transportation. Would covering up a Fresh Kills in New York State without alternative solutions for garbage disposal becomes a gradual process of making the second Fresh Kills somewhere else?

Another issue worth discussing is the denial of the buried memory proposed in the future park. Alternative strategies could be considered parallelly with the current one, which is covering up waste to eliminate its visual existence. History or memories could be a kind of valuable education as well. Just like the 9/11 memorial museum, the past should not be covered but to be recorded and archived, to serve as a warning against unpleasant aspects in reality. With proper shielding and sanitation, it is possible to preserve a part of its section as a demonstration, which illustrates the severe conflict between waste disposal and production in the past to the visitors, therefore letting the landfill tell the story without producing negative effects on its neighborhood. The trash and landfill problem is an enormous and complex issue all over the globe. Although the huge amount of trash is intrinsic to our society, it should be a discussion addressed to all of us. Freshkills Landfill, once the biggest in the world should be the best textbook. Even situated in a new project that is exactly the opposite of what it used to be, memories should be evoked and learned through design despite its unpleasantness.





TECHNIQUES OF THE ULTRAREAL

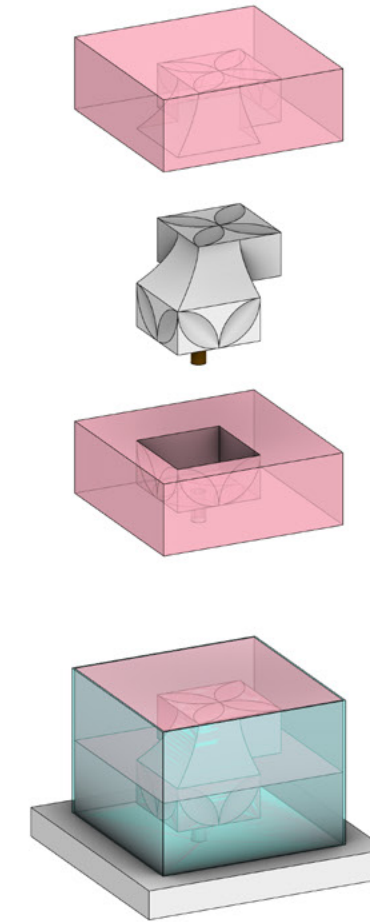
Columbia University GSAPP | Graduate School
Rendering Course
Fall 2019

Critics : Phillip Crupi & Joseph Brennan
Partner : Yukon Kim, Jingjing Wu, Shuchang Zhou





