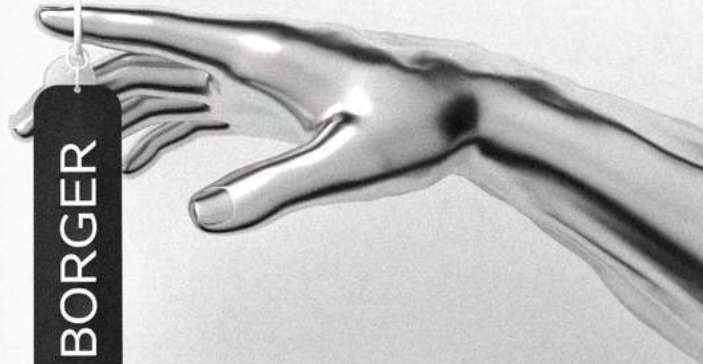




PORTFOLIO



ALEX BORGER



ARCHITECTURE
2023



Personal Details

Alex Borger

Columbus, Ohio

M : [614] 203 - 6877

E : alexborger69673@gmail.com

Work Experience

May 2023 - August 2023
Architectural Intern
MKC Architects

May 2022 - August 2022
Architectural Intern
MKC Architects

September 2022 - August 2023
Architectural Visualizer
Ballard Architectural Studio

Education

2020 - Present

Bowling Green State University,
B.S Architecture
Expected Graduation - April 2024

Fall 2020 - Dean's List

Spring 2021 - Dean's List

Fall 2022 - Dean's List

Spring 2023 - Dean's List

Fall 2023 - Dean's List

Curriculum Vitae

Achievements & Awards

2023

IMI Masonry Pavilion Competition
Bowling Green State University
Awarded 2nd Place

2023

Freedom By Design Garden Bed Design
Bowling Green State University AIAS
Awarded 3rd Place

2023

Ohio State Fair Fine Art's Competition
Section - Wood Turning
Awarded 3rd Place

2023

CURS Undergraduate Research
Bowling Green State University
"Bringing the Common Mind Through
Both Words and Visualizations"

2022

Impact : Sky-rise Competition
Awarded 10th Honorable Mention
10th Place / 700 Participants

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07

CURATION.OF.ALEX

Creating daily art for 365 days to journal my skill progress

08

WOODWORKING

A study into the art woodworking and Japanese design

From this section you will see academic work completed as an undergraduate at the Department of Architecture, Bowling Green State University

All work was completed from 2022-2023

ACADEMICS

ACADEMICS

ACADEMICS

ACADEMICS

CSM : NEXUS

Class Information

Bowling Green State University
Stan Guidera
Design Studio 4

Project Location

Cranbrook School
Bloomfield, Michigan

Methods Used

Rhino 3d - Vray - Unreal Engine

Project Synopsis

Cranbrook School is known for their academic excellence and their strive for architecturally beautiful designs throughout the campus. Original architect, Eliel Saarinen, had used many experimental and new methods of design when first creating this school, spending time on the fine details without sacrificing the overall scope.

This design proposes a new school for music within the campus' rolling hills. Blending the lines between form and natural experiences, this structure almost feels ominous in its wakening, as if it has always been there.



Exterior : Auditorium Lobby



Exterior - Interstitial Space



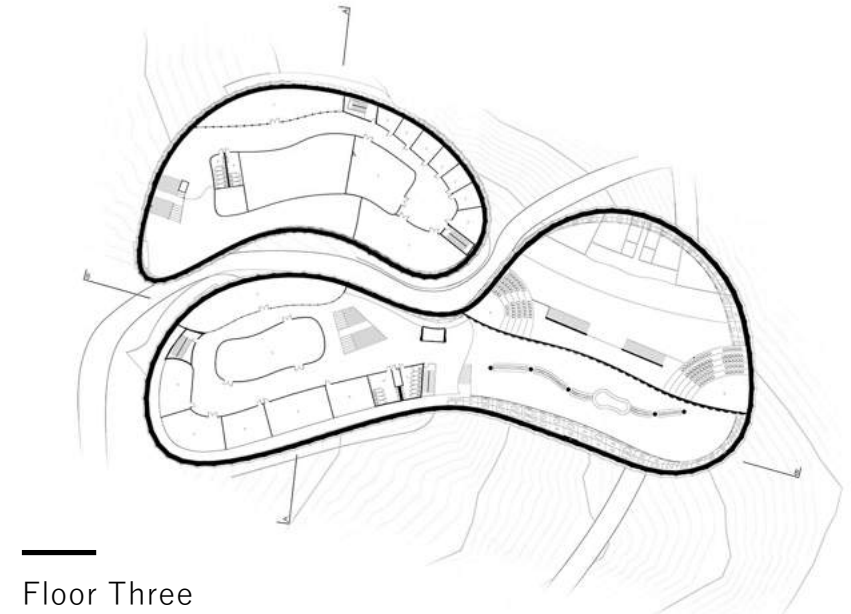
Model Photograph



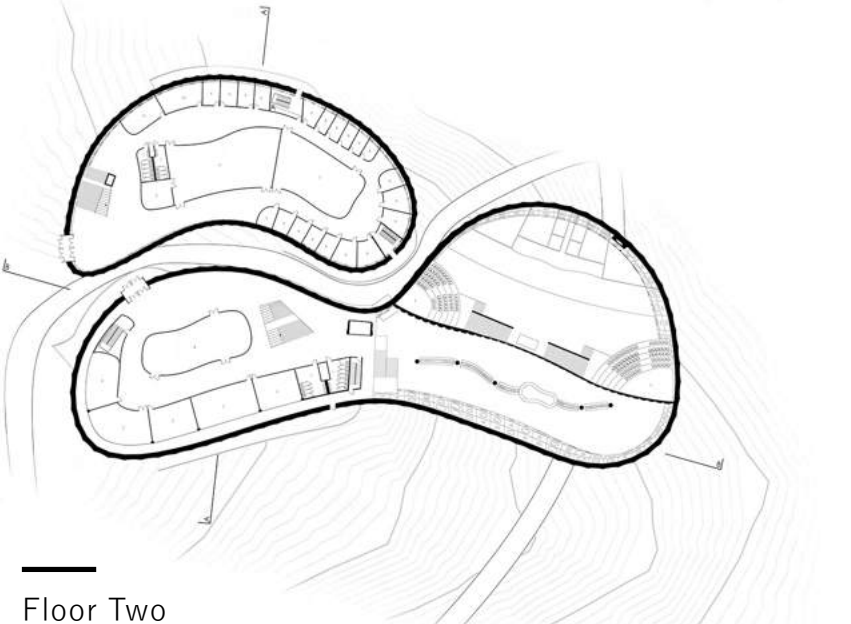
Interior - Interstitial Space

The Space Between

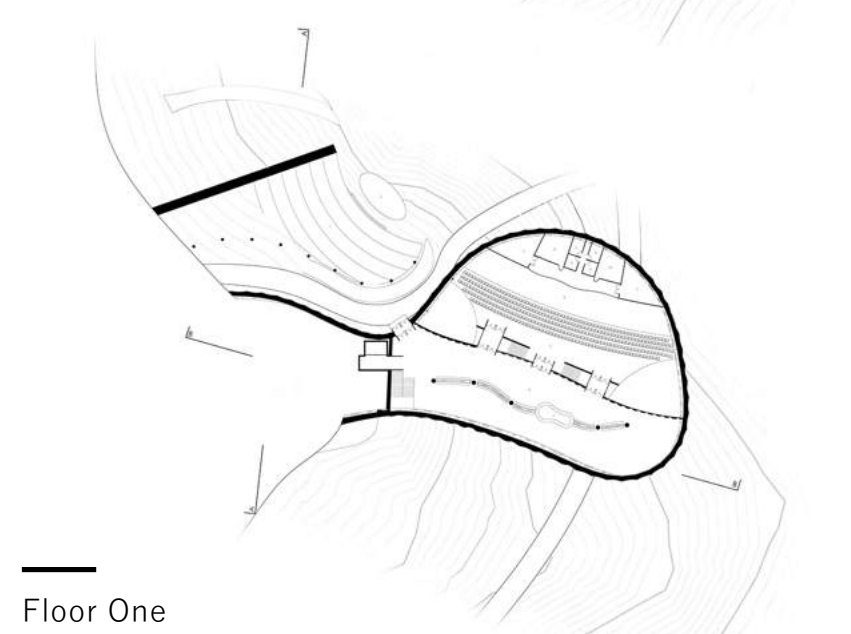
This design encapsulated the importance of the vast pathways of the Cranbrook Campus. Forming the architecture around existing pathways to highlight these areas and add to the experience when enduring the interstitial space between.



