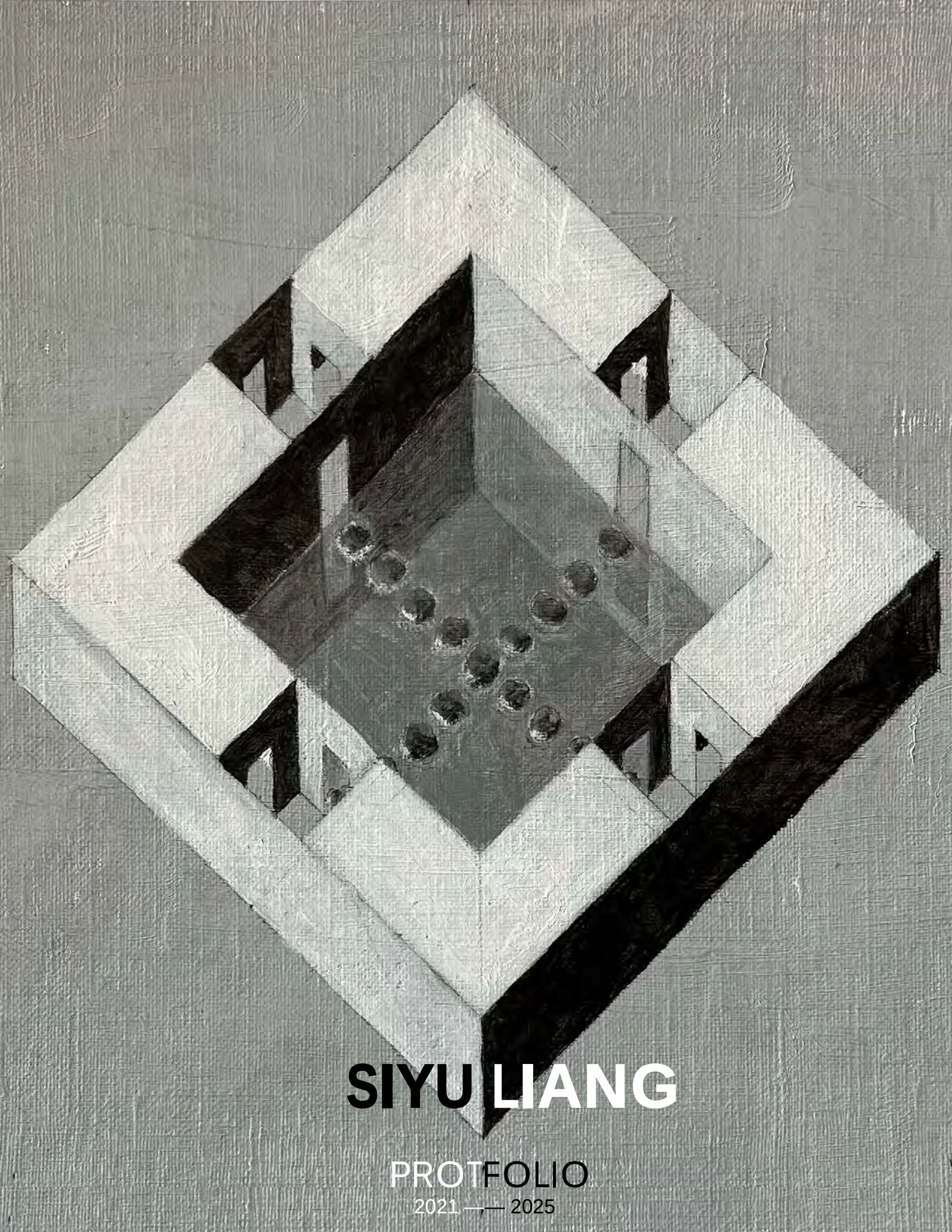

SIYU LIANG

PROTFOLIO

2021 —,— 2025

SIYU LIANG

CONTACT

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EDUCATION

2017-2019

Bachelor of Science in Psychology

Pennsylvania State University

2019-2022

Bachelor of Fine Art in Architecture

School of the Art Institute of Chicago

2022-2025

Master of Architecture

University of california, Berkeley

WORK EXPERIENCE

May 2023 - August 2023

Atelier Deshaus

Architectural Intern

Main Responsibilities: Collaborate on the design proposal (SD); Document site plan, fire protection plan, and drainage plan (CD)

Project Experience: Jingxin High School, Changsha WeStep International R&D Headquarters, Liuhe Pegopa Pier

May 2024 - August 2024

HKS Architects

Architectural Intern

Main Responsibilities: Collaborate on the design proposal (SD); Compile Project Concept Presentation Documents

Project Experience: Xian InterContinental Hotel, Beijing Zhongguancun Digital Economy Headquarters Park InterContinental Hotel

SKILL

Photoshop ●●●○	Rhino ●●●●	Vray ●●●○
Illustrator ●●●●	CAD ●●○○	D5 Render ●●●○
InDesign ●●●○	Revit ●●○○	Enscape ●●○○
Grasshopper ●●○○	Climate Studio ●●●○	Physical Model ●●●●

EXTRACURRICULAR ACTIVITY

UIA-HYP Cup 2021 International Student Competition in Architectural Design — 2021

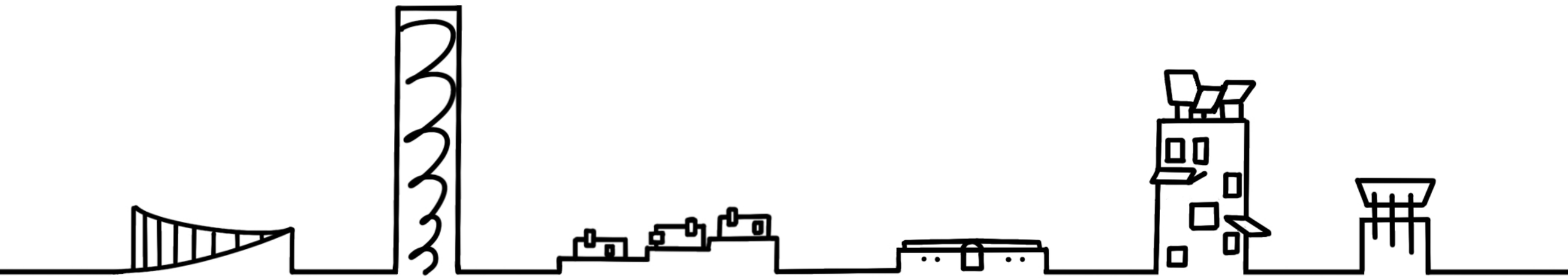
Team Leader

Eli Education — 2022-2023

Graphic Designer

Flowground Musical Festival — 2024

Volunteer



01

LANDSCAPE FLOW

MASS TIMBER FERRY TERMINAL

Fall 2025 / Academic Project / In Collaboration with Elizabeth Rechin / David Jaehning

Redwood Port in California / Grand Total: 44448 sqft

This project explores the geographic and environmental factors of its site, shaping a design that highlights its future role as a key public transportation hub. Located at Redwood Port along Redwood Creek, the ferry terminal embraces natural topographic variations, forming two bars—one high and one low. The high bar extends toward the waterfront, maximizing scenic views, while the low bar merges with a gentle hill, creating a cove-like event space that fosters public interaction.

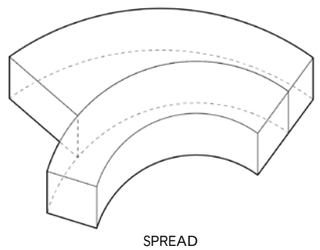
The terminal is designed with minimal environmental impact, reducing excavation and construction waste. A sustainable GLT (Glue-Laminated Timber) framework and CLT (Cross-Laminated Timber) shear walls ensure structural integrity and a low carbon footprint. Shading elements regulate heat gain, while operable windows and folding doors on the north and south sides enable passive ventilation, enhancing energy efficiency.

Beyond transit, the terminal acts as a cultural and social hub, with its cove-like event space supporting outdoor gatherings and waterfront activities. Elevated promenades and viewing decks encourage public engagement with the landscape, transforming the site into a vibrant destination.

By integrating architecture with nature, the ferry terminal prioritizes sustainability, functionality, and community, setting a precedent for environmentally conscious transportation design.

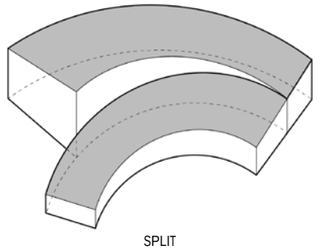
The Redwood Port annual average temperature is 57`F(14`C). The daytime in winter and summer has 4hr difference. The north and south facade need different strategy to avoid direct sunlight.

The Redwood Port has wind flow mainly from NW and SE. The annual medium speed is 3m/s. The site has the opportunity to combine passive and controled ventilation.



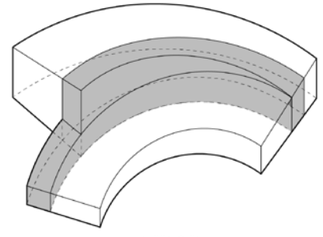
SPREAD

Two bars are defined based on the terrain of the Redwood Port site boundary.



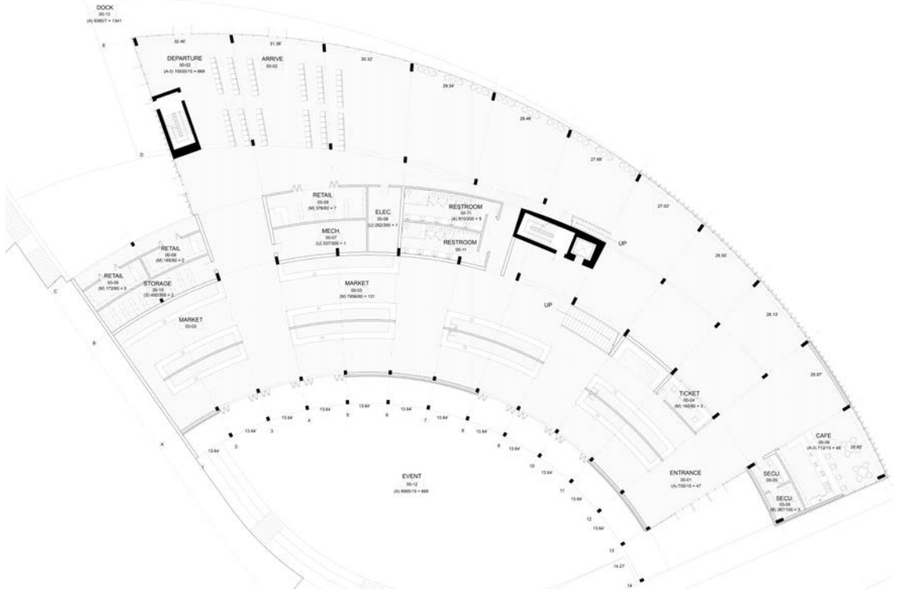
SPLIT

Based on wind direction, landscape, and sunlight, the two bars are split vertically. The taller bar enjoys views of the bay and forms a hill, while the shorter bar connects with the terrain to create an occupiable roof. Together, the two bars form an inward-facing cove.

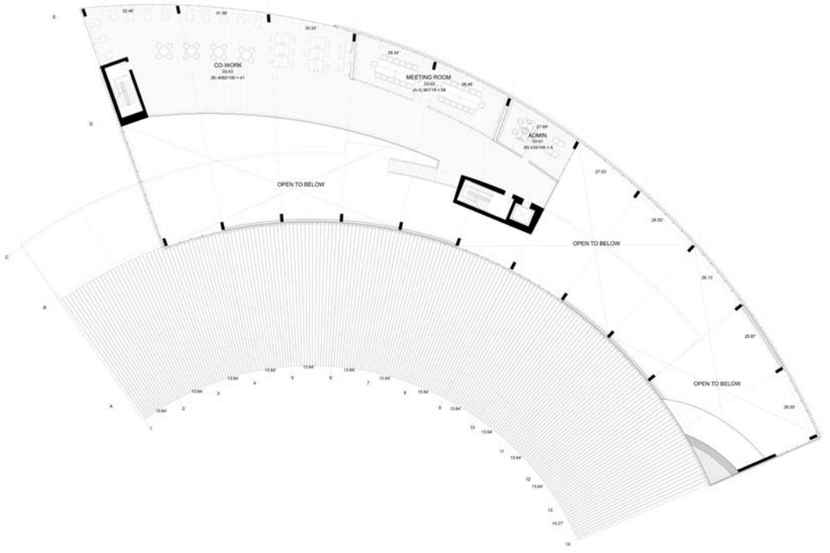


INTENSIFY

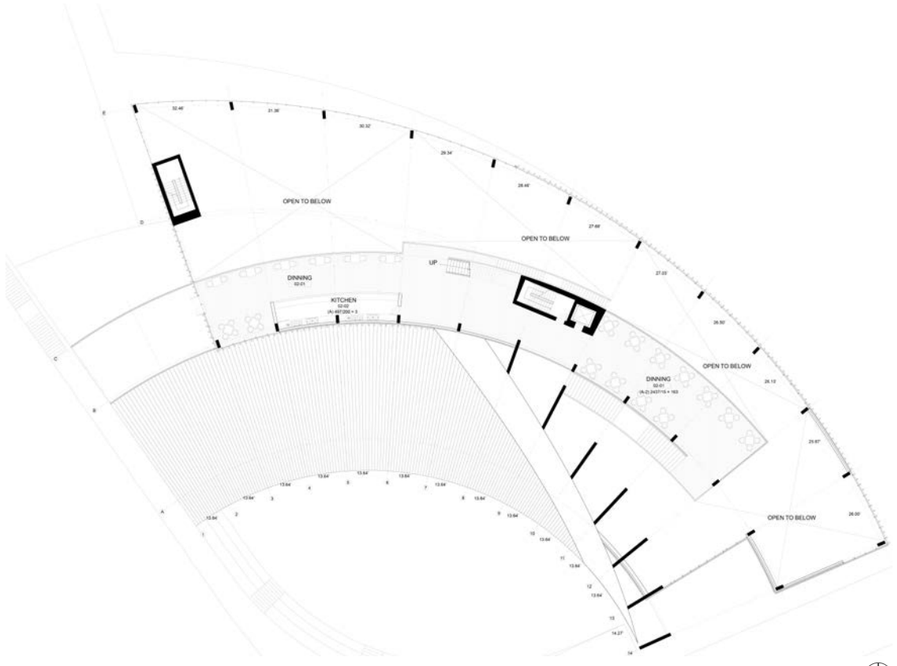
Two bars intersect with each other to form a third central bar, defining the interior program and spaces.



GROUND FLOOR PLAN



THIRD FLOOR PLAN

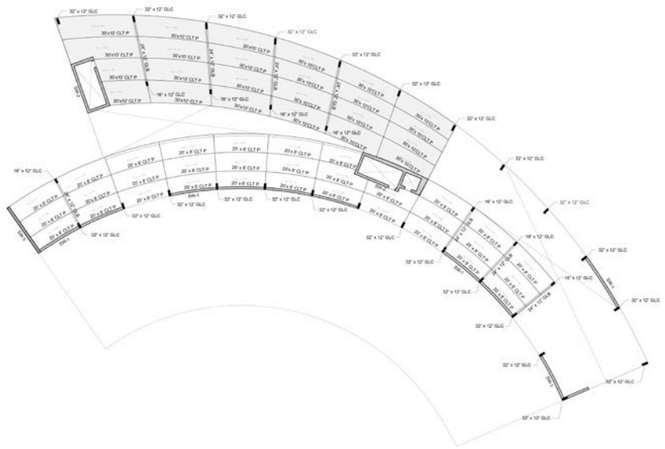


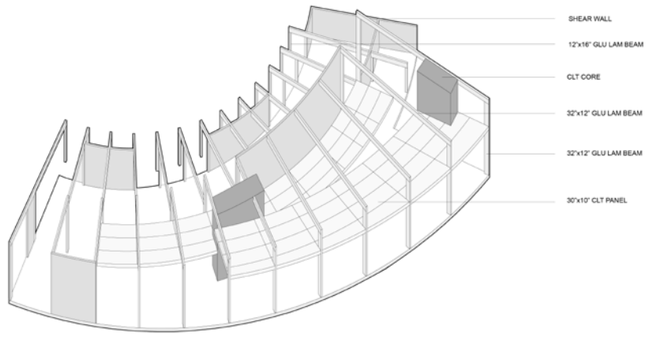
SECOND FLOOR PLAN

The plan unfolds as concentric circles centered on a single focal point, divided into three functional zones (bars), with natural curves clearly defining the flow of movement.