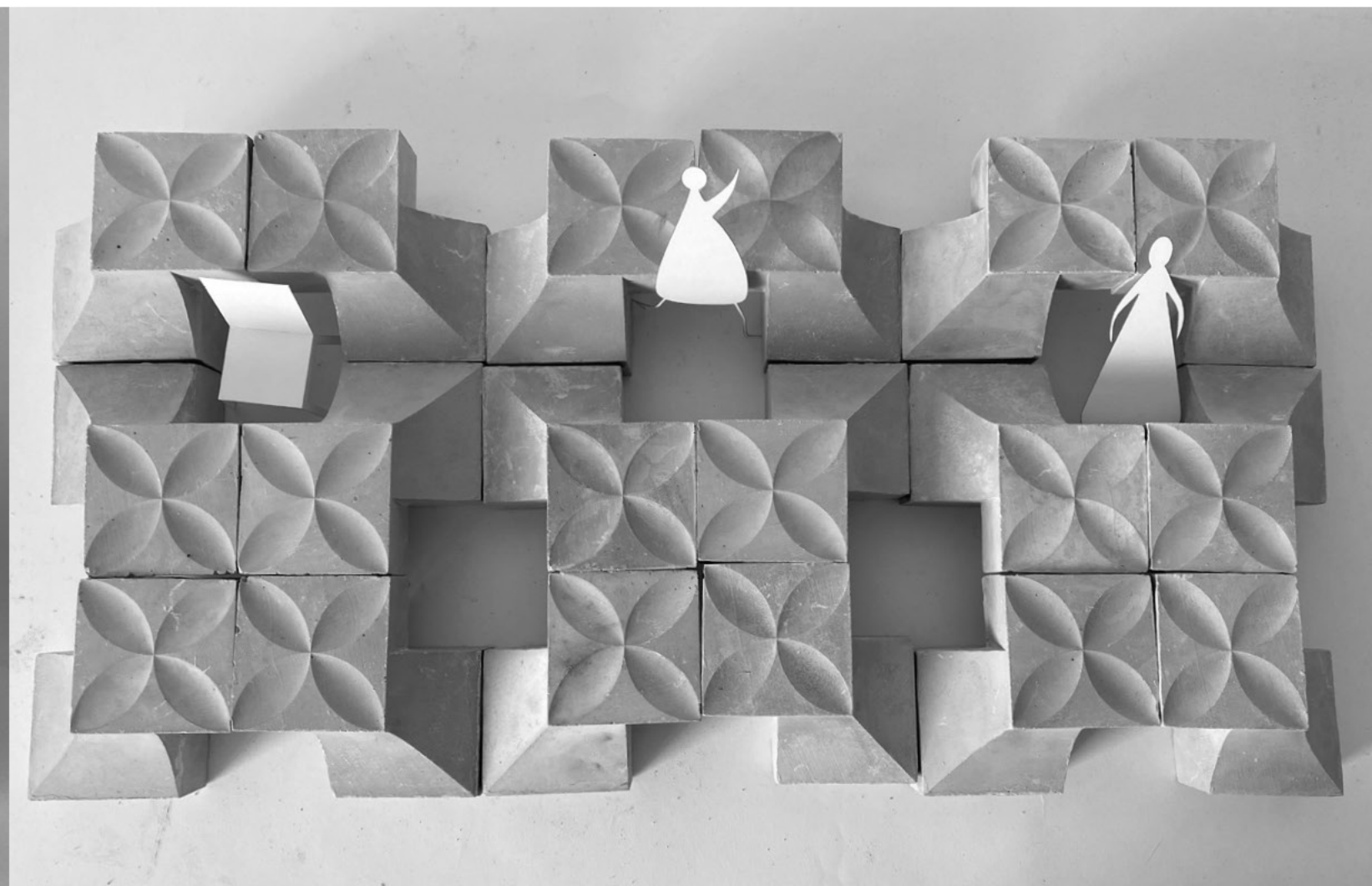
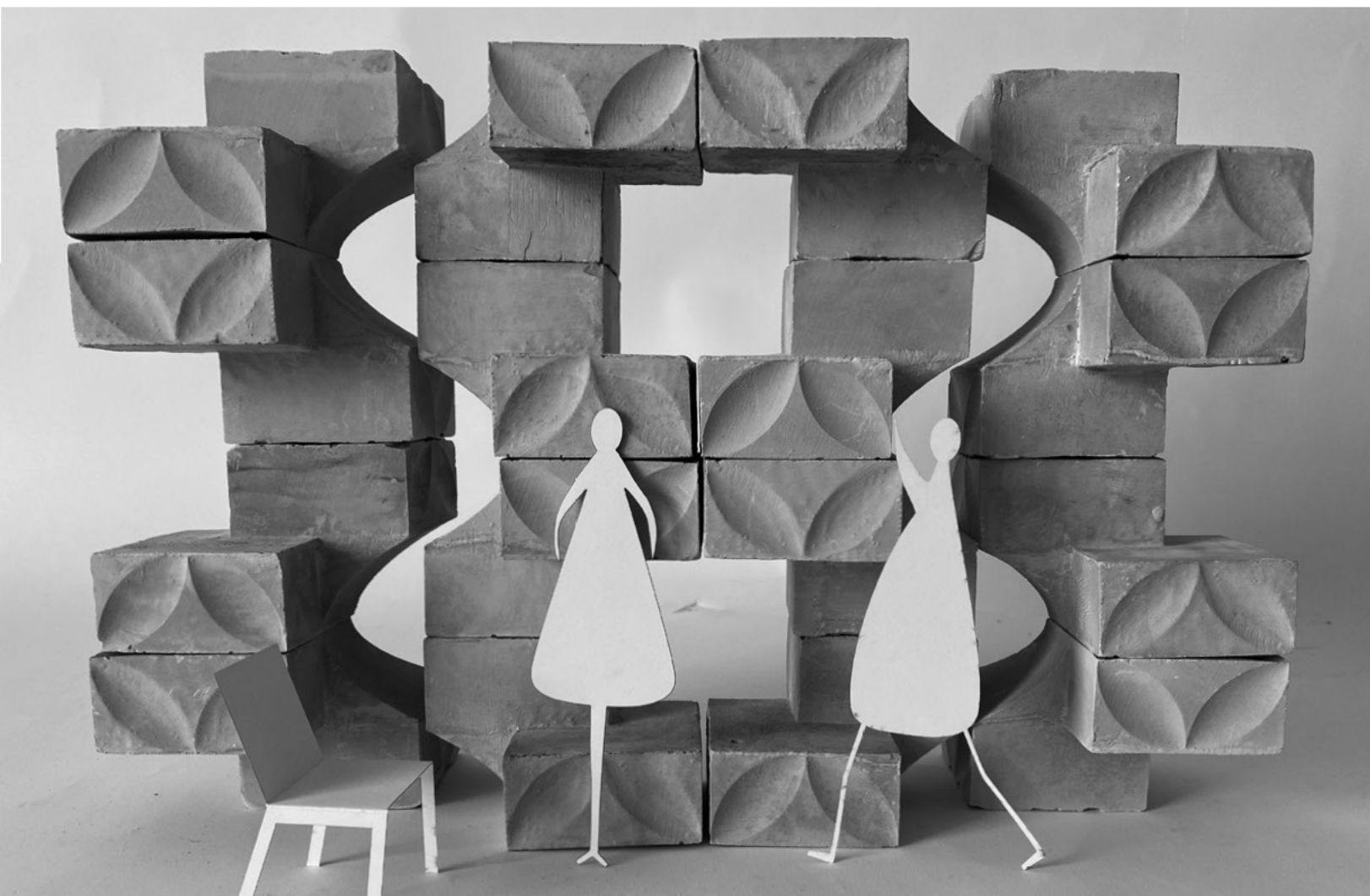