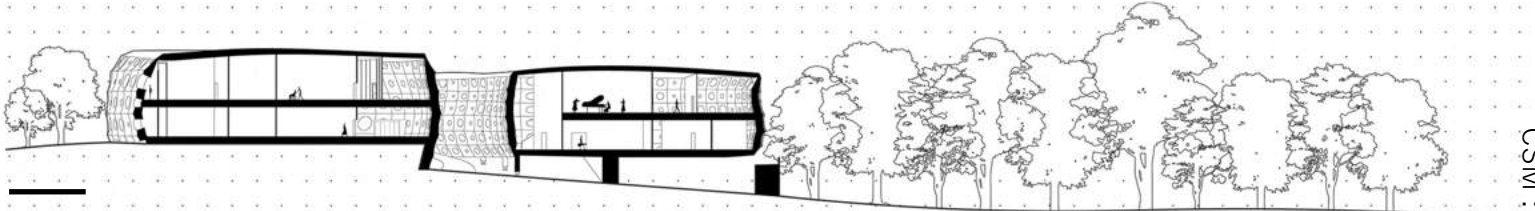
Floor Three



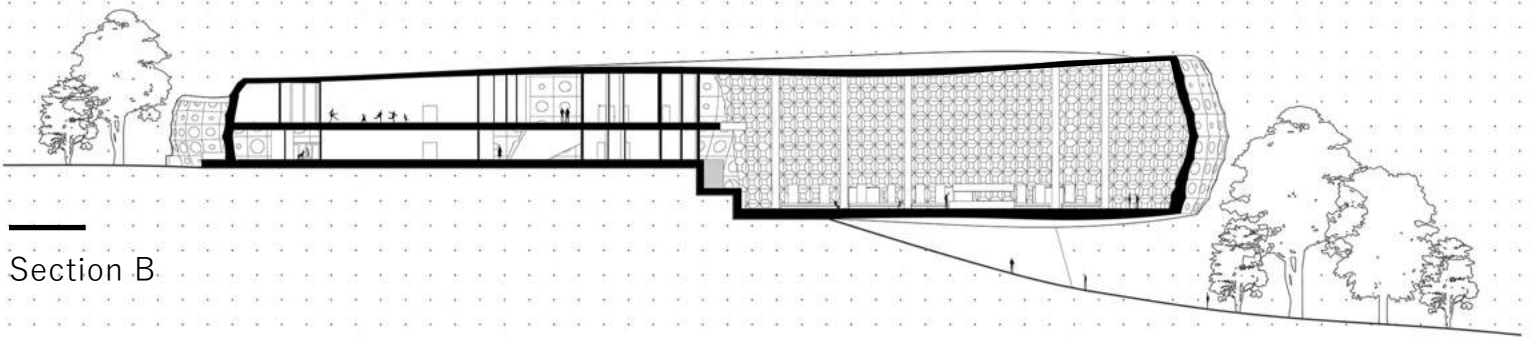
Floor Two



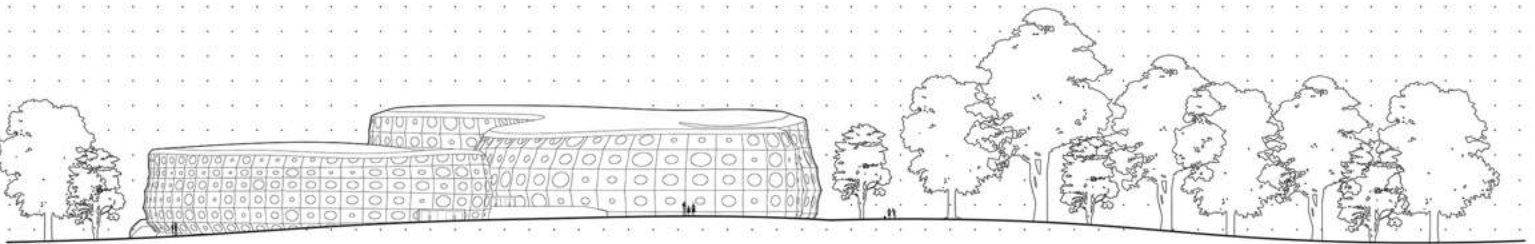
Floor One



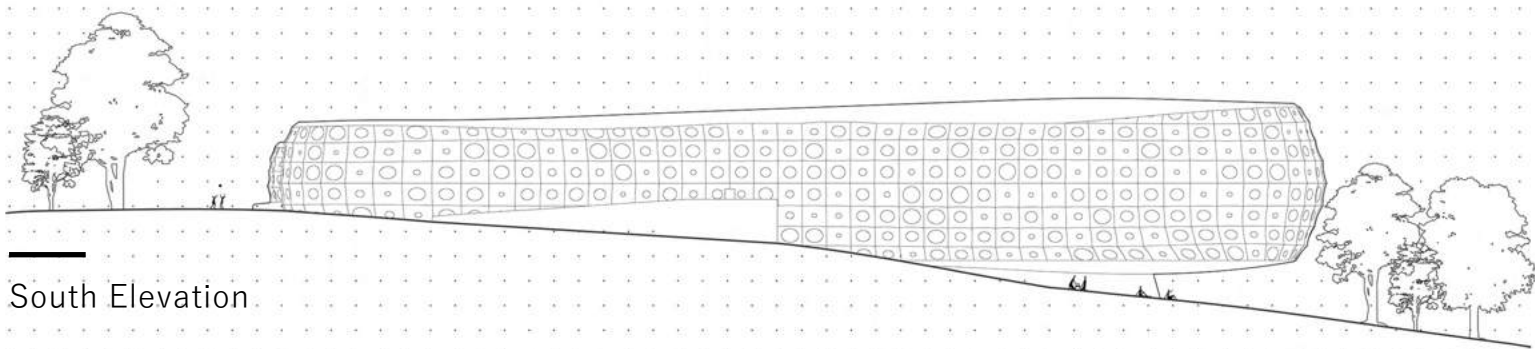
Section A



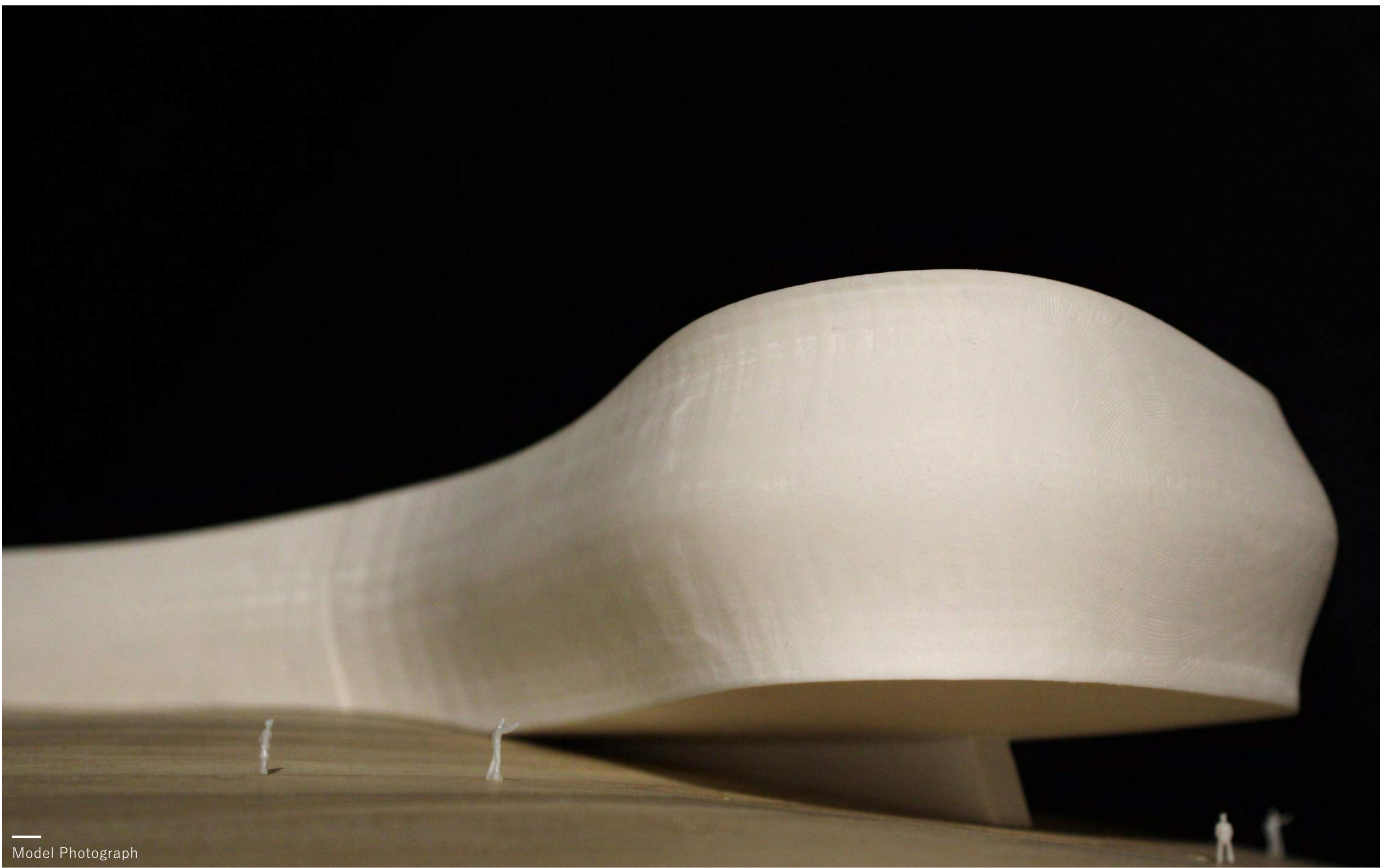
Section B



East Elevation



South Elevation



Model Photograph

CHAOTIC CONTINUUM

Class Information

Bowling Green State University
Salim Elwazani
Design Studio 3

Project Location

Helsinki, Finland

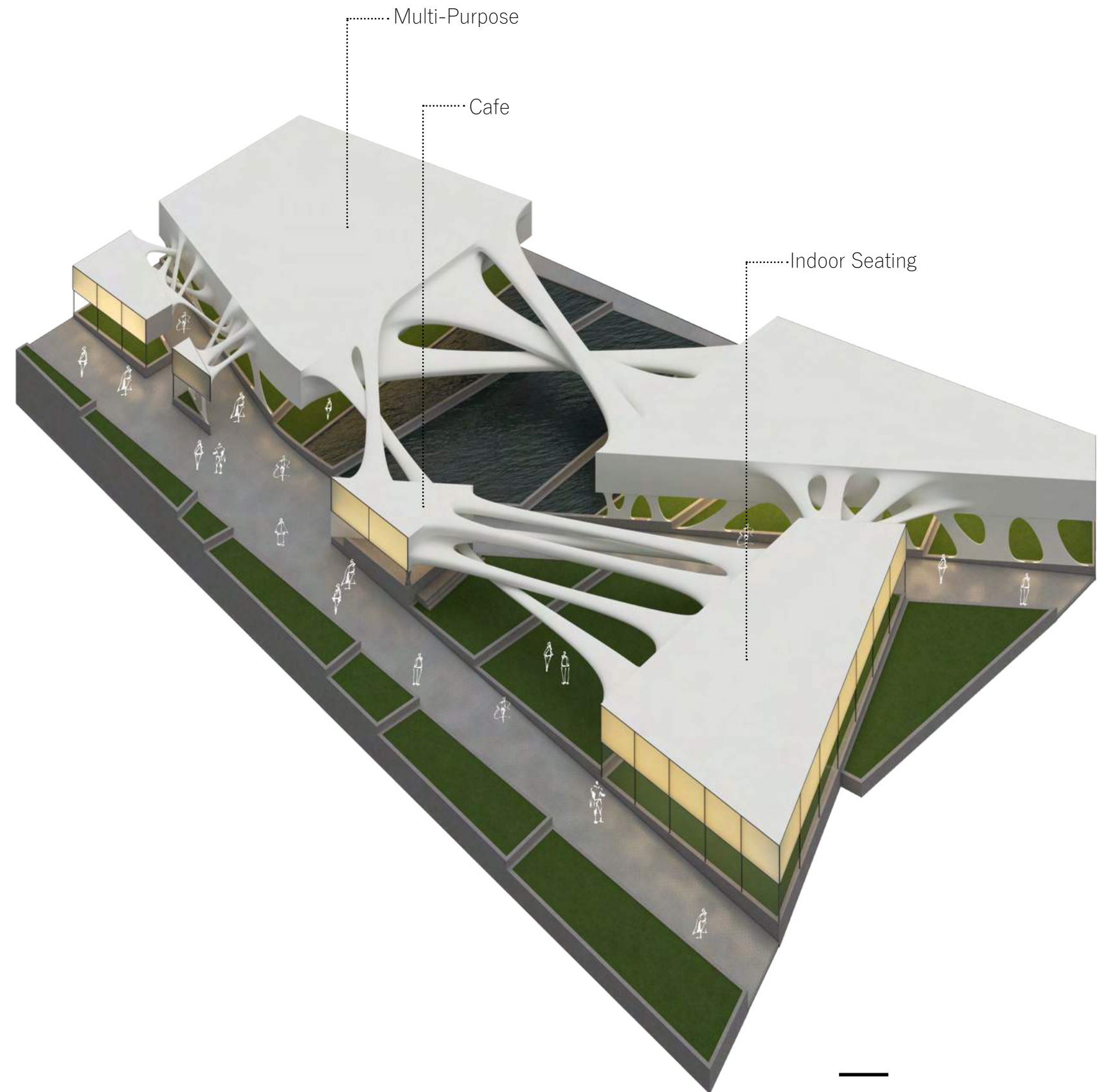
Methods Used

Rhino 3d - Vray - Photoshop

Project Synopsis

The center square of Helsinki includes several different eras of architecture dating to 17th century up to neo-futurist architecture by Steven Holl. This adds deep rooted history and evolution of design in a minimally sized area.

