

2024 | Daim Khan

Resume

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Architecture Portfolio

Daim Khan

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New York | New Jersey

PROFESSIONAL SUMMARY

As a Skilled Architectural Graduate , I bring a diverse set of capabilities and a strong understanding of both traditional and cutting-edge design practices. My expertise lies in creating detailed 3D models and precise 2D drawings, while also managing Building Information Modeling (BIM) and exploring Computational and Parametric Design. I excel in constructing physical and digital prototypes, utilizing techniques such as CNC Milling, 3D Printing, and advanced rendering to bring concepts to life. My experience extends to drafting comprehensive shop drawings and conducting thorough analyses of building codes, site conditions, and energy performance. I am adept at integrating artificial intelligence into design processes, enhancing efficiency and innovation. My background equips me to contribute effectively to complex architectural projects and drive forward-thinking solutions.

SOFTWARE

Rhinoceros, Revit, Grasshopper, AutoCad, Maya, Rhino-Inside-Revit, Karamba 3D, Majority of Render Engines, Adobe Suite, Autodesk Insight, Autodesk Forma, Climate Studio

SKILLS

Design	Prototypes
3D Modeling	Rendering
2D Drawings	Design Research
BIM	AI integration
Computational Design	CNC Milling & fabrication
Parametric Design	3D Printing
Model-Making	Building Code Analysis
Drafting	Site Analysis
Shop Drawings	Energy Analysis

WORK HISTORY

Architectural Design Researcher | Building Dynamics Laboratory
Newark, NJ 03/2022 - 03/2024

- Design Research led by Professor Vera Parlac and collaborated with students Kai Zheng, Aditya Rao, Zohair Anjum, Felipe Grajales for different periods throughout the research .
- Designed and tested aggregated modules within facade systems, focusing on structural integrity, environmental properties, exploring dynamic and adaptive architectural assemblies.
- Designed two primary components—diamond and triangular shapes—utilizing unique material properties; rigid, inflatable and bendable properties.
- Utilized the Wasp plugin to integrate modules into various wall typologies, experimenting with different scales and parameters.
- Fabricated prototypes and assembled modules to evaluate structural performance and speculative kinetic behaviors
- Developed diverse wall typologies for building envelopes, emphasizing dynamic assembly methods.
- Produced digital models of wall assemblies, skins, and ribbons across facades using computational strategies and .

EDUCATION

New Jersey Institute of Technology
Bachelors. of Architecture: Architecture
• 6 Times Deans List

May 2024

1 The Arts Hotel Newark

Downtown Arts District, Newark, New Jersey



2 BioTech Towers

HoneyLake, Shenzhen China



3 The Orb Philharmonic Concert Hall

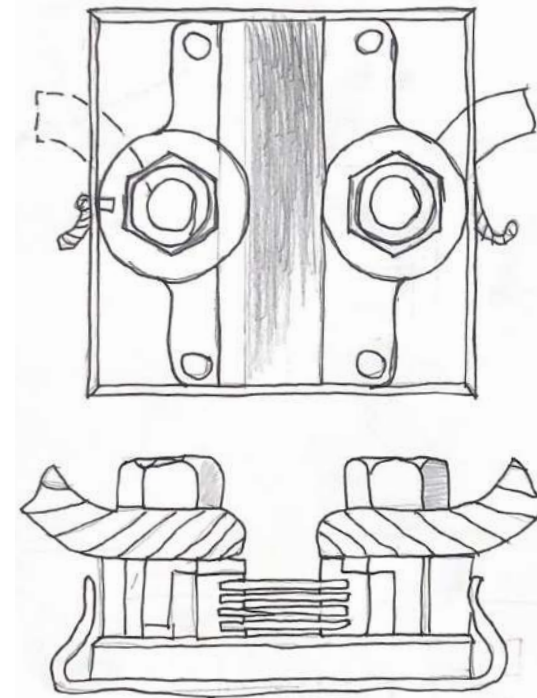
Prauge, Czech Republic



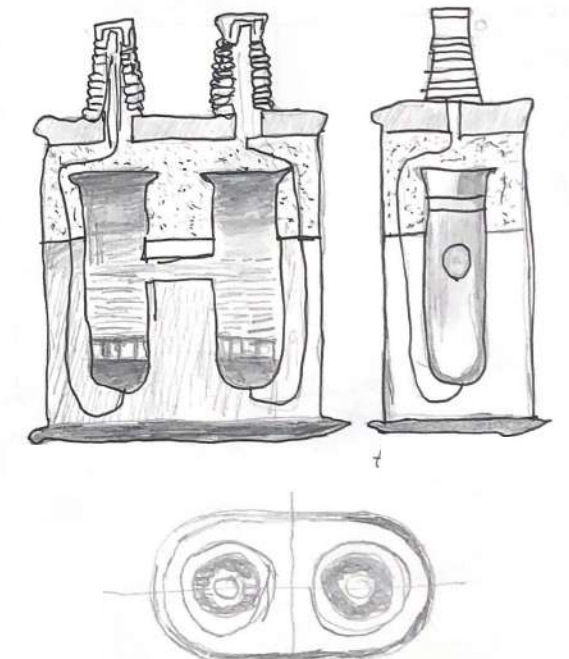
Welcome to a gallery haven, a sleek Arts hotel nestled in the heart of downtown Newark, where luxury meets creativity.

This Avant-Garde establishment seamlessly blends the worlds of contemporary art and hospitality, offering a unique and immersive experience for guests.

Edward Weston
Shunt For Electrical Light and power stations
May 16, 1893



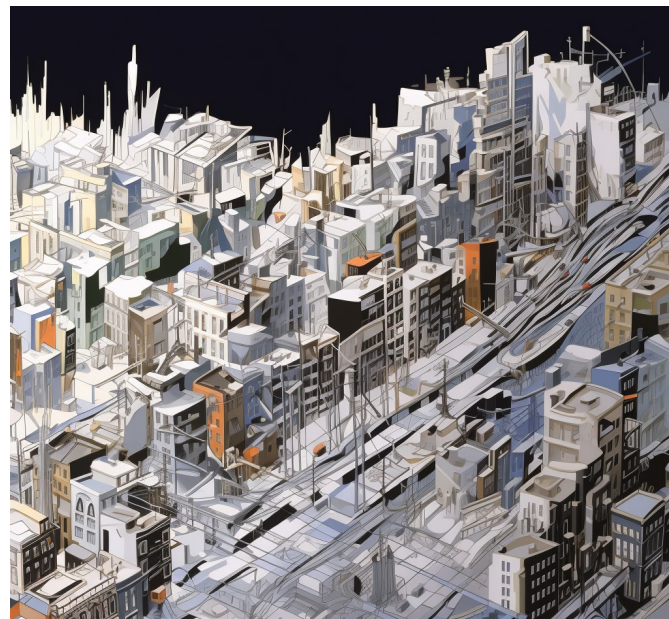
Edward Weston
Voltaic Cel
April 4, 1893



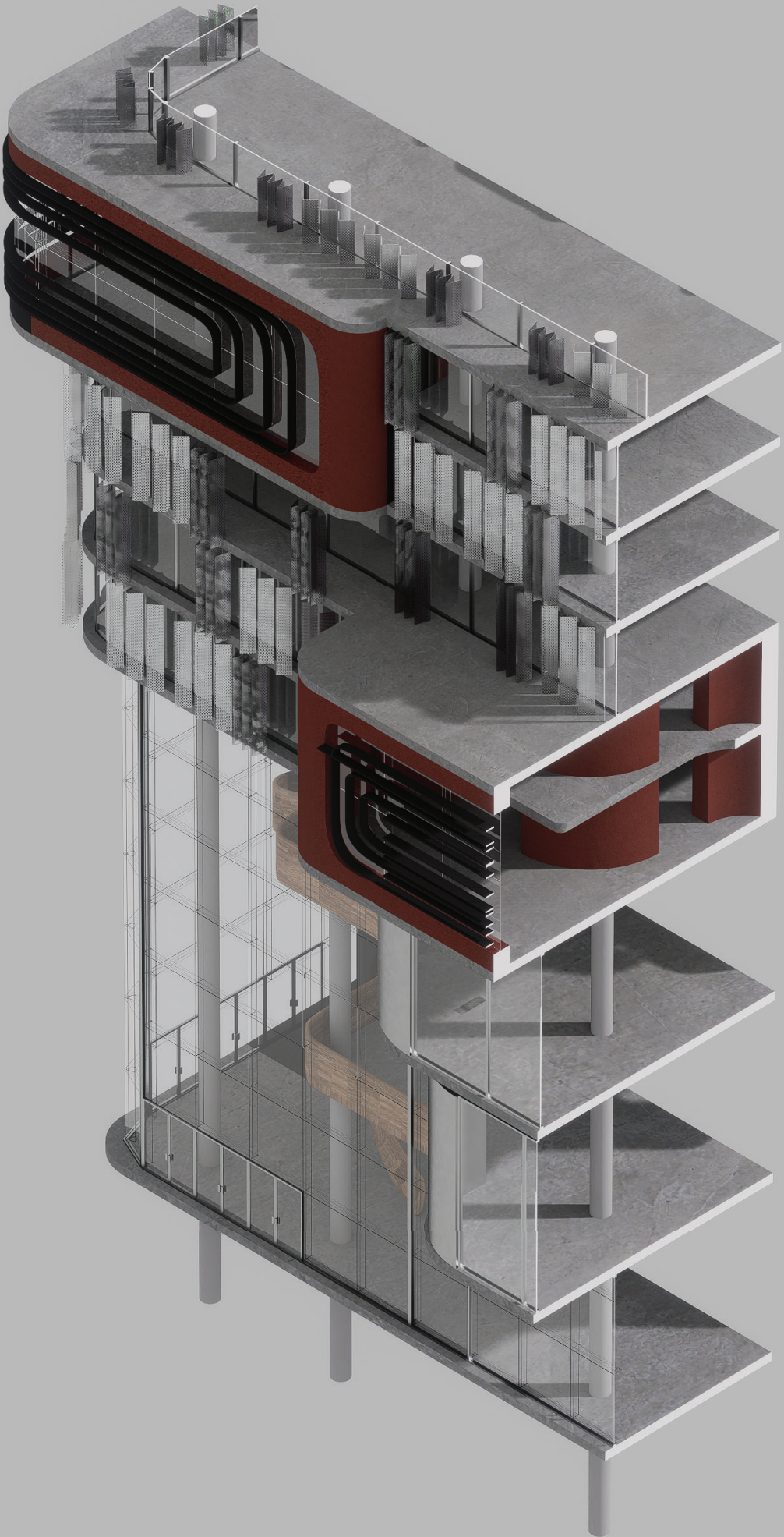
Inventions of Newark in the advent of the Industrial Revolution