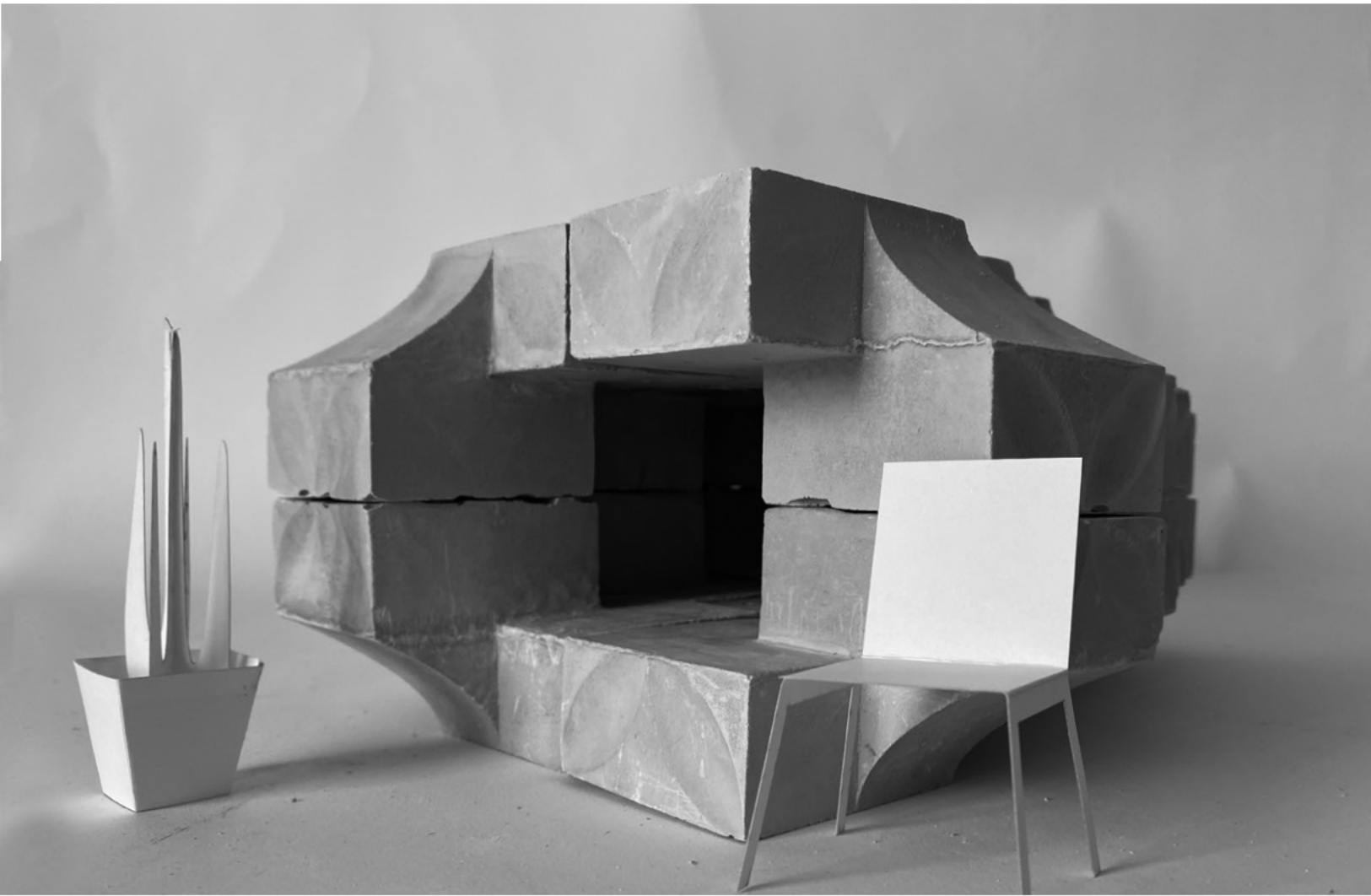


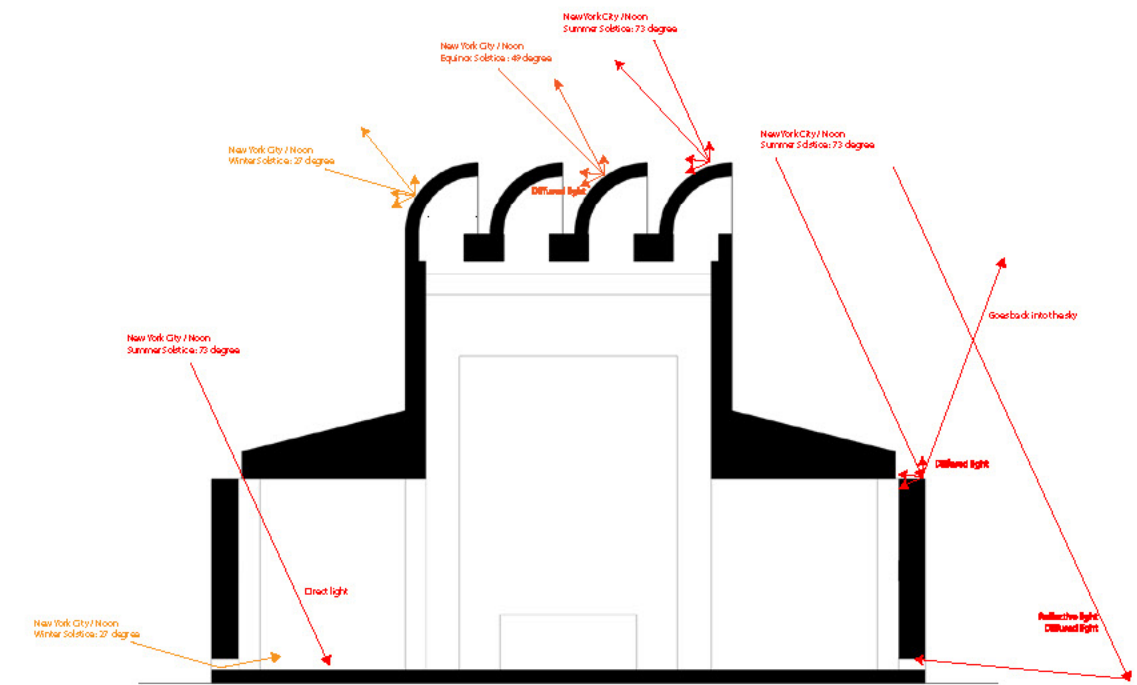
TRANSITIONAL GEOMETRIES

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Designing Tiles
Fall 2019

Critics : Joshua C. Jordan