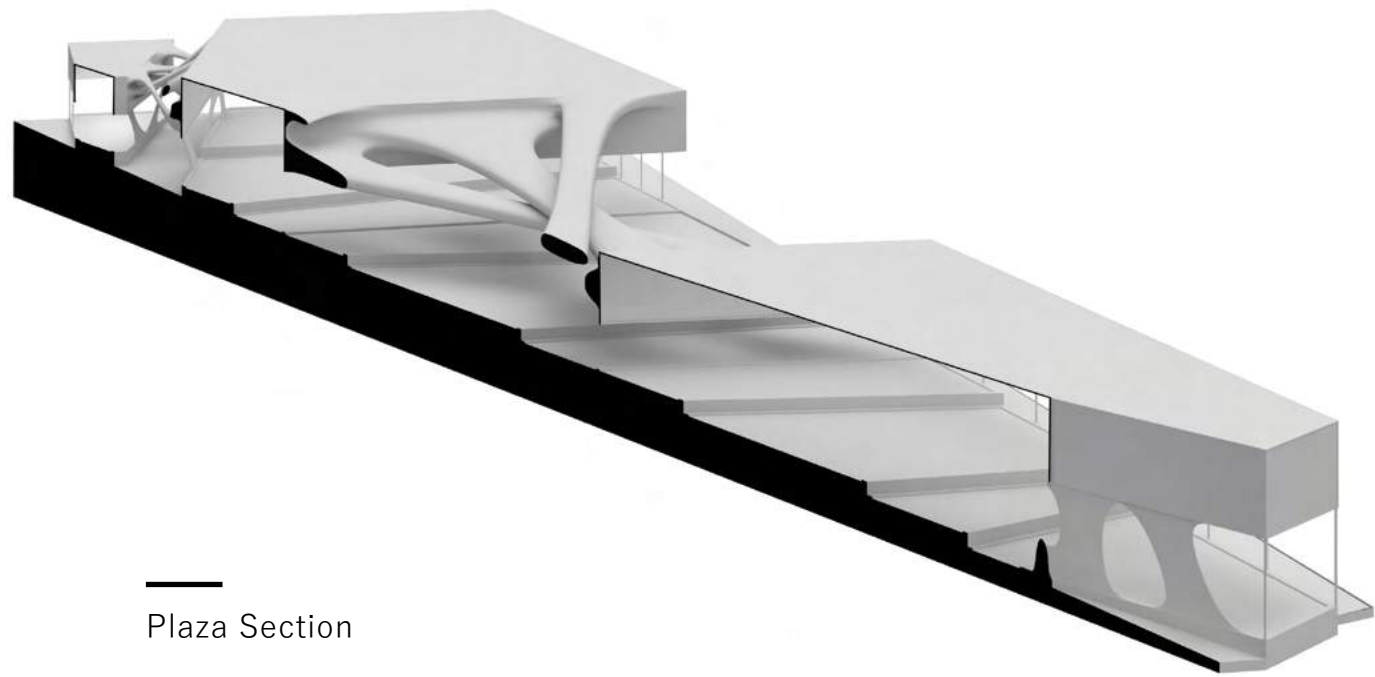
Helsinki being home to a wide variety of architecture that seemingly weaves together, it seemed fit to create a center pavilion representing that connection. Bracing the connection with a web system as overpasses to create a beautiful experience for the thousands that walk through this area a day on their commute.



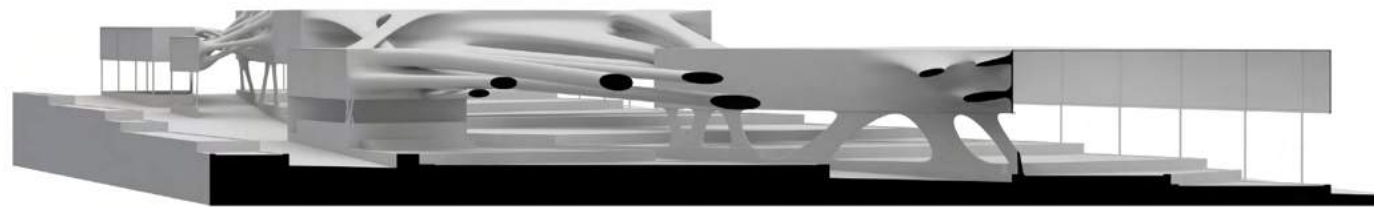
Axonometric



Central Passageway



—
Plaza Section



—
Bridge Section



—
Street View

REMNANTS

Class Information

Bowling Green State University
Linda Beall
Design Studio 5

Project Location

Corktown, Michigan

Methods Used

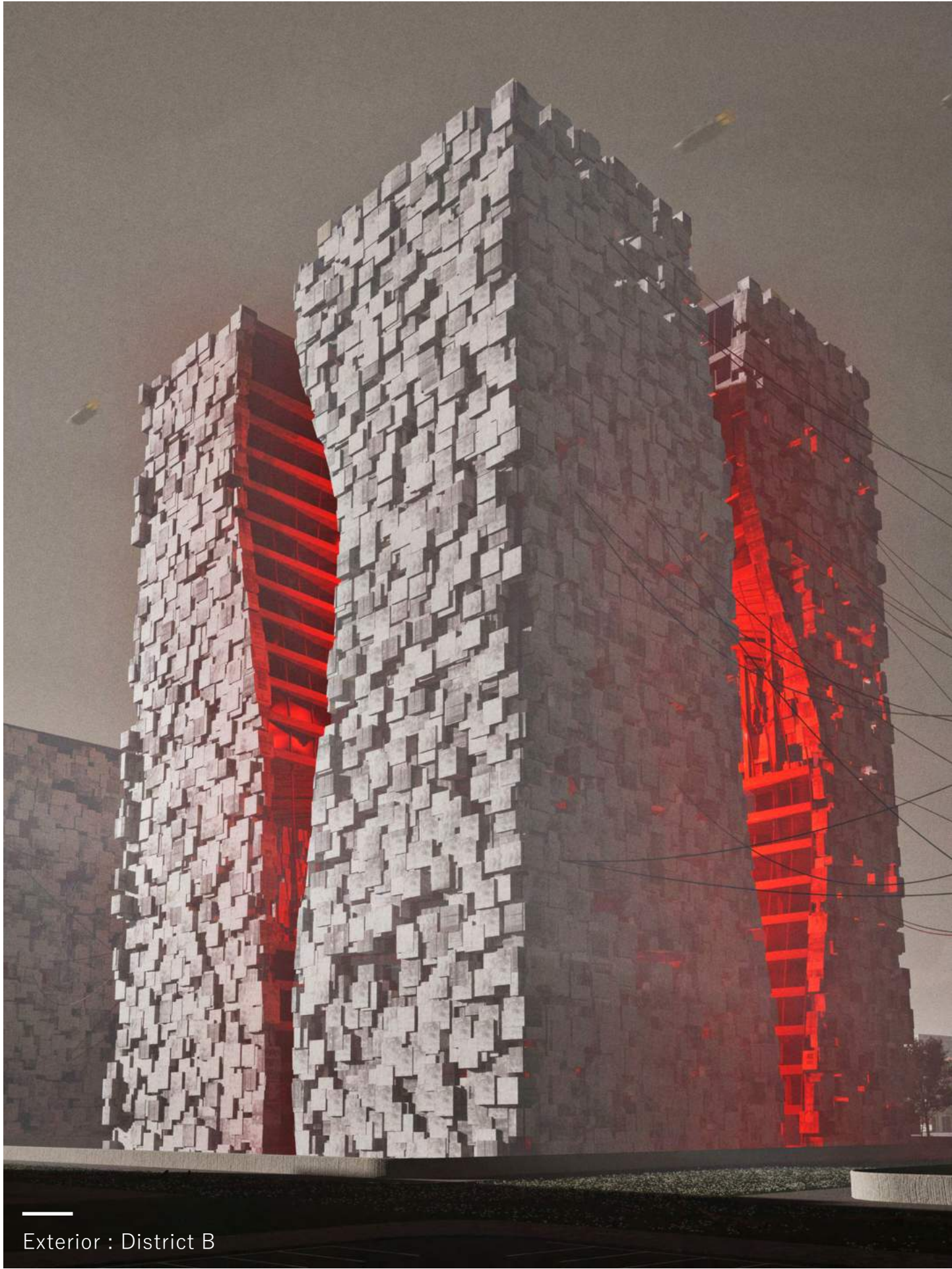
Rhino 3d - Revit - Blender - Cinema 4d -
Vray - Unreal Engine