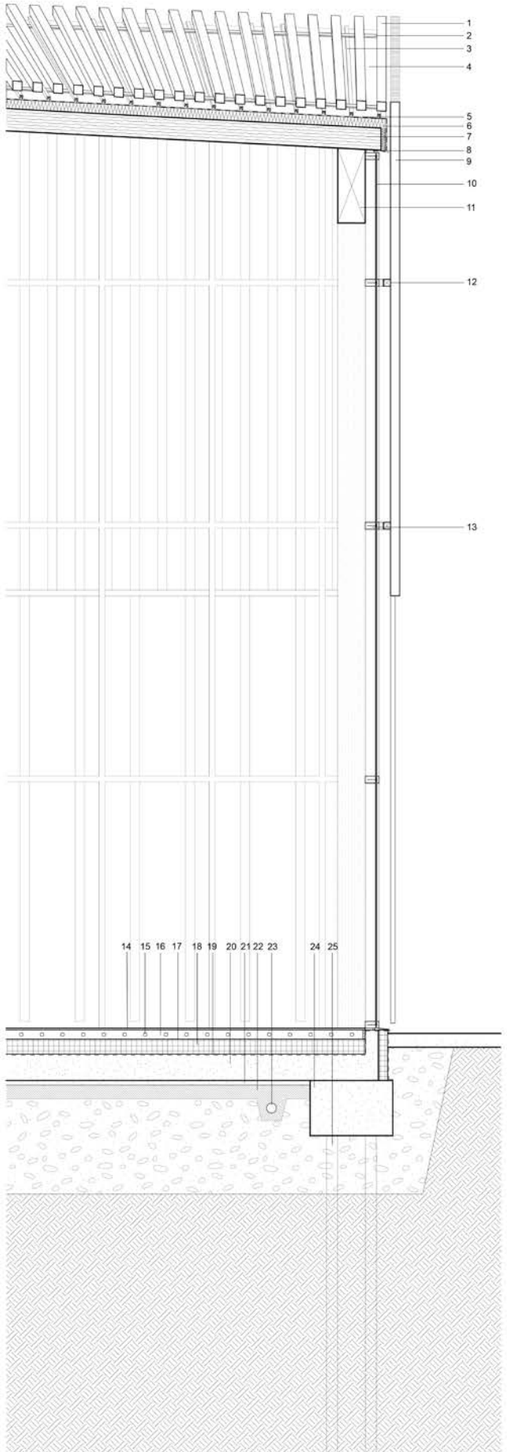
Entering from the main entrance at the lower right corner, visitors are directed to the open, double-height ferry terminal waiting area. A full-height glass façade provides panoramic coastal views while allowing passengers to monitor vessel arrivals. Close to the entrance, a café and ticketing area cater to the high-traffic zone, ensuring convenience and accessibility. Additionally, the main entrance leads to the inner farmer's market, connected to an outdoor event space through multiple folding doors, creating an active and engaging hub that attracts visitors. The central bar is dedicated to mechanical systems, restrooms, small retail spaces, and a vertical core connecting all three floors. This layout ensures functionality while minimizing interference with circulation in other areas.

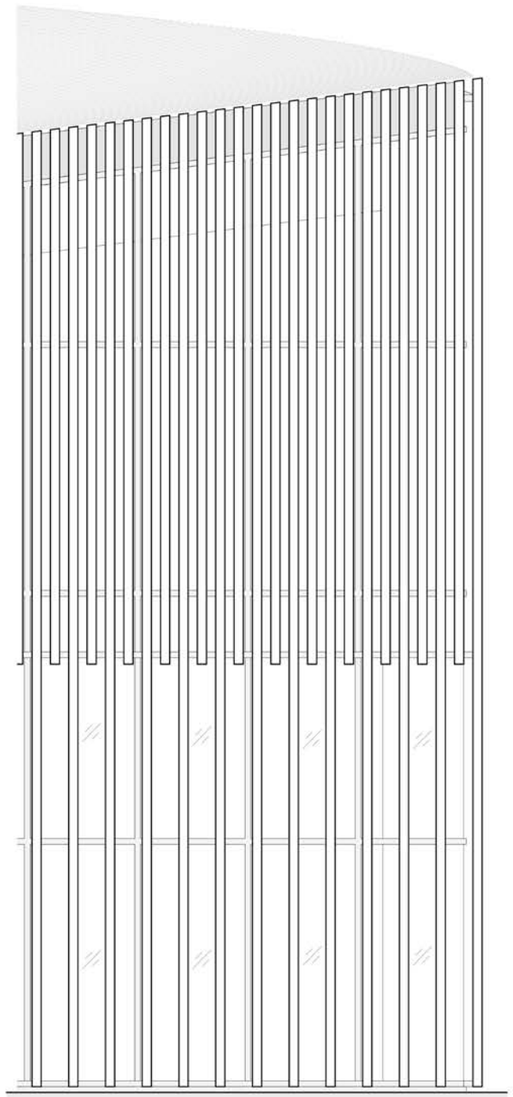
The second floor extends the central bar vertically, featuring ramps integrated with outdoor terrain to form a highly connected food court and waiting lounge. The third floor faces the pier and is designed for administrative offices and passenger waiting areas, prioritizing privacy and comfort.





The structure primarily utilizes wood as the main construction material, highlighting a natural and sustainable design approach. The columns and beams are made from glued laminated timber (GLT) with dimensions of 32”x12”, 24”x12” and 16”x12”, respectively. The two cores and floors are constructed using cross-laminated timber (CLT) panels with dimensions of 20’x8’ and 30’x10’, ensuring structural stability and strength while showcasing the aesthetic and eco-friendly qualities of





1. ALUMINUM ROOF CLADDING
2. 2" ALUMINUM CLADDING TRACK
3. SNAP ON STEANDING SEAM BATTEN CLIP
4. SNAPLOCK STANDING SEAM METAL ROOF DECKING
5. WEATHER RESISTANT BARRIER
6. 4" RIGID FOAM INSULATION
7. 10" GLUE LAMINATED TIMBER PANEL
8. GALVANIZED STEEL FLASHING
9. 4" ALUMINUM FACADE SLATS
10. TRIPLE PANE, LOW E GLAZING
11. 12" x 32" GLUE LAMINATED TIMBER BEAM
12. 2" ALUMINUM FACADE CLADDING TRACK
13. 6" STEEL MULLION
14. FLOOR FINISH BOARD
15. RADIANT FLOOR TUBIING
16. SCREED
17. VAPOR BARRIER
18. 6" RIGID FOAM INSULATION
19. WEATHER RESISTANT BARRIER
20. 1' REINFORCED CONCRETE SLAB
21. 2" SAND
22. 6" CRUSHED ROCK
23. DRAINAGE
24. 2' CONCRETE FOOTING
25. PILES

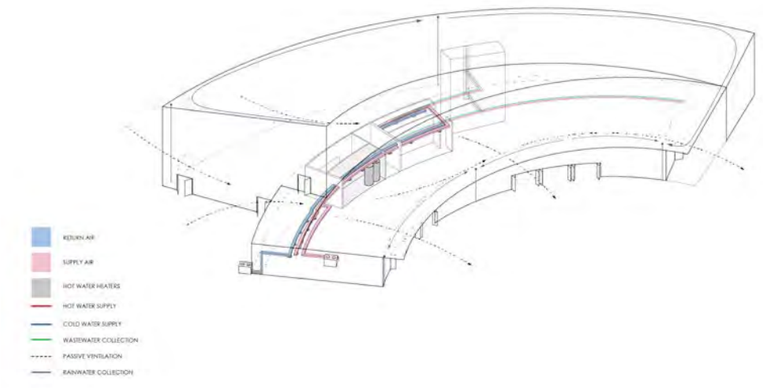
The north façade combines clear glass curtain walls with shaded glass curtain walls, ensuring ample natural lighting while reducing glare and heat gain from sunlight. This design enhances indoor comfort and energy efficiency.

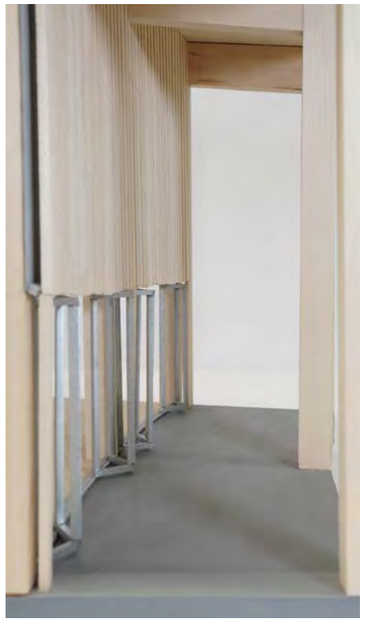
The south façade primarily features solid CLT walls combined with a limited use of shaded glass curtain walls. This design minimizes direct sunlight while allowing controlled natural light to ensure adequate illumination. The façade pattern aligns seamlessly with the shading elements, creating a cohesive and unified aesthetic.

1. 2" ALUMINUM CLADDING TRACK
2. ALUMINUM ROOF CLADDING
3. FIRE SPRINKLER
4. BEMO STANDING SEAM ROOF DECKING
5. PARAPET STUDS
6. STEEL MULLION
7. RADIANT FLOOR SYSTEM
8. 5 PLY CLT PANEL
9. THERMAL INSULATION
10. REINFORCED CONCRETE
11. CONCRETE FOOTING

Ventilation is achieved with 90% pas-sive venti-lation and 10% controlled systems. The site benefits from abun-dant natural wind from the northwest and southeast directions. On the north and south facades of the building, multi-ple operable windows and fold-ing doors are incorporated, with open-plan interiors in these areas, facilitating high levels of passive ventila-tion. Only the central core bar of the building, where more controlled systems are re-quired, concentrates the mechanical ventilation needs. This design ensures that the building's energy consump-tion is minimized as much as possible.

In addition to the proper control of natural lighting, a radiant system is in-stalled on each floor to regulate indoor tem-perature, reducing energy usage while ensur-ing a comfortable indoor climate.





02

PROTOTYPE OF FUTURE

A New Era of High-Rise for Coexistence

Fall 2021 / Competition Project

Manhattan in New York / Foot Print: 18600 sqft

As cities evolve, balancing ecosystems and human society within buildings and urban environments remains a critical challenge for architects and designers. In Prototype of Future, we focus on this issue by creating a coexistence model where humans and organisms share the same space without excessively impacting each other. Additionally, we explore ecosystem restoration and biodiversity, bringing vitality back to both people and the city.

This 670-meter skyscraper consists of two intertwining spiral structures. The structure is supported by steel columns, holding concrete slabs and the spiral ramp. One is a reinforced concrete spiral ramp, extending from the base to the top, fostering diverse ecosystems along its path. The other is a nest-like spiral human habitat, resembling stacked beehives within the building, providing spaces for offices, residences, public activities, and commercial functions. Here, humans and animals can observe each other while maintaining their own way of life.

The only exception is the agricultural ecosystem, which is primarily human-regulated. Additionally, an integrated water treatment system purifies rainwater and wastewater, repurposing it for irrigation and other uses.

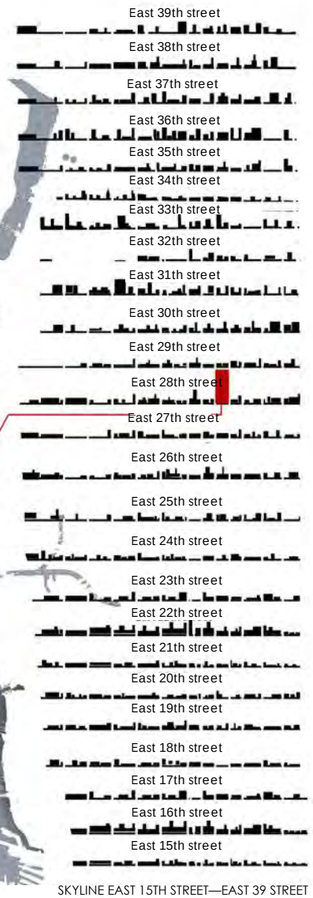
Prototype of Future is not just a landmark in New York—it represents an innovative model for future societies, fostering a harmonious coexistence between humans and nature.

PUBLIC TRANSPORTATION

CONSTRUCTION

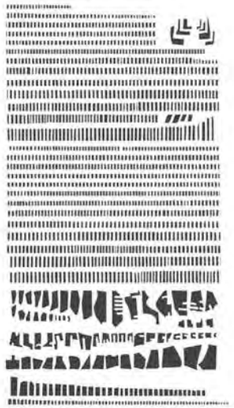
PARK AND MEADOW

BOUNDRY AND BLOCK



SKYLINE EAST 15TH STREET—EAST 39 STREET

CITY GRIDS



TYPES OF BLOCKS

highway
arterial traffic
path
packway
cycle track
sidewalk

railway
subway
lightrail and tram
cablecar
airport runways
tarmac

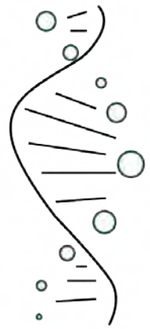
administrative boundry
forest
tree
golf course
park
dwelling

meadow and public space
retail trading
industrial
commerical
wasteland
lake

MASSING

DNA DOUBLE HELIX

DNA is the fundamental element from which all creatures originate, serving as the blueprint of life.



TRANSFORMATION

Get the element of shape from DNA structure and tranform based on research.

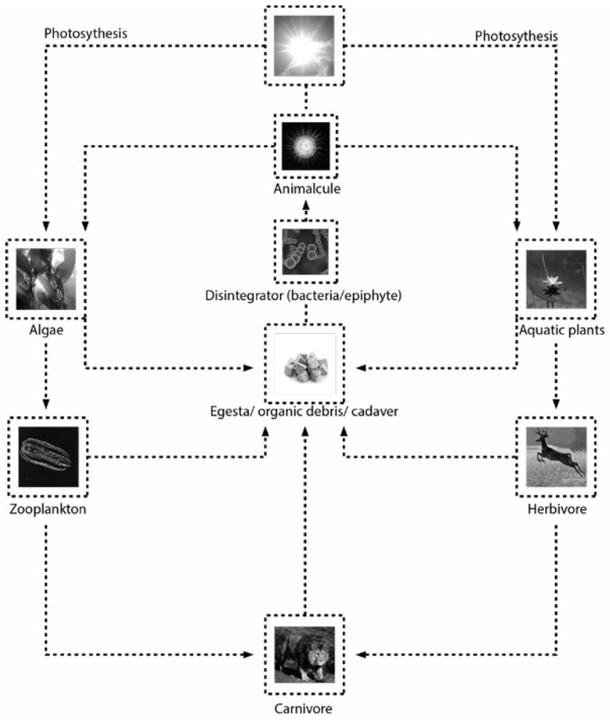
NATURAL SYSTEM

Spiral shape allow animals to move anywhere in the system.

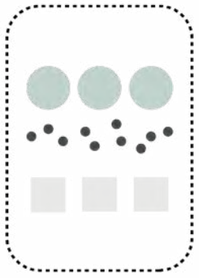
HUMAN SYSTEM

Place different functional blocks between the natural system.