Individual Work





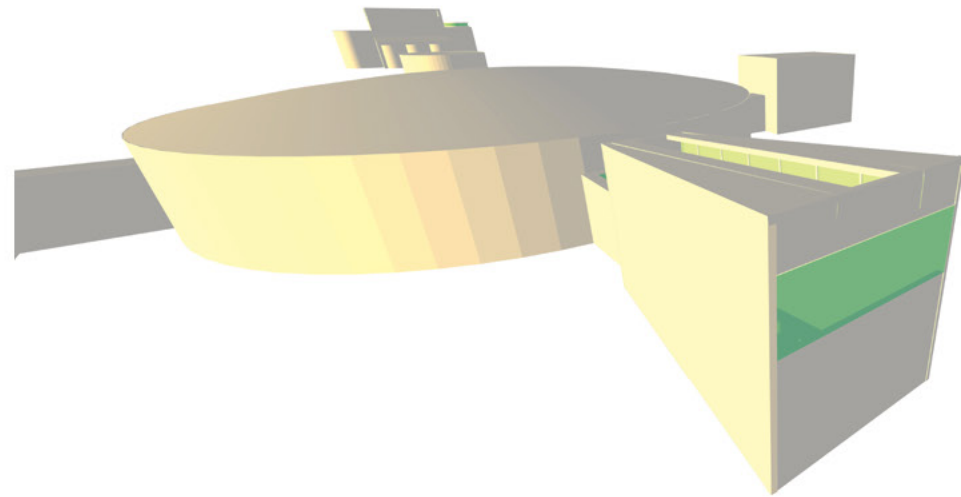


ARCHITECTURAL DAYLIGHTING

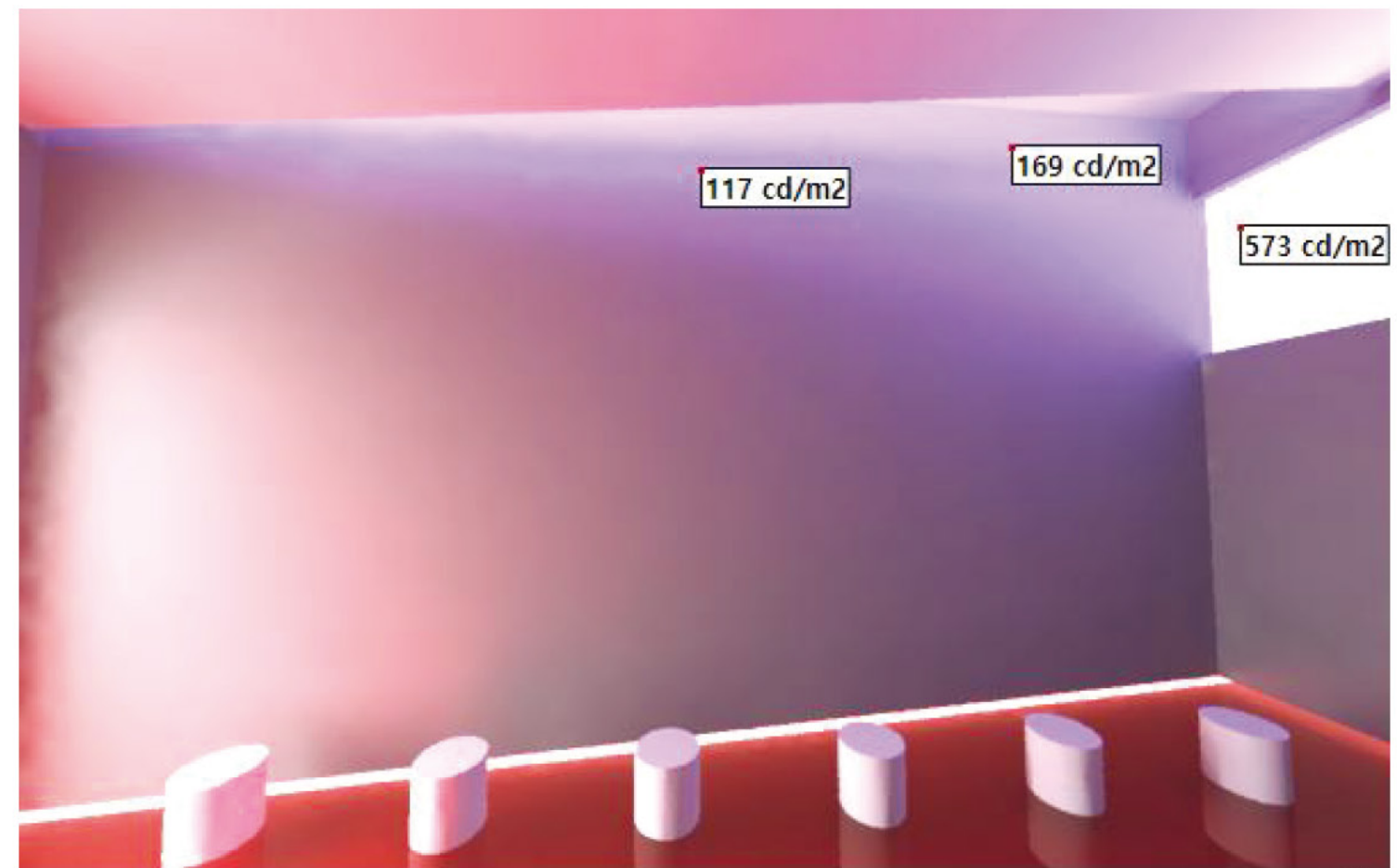
Columbia University GSAPP | Graduate School
 Designing light Fixture
 Fall 2019