Project Synopsis

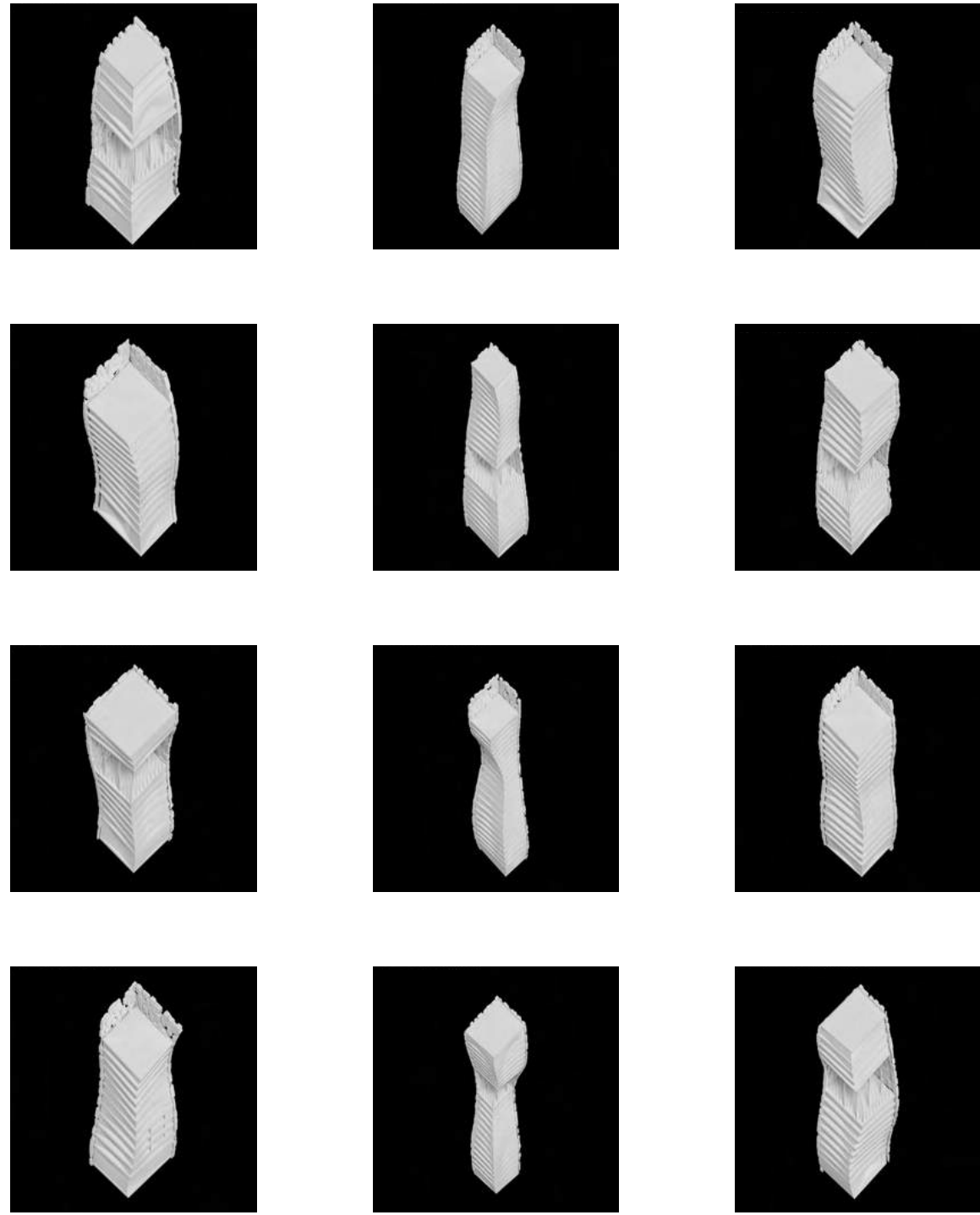
Detroit has been the capital of industrialization for most of its historical presence. In recent years Detroit has become more focused on contemporary design and compact living in the dense environment. Designing with this same intent, it had been important to express the past in the present while looking towards the future. Using brutalist, cubic forms on the exterior brings the phenomenology of the industrialization period, rooted deep into the ground as if it is unearthed history. Within the cluster of buildings presents an outlook of where Detroit is heading in the representation of the urban context.