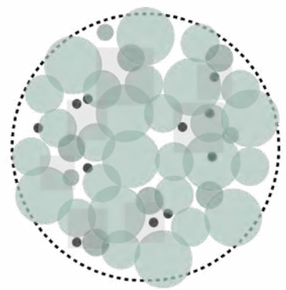
ECOSYSTEM



DESIGN STRATEGY

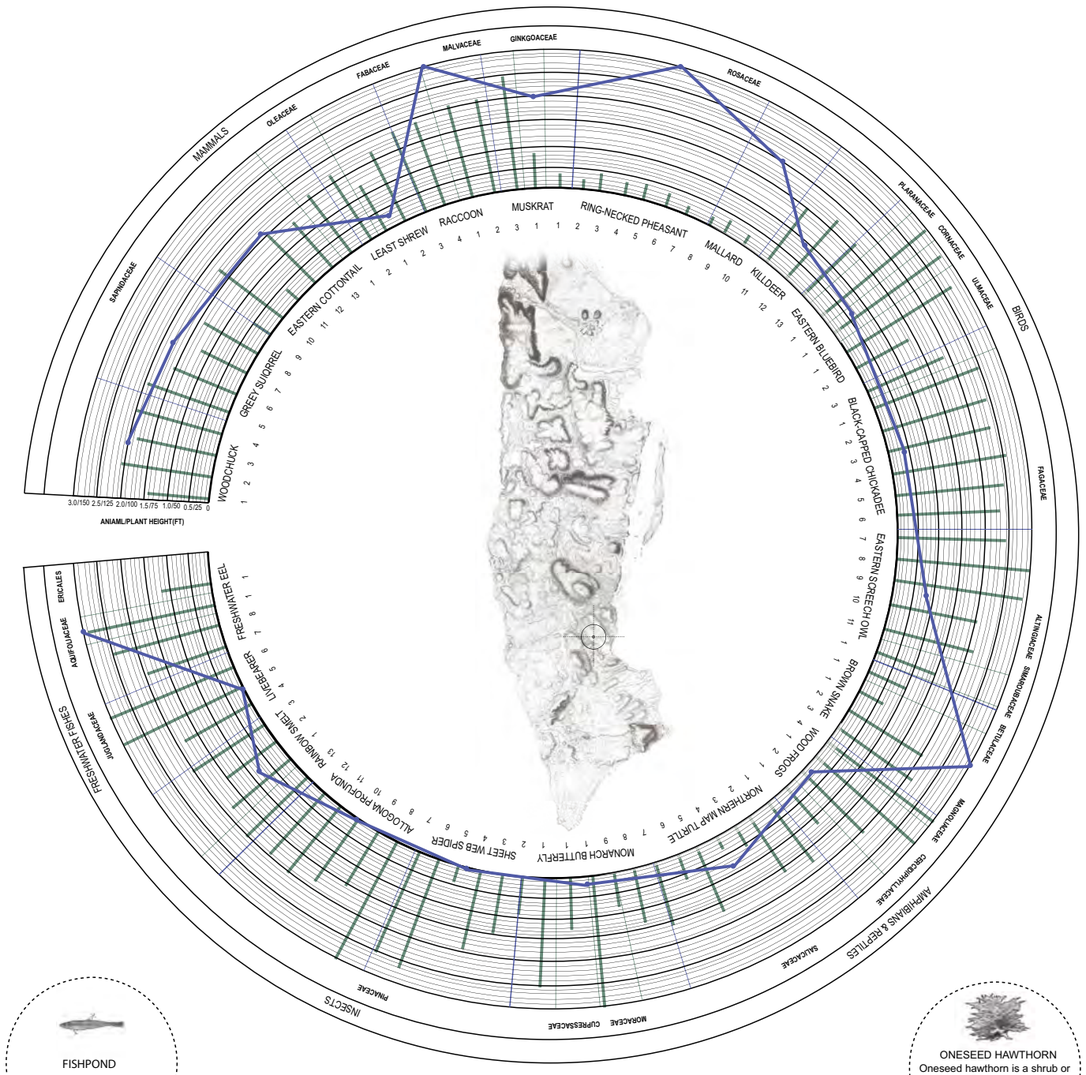


Normal design



Human & Nature

PROTOTYPE OF FUTURE
XX
F A U N A & F L O R A



FISHPOND
Regular amphibians and reptiles who used to live in forest or wetland.

RABBIT YARD
Small mammals which are not menaces to human. And has strong adaptability with surrounding environment.

BIRD PARK
Common bird species that used to live in the city and has dulcet sound.

GRAND FIR
Grand fir is a large evergreen coniferous tree growing to 40D70 metres tall and with a trunk diameter of up to 2 m.

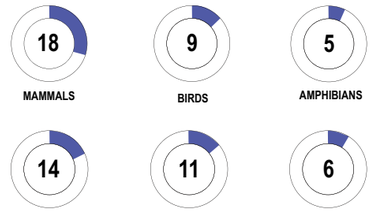
NORWAY MAPLE
Norway Maple is a deciduous tree. The shoots are green at first, soon becoming pale brown.

ONESEED HAWTHORN
Oneseed hawthorn is a shrub or small tree 5D14 metres tall, with a dense crown. The flowers are pollinated by midges, bees and other insects and later in the year bear numerous haws.

ZOO —— INTERACTUVE SPACE —— PARK

63 ANIMAL SPECIES

Most of animals are common spieces which origined from New York State. They effects each other and built a food chain in the building.



WOODCHUCK
A farm field and roadside resident, the woodchuck is a very large, squat squirrel. Adults grow to be about 2 feet long and 10-12 pounds in weight. They feed on farm crops, grasses, herbs and garden produce. They prefer to hibernate for the winter in a burrow located inside a forest edge.

SHEET WEB SPIDER
Linyphiidae Often overlooked because of their small size (less than a quarter inch long), sheet web weavers are among the most abundant spiders in vegetation. They build fine, non-sticky, sheet webs in vegetation. The spiders run upside down on the underside of their webs and bite prey through the web.

NORTHERN MAP TURTLE
It gets both its common and scientific names from the markings on its carapace, which resemble contour lines on a map or chart. Males are 5-7 inches , while females are 8-13 inches. It inhabits ponds, rivers, and lakes.

EASTERN BLUEBIRD
A popular user of nest boxes, the Eastern bluebird is the official bird of NewYork State. Length 7 inches, weight 1 ounce, wingspan of 12 inches. Feeds on fruits and berries, as well as insects and spiders which it captures on the ground by pouncing on them from a perch. Flight speed up to 17 mph. Two broods of 4-5 young each year.

BROWN SNAKE
It often referred to as the common brown snake, is a species of highly venomous snake in the family Elapidae. The adult eastern brown snake is up to 2 m (7 ft) long with a slender build. The eastern brown snake is found in most habitats except dense forests.

GREEY SUIQRREL
A very common woodland, suburban and urban speciesWeighing about 1 pound, they feed on nuts, seeds and other plant material. They build bulky leaf nests fairly high in trees, or may den in tree cavities and buildings.

EASTERN COTTONTAIL
One of New YorkÕs most common farm and woodland-edge mammals, the Eastern cottontail is a popular game species and prey for many predators. Adults weigh 2 -3 pounds. They eat tender green vegetation, garden produce, bark and buds of trees, vines and shrubs.

LEAST SHREW
One of New YorkÕs smallest mammals, the least shrew measures about 3 inches long and ounce in weight. It is typically found in grassy brushy fields, as well as mouse runways. Insects, earthworms, snails and other small animals make up the bulk of its diet.

RACCOON
The raccoon is easily recognized by its masked face and bushy ringed tail. Adults can reach 2-3 feet in length and 30 pounds in weight. They catch crayfish, frogs and other water life by probing with their front paws in the water and then manipulating the catch in a washing action. Raccoons den in hollow trees, burrows, rock ledges and buildings.

FRESHWATER EELS
Most eels live in the shallow waters of the ocean and burrow into sand, mud, or amongst rocks. The maximum size of this species has been reported as reaching a length of 3 m (10 ft) and a weight of 110 kg (240 lb).

RAINBOW SMELT
It is widespread across North American watersheds. It has a silvery, pale green back and is iridescent purple, blue, and pink on the sides, with a light underside. When full grown, the rainbow smelt is between 7 and 9 inches long . Inhabits cool clear lakes, medium to large rivers, and coastal waters.

BLACK-CAPPED CHICKADEE
A common resident of woodlands and a regular visitor of bird feeders. Its lively, sprightly behavior, its cheerful sounding calls and song, and its tame ness make it a favorite of many people. It feeds on insects, seeds, carrion meat and fat. Length 5 inches, weight ounce, wingspan of 8 inches. Nests in tree cavities or nest boxes. One brood of 6-8 young per year.

MONARCH BUTTERFLY
It may be the most familiar North American butterfly, and is considered an iconic pollinator species. Overwintering, roosting butterflies have been seen on basswoods, elms, sumacs, locusts, oaks, osage-oranges, mulberries, pecans, willows, cottonwoods, and mesquites. .

MUSKRAT
A common aquatic animal, the muskrat has a long, vertically flattened tail. Closely related to meadow voles and lemmings, muskrats average 1 -2 feet in length and 2-4 pounds in weight. They burrow into stream and pond banks to build dens, and construct food caches of cattail stems and roots, reeds, rushes and grasses for use during the winter.

RING-NECKED PHEASANT
This bird is most plentiful in the Lake Plains areas of the state, but is generally declining in numbers due to habitat changes. Feeds on grains, berries, insects, green herbaceous vegetation and weed seeds. Length 2-3 feet, weight 2 - 4 pounds, wingspan of 2 feet.

MALLARD
Although normally very wary of people, New YorkÕs most common dabbler or ÔpuddleduckÕ can adapt to urban areas and people. In the wild, the mallard feeds on plant and animal matter in shallow water. Length 21-24 inches, weight 2-3 pounds, wingspan 3 feet.

KILLDEER
Nicknamed ÔkilldeeÕ for the loud sound it makes, the killdeer is often heard before it is seen. Length 9-11 inches, weight about 3 ounces, wingspan 20 inches. Flight speed up to 45 mph. One brood of 4 young per year. Adult killdeer perform an elaborate display known as the Ôbroken wing actÕ in an attempt to distract predators from the nest.

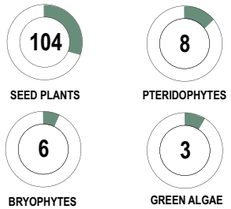
LIVEBEARER
Livebearers are aquarium fish that retain the eggs inside the body and give birth to live, free-swimming young. Among aquarium fish, livebearers are nearly all members of the family Poeciliidae and include guppies, mollies, platies and swordtails.

WOOD FROGS
A common resident in North America. It ranges from 51 to 70 mm (2.0 to 2.8 in) in length and size Females are larger than males. It is forest-dwelling organism that breed primarily in ephemeral, freshwater wetlands: woodland vernal pools. It eats a variety of small, forest-floor invertebrates.

EASTERN SCREECH OWL
A fairly common small owl with yellow eyes and ear tufts, the Eastern screech owl has two color variations: red and gray. Adults reach length of 10" and a wingspan of 22". Prefers a mix of woods, open areas and water. Hunts small mammals, birds and large insects. Nests and roosts in holes in trees and nest boxes. Non migratory.

ALLOGONA PROFUNDA
This snail has a robust heliciform shell with a wide umbilicus, a reflected peristome, and a broad reddish stripe. The animal's body is a medium to light gray. It is usually found in leaf litter in rich forests on floodplains or hilly terrain.

121 PLANT SPECIES



70% of the total land area has biological productivity of any importancfe.

6 FLOWER SPECIES

SMOOTH WHITE BEARDTONGUE
Also known as foxglove beardtongue. Beautiful addition to pollinator garden or perennial border.
Long blooming period in early summer.
ÔHusker RedÕ is popular cultivar with dark red leaves.

JOE-PYE WEED
Several similar species with tall leafy stems and flat to rounded heads of small pink flowers. Butterfly magnet in mid-late summer. Shorter cultivars now widely available. An essential plant for butterfly and pollinator gardens.

SMOOTH BLUE ASTER
Native asters are a valuable late summer resource for butterflies and pollinators. Smooth blue
aster has numerous ¾ inch blue flowers and is a mainstay for a native aster garden.

NORTHERN BLUEFLAG
Narrow sword-shaped leaves stay attractive all season. Spring bloomer with several blue-violet flowers per stem.

WILD BERGAMOT
Grows in clumps, less spreading than many related bee-balms. Late summer lavender flowers
draw bees and butterflies. Aromatic foliage.

BLUETS
Tiny spring wildflower that can form delicate carpets of pale blue on dry sunny sites. A classic
rock garden plant and groundcover.

SAPINDACEAE
1. Norway Maple
2. Red Maple
3. Sliver Maple
4. Sugar Maple
5. Hedge Maple
6. Amur Maple
7. Boxelder Maple
8. Canyon Maple
9. Hoptree
10. Horsechestnut
11. Ohio Buckeye
12. Texas Buckeye
13. Yellow Buckeye

OLEACEAE
1. Green Ash
2. Pumpkin Ash

FABACEAE
1. Honey Locust
2. Water Locust
3. Kentucky Coffeetree
4. Eastern Redbud

MALVACEAE
1. Littleleafe Linden
2 American Linden
3. Sliver Linden

GINKGOACEAE
1. Ginkgo

ROSACEAE
1. Callery Pear
2. Fleshy

HAWTHORN
3. Cockspur Hawthorn
4. Dotted Hawthorn
5. Populus Hawthorn
6. Kansas Hawthorn
7. Oneseed Hawthorn
8. Quebec Hawthorn
9. Scarlet Hawthorn
10. Washington Hawthorn
11. Crabapples
12. Flowering Cherry
13. Chokecherry

PLATANACEAE
1. London Planetree

CORNACEAE
1. Flowering Dogwood

ULMACEAE
1. American Elm
2. Purpleleaf Plum
3. Serviceberry

FAGACEAE
1. Pin Oak
2. Willow Oak
3. sawtooth oak
4. Northern Red Oak
5. Swamp White Oak
6. English Oak
7. White Oak
8. American Beech
9. European Beech
10. Chinese Elm
11. Zelkova

ALTINGIACEAE
1. American Sweetgum

SIMAROUBACEAE
1. Ailanthus Altissima

BETULACEAE
1. Hackberry
2. European Alder
3. Speckled Alder
4. Birch

MAGNOLIACEAE
1. Liriodendron
2. Magnolia

CERCIDIPHYLLACEAE
1. Katsura Tree

SALICACEAE
1. American Aspen
2. Mulberry
3. Bebb Willow
4. Purple-osier Willow
5. Black Willow
6. Shining Willow
7. Weeping Willow
8. White Willow
9. Pussy Willow