Critics : Davidson Norris
 Individual Work

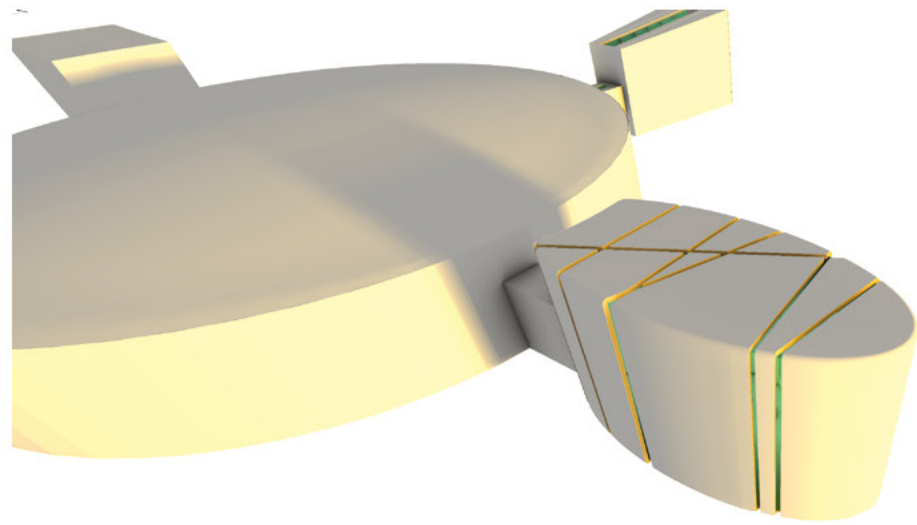
Atmospheric silence Light Refuge



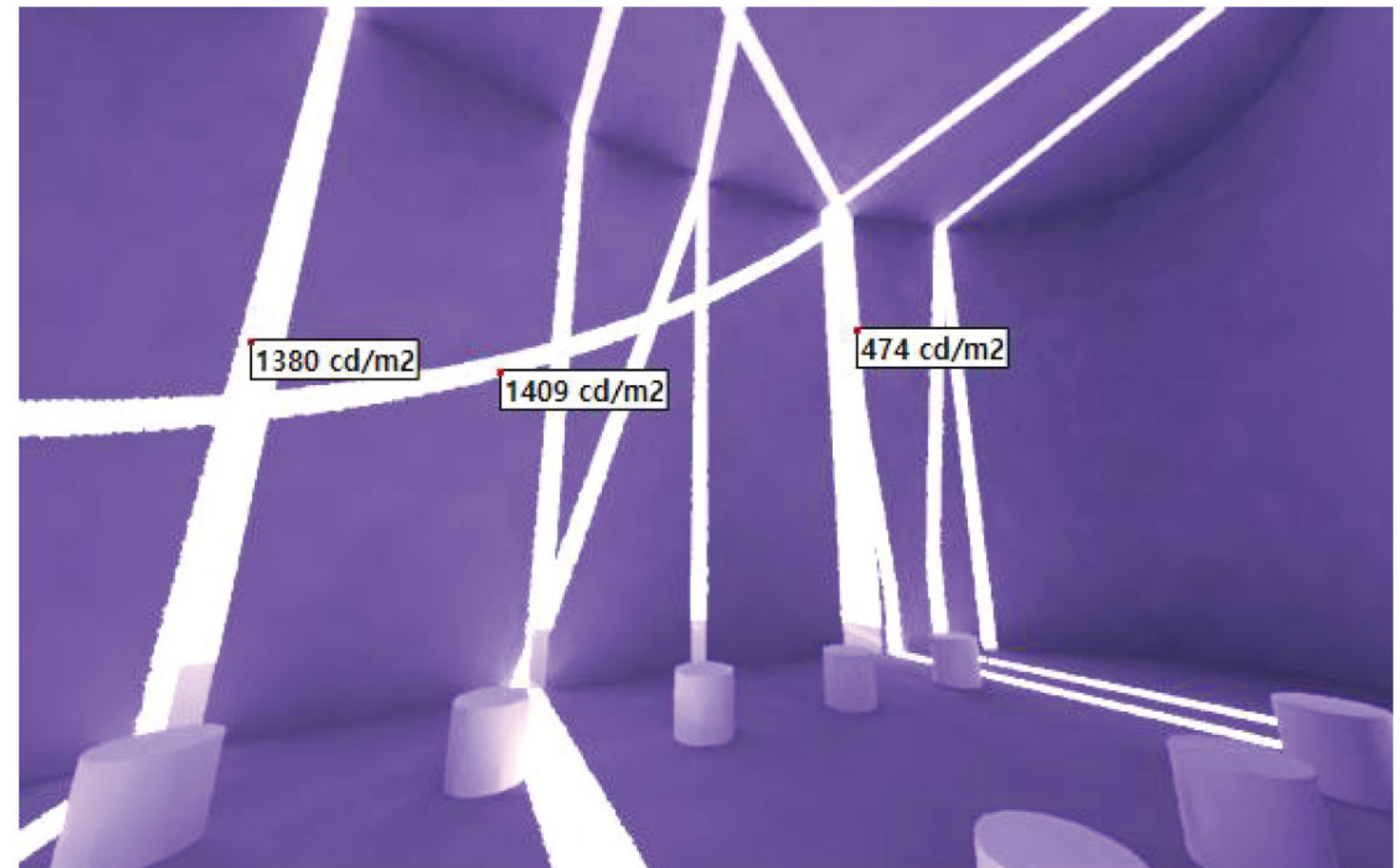
I create a skylight with direct sunlight to set the connecting part as the brightest part from the outside to the inside. The reason for choosing trapezoidal refuge space located in the north of the four is that the exposed area in the south with a lot of sunlight is small and the area in the north is large. By installing clearstories on the north facade, daylight will be diffused and the interior will create a silent space to remember the victims of the coronavirus.