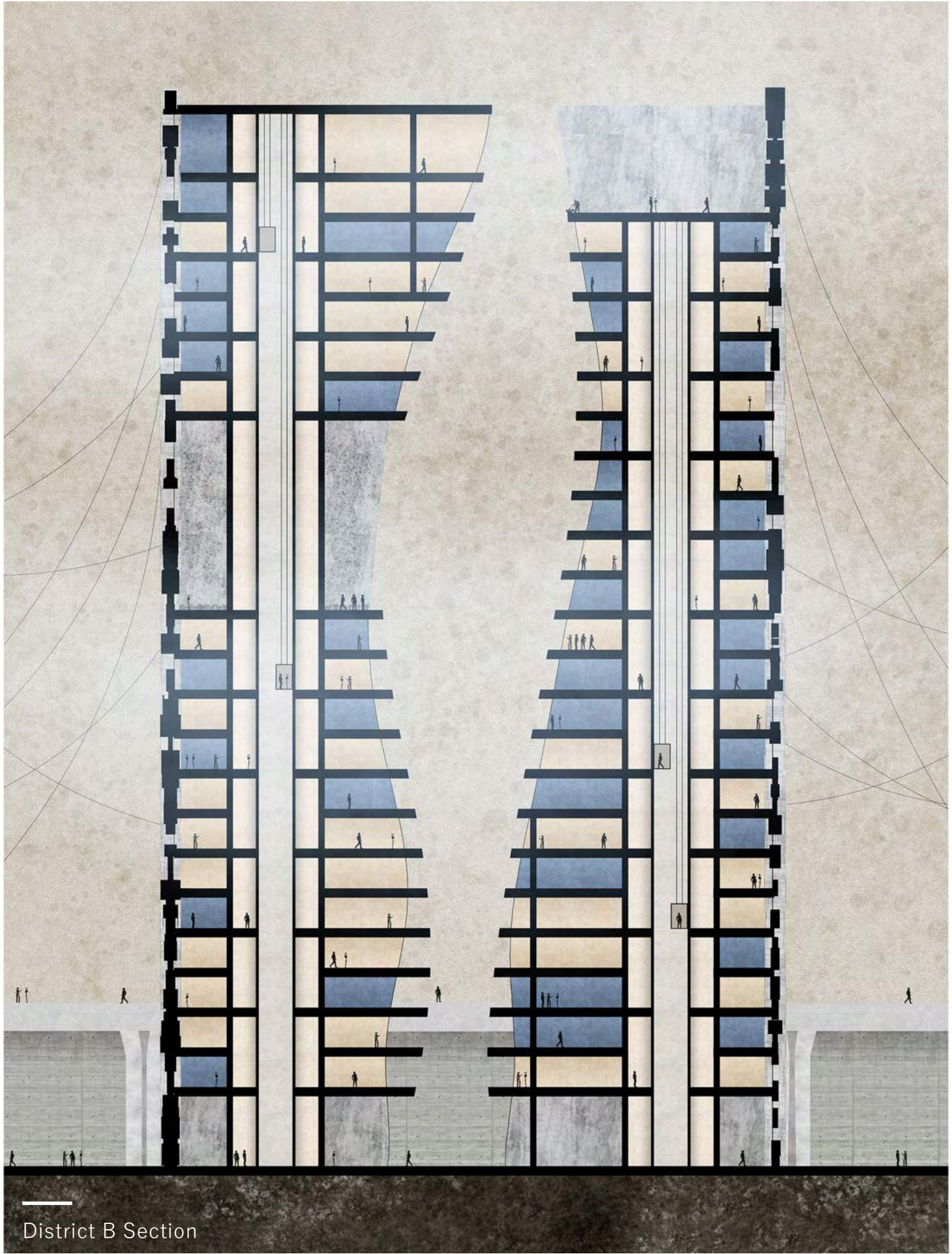
Exterior : Detroit View



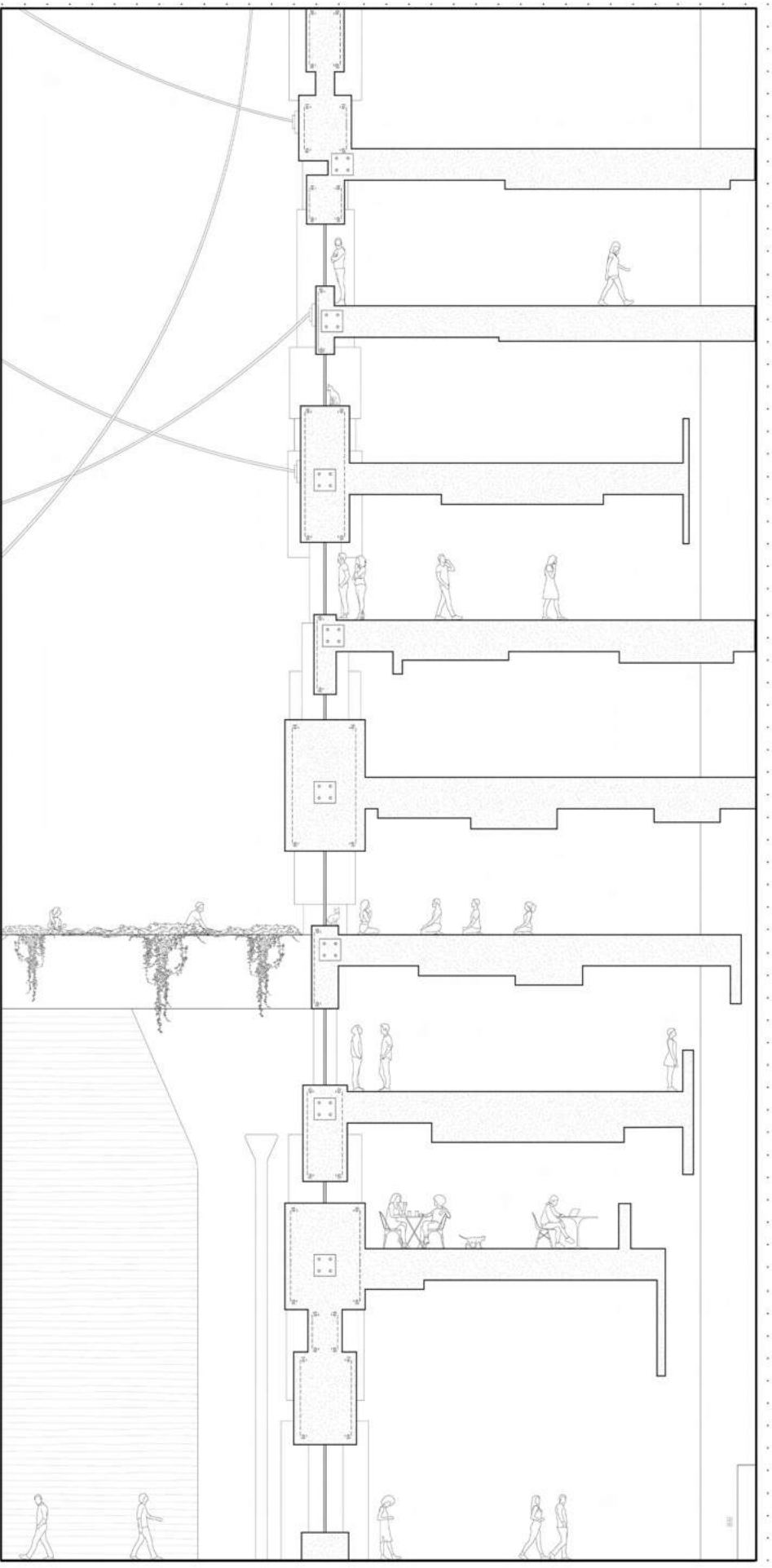
Exterior : District B

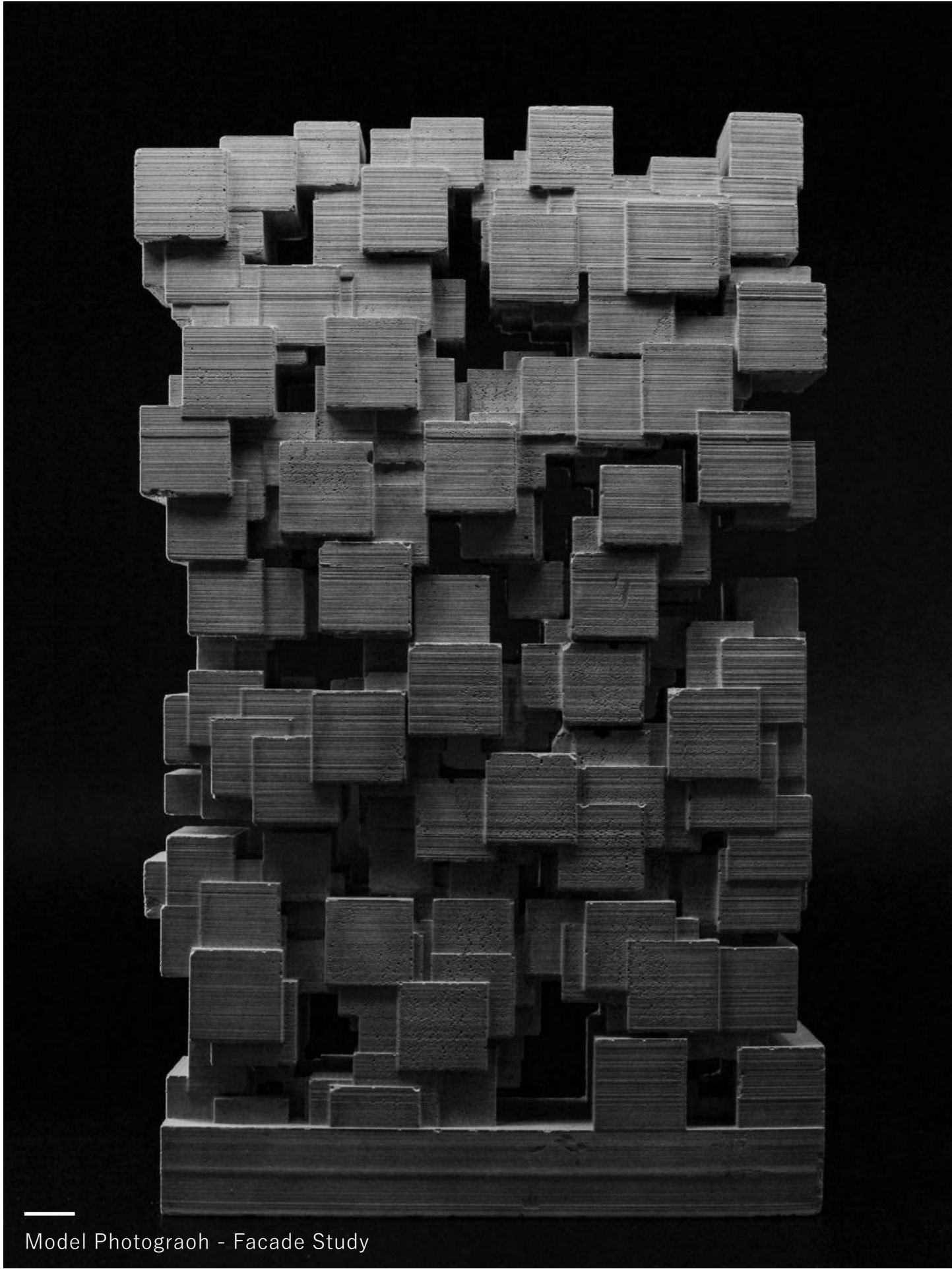


District Forms



District B Section

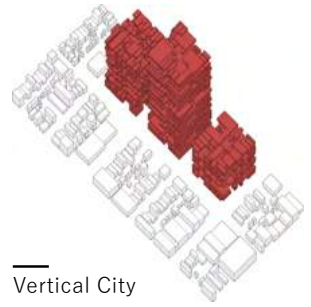




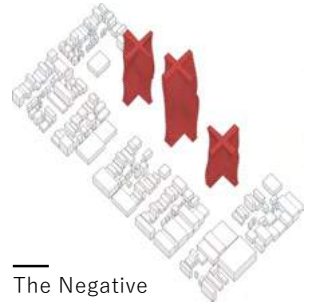
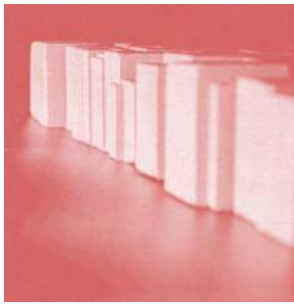
Model Photograph - Facade Study



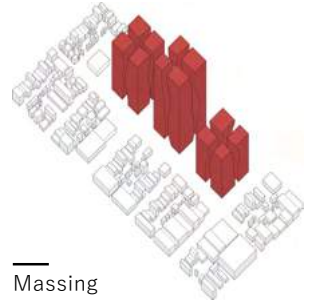
Traditional City



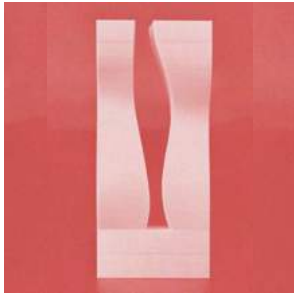
Vertical City



The Negative



Massing



From this section you will see a competition proposal submitted to Impact : Skyrise Competition 2022 which lead to receiving an **honorable mention** and **10th place overall** out of a total of **700 participants**. Juried by Architects like Director of Zaha Hadid Architects, Chris Lepine, Director of MVRDV, Gideon Maasland, and Director of OMA UK, Carol Patterson, it had been vital to push the limits of design and sustainable uses.

All work was completed during 2022 - MKC Architects

COMPETITION

COMPETITION

COMPETITION

COMPETITION

CARBON CITY: AN URBAN MACHINE

Competition Information

Impact : Skyrise
10th Honorable Mention
Top 10 Overall / 700 Participants

Professional Work

MKC Architects

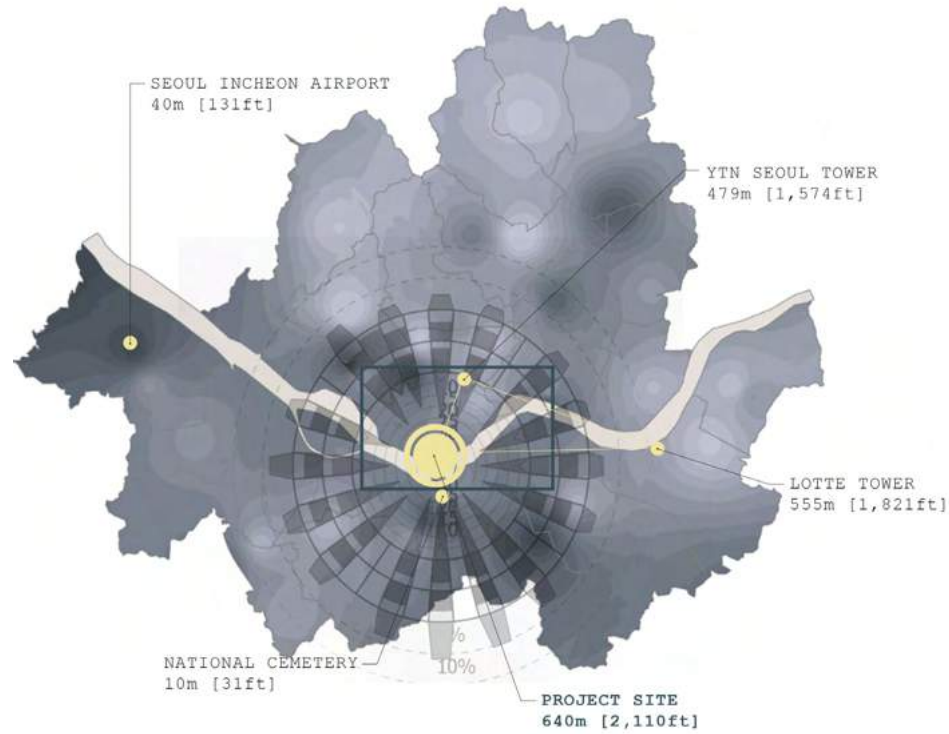
Project Location

Seoul, Korea

Methods Used

Rhino 3d - Vray - Photoshop





DENSITY / TRAFFIC

Daily Traffic Volume	32,162,000
Bicycle Lane Length	781km
Street Trees	305,000
Built vs. Open Space	80%
Mean Stories	30
Mean Residents / Floor	246



SITUATING THE PROJECT

Both monolithic and robust, the form pays homage to its adjacent sisters: YTN & Lotte Tower. What was once mere architectural form is transformed into **climate-rejuvenating superstructures aimed at reversing climate change.**

INCOME

Mean Income	\$30,000
Mean Net Worth	\$500,000
Mean Housing	\$1,000
Mean Housing / Income	\$30-40%
Residents > 30% Income	\$45%

+ Almost half of Seoul's resident pay greater than 30% of their income on housing.

+ The average cost per housing unit is \$1,000 per month, which is 33% of the mean income per Seoul resident.