MORACEAE
1. Alaska-cedar

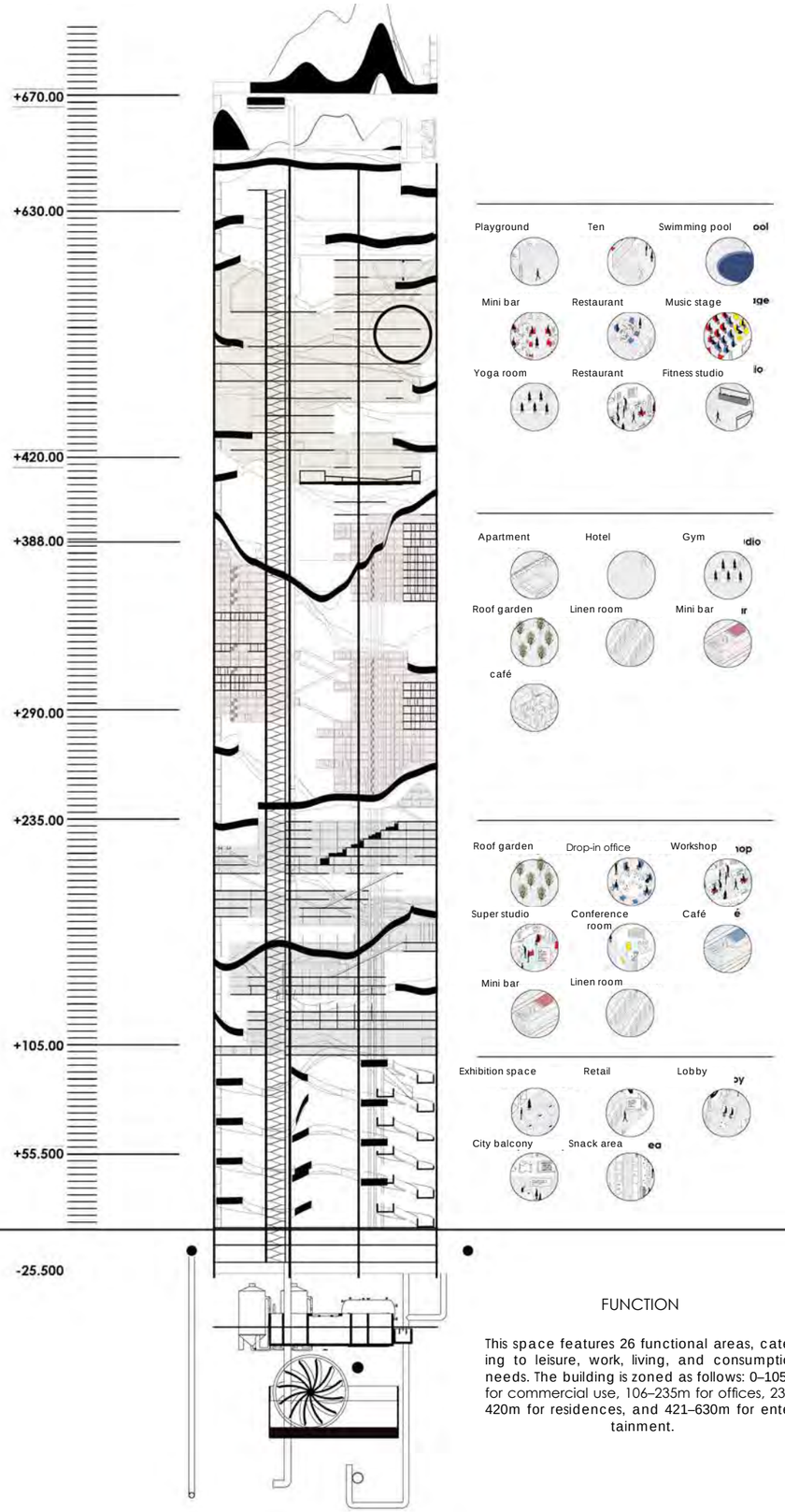
Cupressaceae
1. Subalpine Fir

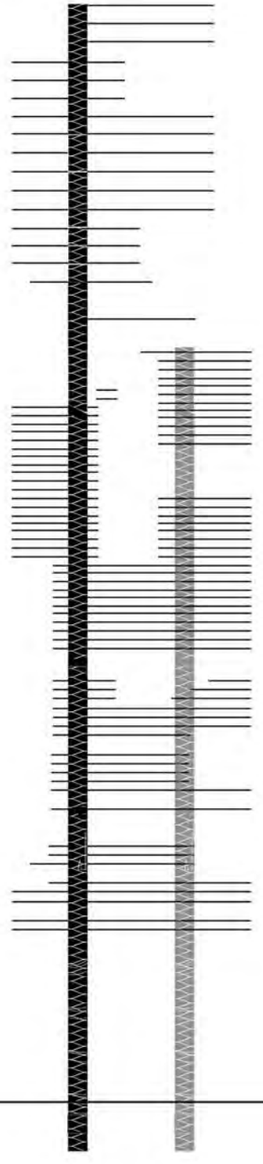
PINACEAE
1. Balsam Fir
2. Corkbark Fir
3. Grand Fir
4. Noble Fir
5. Pacific Silver Fir
6. White Fir
7. Western Larch
8. European Larch
9. Black Spruce
10. Engelmann Spruce
11. Norway Spruce
12. Red Spruce
13. Blue Spruce

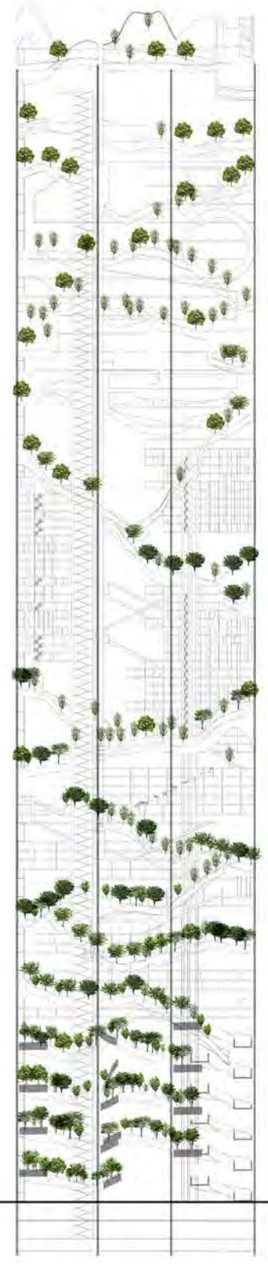
Juglandaceae
1. Bitternut Hickory
2. Black Hickory
3. Carolina Hickory
4. Mockernut Hickory
5. Pignut Hickory
6. Red Hickory
7. Shagbark Hickory
8. Shellbark Hickory

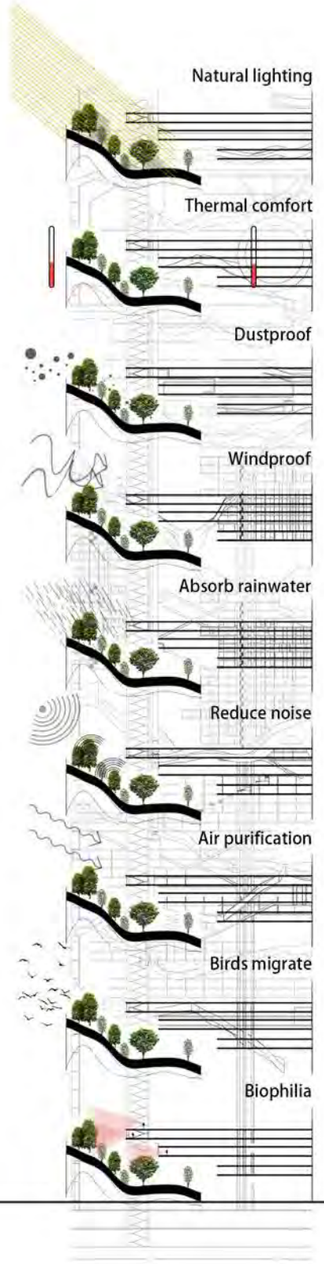
Aquifoliaceae
1. Possumhaw

Ericales
1. Carolina Silverbell
2. Two-wing Silverbell









FUNCTION

This space features 26 functional areas, catering to leisure, work, living, and consumption needs. The building is zoned as follows: 0–105m for commercial use, 106–235m for offices, 236–420m for residences, and 421–630m for entertainment.

TRAFFIC SYSTEM

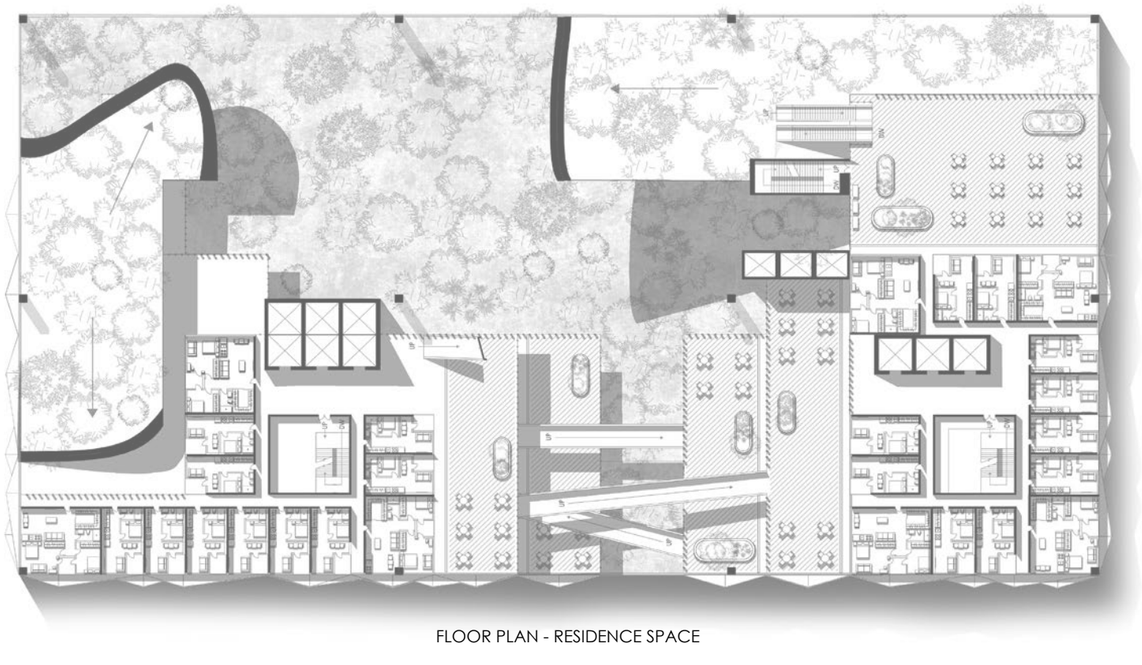
The building has two vertical cores, each with six elevators. Every floor accesses the central elevators within 35 meters. One core reaches the top floor, the other stops at the residential top level.

ECOSYSTEM

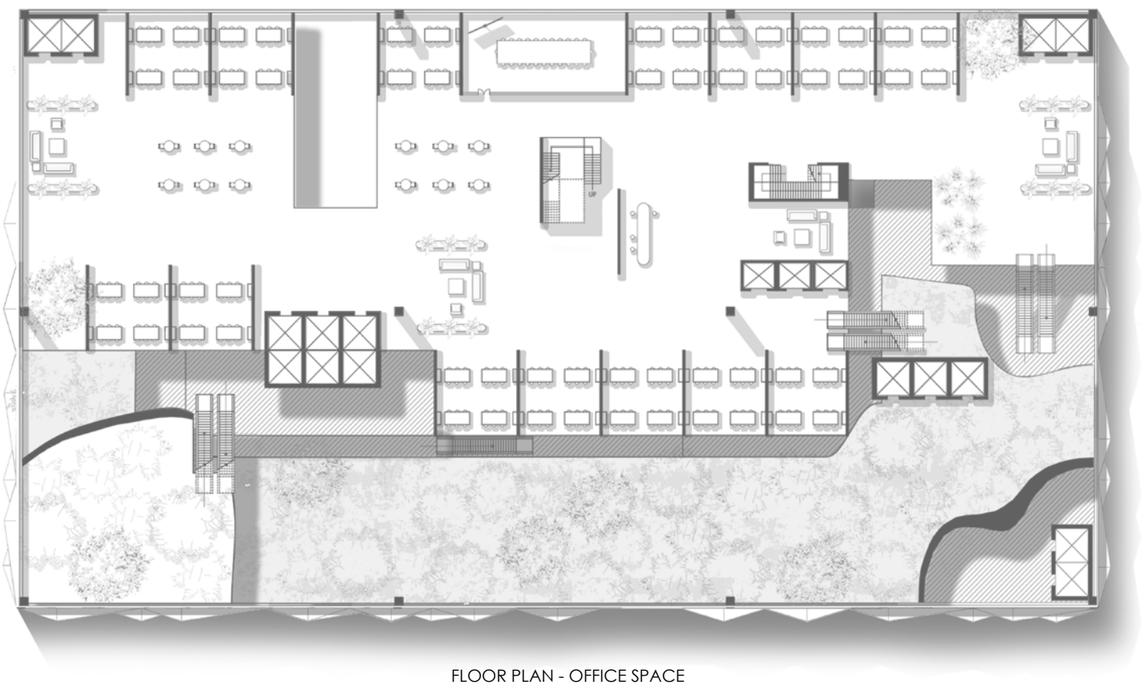
The building's ecosystem extends from ground level to the top, enveloping the structure without obstructing sunlight. It aids in water and air purification while providing habitat for small and medium-sized animals.

BENEFITS

The building's outer ecosystem shields against storms, rain, and sun, regulating temperature, conserving energy, and reducing noise and air pollution. It also supports bird migration and connects people with nature.



FLOOR PLAN - RESIDENCE SPACE

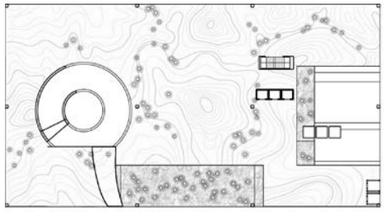
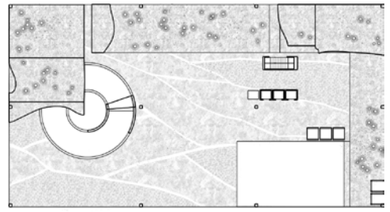
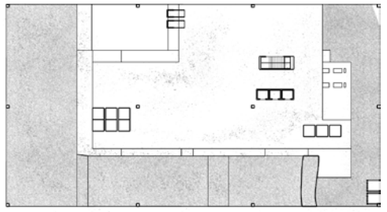
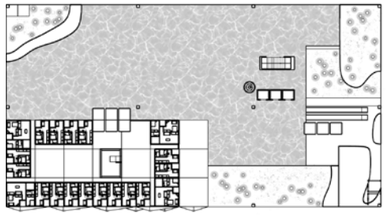
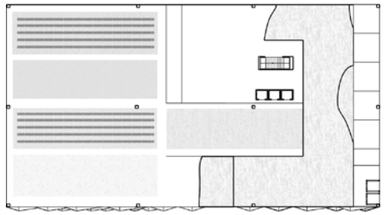
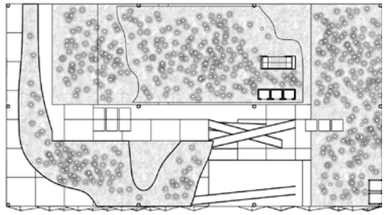


FLOOR PLAN - OFFICE SPACE

APARTMENT

TEN

OFFICE

03

CLOISTER VERDE

A SUSTAINABLE HOUSING COMMUNITY

Fall 2023 / Academic Project / Ryan Keerns

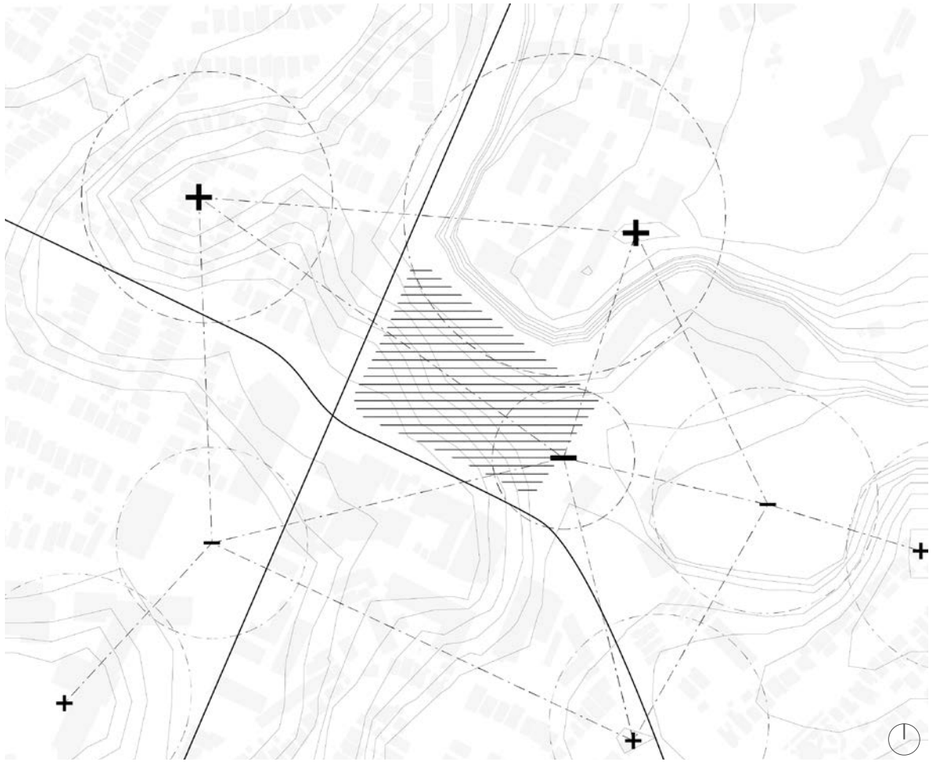
Oakland in California / Foot Print: 15-acre parcel

This project is an urban-scale housing community designed to provide the neighborhood with a green, healthy lifestyle and a dynamic social environment. The development consists of six-story buildings with a total of 203 residential units, offering nine different unit types tailored to the needs of individuals and small families, based on in-depth demographic research.