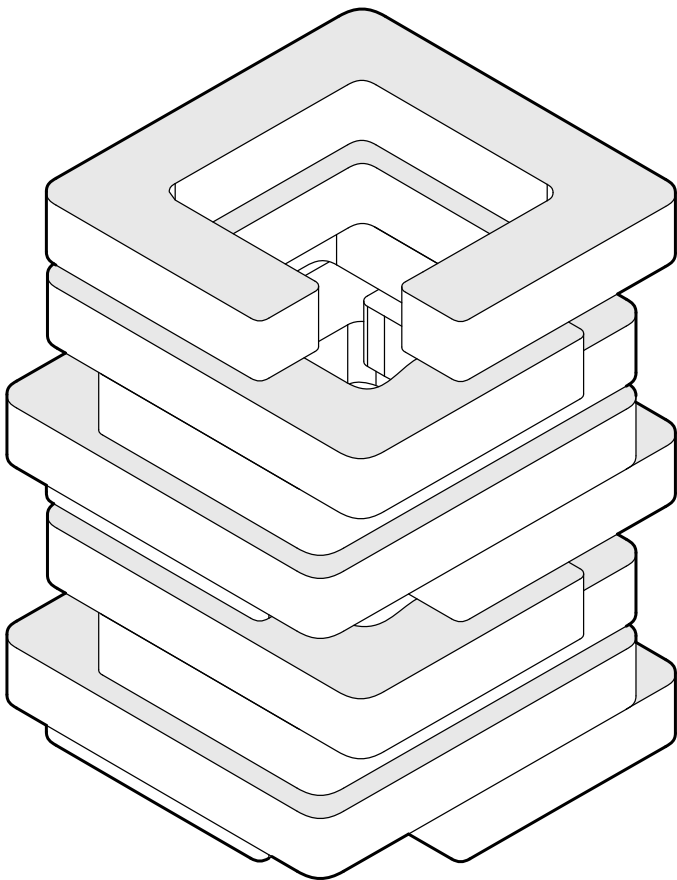
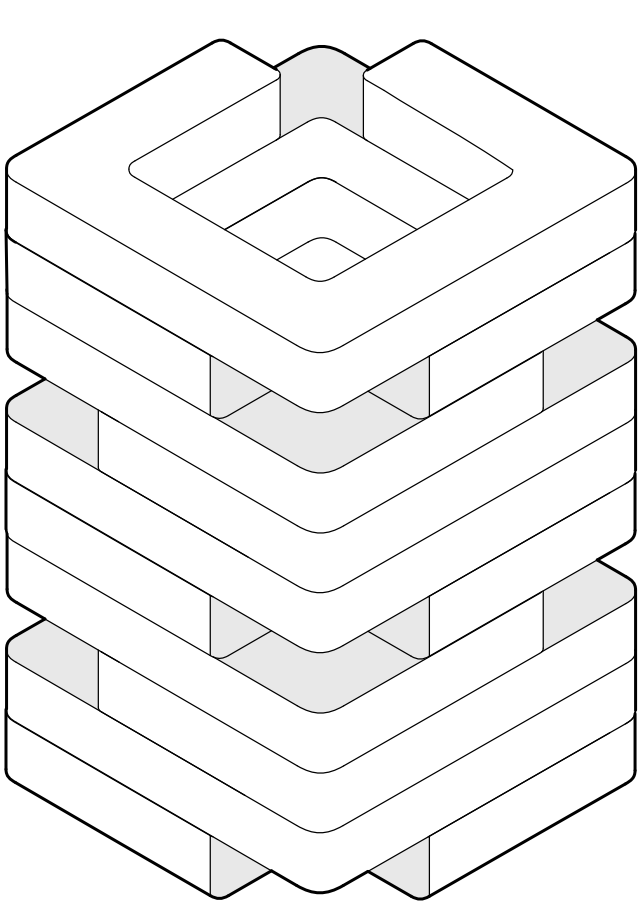
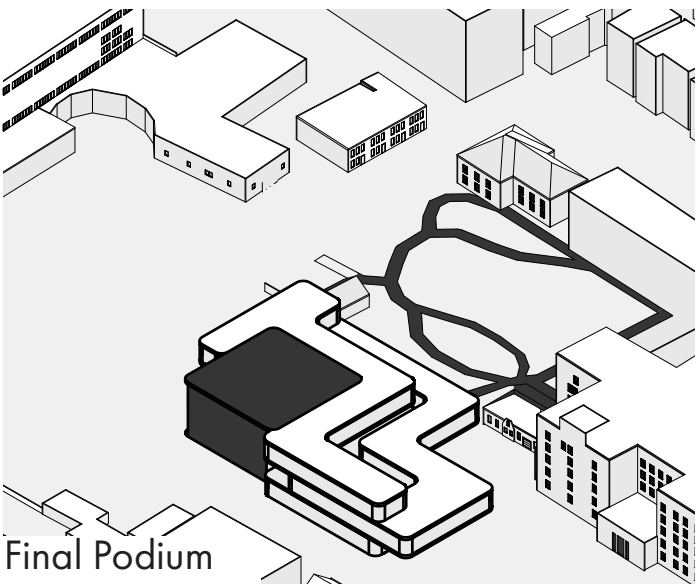
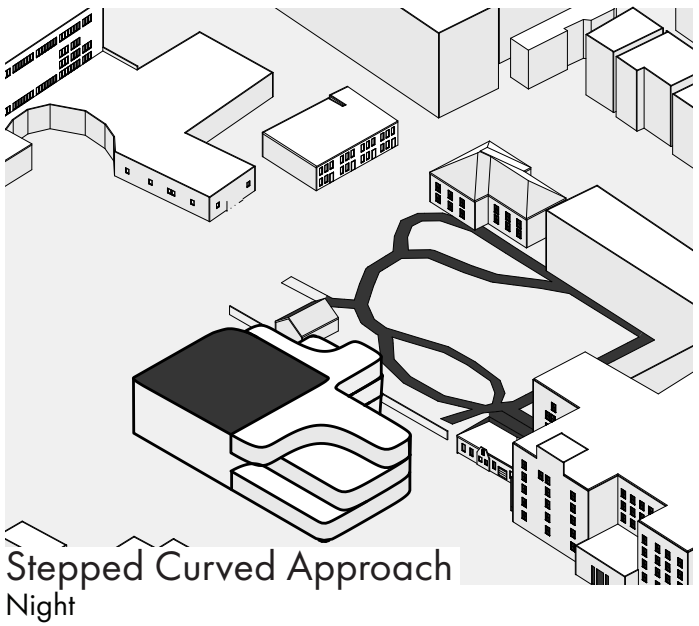
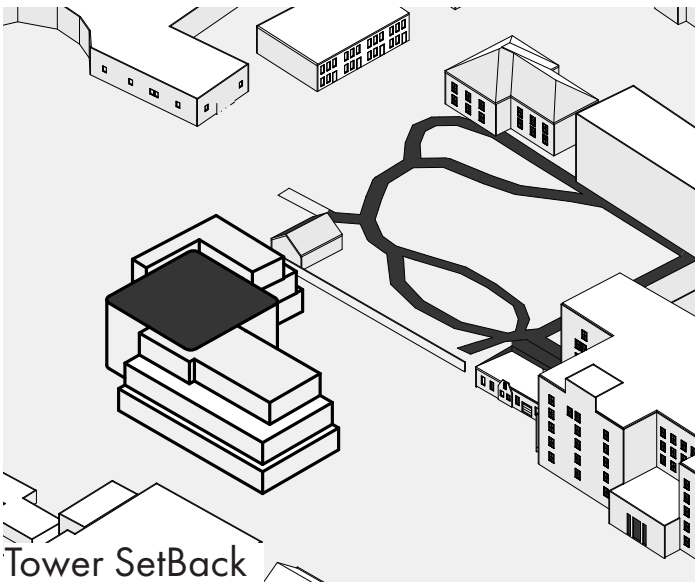
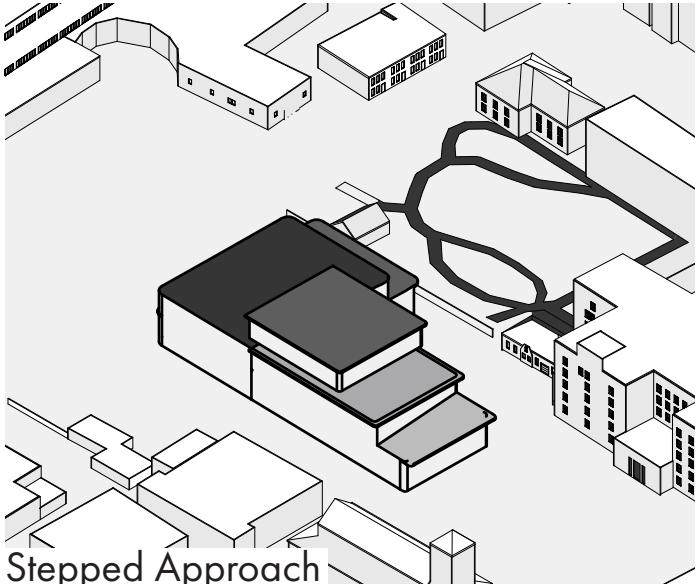
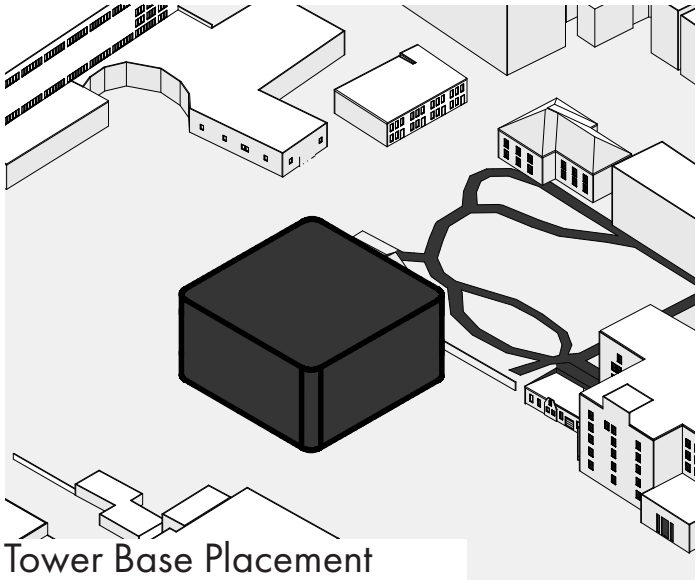
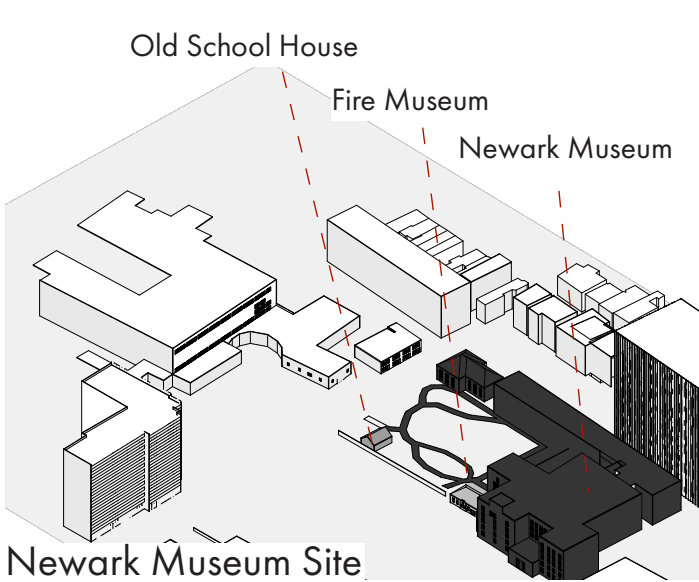


Gen AI Newark Overview



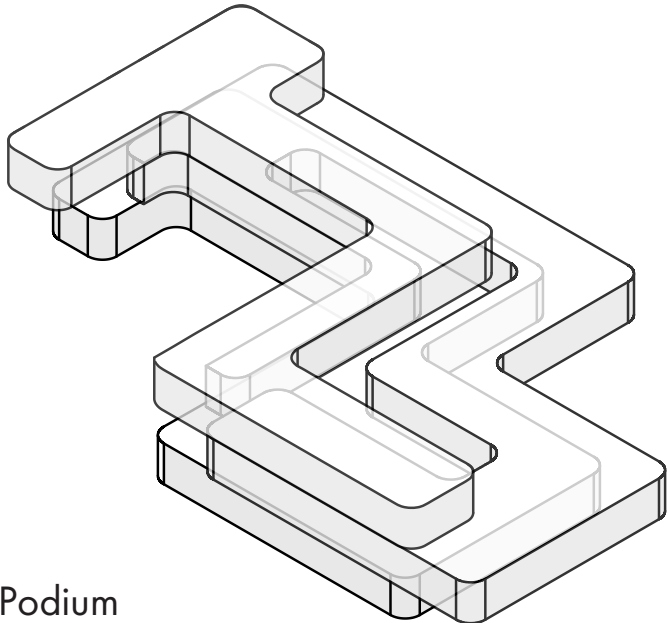
Newark Museum built in 1911, dressed in Beaux Arts Style, Designed by Chicago Architect Jarvis Hunt