POPULATION

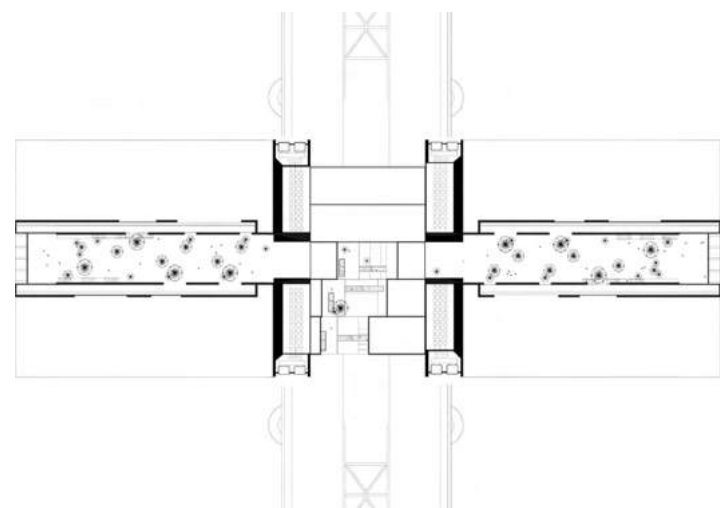
Population	9.77million
Adolescents	1.5million
Seniors	1.6million
Households	3.8million
Foreign Population	225,000
Homeless Population	3,400

+ Seoul emits the greatest amount of carbon in the World.

+ Seoul emits 5 times more carbon per day than New York City.

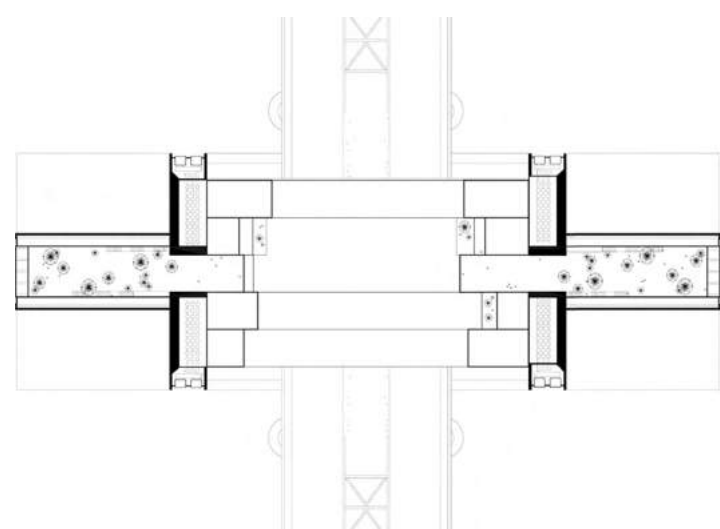
+ Almost 50% of the entire country's carbon output comes from Seoul. The second closest was Sydney, Australia at 34%.





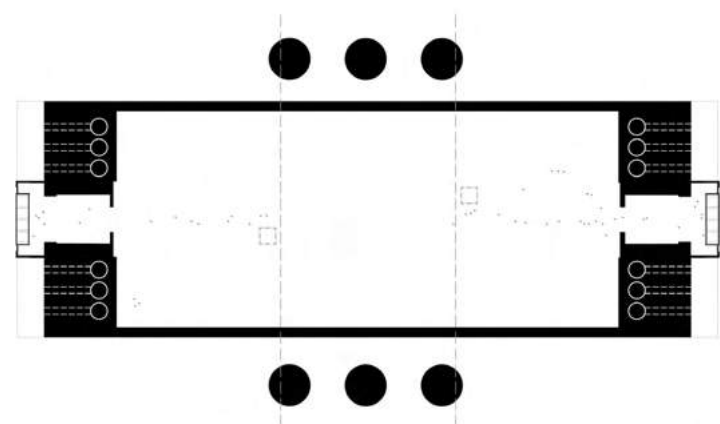
SKY TOWER PLAN [TYP]
HANEUL
+200m

The Sky Tower Levels [Haneul] compose the upper-most portion of the skyscraper, known as Vernacular Village 3. This area is the most dense area of the skyscraper, featuring 20 stories of tightly packed housing and support buildings.



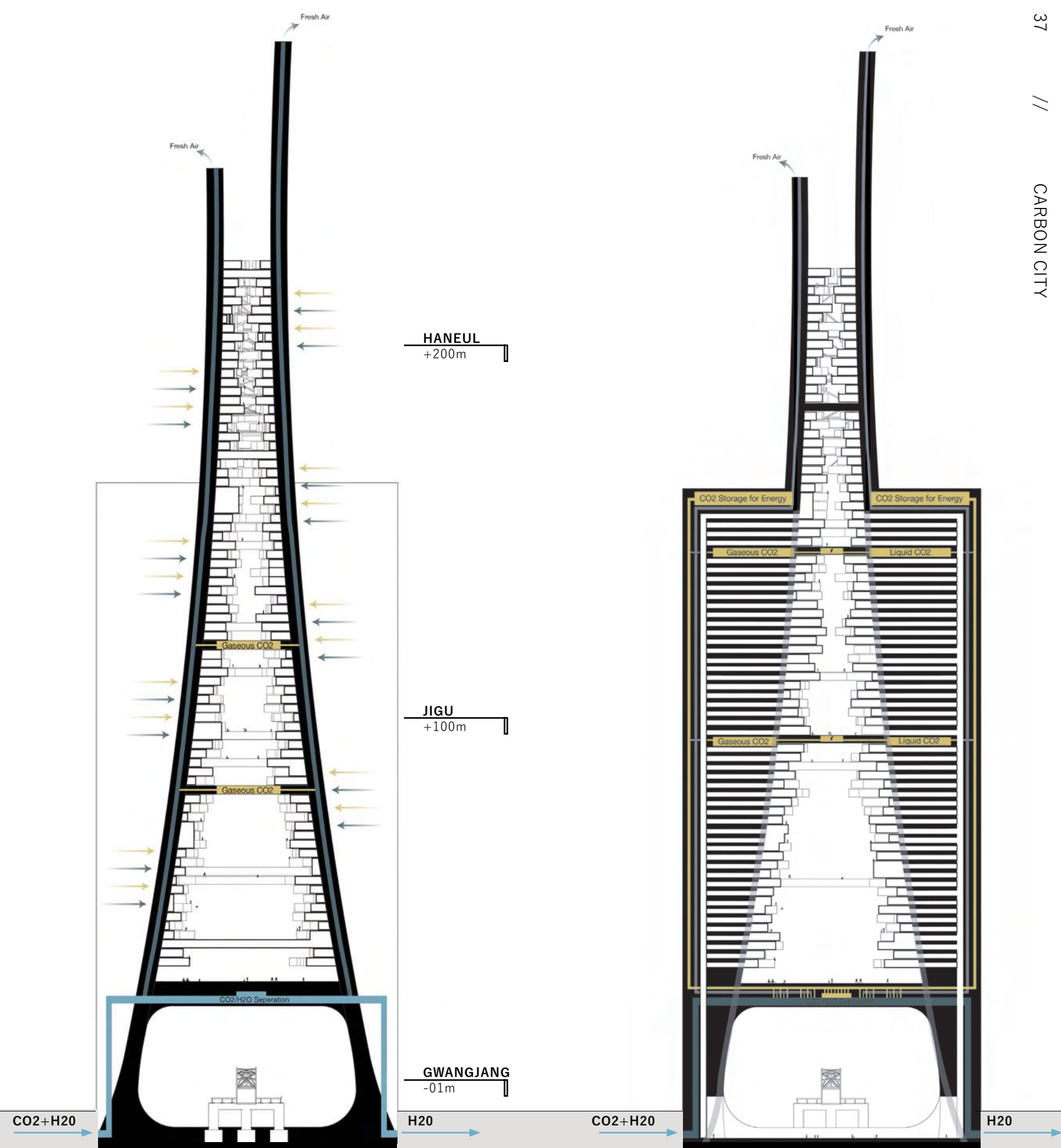
BASE TOWER PLAN [TYP]
JIGU
+100m

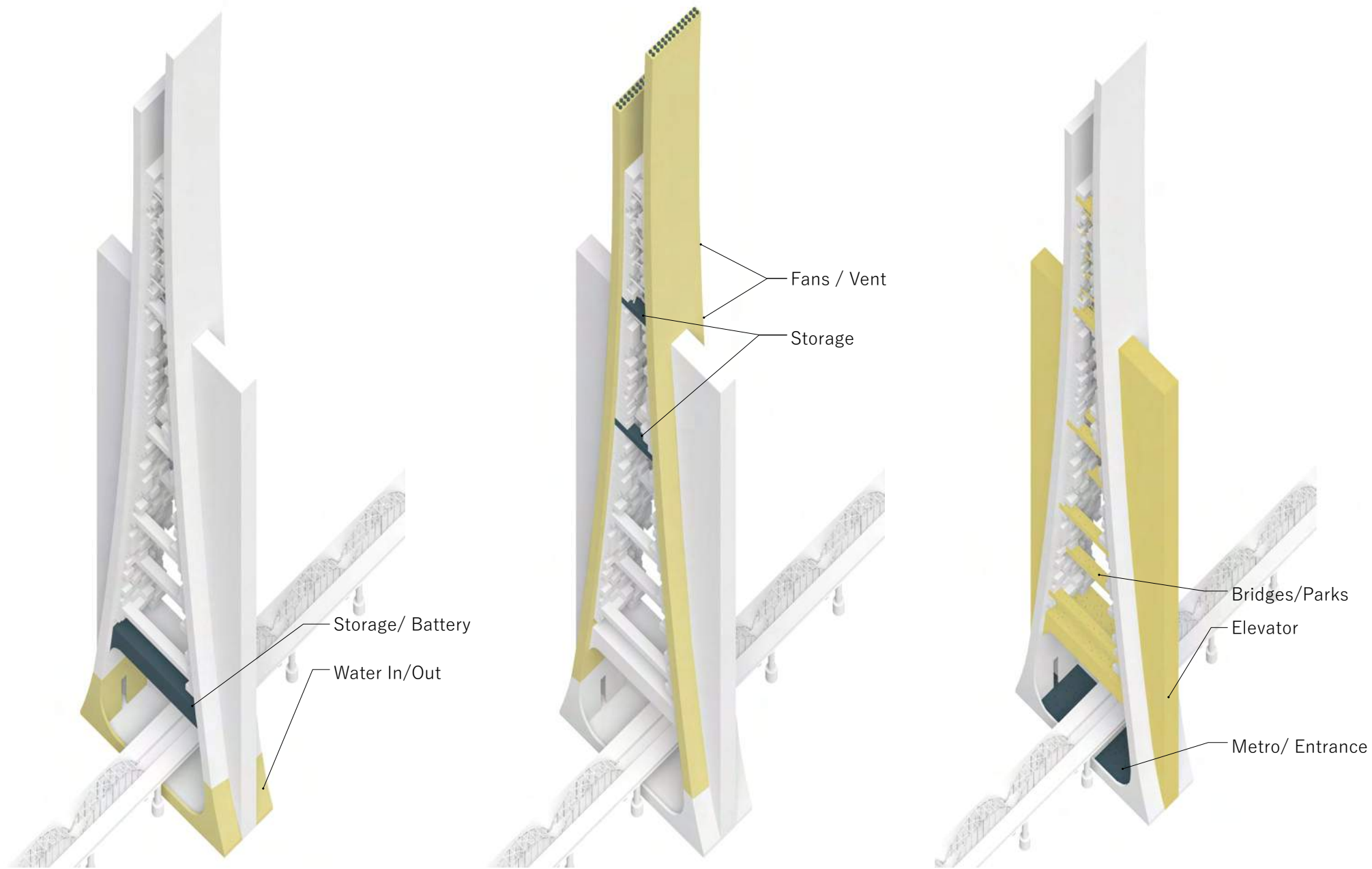
The Base Tower Levels [Jigu] contain Vernacular Villages 1 & 2, as well as the building's Main Park. Immediately underneath the Main Park is the WAC System and Carbon Battery. There are 48-stories of housing and support programs in the Base Tower Levels, spread out over 12 Park Connectors.