The schematic design originates from a reinterpretation of the classical L-form architecture through the geometric logic of a parabola, carefully shaped in response to the site's unique topology. This exploration of the L-form not only results in innovative interior spaces but also ensures construction efficiency and long-term sustainability.

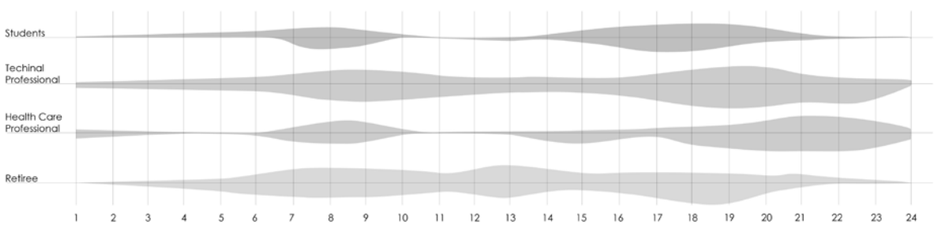
The site, characterized by its undulating terrain, is designed in a series of cascading terraces, integrating the natural landscape into the architectural composition. The cloister serves as a seamless connection between indoor and outdoor spaces, linking residential units with communal activity areas. While preserving the local habitat, the design encourages outdoor engagement, fostering social interaction and increasing physical activity among residents.

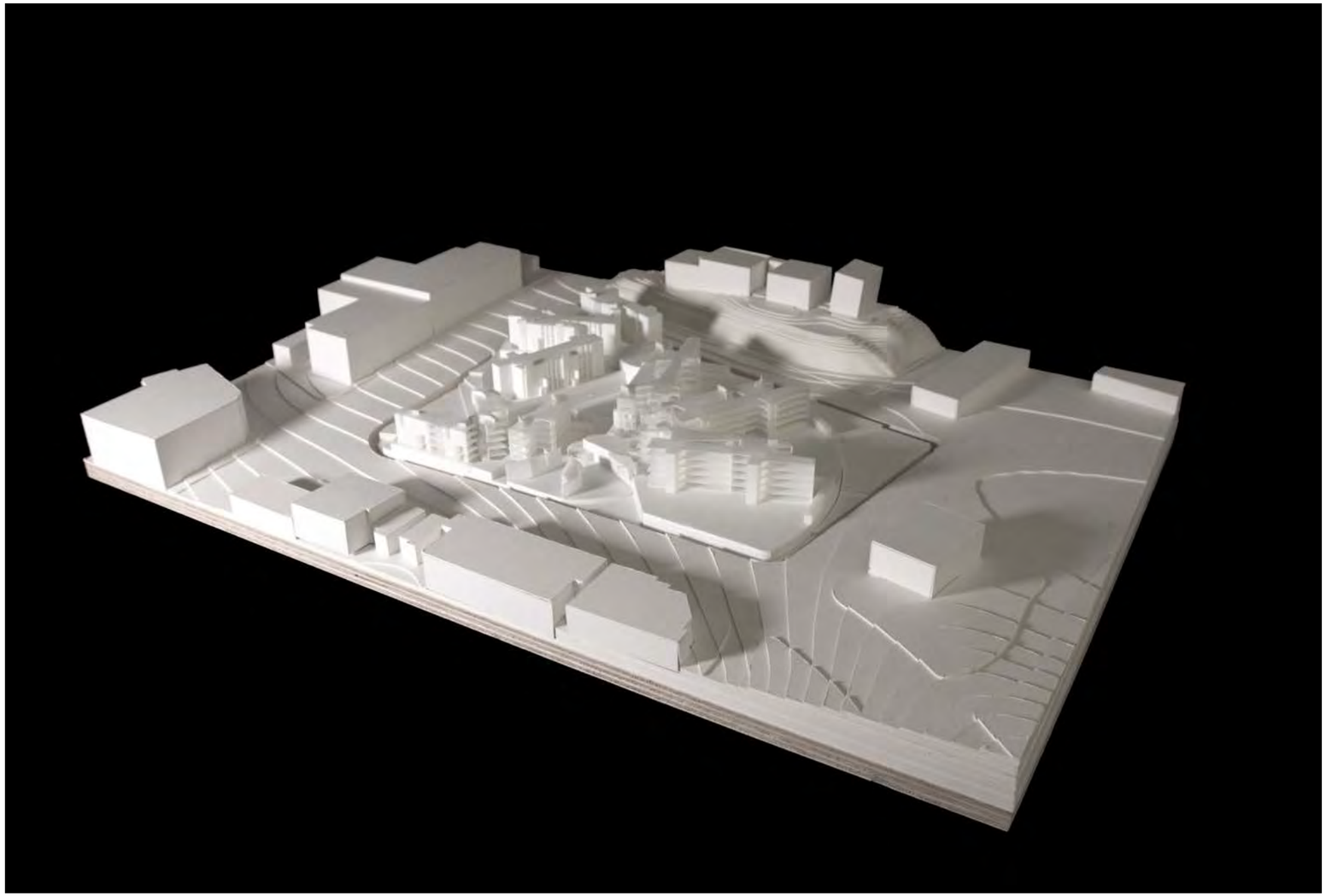
Structurally, precast concrete is utilized for the foundation and primary support, while CLT (Cross-Laminated Timber) panels are employed from the second floor upwards. This approach ensures structural stability while significantly reducing material waste and carbon emissions, promoting an environmentally responsible and sustainable construction process.



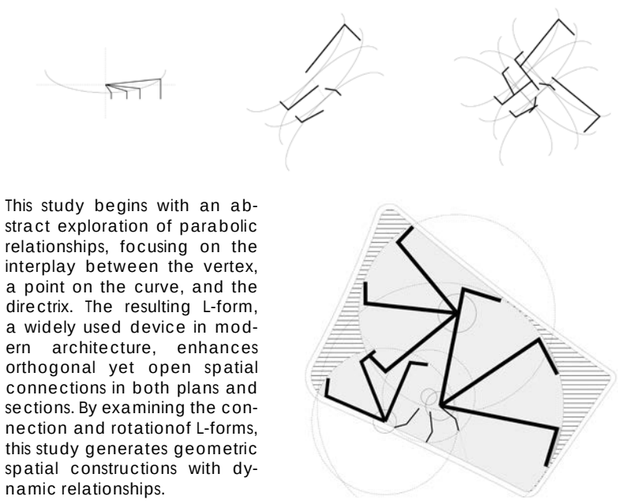
The site is located in West Oakland, Northern California, featuring a naturally sloped topology with a small hill in the north. The surrounding area is densely populated with residential and commercial amenities but has few parks, creating an opportunity to develop a nature-integrated, oxygen-rich, and active living community.

Oakland has a high number of unemployment assistance recipients, yet due to its proximity to San Francisco and the South Bay, the rise of the tech industry has attracted an influx of high-income professionals, driving up housing demand. Developing a high-quality community presents a key opportunity to attract new residents and stimulate the local economy.

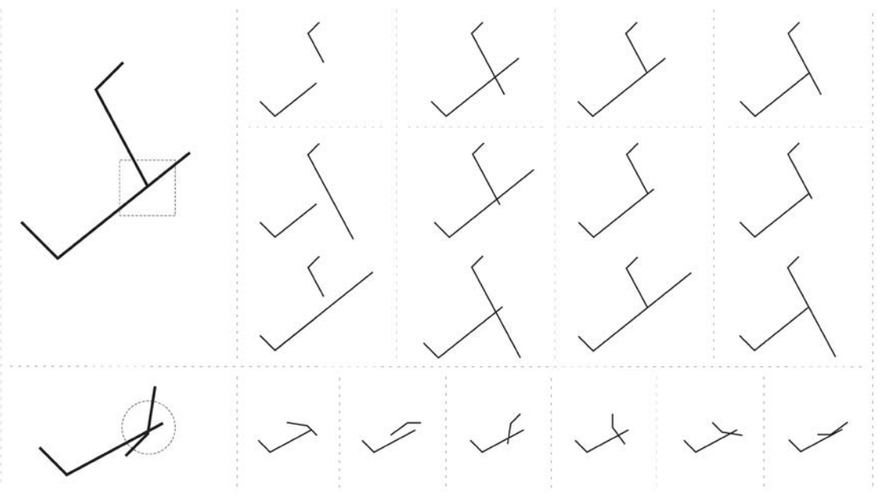




L-FORM STUDY



This study begins with an abstract exploration of parabolic relationships, focusing on the interplay between the vertex, a point on the curve, and the directrix. The resulting L-form, a widely used device in modern architecture, enhances orthogonal yet open spatial connections in both plans and sections. By examining the connection and rotationof L-forms, this study generates geometric spatial constructions with dynamic relationships.

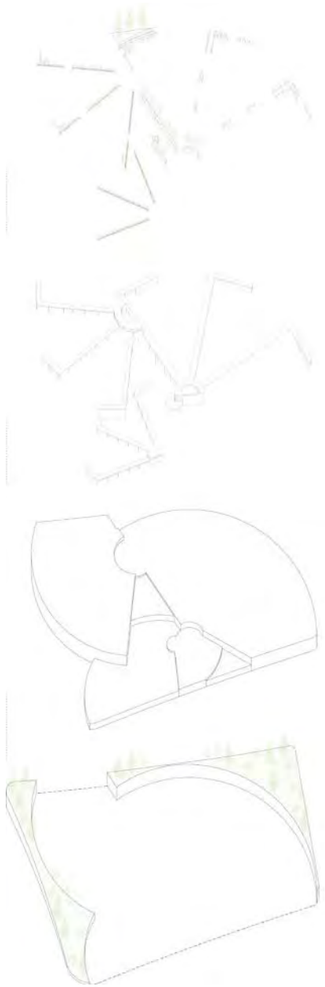


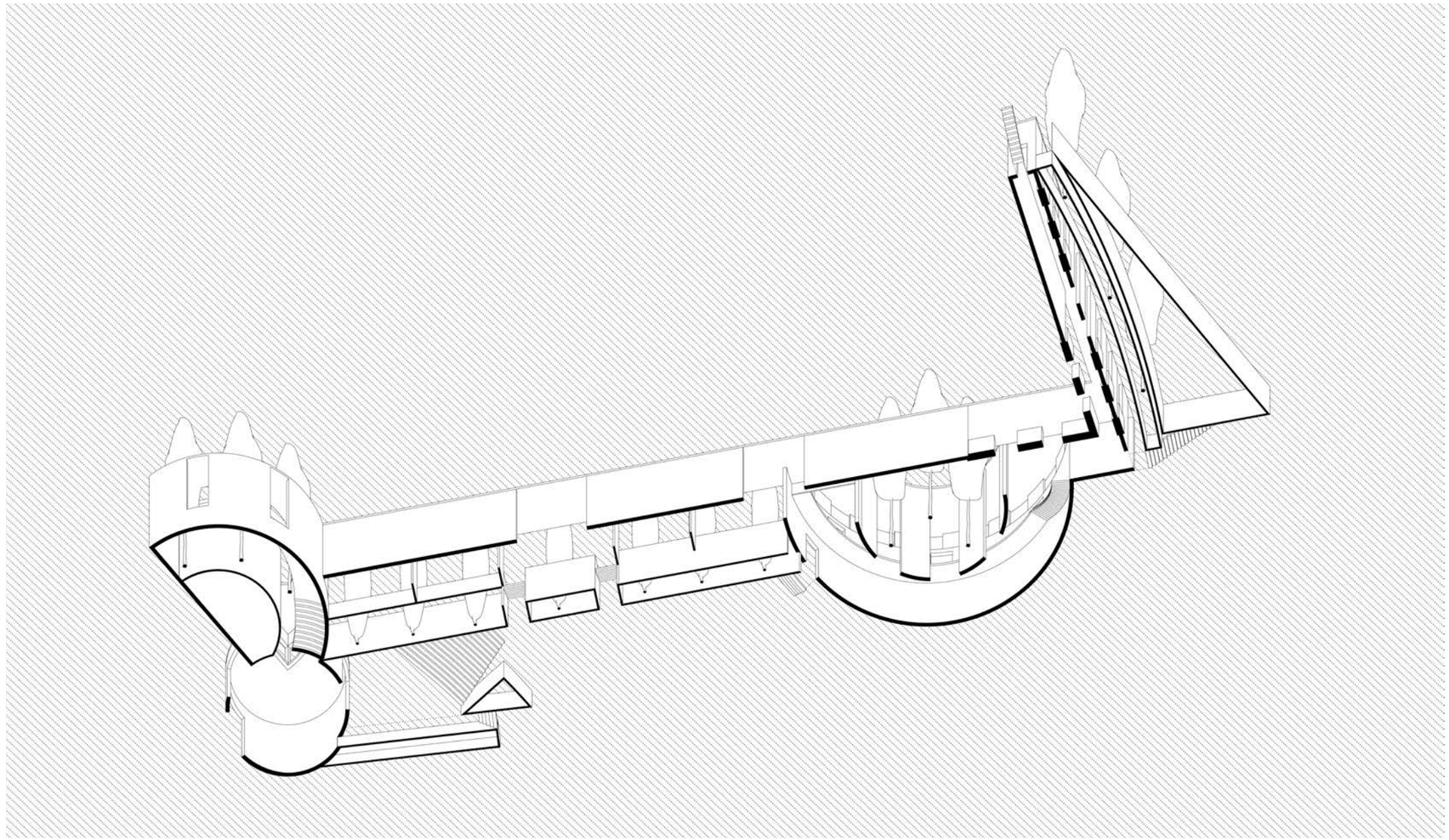

entrance
outdoor cinema
playground
lounge
park
sports area
park
lounge
admin.
mail room
coffee
Bicycle Room
entrance
SITE PLAN
0
10
30
60
1"=30'-0"

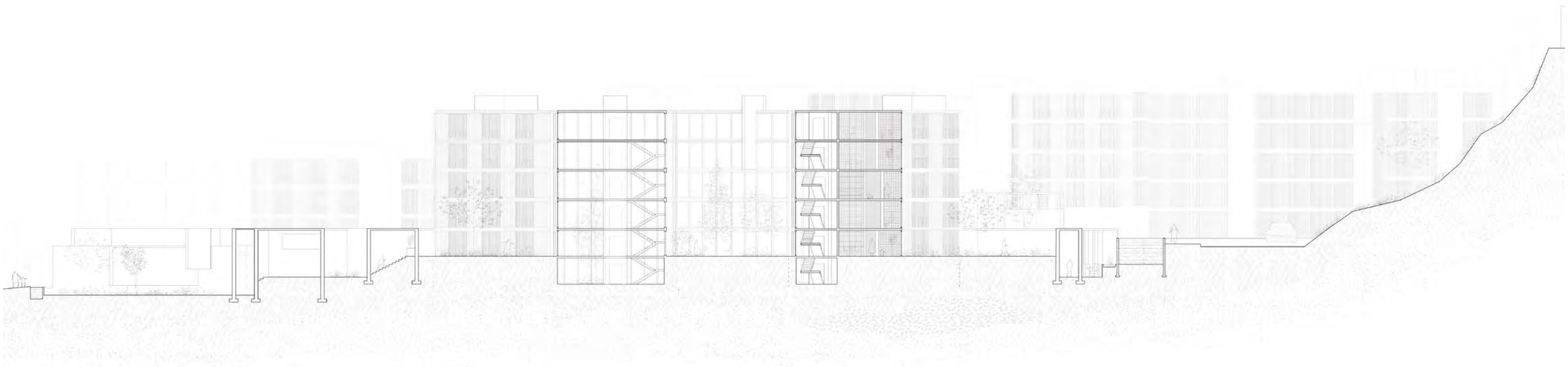
The site is structured through the rotation and connection of L-forms, guided by geometric reference lines, creating a division between a freeform natural landscape park and a stepped residential activity zone.