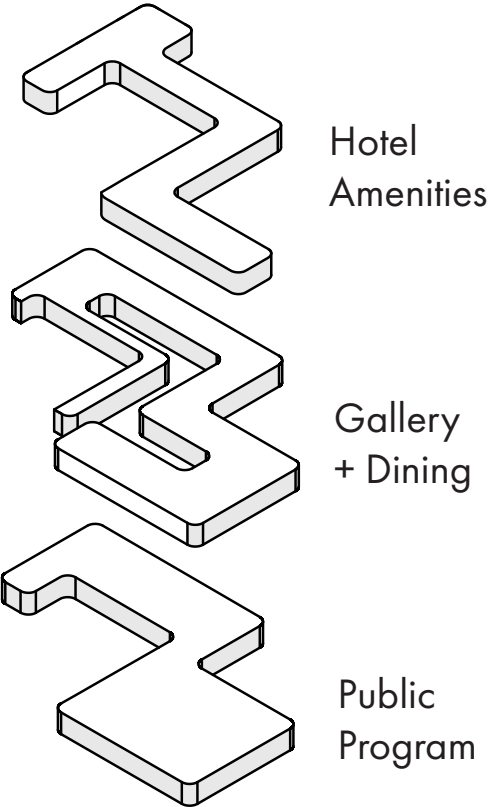


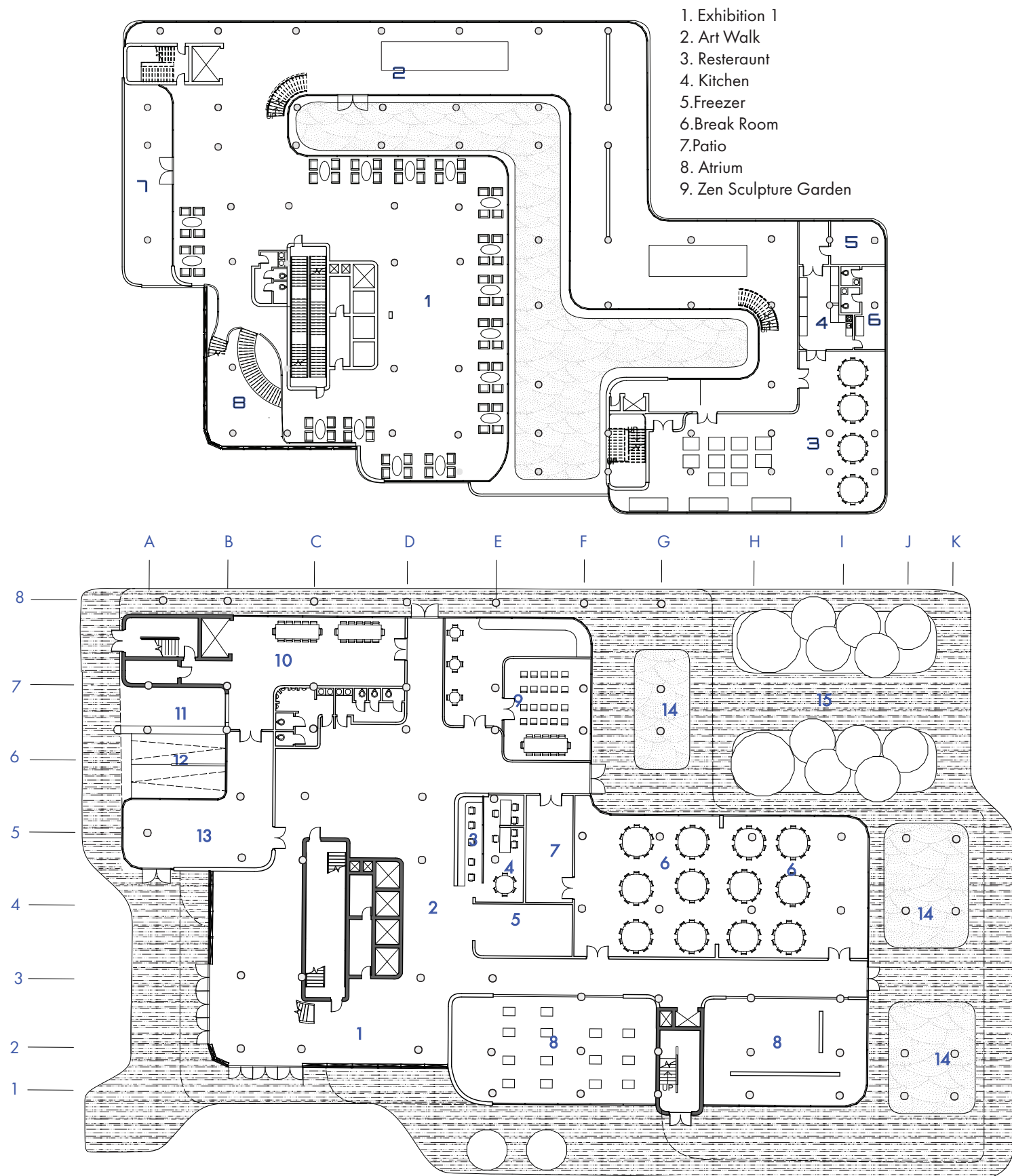
Alternating Galleries on Guest Floors

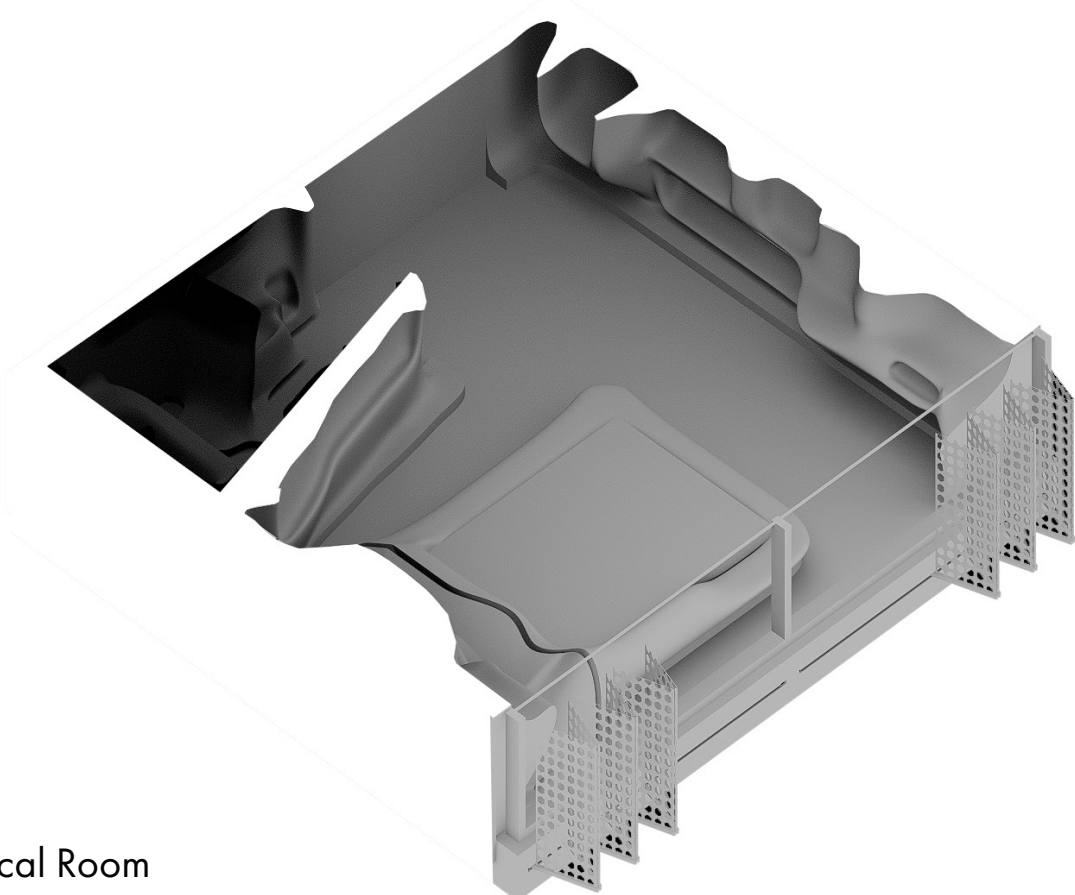
5' Floor Shift



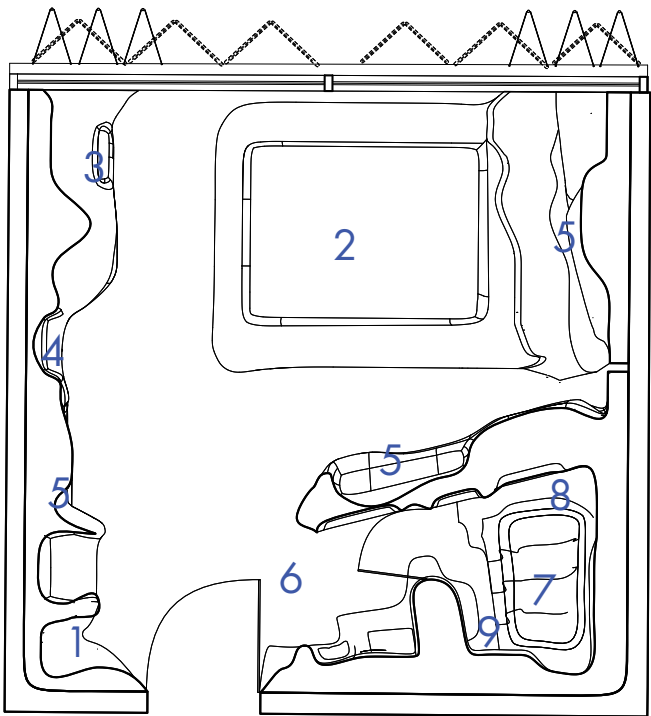
Podium





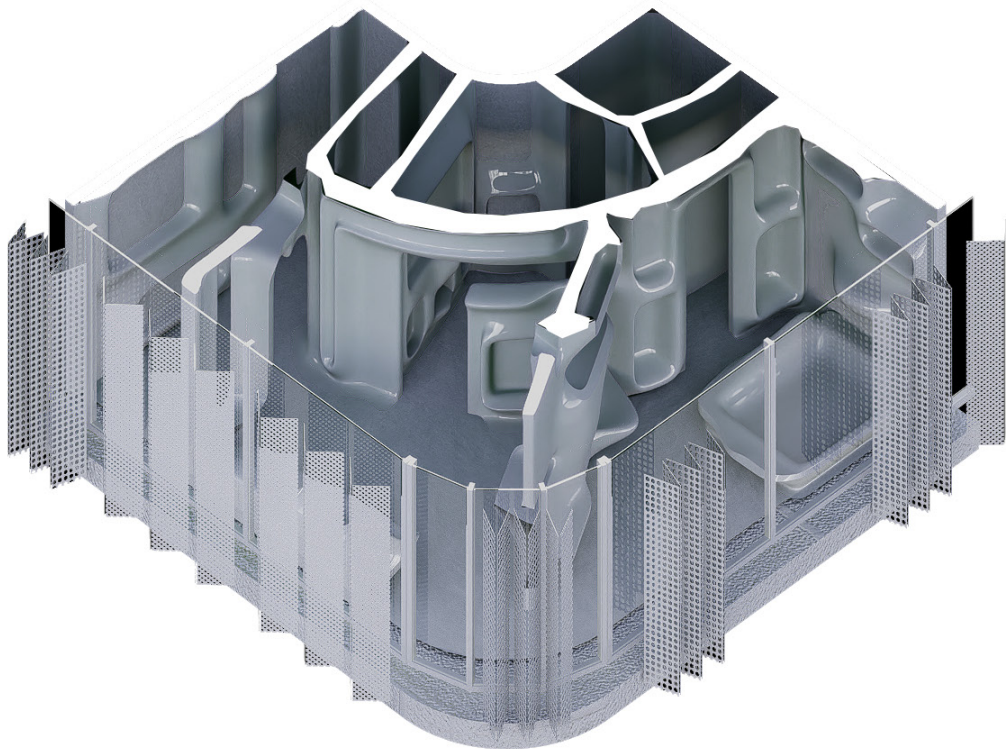


Typical Room

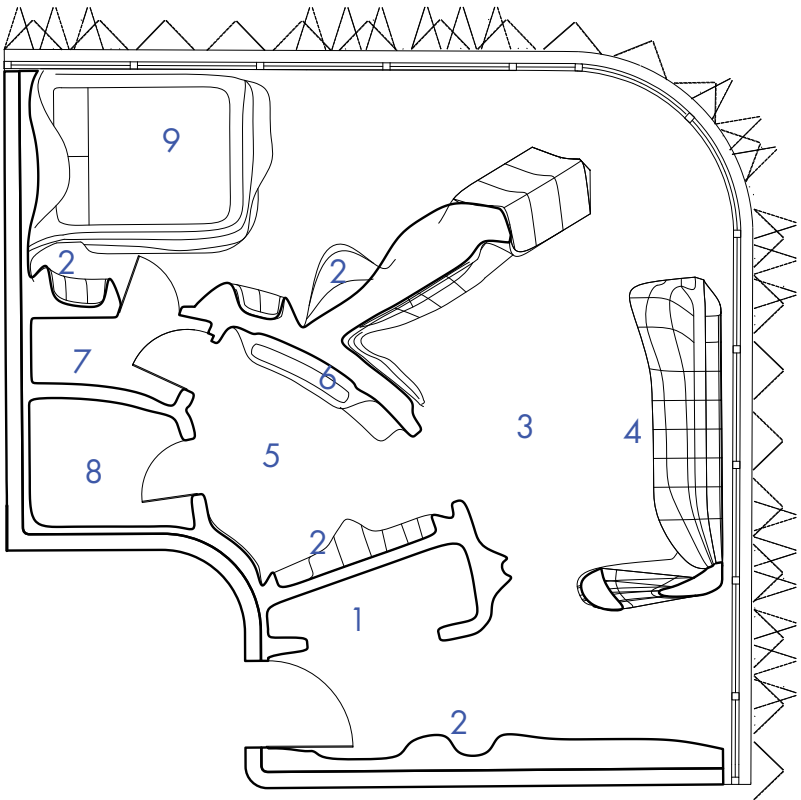


Unit 1 - 240 Sq Ft

- 1. Closet
- 2. Bedroom
- 3. Desk
- 4. Tv
- 5. Sculpture Caves
- 6. Parlor
- 7. Bathub
- 8. Shower
- 9. Toilet

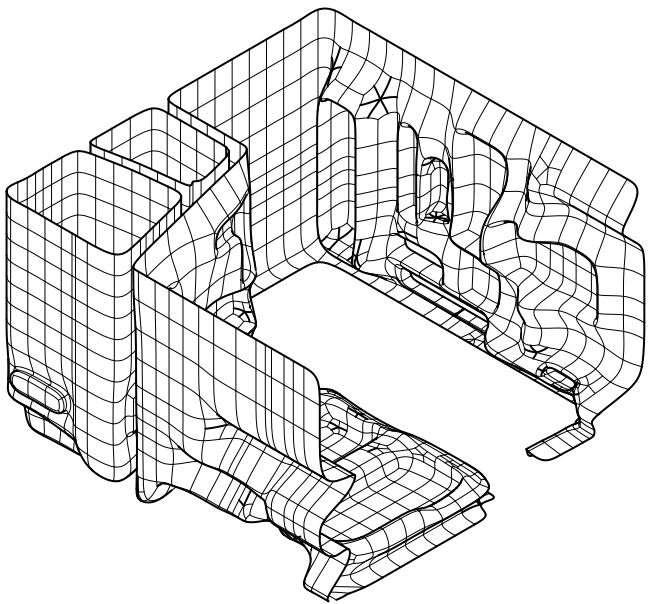


Suite Room

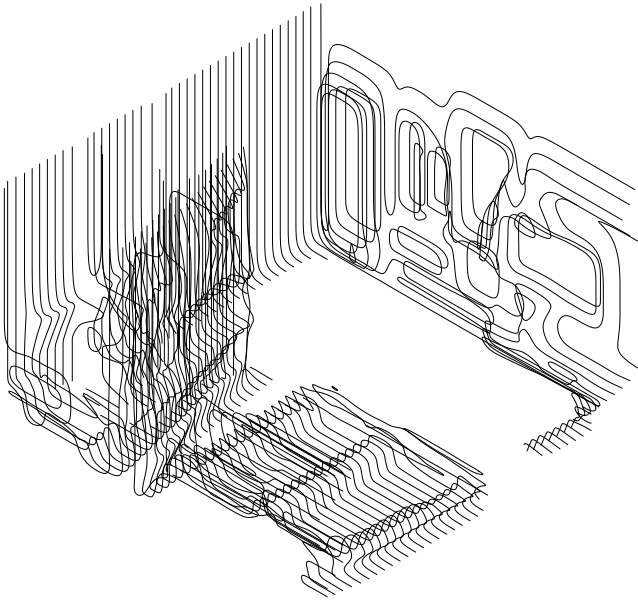


Unit 2 - 550 Sq Ft.

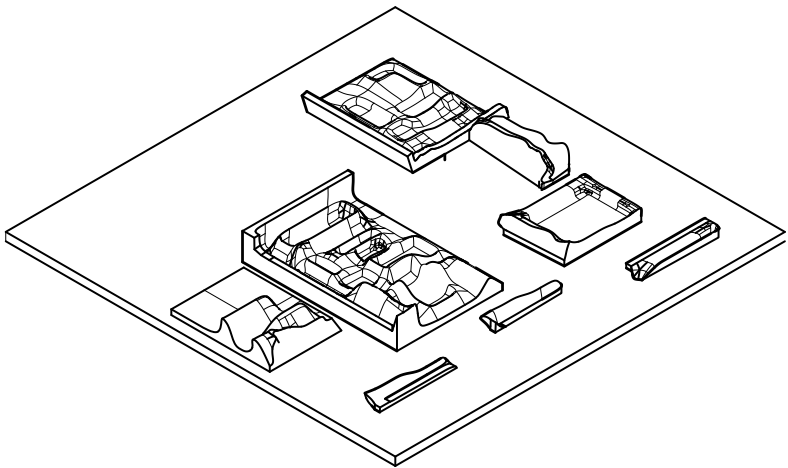
- 1. Closet
- 2. Sculpture Caves
- 3. Living area
- 4. Bench
- 5. Parlor
- 6. Sink
- 7. Toilet
- 8. Bath
- 9. Bedroom



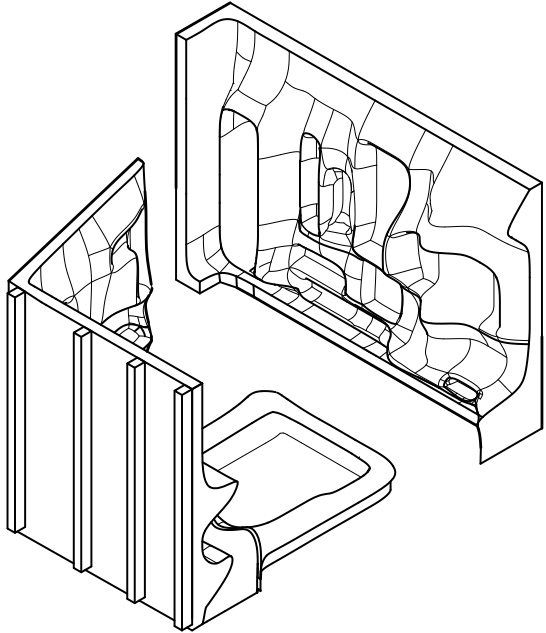
A Continious Room Concept
Is Designed Using SubD Modeling.



Framework for Fiberglass can be made.