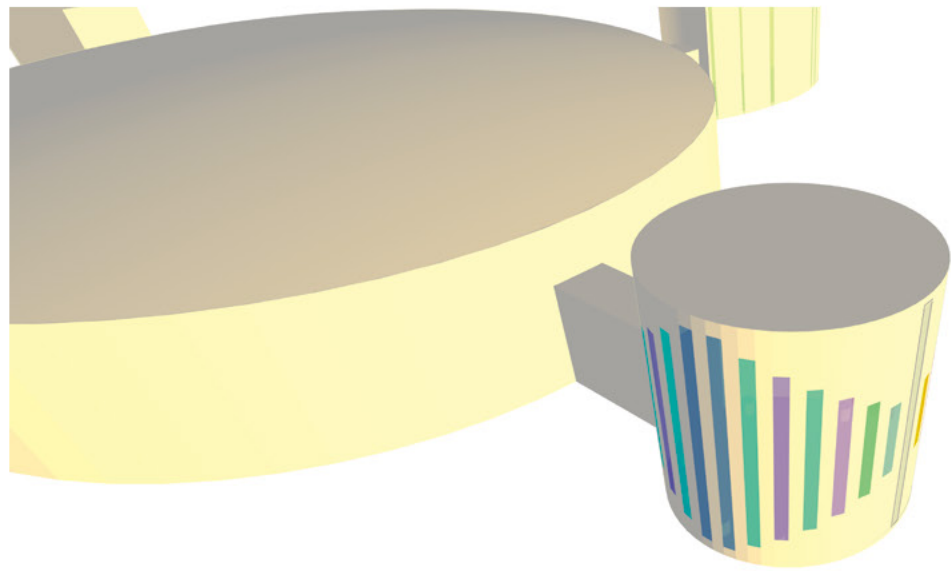
Evanescence Light Refuge



I chose the refuge in the east with the long side facing south, so that the most refuge exposure in the daylight is possible. Also, because the refuge in the east is circular, it is expected that the light changes over time to be more dynamic. In this refuge, people will encounter moving souls.