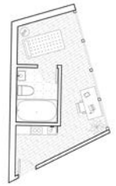
Three sets of cloisters in varying sizes, each consisting of three interconnected segments, allow residents to seamlessly navigate through different areas of the community. One side of the cloister connects to each residential unit, while the other remains semi-open, offering both visual and physical access to the outdoor landscape. Concrete panels, serving as structural columns, evenly segment the cloisters and incorporate built-in seating areas with sofas and tables, fostering social and recreational spaces for residents.

Each group of three L-form cloisters is rotated around a central reference point, where their intersections form the community center. This hub houses essential amenities such as the administrative office, a café, and communal spaces, reinforcing the project's vision of a connected, dynamic, and sustainable living environment.

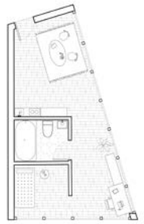




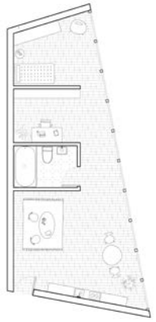




UNIT PLAN - 1B-1 234SQFT



UNIT PLAN - 1B-1 670SQFT



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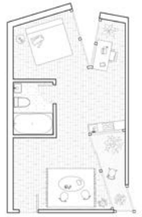

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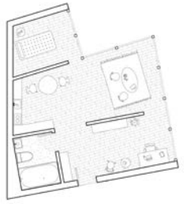

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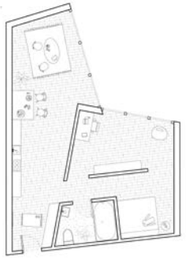
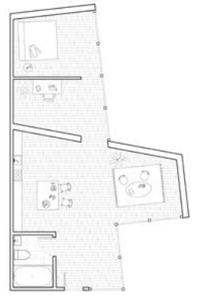
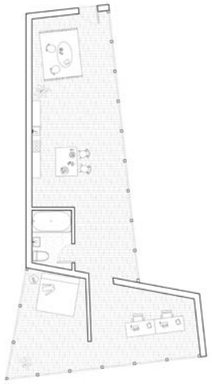


UNIT PLAN - 1B-2 767SQFT



UNIT PLAN - 1B-3 840SQFT

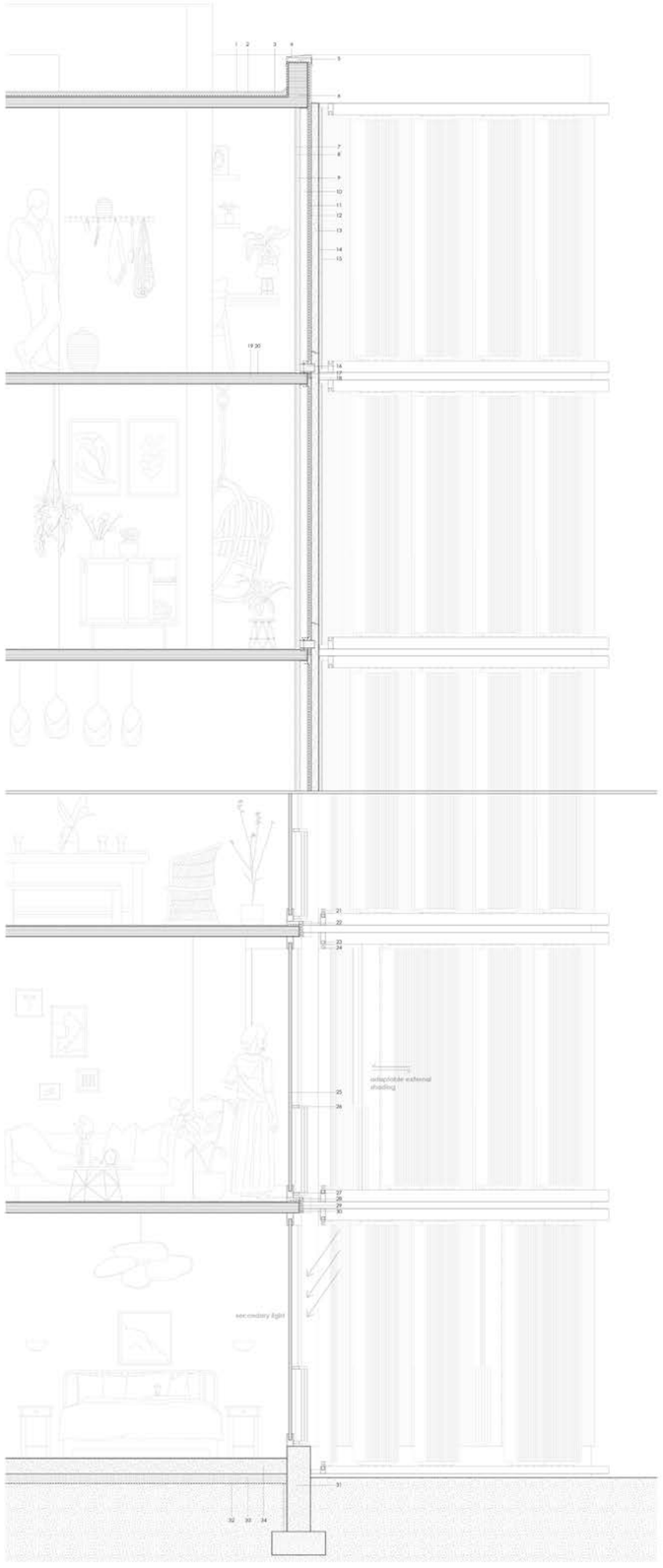


UNIT PLAN - 1B-3 1080SQFT

UNIT PLAN - 2B 1138SQFT

RESIDENT UNIT 1B-1

CLOISTER



ROOF ASSEMBLY

1. EPDM roof membrane
2. cork insulation
3. water barrier
4. flashing
5. stucco parapet
6. CLT roof panel

SOLID WALL AND FACADE ASSEMBLY

7. wall finishing
8. gypsum sheathing
9. interior gypsum board
10. stud cavity
11. polystyrene air vapor membrane
12. rigid insulation
13. precast concrete panel
14. hooks
15. aluminum facade cladding

CONNECT POINT ASSEMBLY

16. spray insulation fill
17. cast - in - place anchor
18. fireafing and smoke seal

FLOOR ASSEMBLY

19. CLT floor panel
20. hardwood flooring

SHADING CHANNEL ASSEMBLY

21. driving axis
22. bracket
23. aluminium track
24. head gear

JUJET BALCONY ASSEMBLY

25. double glazing
26. railing
27. door frame

CONNECT POINT ASSEMBLY

28. gypsum bottom plate
29. rigid insulation
30. polystyrene air vapor membrane

FOUNDATION ASSEMBLY

31. concrete footing
32. polystyrene moisture barrier
33. extruded polystyrene insulation
34. concrete floor slab

04

X

OPEN PLAN ART STUDIO

Spring 2024 / Academic Project / In Collaboration with Henry Peters / Pezo Von Ellrichshausen

La Pampa in Argentina / Foot Print: 2500 m² (26910 sqft)

This poetic art studio blends creation, social interaction, and living, uniting art, architecture, and nature. More than a workspace, it fosters both solitude and collaboration through geometry, spatial relationships, and ecological systems, forming an evolving landscape for artistic practice and community life.

Situated in La Pampa, Argentina, the studio lies between a dense tree cluster and a solitary tree. Its X-shaped design anchors it within vast agricultural fields, aligning with the 45-degree rural grid and connecting to Vértiz via a direct path.

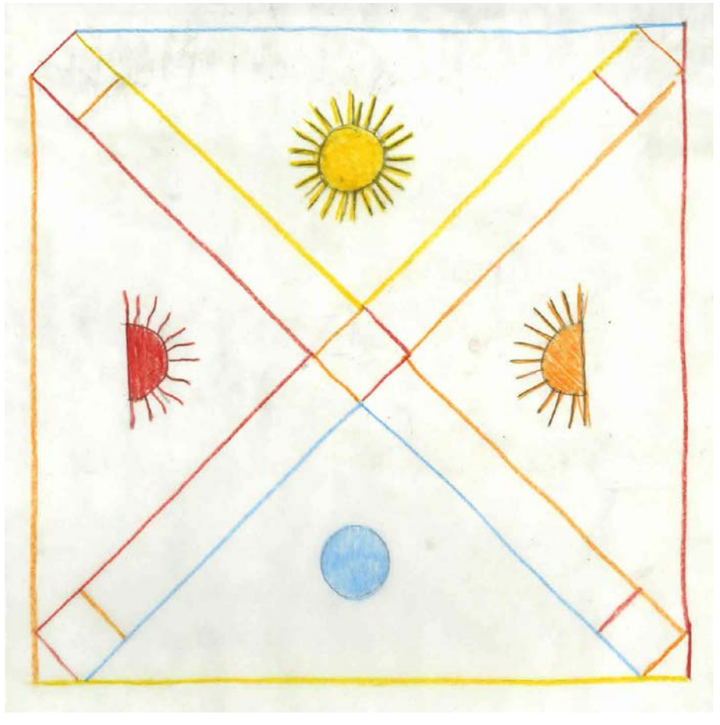
The X-shaped layout divides the space into four quadrants around a central void, balancing public and private areas. A garden of concentric squares integrates vegetation and open space, while a rippling pool shapes paths and gathering spots. The art workshop, enclosed by perforated brick walls, merges interior and exterior, while the residential space, beneath a vaulted ceiling, frames expansive views.

Built with brick and concrete, the studio contrasts white walls with vibrant orange floors and ceilings. A brise soleil, created by removing every third brick, filters air and light. Rainwater from the vaulted roof irrigates Ceiba trees and a moon garden. At its axis, a sculpted face marks the seamless union of architecture, art, and nature.

This project was nominated by facauty for the UC Berkeley CED Design Excellent Award.

The Mark in the Field, acrylic on paper, 40x40cm, 2024

After The Storm, acrylic on paper, 40x40cm, 2024

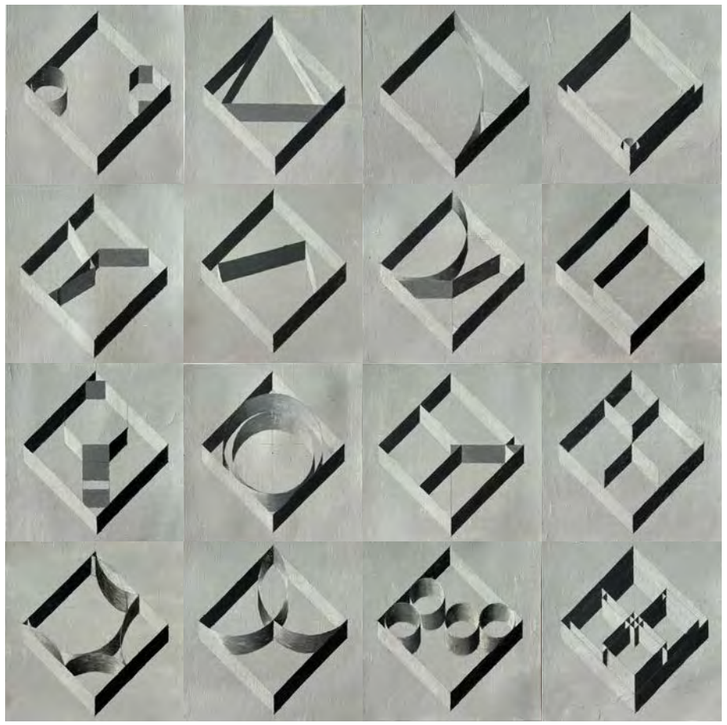


ENWS Sketch, colored penicl on trace paper, 40x40cm, 2024

This structure stands at the intersection of Sky and Earth in the vast grasslands of La Pampa, Argentina. Four white-painted brick walls define a protected garden within the open landscape. Two circular openings face each cardinal direction, while a chamfered northwest corner reveals a brick vault, extending views across the structure. Light bands illuminate the vault, mirroring the rainbow above.

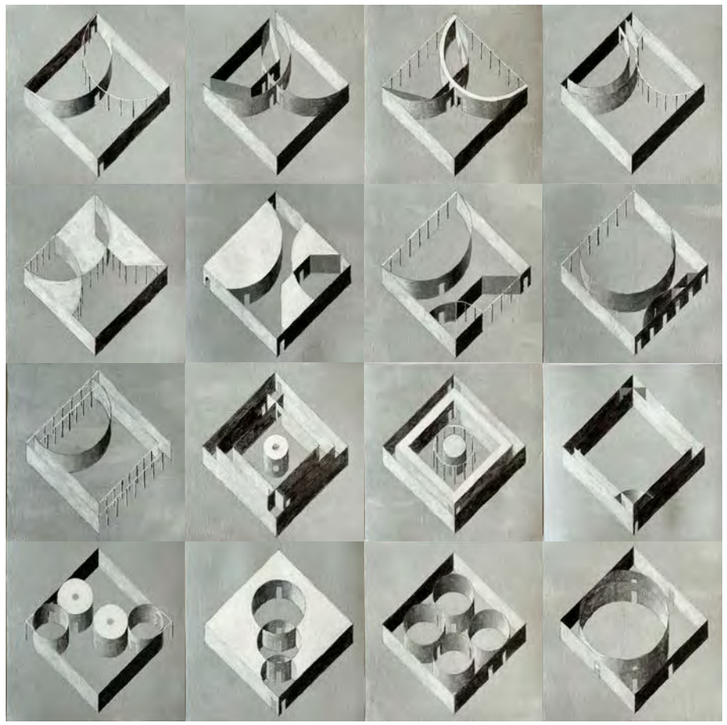
How to make a mark in a field? “X marks the spot.” In this infinite flatland of agricultural production, this structure creates a sense of place by marking the space between a mass of trees and one lonely tree with an X. The space between the trees is reconfigured, the fit is snug. A path connects the structure to the rural road, which links directly to the small town of Vértiz. The structure echoes the 45-degree rotation of rural grids that divide the landscape.

The X-shaped form divides the structure into four equal quadrants, converging at a central nucleus that organizes all spaces. Each quadrant has distinct characteristics shaped by sunlight—one embraces the sunrise, another the sunset, one endures midday heat, and one remains in shadow. This interplay of light and space defines its architectural essence.