Framework for CNC Milling



Panels can be applied to basic stud walls



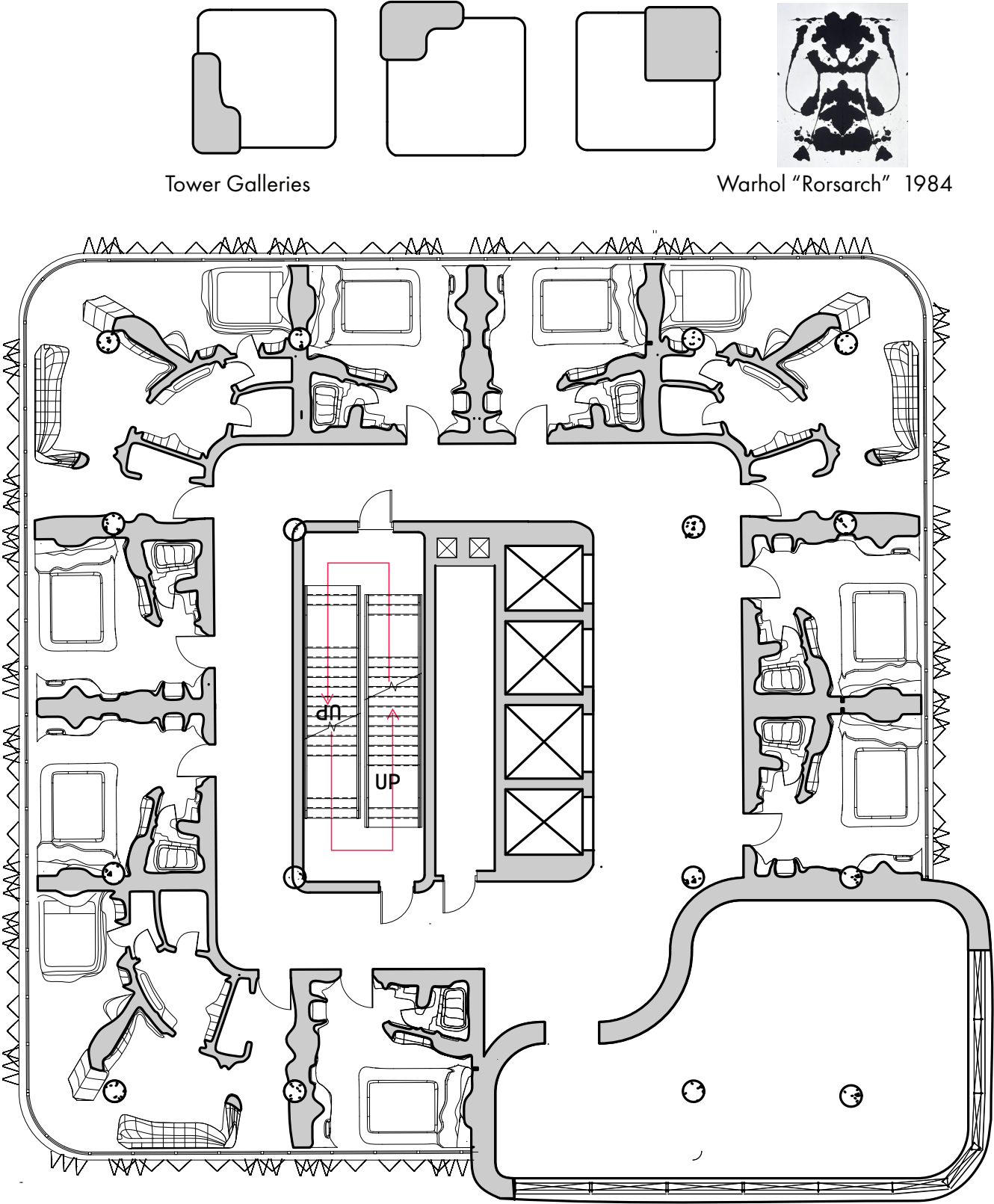
Fiberglass Finish \$



Wood Finish \$\$



Stone Finish \$\$\$



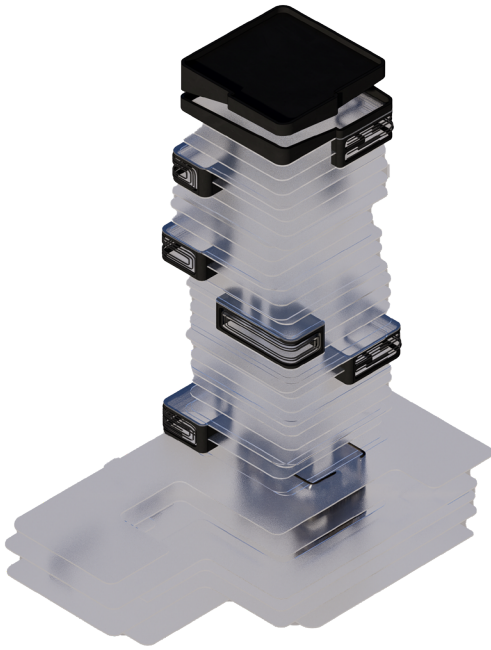
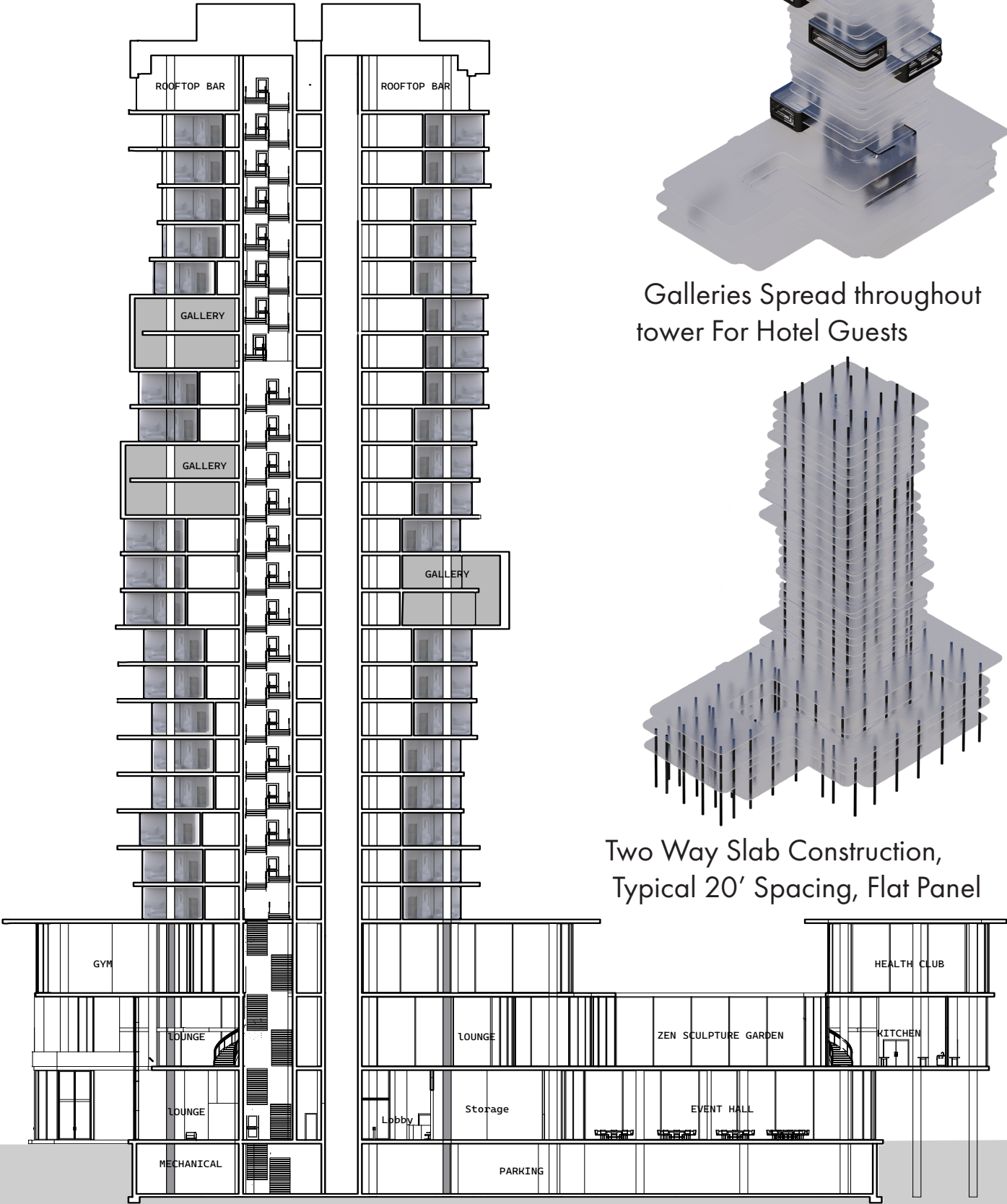
"Rorsarch" Atypical Plan



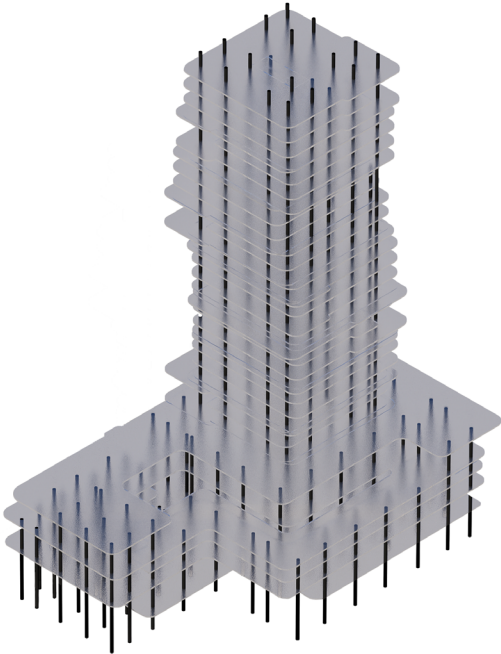
Sculptural Staircase enclosed in wood surrounded by Spider Glass



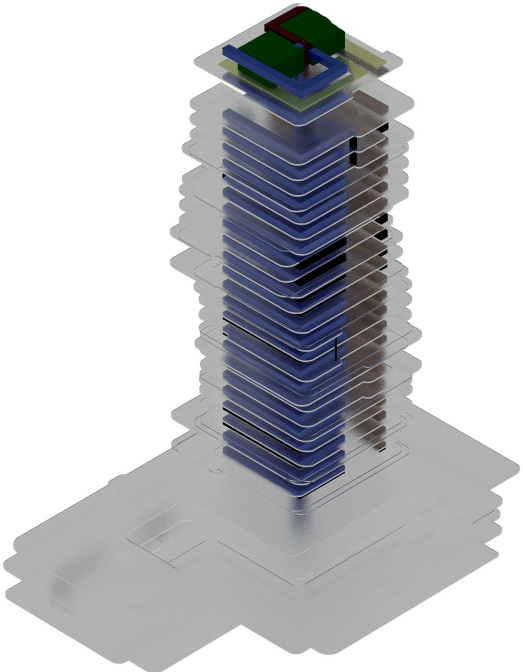
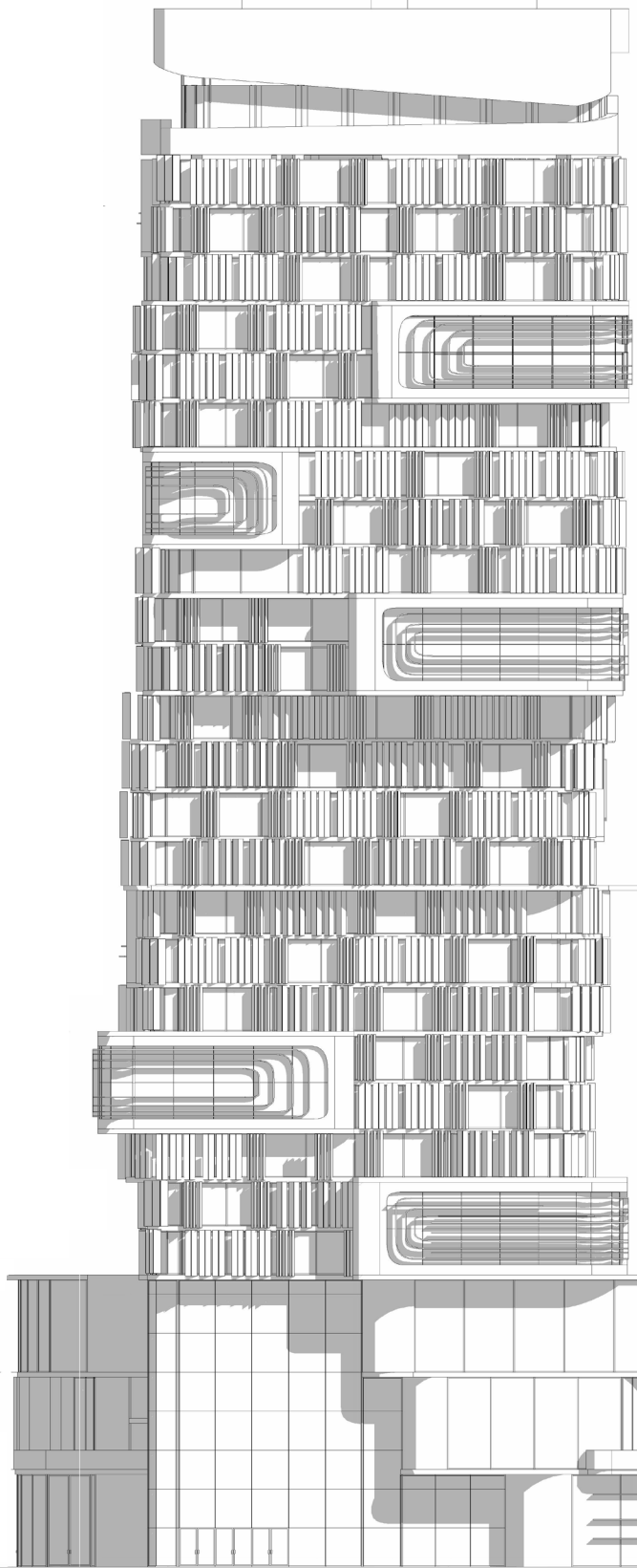
Tower Gallery showcasing KAWS Exhibiton



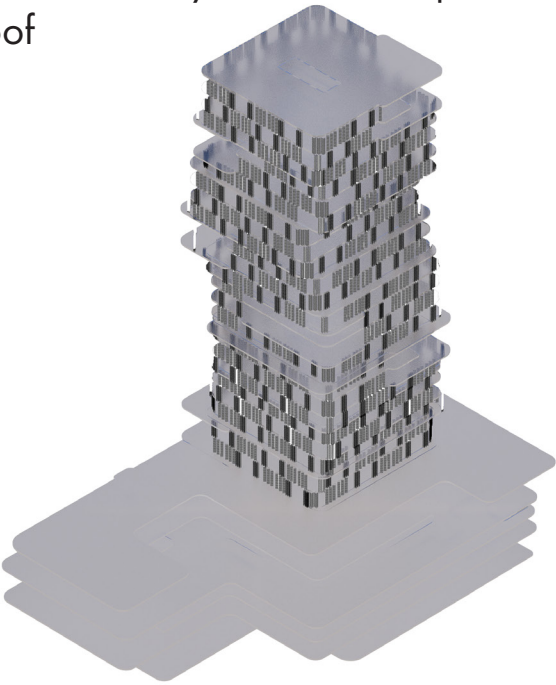
Galleries Spread throughout tower For Hotel Guests