PLAZA LEVEL
GWANGJANG
-01m

The Plaza Level [Gwangjang] is the transportation hub [Metro Line 4] and building access point through a centralized plaza. As the building straddles the Dongjak Bridge in the Han river, the building complex is accessible by both boat and metro.





WATER ASSISTED CAPTURE [WAC]

DIRECT AIR CAPTURE [DAC]

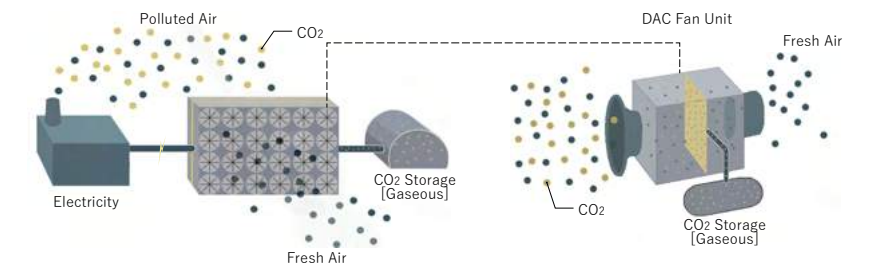
CIRCULATION

CARBON CAPTURING METHODS

Beyond appearance, the primary building elements are optimized for their specific function - from the symmetrical arms that serve as the DAC system to the circulation towers that also provide structural integrity for the building.

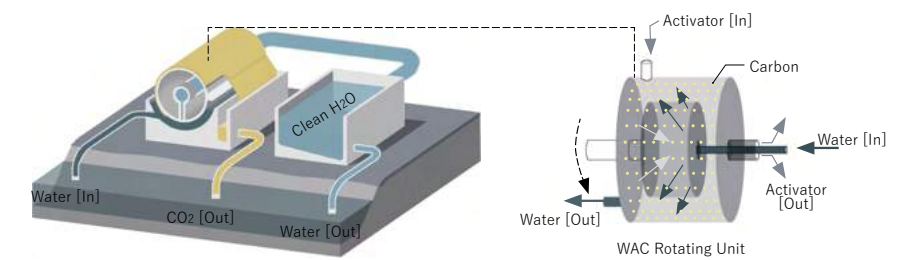
Each of these systems are open-loop systems integrated within, and supporting the architectural spaces within the building.

DIRECT AIR CAPTURE [DAC]



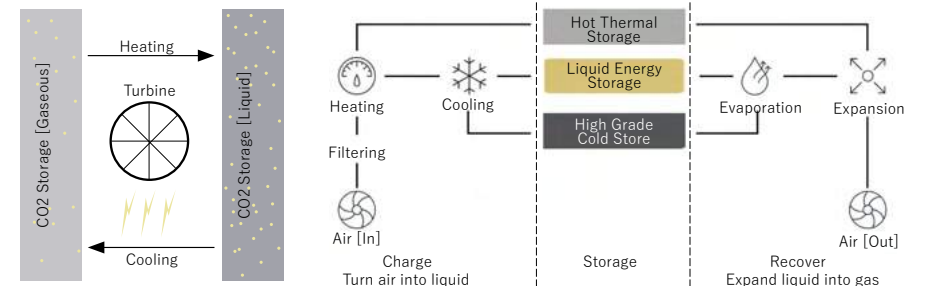
The DAC arms contain a total of 800 fan units along the four two thousand foot arms. Captured carbon is stored within this superstructure and used for powering the generator while the clean air is released back to the atmosphere.

WATER ASSISTED CAPTURE



Water-Assisted-Capture happens using twenty-four vacuum pumps that suck the water into the WAC Rotating Units located directly under the building's Main Park. The carbon is spun out from the water using an activator, and then transferred to the carbon battery located in the same location.

CARBON BATTERY

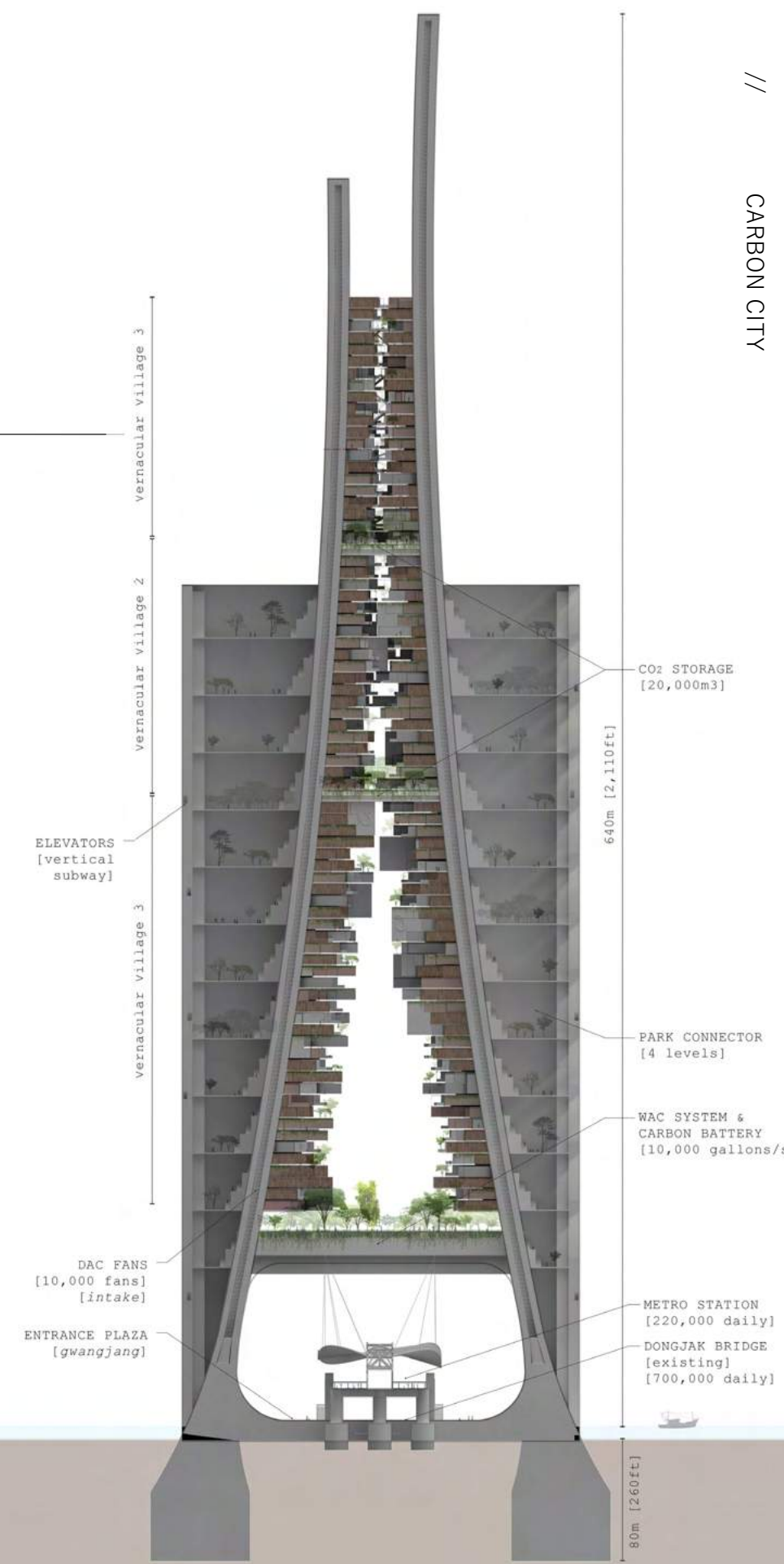


The carbon battery converts carbon between gaseous and liquid forms using high pressure hot storage - depending upon energy needs. This produces a high-pressure carbon gas that is then used to drive the turbine and create electricity. The clean [carbon-less] water is used to irrigate plants and vegetables throughout the Carbon City project.



VERNACULAR VILLAGES

A vertical city, the project features nine types of decentralized programs - each prefabricated and interchangeably connected to the 'carboncrete' skyscraper.





In this section you will see some of my first projects in undergraduate that had been the basis upon the use of unknown design software and new techniques that would benefit my career at an early stage.