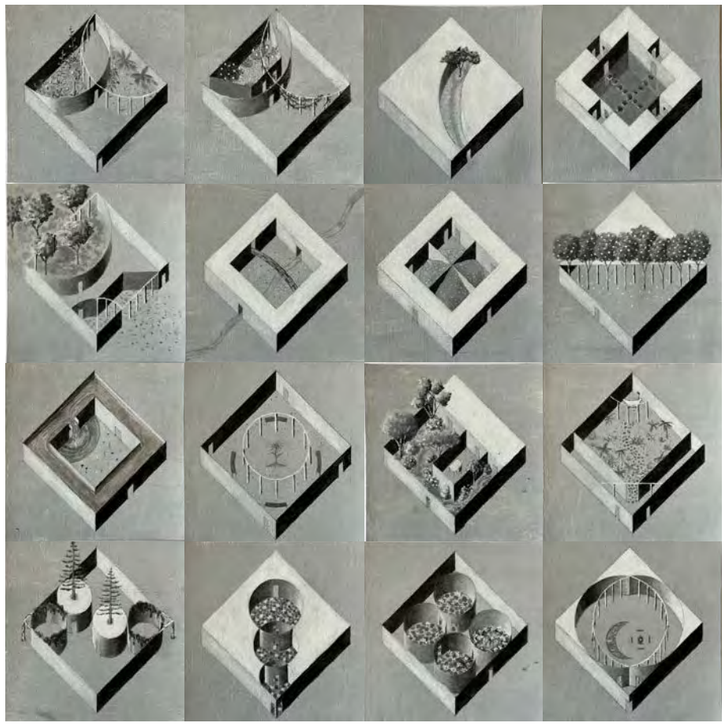
INVENTORY 1: STRUCTURE - A STUDY ON SPATIAL STRUCTURE

acrylic on paper, 20x20cmx16, 2024



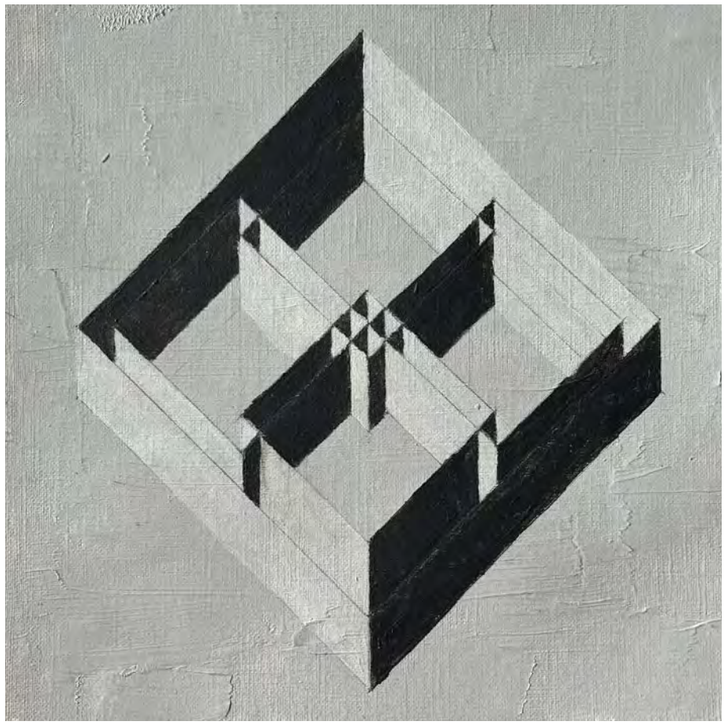
INVENTORY 2: CHARACTER - A STUDY ON SPATIAL CHARACTER

acrylic on paper, 20x20cmx16, 2024



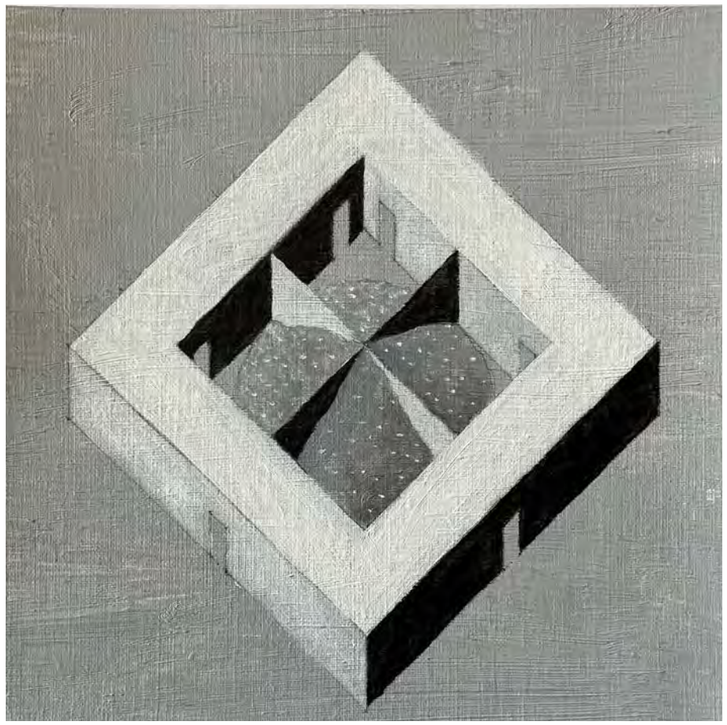
INVENTORY 3: INHABITATION - A STUDY ON FORMS OF LIFE

acrylic on paper, 20x20cmx16, 2024



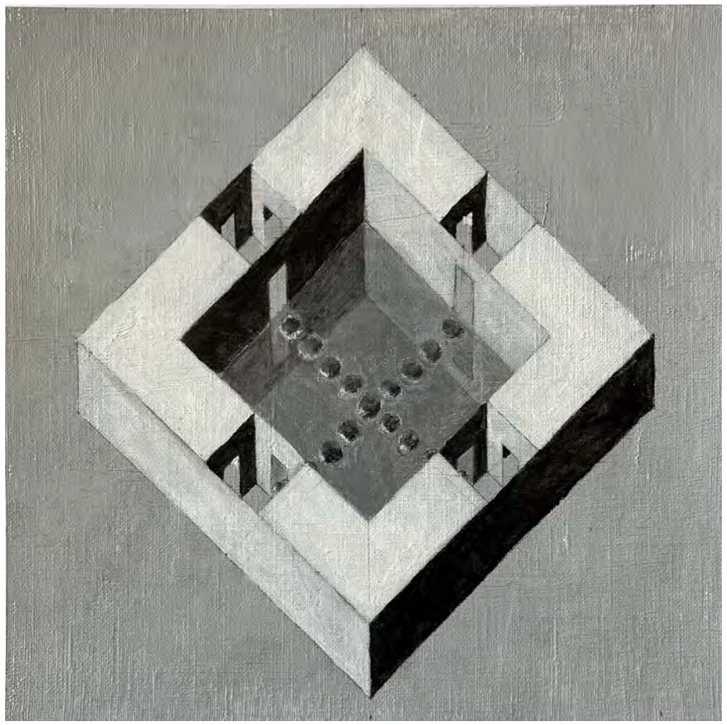
the X, acrylic on paper, 20x20cm, 2024

At the center of an X, a Cross, is inherently a energetically charged intersection point. This point represents the encounter between planes, between dimensions, the very source of life itself. Early inventory paintings explore how the combination of simple geometries can give specific character to the center. Here, four larger squares overlap, creating a diversity of proportions of space and a heavily chopped up center.



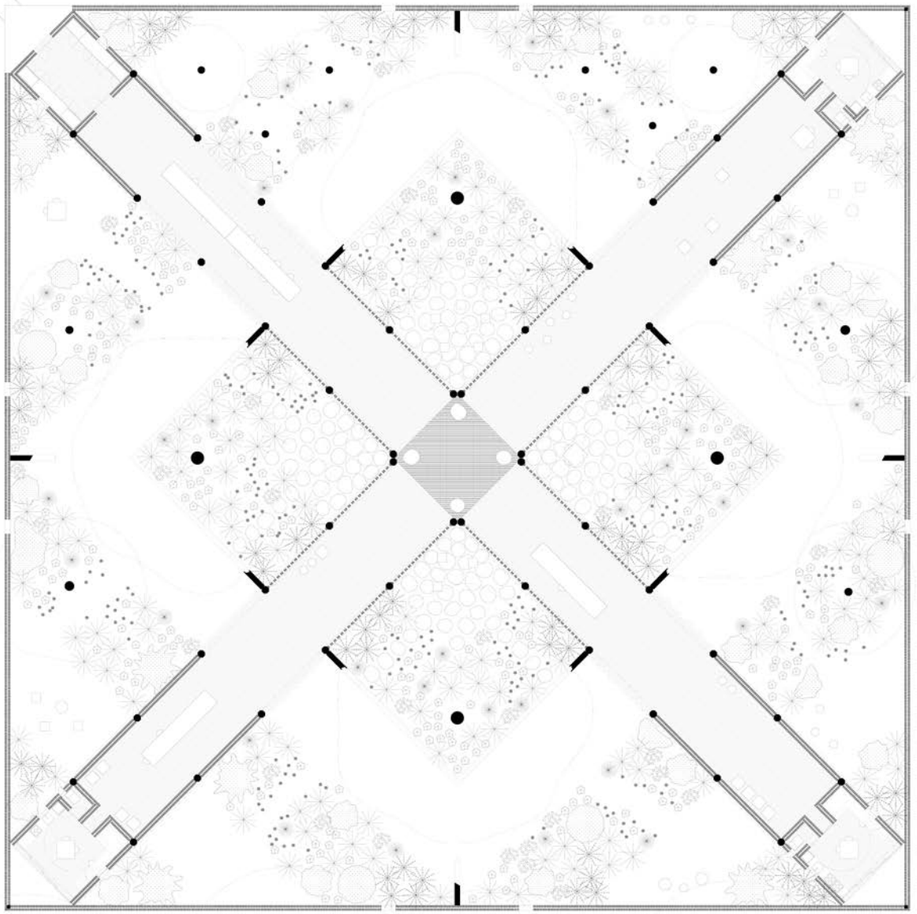
the Full, acrylic on paper, 20x20cm, 2024

A center can be full. In this painting, a hill occupies the center. It is divided by four walls, transforming the hill into a pile in the corner of each of the four exterior rooms. One may cross over the hill to get to the other side, where they will encounter an identical room. Although identical, each of the quadrants is given their own character when placed in relationship to the sun. To inhabit the center in this case, one must climb the hill and stand on top of the walls.



the Empty, acrylic on paper, 20x20cm, 2024

A center can be empty. This central space is flooded with water, eliminating the ground plane and reflecting the sky. In order to reach the other side, one must carefully walk across the void, floating between sky above and sky below. This is a void, it is of a different order, it is a portal to another dimension. The spaces that flank the void are the same, yet through their orientation with the cardinal directions, they are inherently different.



GROUND FLOOR PLAN

Rings, acrylic on paper, 40x40cm, 2024

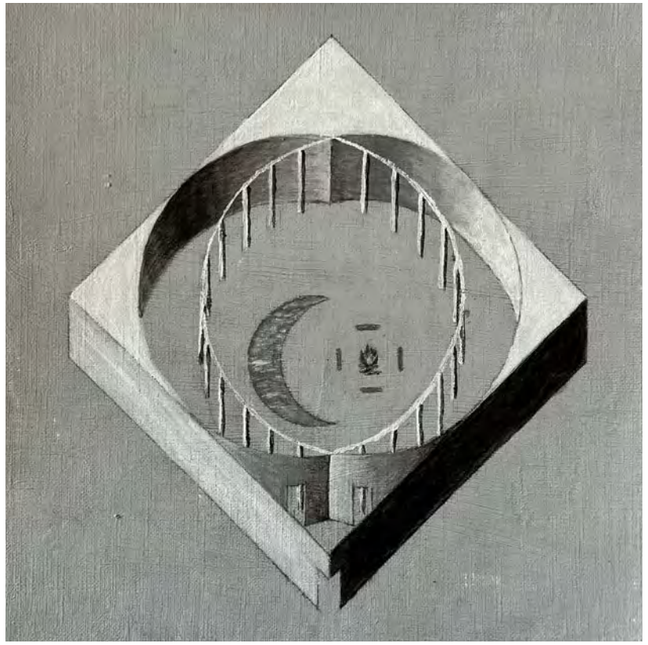
Four equal wings rotate around a central void, serving as the interface between near and far, private and collective. Intimacy is shaped by distance—the farther from the void, the more personal the space becomes. The void both divides and connects, extending corner to corner through the overhead vault. Though the wings appear identical, each is unique.

Linking the wings, concentric squares form the garden, balancing vegetation and open space, creating harmony between plants and people. The garden ripples outward, like waves from a stone dropped into the central pool, until meeting the perimeter wall. Four towering Ceiba trees stand at the heart of each triangular garden, acting as guardians of the void.

The Moon Garden, acrylic on paper, 40x40cm, 2024

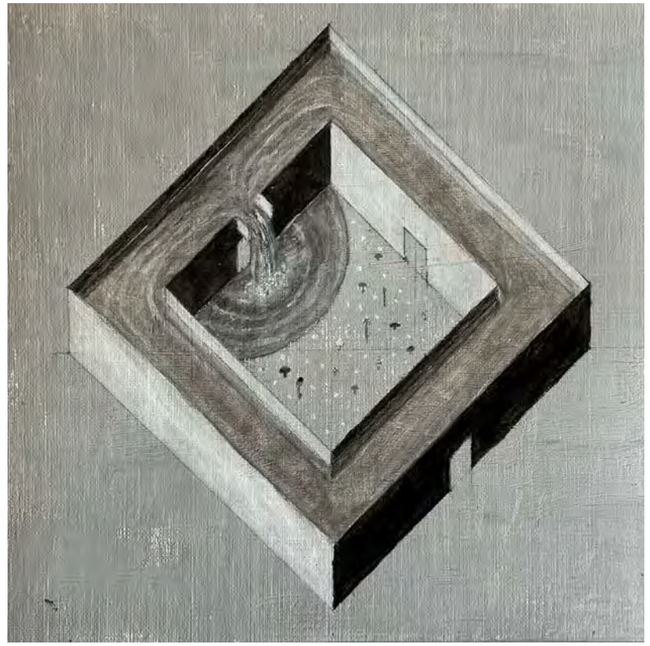
The Waterfall Garden, acrylic on paper, 40x40cm, 2024

The Rippel Garden, acrylic on paper, 40x40cm, 2024



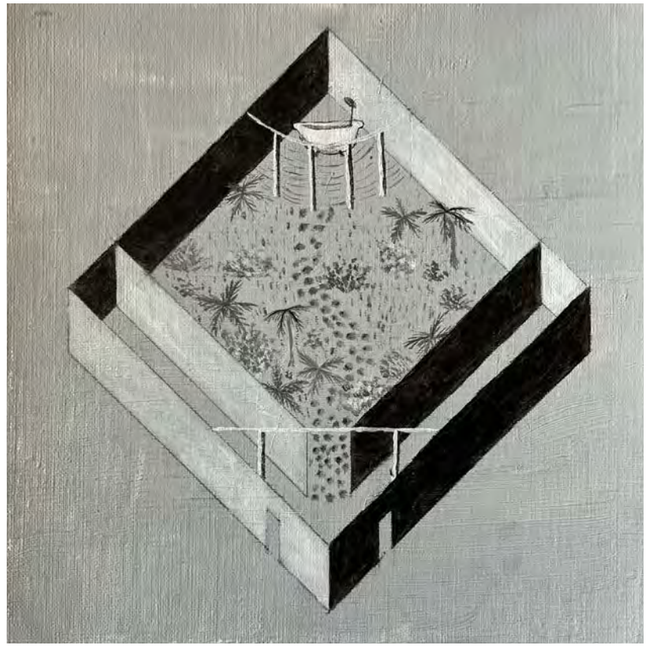
The Cosmos Courtyard, acrylic on paper, 20x20cm, 2024

The garden is a cosmic space shaped by fire, water, sun, and moon. Two intersecting circles create three zones, with a crescent-shaped pool symbolizing the moon and a fire pit representing the sun. Beneath four Ceiba speciosa trees, a moon garden glows with wispy grasses, white umbel flowers, and reflective leaves. An outdoor room at its edge offers a quiet retreat with framed views. In Central and South American mythology, Ceiba trees stand at the four corners of the universe, linking sky and earth, embodying strength and transformation.



The Waterhall Room, acrylic on paper, 20x20cm, 2024

Architecture can shape and sustain ecosystems, actively collaborating with nature to create new environments. This study explores water collection and distribution, where rainwater from the vaulted roof flows into the courtyard, creating a humid microclimate. An irrigation channel nourishes the Ceiba speciosa (Palo Borracho) and the moon garden, with water cascading down the buttressed slope. A sculpted face at the axis serves as a landmark, guiding passage into the garden.