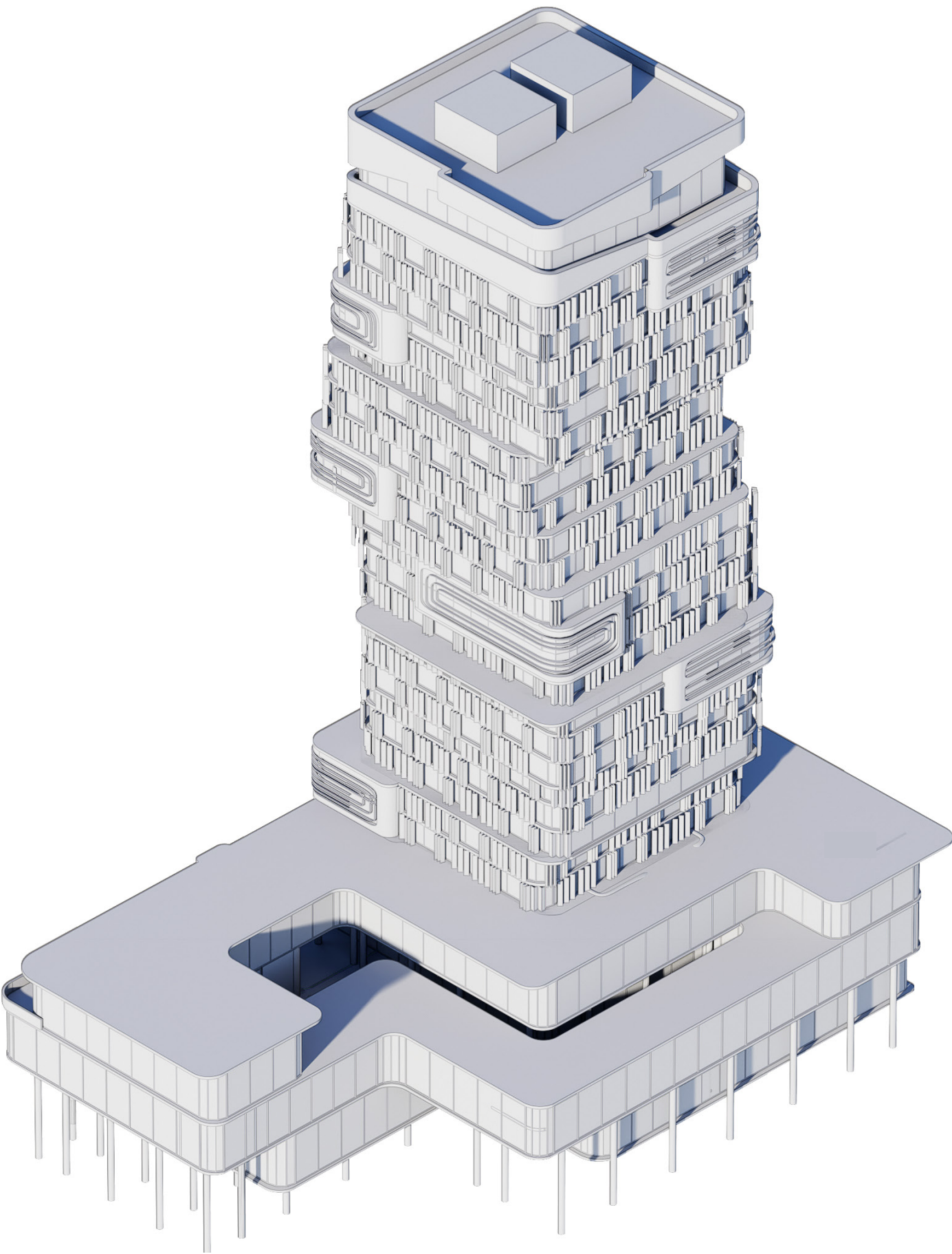
Two Way Slab Construction, Typical 20' Spacing, Flat Panel



Mechanical systems sit on top of roof

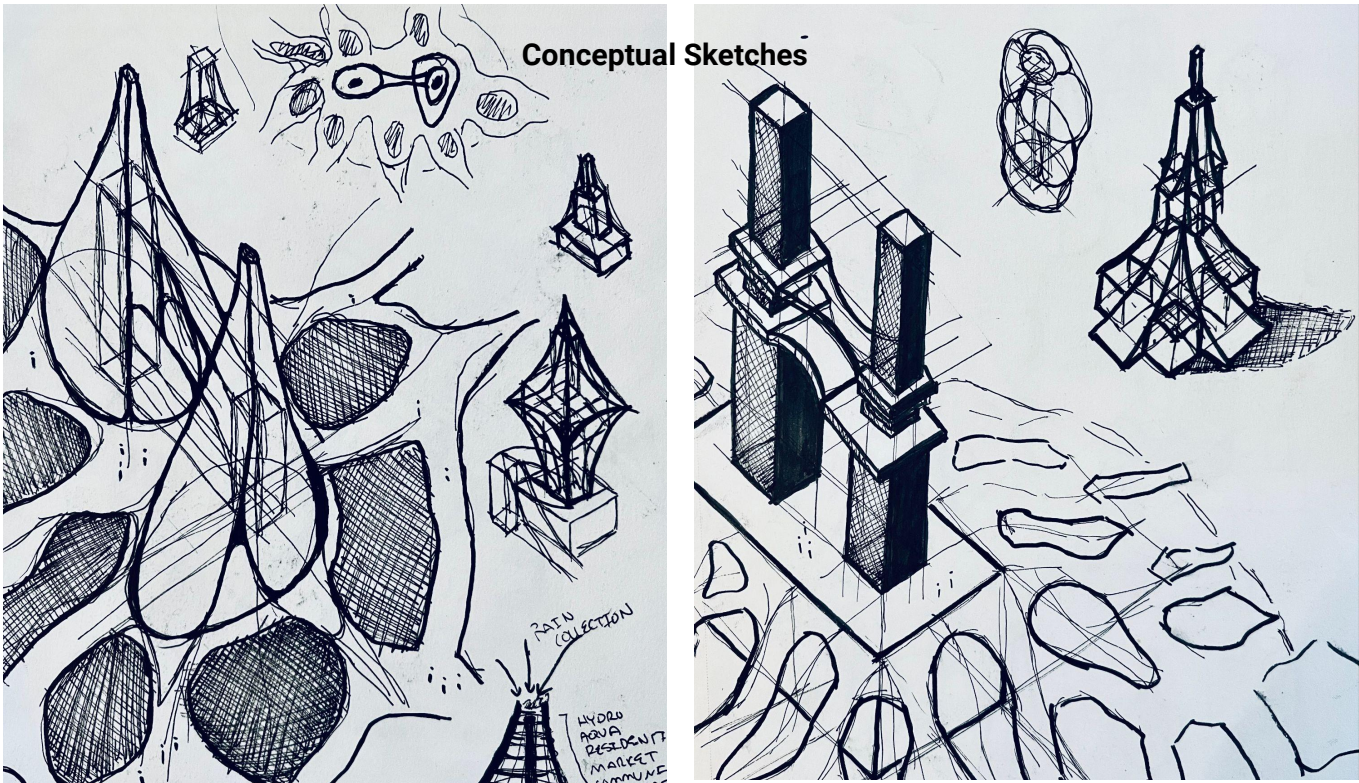
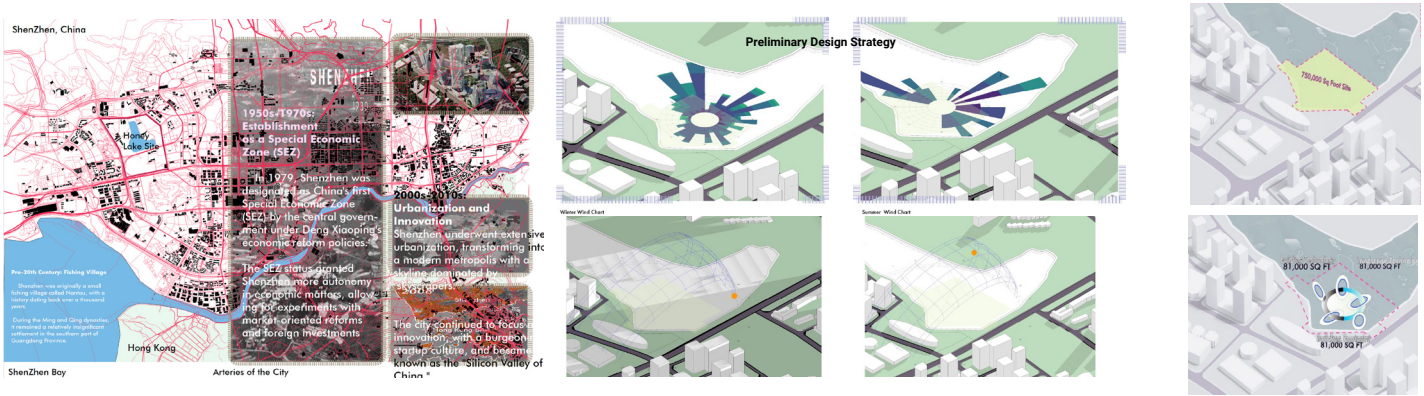


Adjustable Brise Sole, Solar shading device

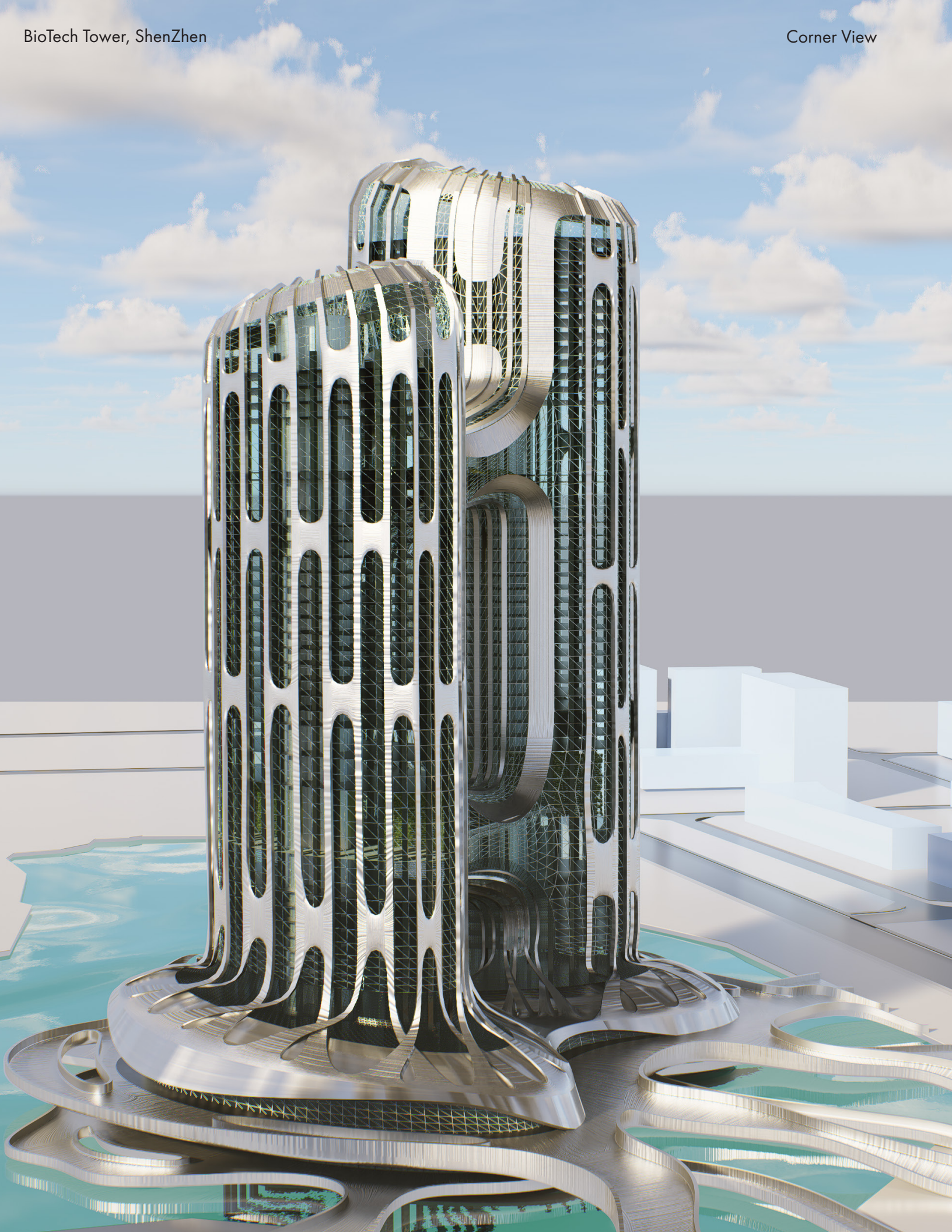


The BioTech Tower, situated on Honey Lake in Shenzhen, China, represents a fusion of contemporary design and cutting-edge biotechnology. This innovative structure integrates advanced systems such as hydroponics and aquaponics, along with state-of-the-art water filtration technologies, to address the pressing issue of desertification affecting China’s farmland.

By harnessing Shenzhen’s increasing precipitation, the tower aims to create a sustainable environment that promotes living, technology and recreational activities, pioneering a unique typology in Urban Architecture.