All work was completed from 2021-2022

VIGNETTE PROJECTS

VIGNETTE PROJECTS

VIGNETTE PROJECTS

VIGNETTE PROJECTS



05

STUDIO 4

Class Information

Bowling Green State University
Lindsey Stough
Design Studio 1

Project Location

Osaka, Japan

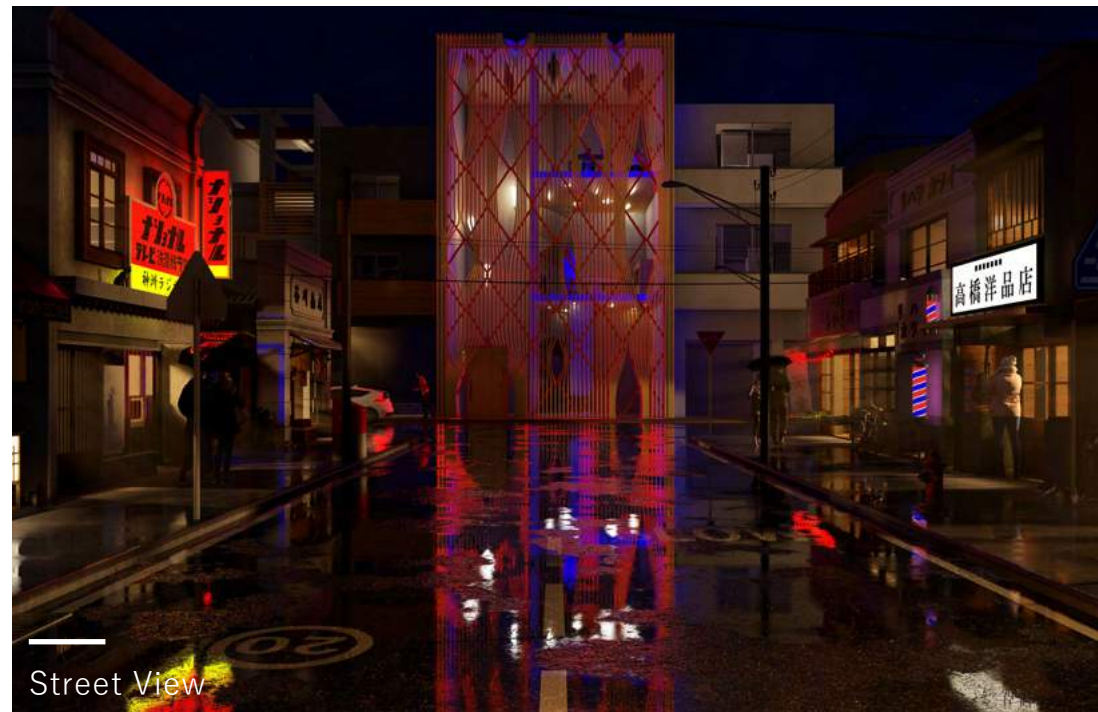
Methods Used

Sketchup - Rhino - Grasshopper - Lumion

Project Synopsis

As population grows so does the need for land and resources. Osaka, Japan has one of the densest urban areas in the world and continues to grow each year.

The purpose of this design is to be built in different locations throughout the world ranging from low population to high population. The signal points that change is the main facade of this studio space. The concept of urban corruption within the environment is most prevalent by the sudden gaps in the natural cascading wood. Beyond these gaps expose the cold design features, such as steel, glass and concrete representing the urban corruption of natural environments.



STAGE ONE

Urbanization and population growth within cities begins to take over environmental areas, giving us first signs of corruption within a natural environments



STAGE TWO

As population continues to grow, more urban spaces are needed and less environmental areas are protected from destruction to make use as a new settlement



STAGE THREE

The urban settlements start multiplying and growing at faster rates, gaining more speed on corruption of the natural environment



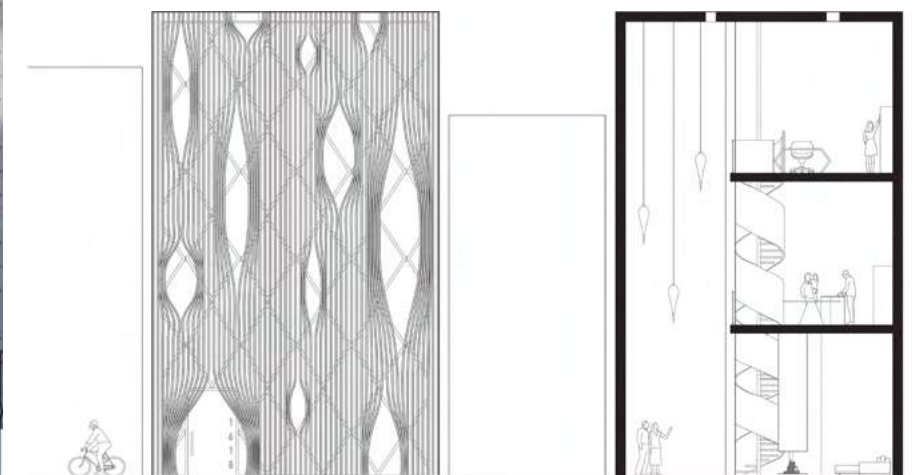
STAGE FOUR

Urbanized settlements begin to reach the end of environmental areas to corrupt leaving loose ends and sudden stops in expansions



STAGE FIVE

Urbanization has caused corruption and depletion of the environment to become irreversible and limited at this stage



STAGE FOUR

06

THE ALLEY HOUSE

Class Information

Bowling Green State University
Andreas Leuscher
Design Studio 2

Project Location

New York, New York

Methods Used

Sketchup - Rhino - Grasshopper - Lumion

Project Synopsis

Facing challenges of dense urban life as a parkour artist, it becomes hard to traverse the rooftops freely. This brought the design of a parkour house to a thin alleyway in New York City.

This design is built on a 15 X 95' plot on an existing alleyway. The parkour artist occupying the space has indoor parkour platforms to practice on throughout the space as well as areas that represent the feeling of normal routes throughout the city. This residence brings the feel of soft clothes hanging overhead and fire ladders within an alleyway to the indoors in a futuristic and minimal fashion.



Street View



Floor 2 Living

Entrance



Curation.of.alex's purpose is to create art **everyday** to both improve my artistic skill with softwares, but also have an outlet to store my creative imagery.

All work was completed **daily** during 2023

@CURATION.OF.ALEX

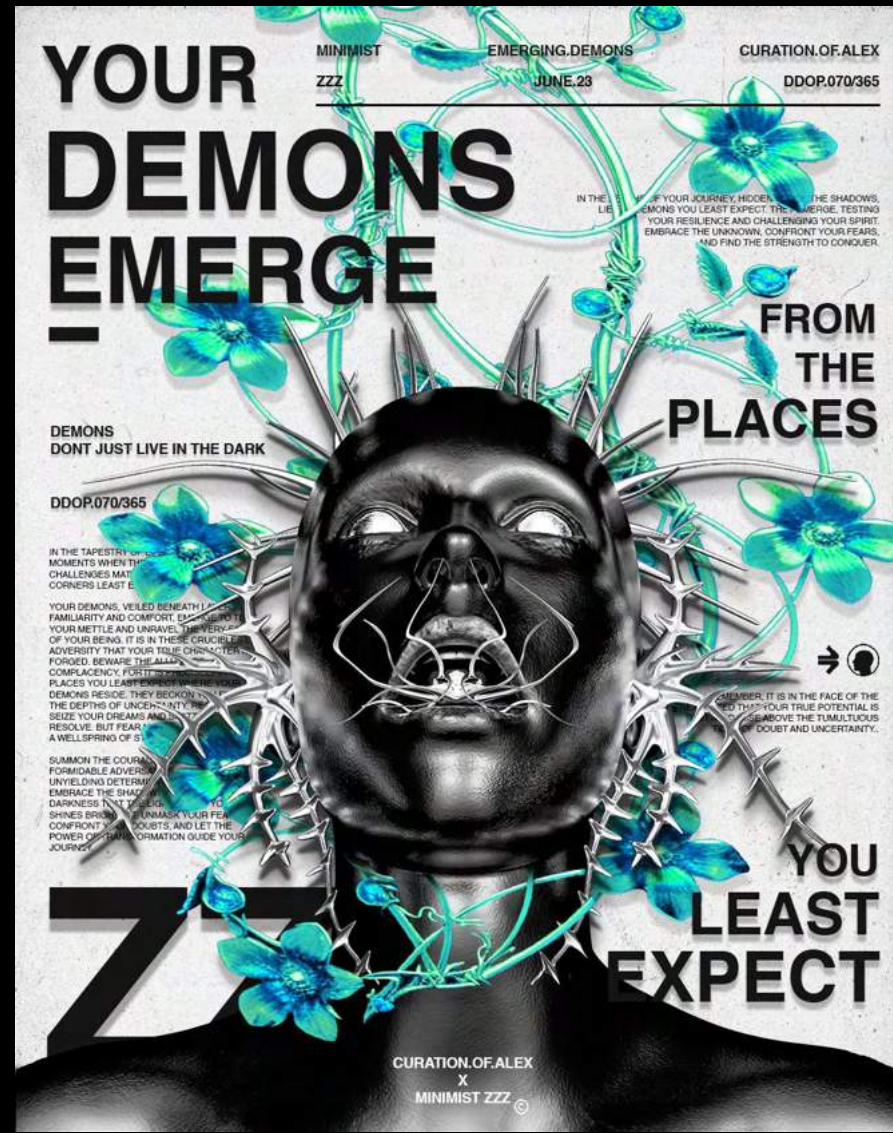
@CURATION.OF.ALEX

@CURATION.OF.ALEX

@CURATION OF ALEX



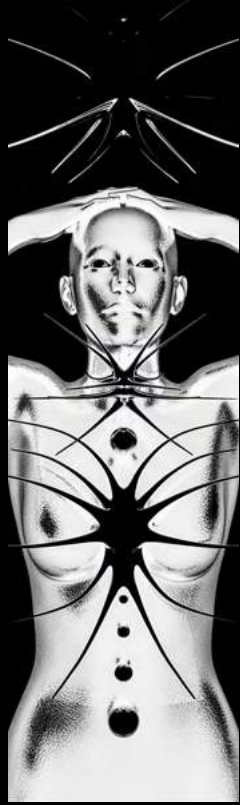
The Waiting Room



Demons



The Remnants Between



—
Taking my love for Japanese
minimalism and lighting fixtures I
had created a piece that challenged
known skills further.

—
All work was completed
during 2023 inside a
Furniture Design Studio

WOODWORKING

WOODWORKING

WOODWORKING

WOODWORKING



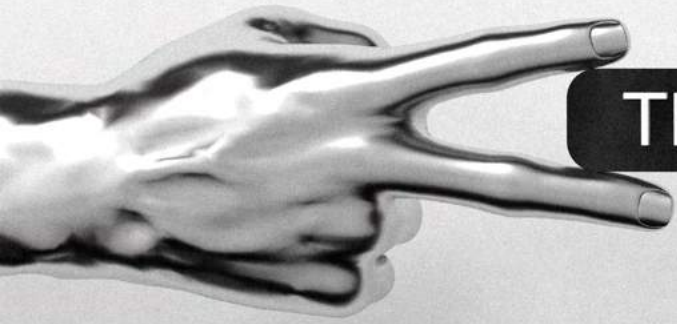
Replaceable Shade

Curved Edge Profile

Natural Warmth

Curly Maple Wood





THANK YOU