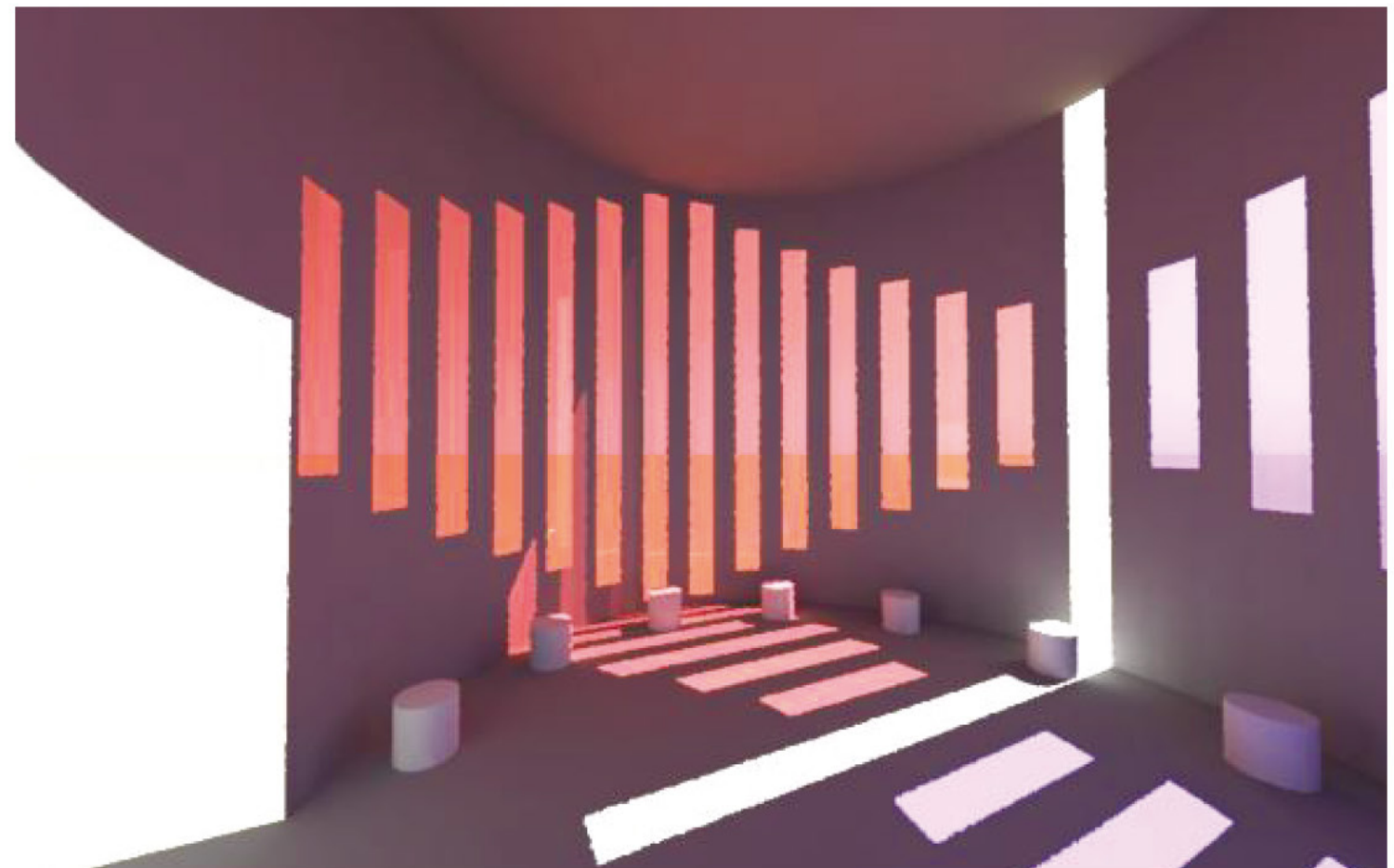
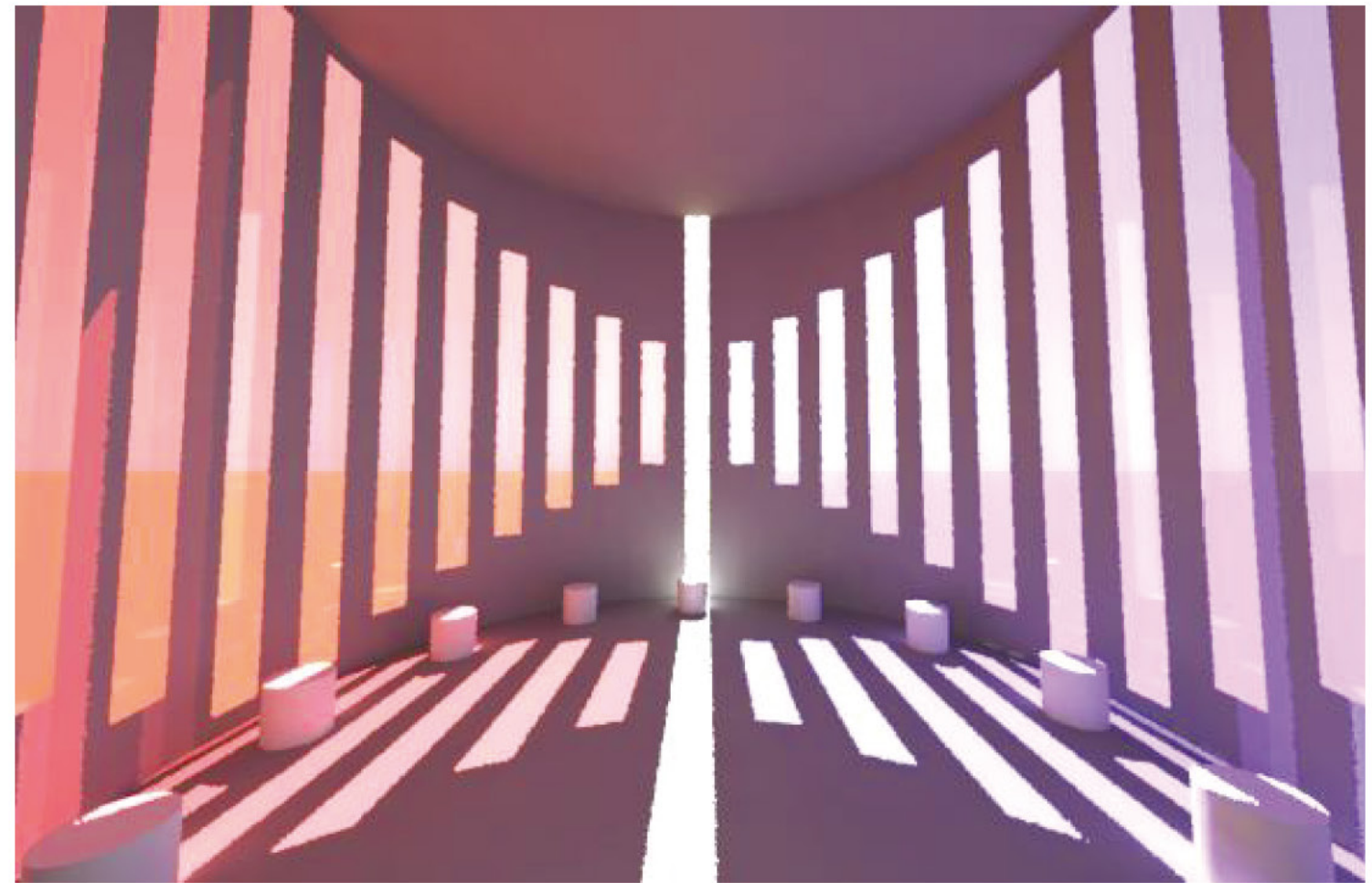


Luminescence Light Refuge



Three different tones of light coming from outside the window. The special glow of this mosaic window seems to interpret the messenger of the outside world. Although the inside and outside receive the same amount of daylight, the difference in its intensity varies greatly. I made it possible to get rich light by choosing the southern refuge that could receive the strongest sunshine. Accordingly, light emission through light passing and scattering will be applied.

By emitting three different kinds of light, it amplifies the sensation felt in reality and Strengthens the coldness and warmth of light in the direction of the sun rising and falling, thereby enhancing the importance of every human long and short life cycle.



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