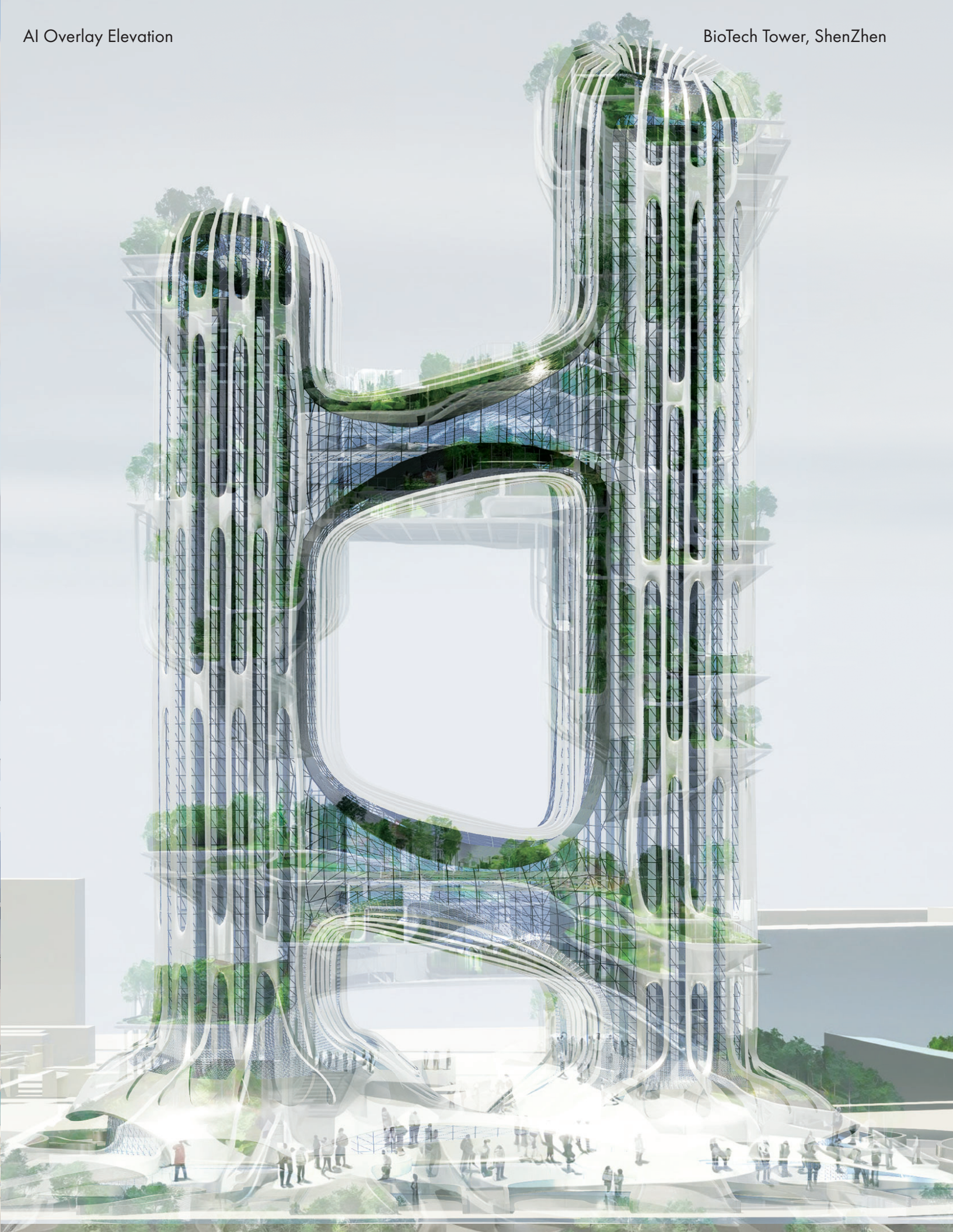


BioTech Tower, ShenZhen

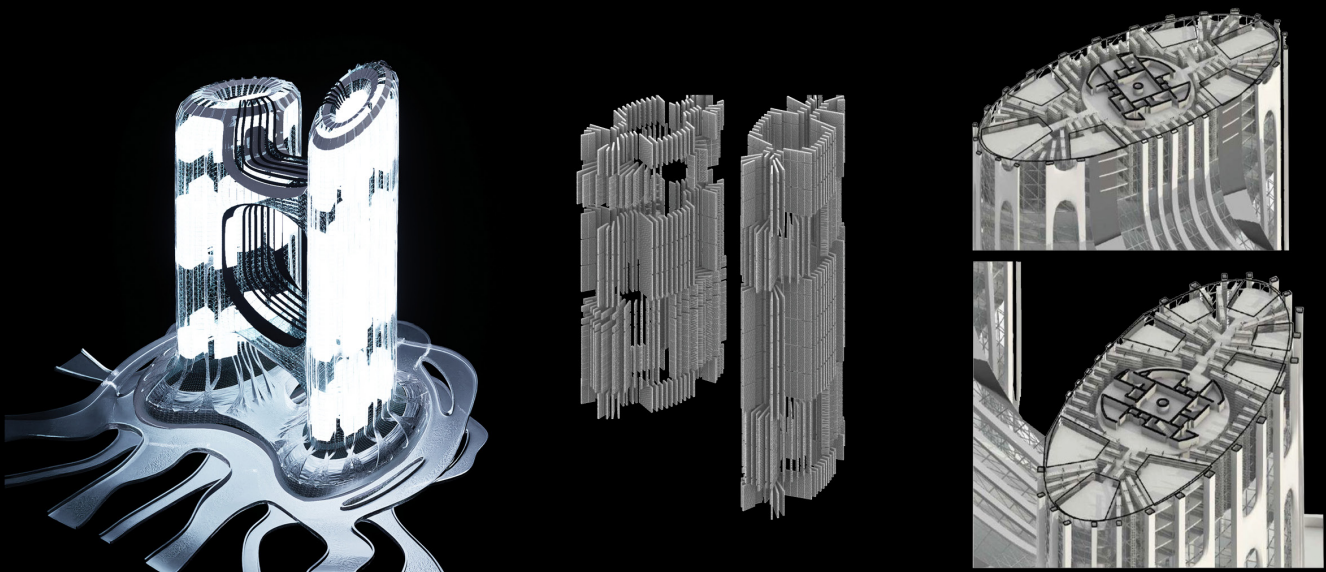
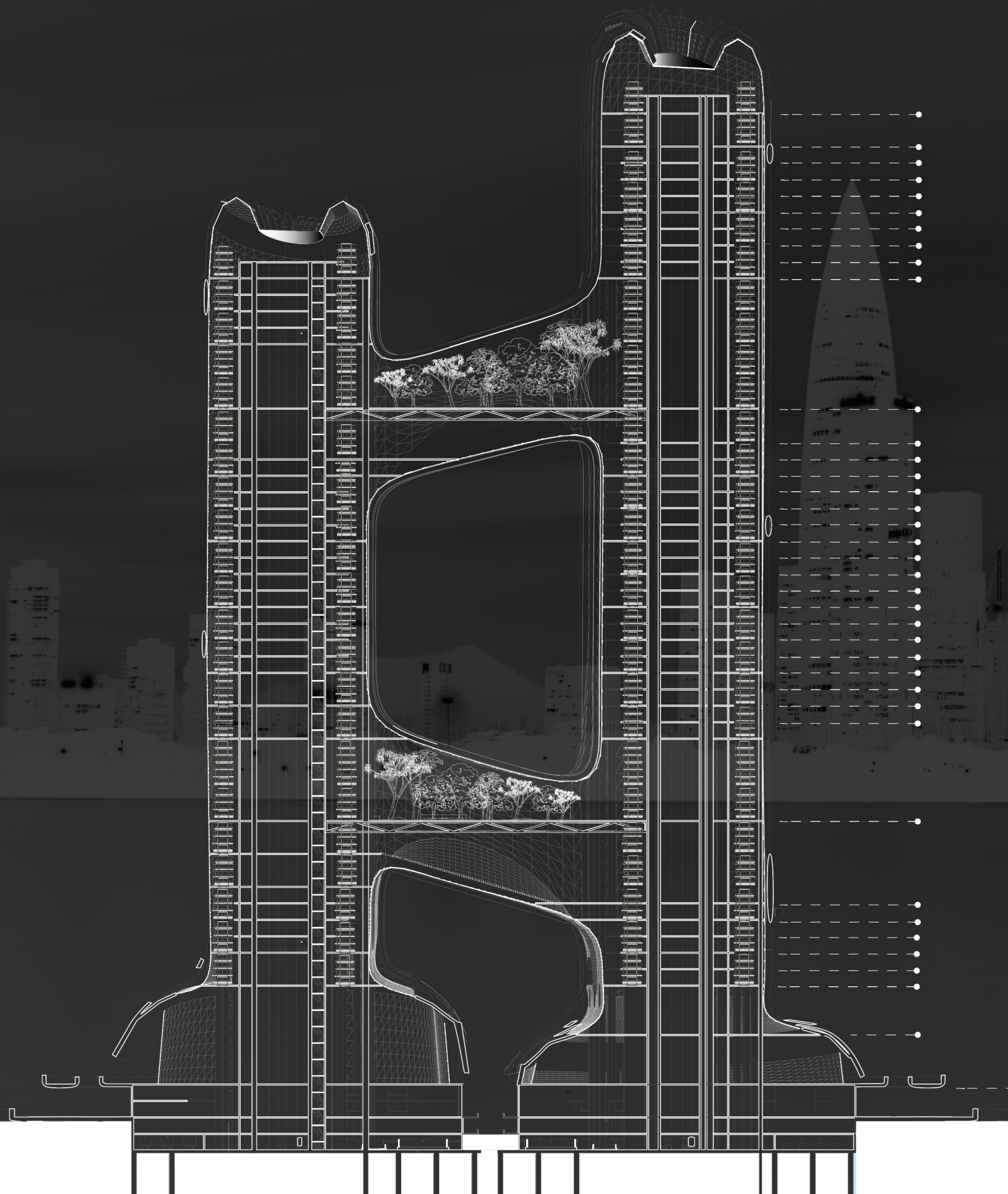


Corner View

AI Overlay Elevation



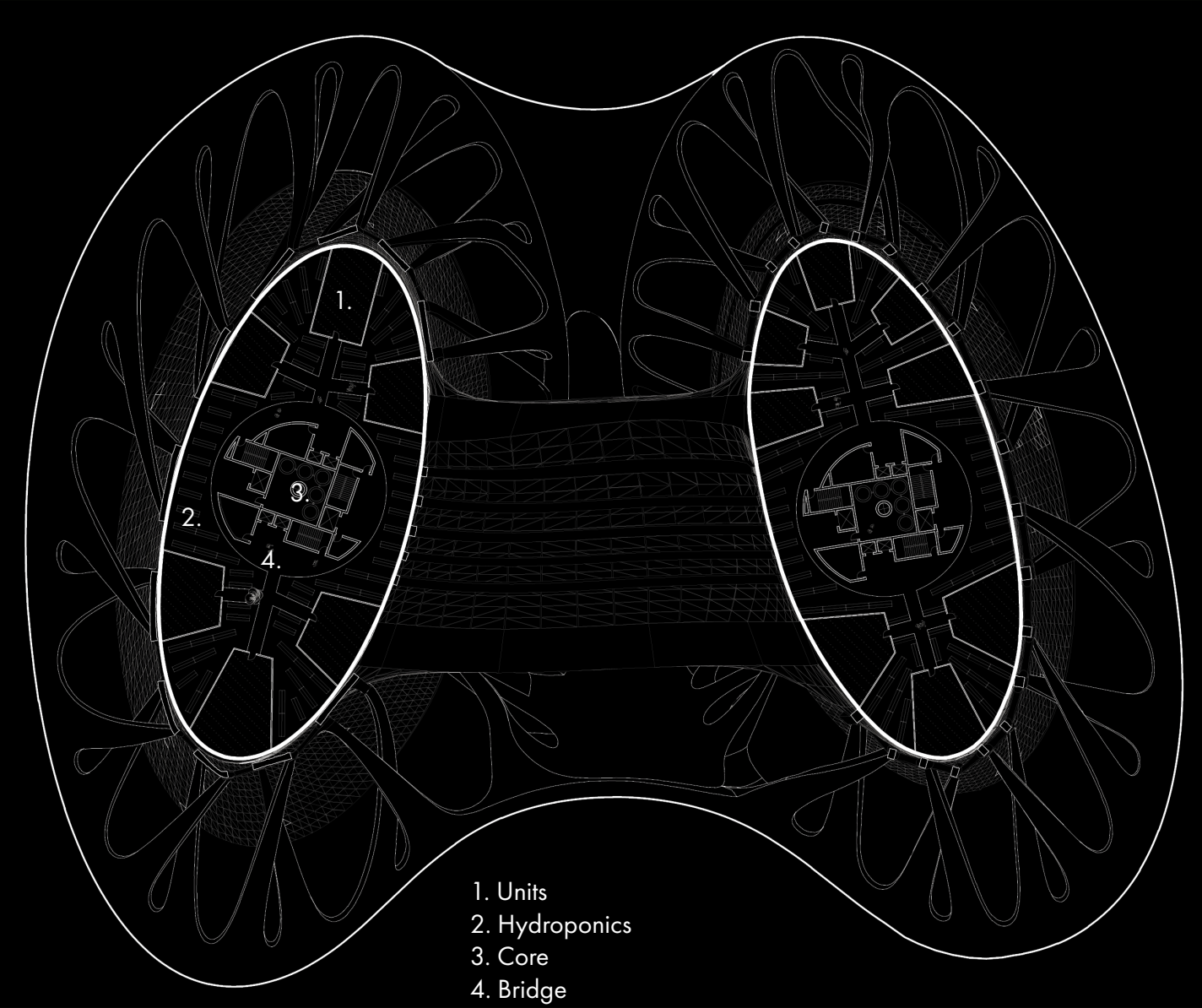
BioTech Tower, ShenZhen



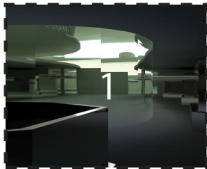
510 Residential Units

7 Hectares Vertical
Farming
4,000 Units

Vertical farm acts as pri-
vacy shade for units



- 1. Units
- 2. Hydroponics
- 3. Core
- 4. Bridge



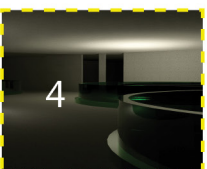
Water Collection , Sediment Separation



Main Water Filtration Process



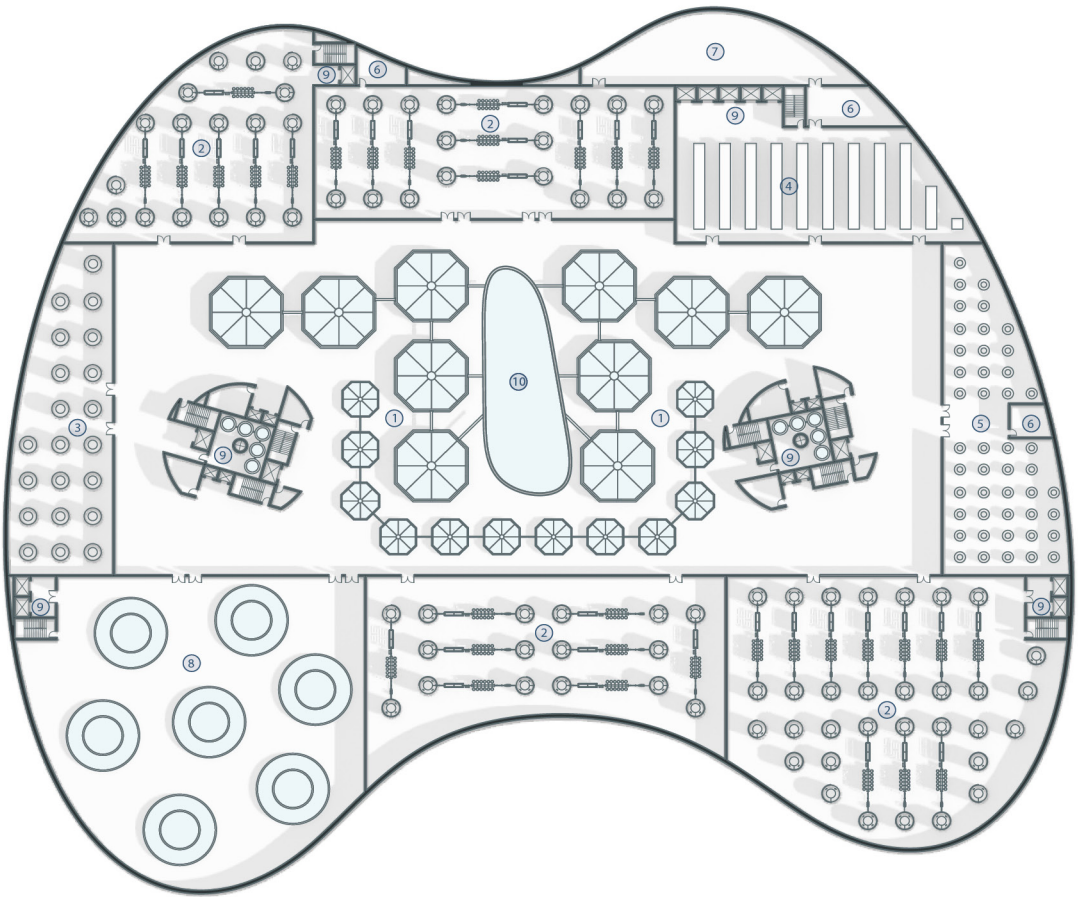
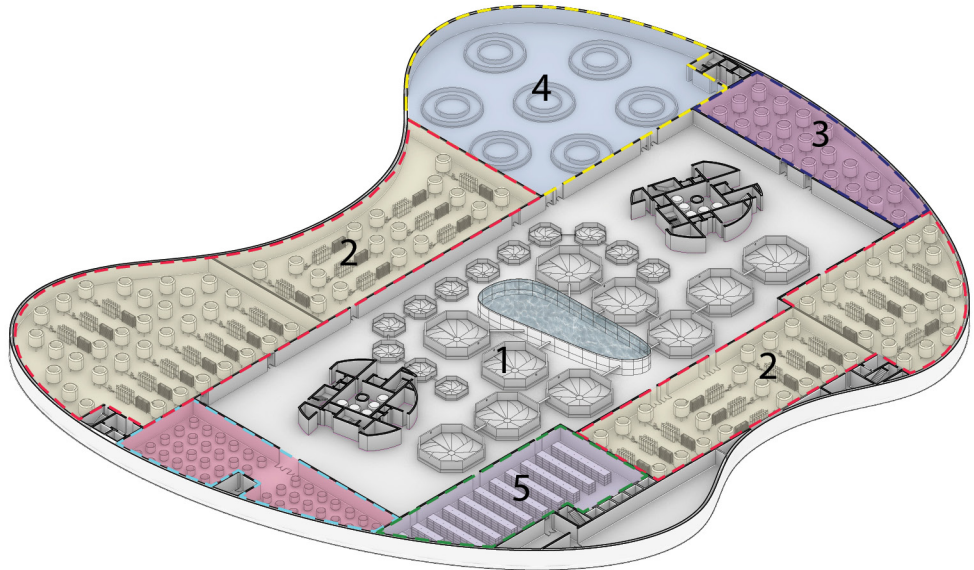
Reverse Osmosis



Acclimation tanks -
further water distribution



Supply Cold Storage

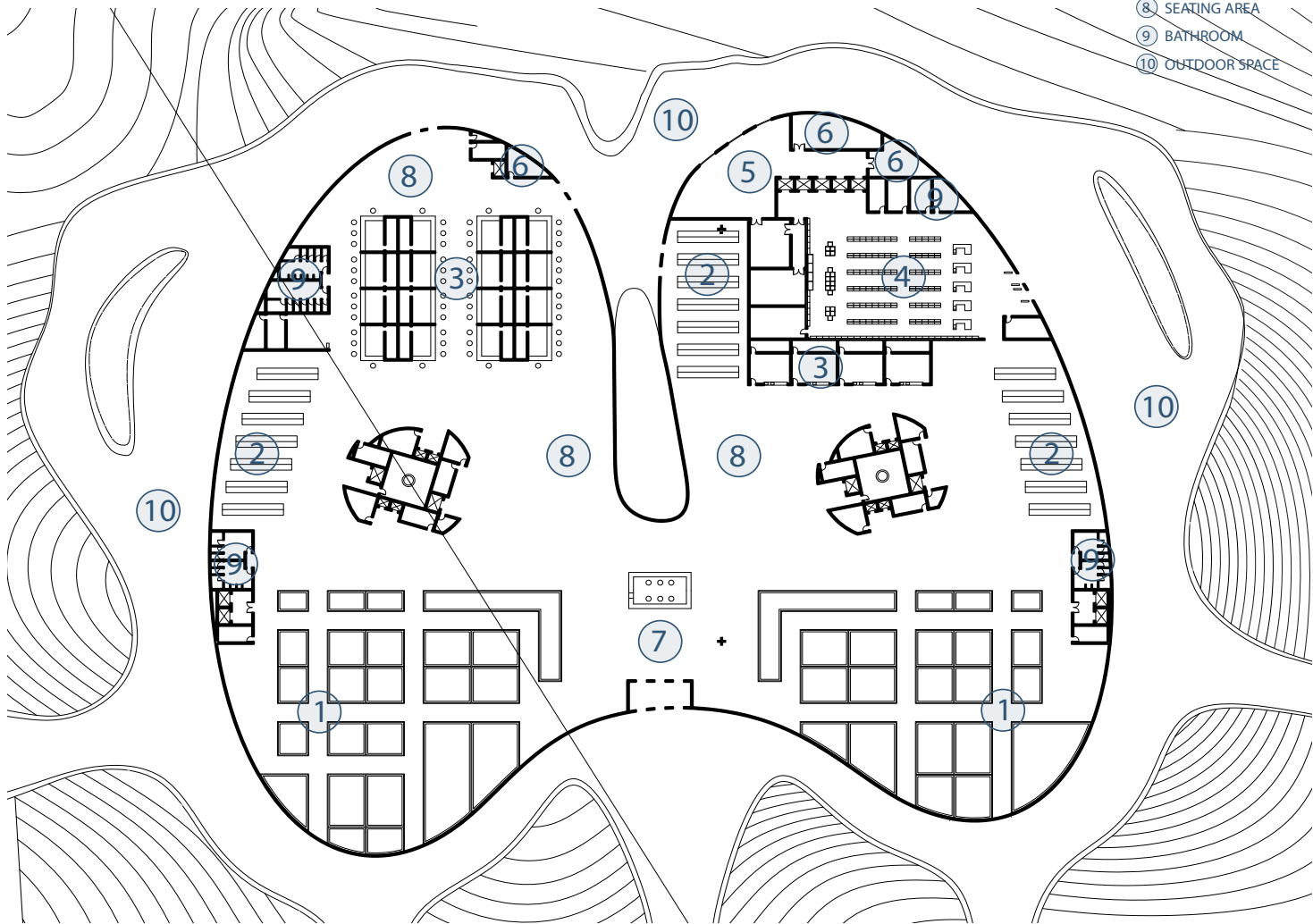


- ① DIRTY LAKE WATER TANKS
- ② WATER FILTRATION
- ③ REVERSE OSMOSIS CHAMBER
- ④ COLD STORAGE
- ⑤ COMPOST
- ⑥ STORAGE
- ⑦ MEP
- ⑧ ACCLIMATION TANKS
- ⑨ EGRESS
- ⑩ LAKE

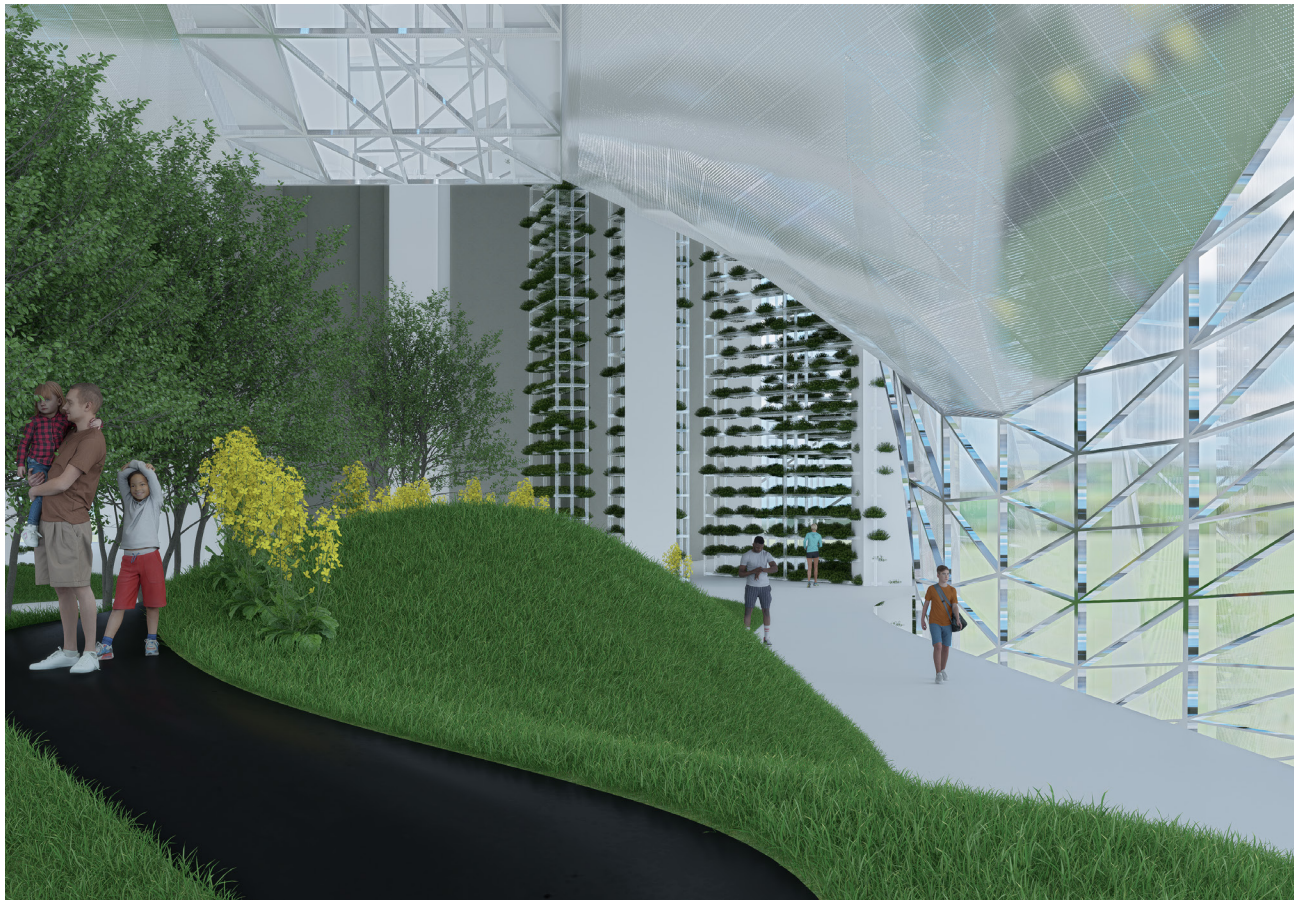
AquaPonics

Algae Based Bio Reactors

Farmers Market



- ① AQUAPONICS
- ② ALGAE-BASED BIOREACTOR
- ③ RESTAURANTS
- ④ GROCERY STORE
- ⑤ LOADING DOCK
- ⑥ STORAGE
- ⑦ LOBBY
- ⑧ SEATING AREA
- ⑨ BATHROOM
- ⑩ OUTDOOR SPACE



Upper Bridge Park

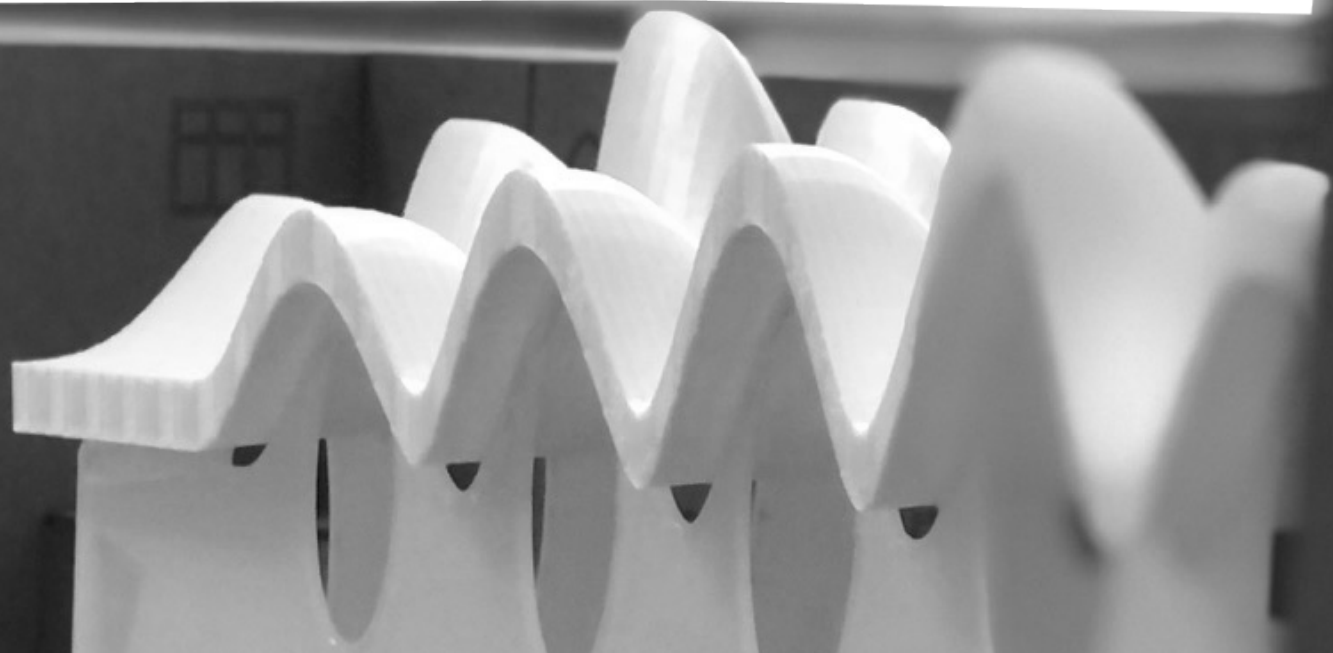


Lower Bridge Amphitheatre

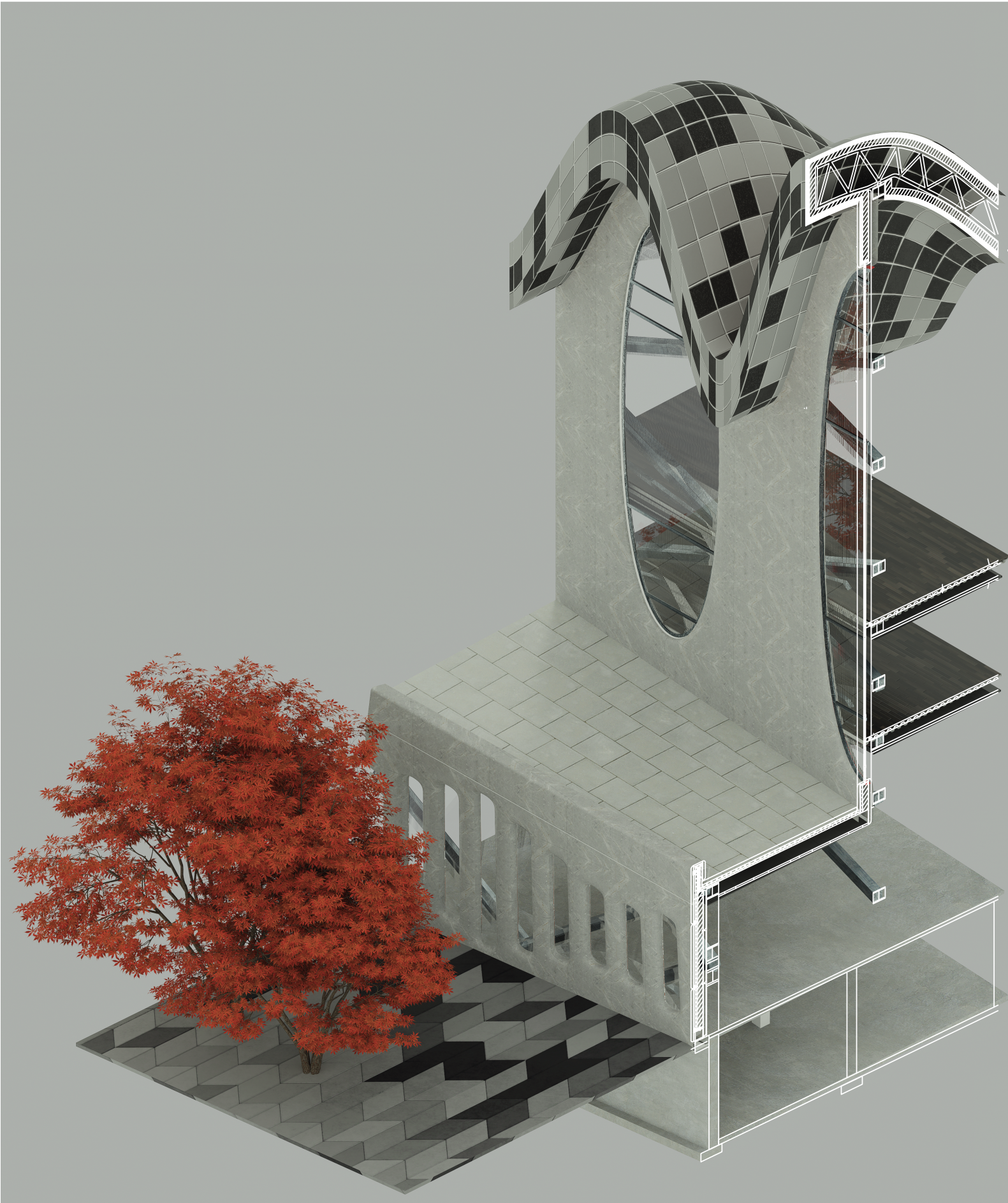
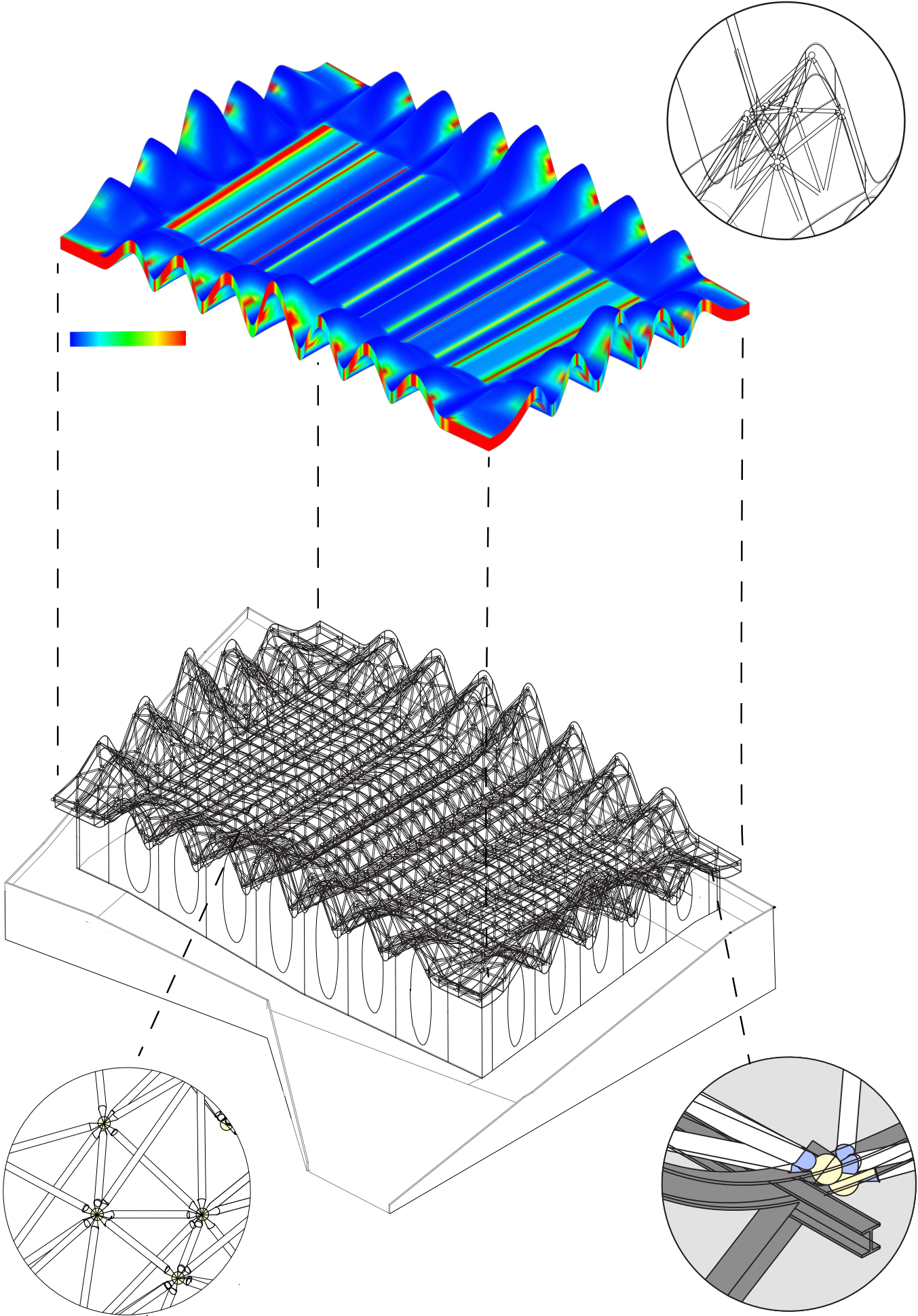
The purpose behind the design of the orb was to seamlessly link the Symphony Hall to the public square, bringing people both into and onto the building.

Serving as an extension of public space transforms the area into a hub of leisure and entertainment. Rooted in extensive design research and exploration, the project emerged from a fusion of computational techniques and hands-on modelmaking.

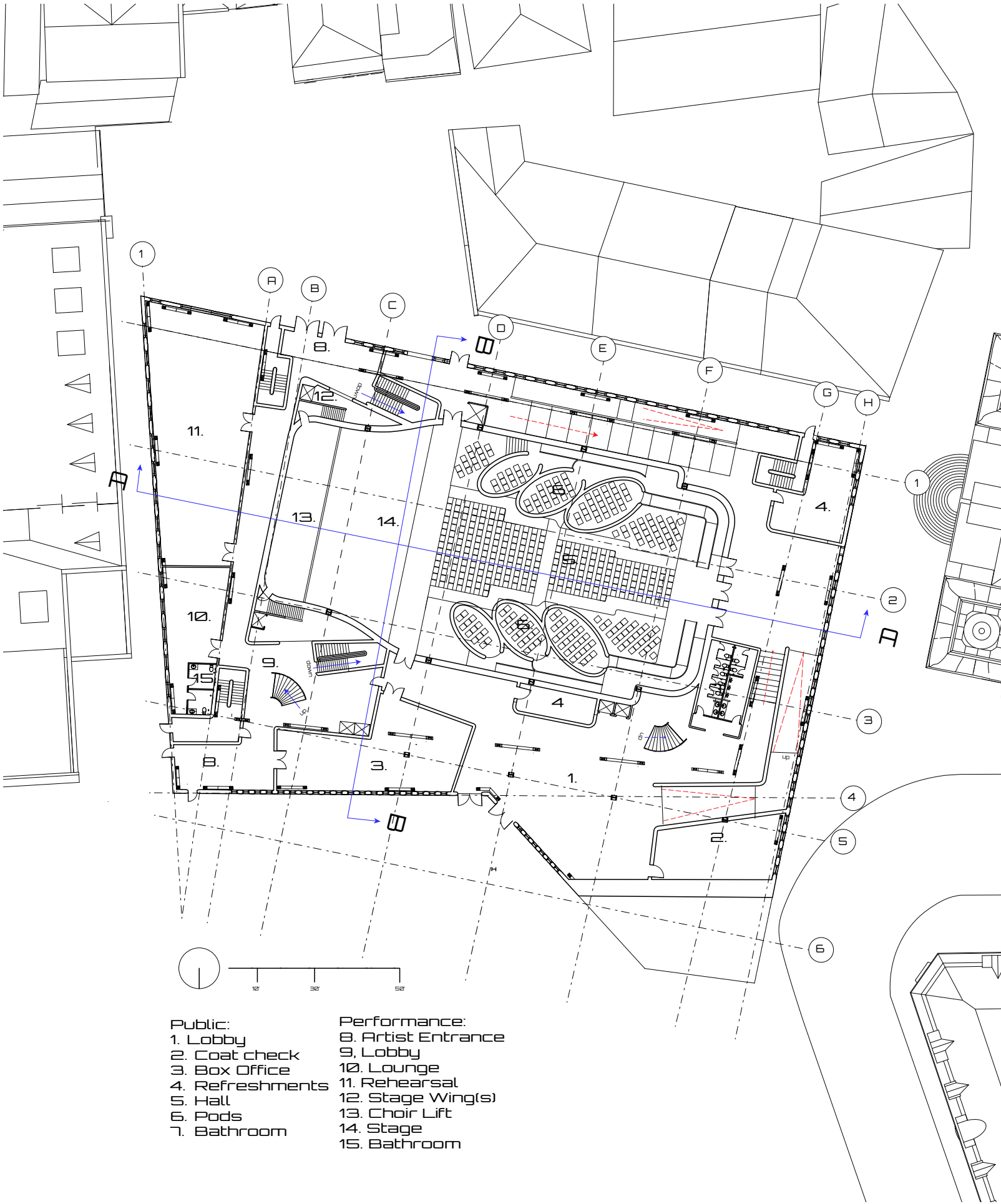
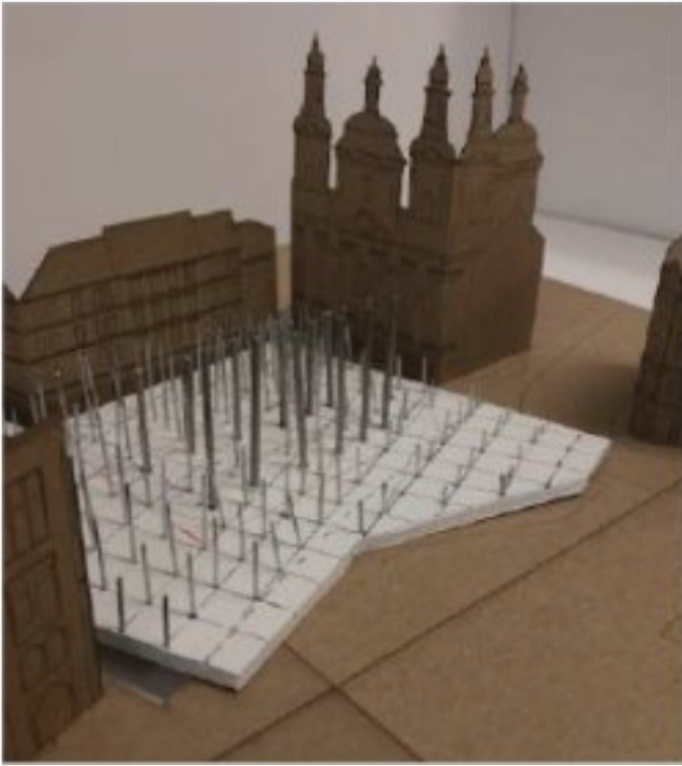
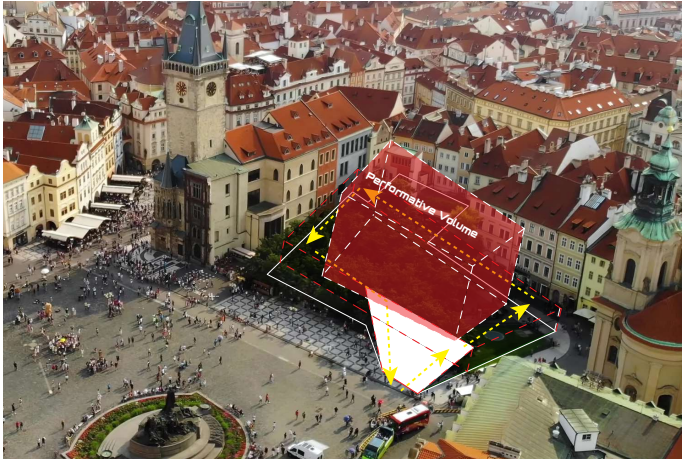
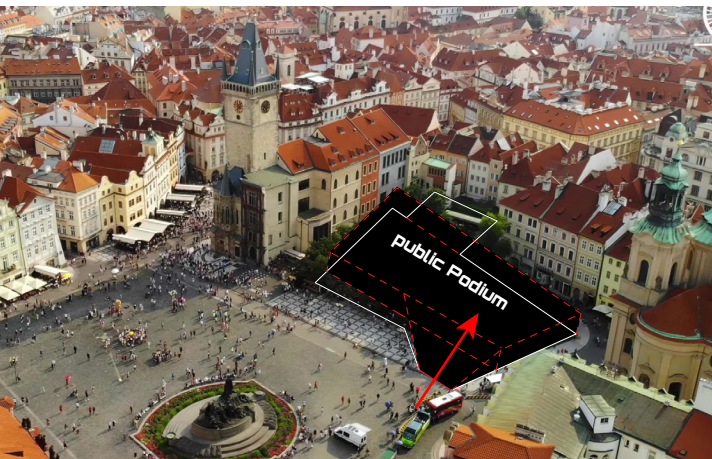
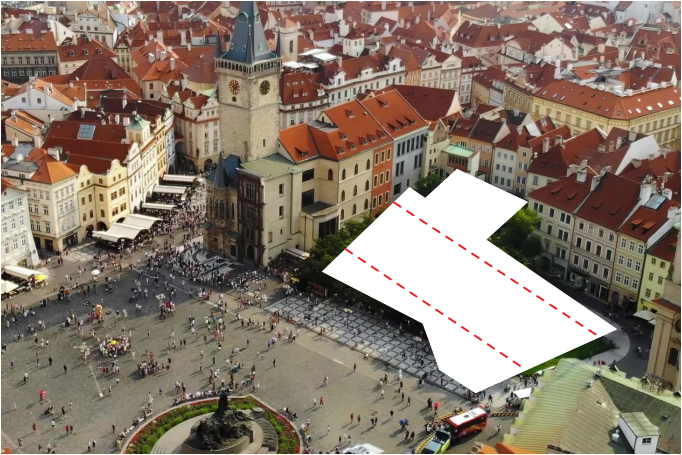
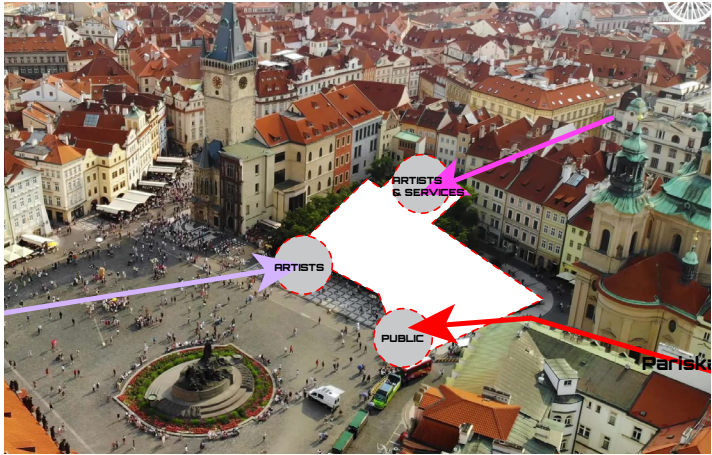
Tailored for Old Towne Square in Prague, it draws inspiration the richly ornamented baroque style, subtly woven into us project details. The design orchestrates a harmonious interplay between the hall, the public, and performers, creating a distinctive architectural typology











- | | |
|-----------------|--------------------|
| Public: | Performance: |
| 1. Lobby | 8. Artist Entrance |
| 2. Coat check | 9. Lobby |
| 3. Box Office | 10. Lounge |
| 4. Refreshments | 11. Rehearsal |
| 5. Hall | 12. Stage Wing(s) |
| 6. Pods | 13. Choir Lift |
| 7. Bathroom | 14. Stage |
| | 15. Bathroom |