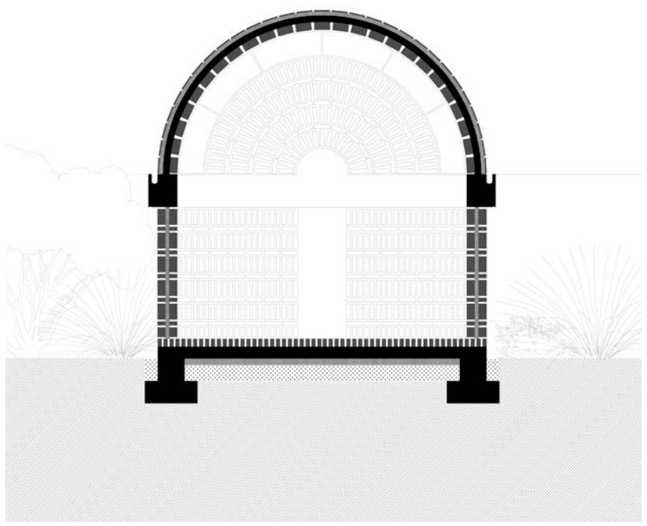
An Altogether World, acrylic on paper, 20x20cm, 2024

The central water feature enriches the structure with sensorial effects—cooling the air, reflecting sunlight onto the brick vault, and at times aligning with the skylight, creating a striking void. A painting hints at its shared use by humans and nature, framing a garden at the center, an entrance at one corner, and a bathtub at another. It captures the intimacy of the courtyard, a private retreat within an open space, where distance defines intimacy, allowing one to reflect on the collective beyond.

Between Center and Periphery, acrylic on paper, 40x40cm, 2024

Sunlight Cave, acrylic on paper, 40x40cm, 2024

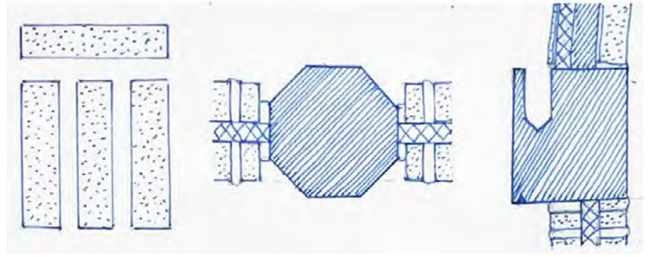
One Glance, acrylic on paper, 40x40cm, 2024

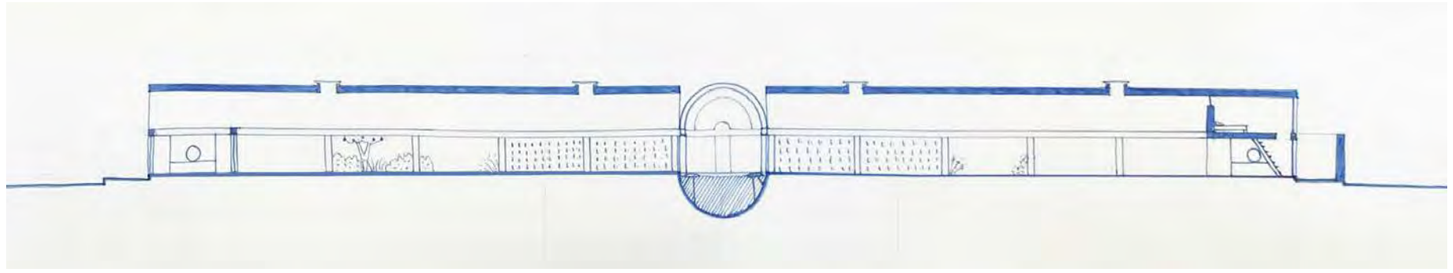


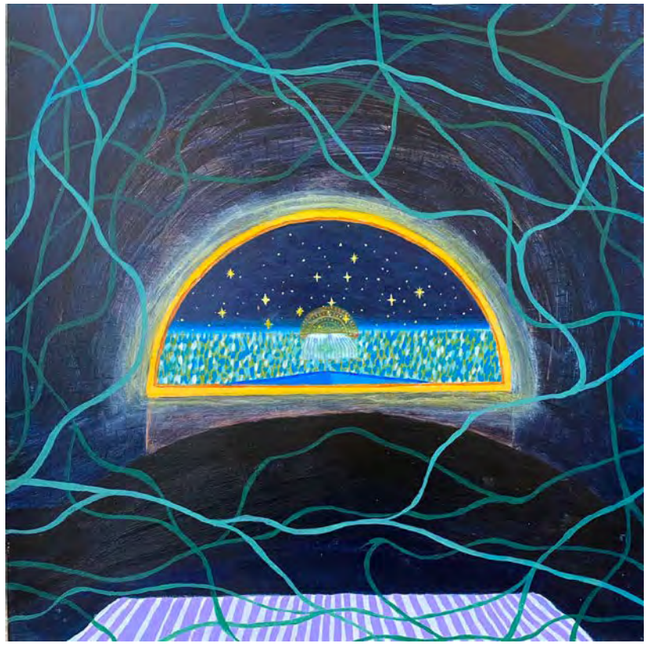
DETAIL SECTION

The brick pattern alternates between vertical and horizontal bands, applied uniformly across the floor, walls, and vaulted ceiling. The walls are painted white, while the floor and ceiling remain unpainted, revealing a vibrant orange hue. Concrete pillars and beams frame and protect the brickwork from rain.

A brise soleil is formed by removing every third brick in the vertical bands, creating a perforated surface distinct from the opaque walls near the dwelling units. This openness shapes each wing differently, allowing the moon garden's scents, shadows, and sounds to filter through. When inhabited by an artist, the walls become a canvas, blending real and imagined landscapes, where pigments and flowers, near and far, merge into one.



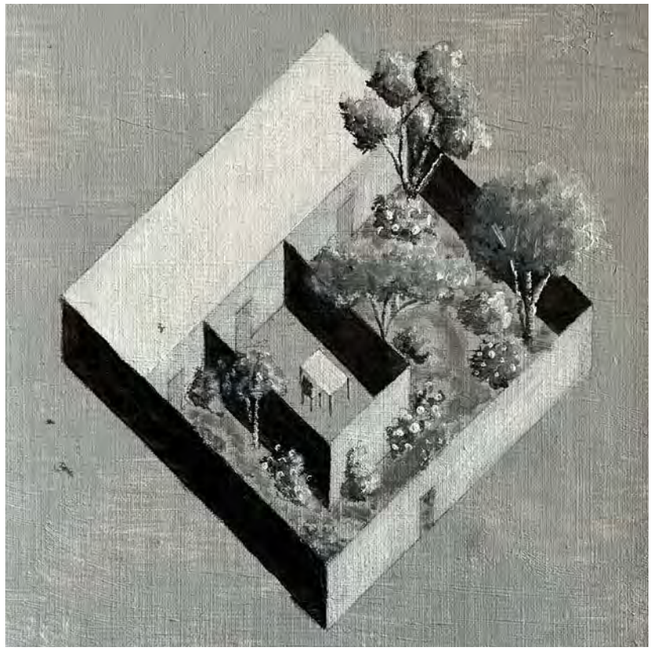




Dream, acrylic on paper, 40x40cm, 2024

Minimum Dewlling Units, acrylic on paper, 40x40cm, 2024

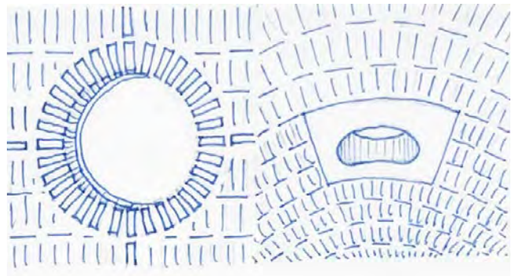
A Slice of the Sky, acrylic on paper, 40x40cm, 2024

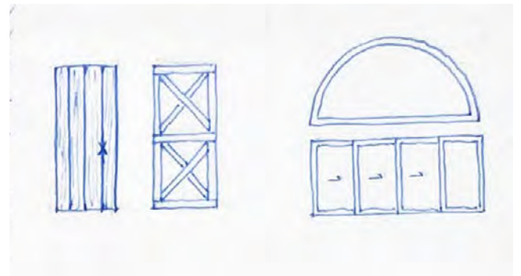


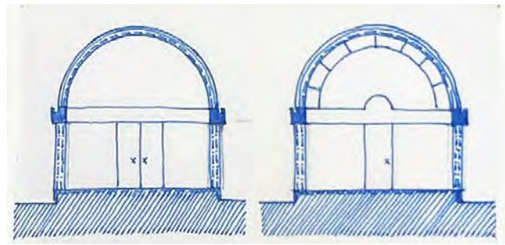
The Best of Both Worlds, acrylic on paper, 40x40cm, 2024

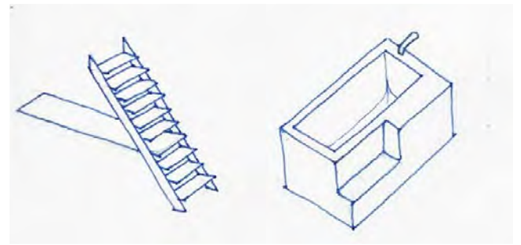
Above, one sleeps within the volume of the vault. The vault simultaneously protects and projects. It creates a sense of intimacy, cave-like, sleeping in the shadow and looking towards the light. This is the only space in the structure where one can see overtop of the 2.5 meter high perimeter walls and project their vision onto the horizon beyond. At night, one may see their own bed reflected onto the distant horizon.

On the inside, this half circle of brick acts like a headboard, again, architecture disguising itself as furniture just for a moment. This facade also caps the end of the studio space, creating a more intimate space for creative production, fit with solid walls and corners to accumulate furniture and matierals in order to produce art.







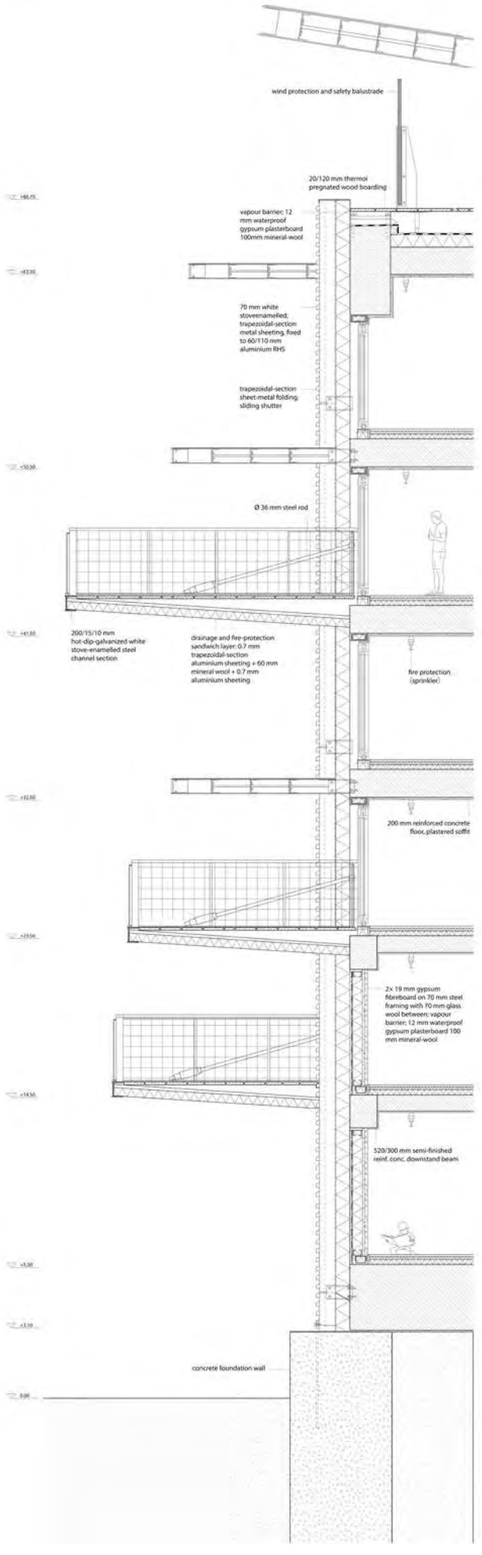


05 TECTONIC PRESIDENT STUDY - L'ARBRE BLANC
THE WHITE TREETOWER

Fall 2023 / Academic Project / In Collaboration with Zhuoer Chen, Yuhan Zhang / David Jaehning

TECHNICAL DRAWING

Scale: 1/16" = 1'-0"

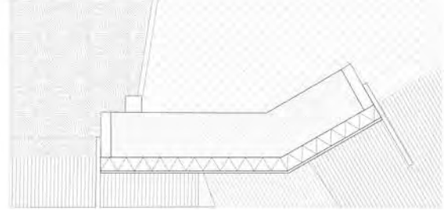


RENDERED ELEVATION

Scale: 1/16" = 1'-0"

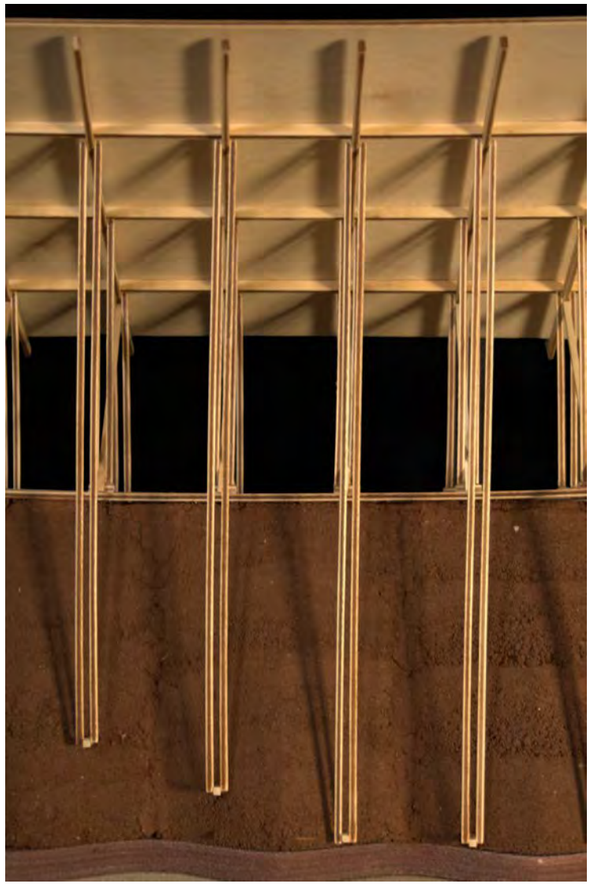
DETAIL PLAN

Scale: 1/16" = 1'-0"



06 EARTH ARCHITECTURE STUDY

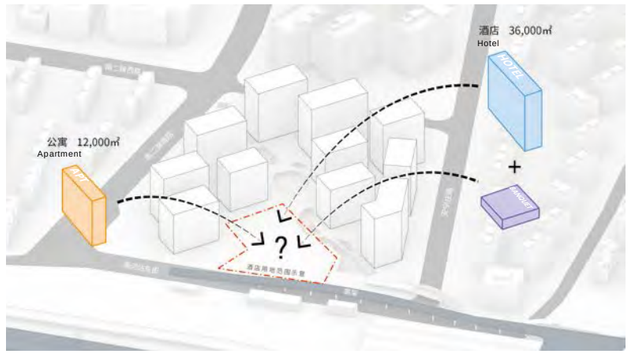
Fall 2025 / Academic Project / In Collaboration with Rachel Sherr, Yushao Wu / Ronald Rael



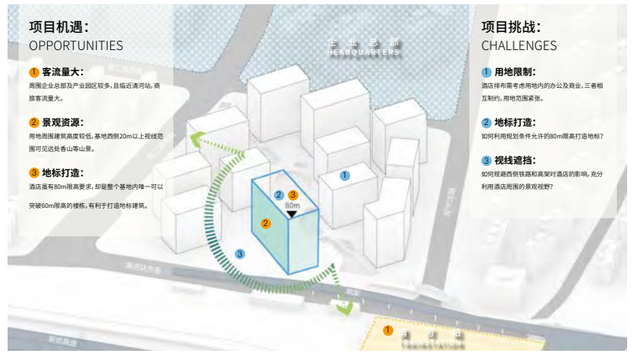
07 BEIJING ZHONGGUANCUN HEADQUARTERS PARK INTERCONTINENTAL HOTEL

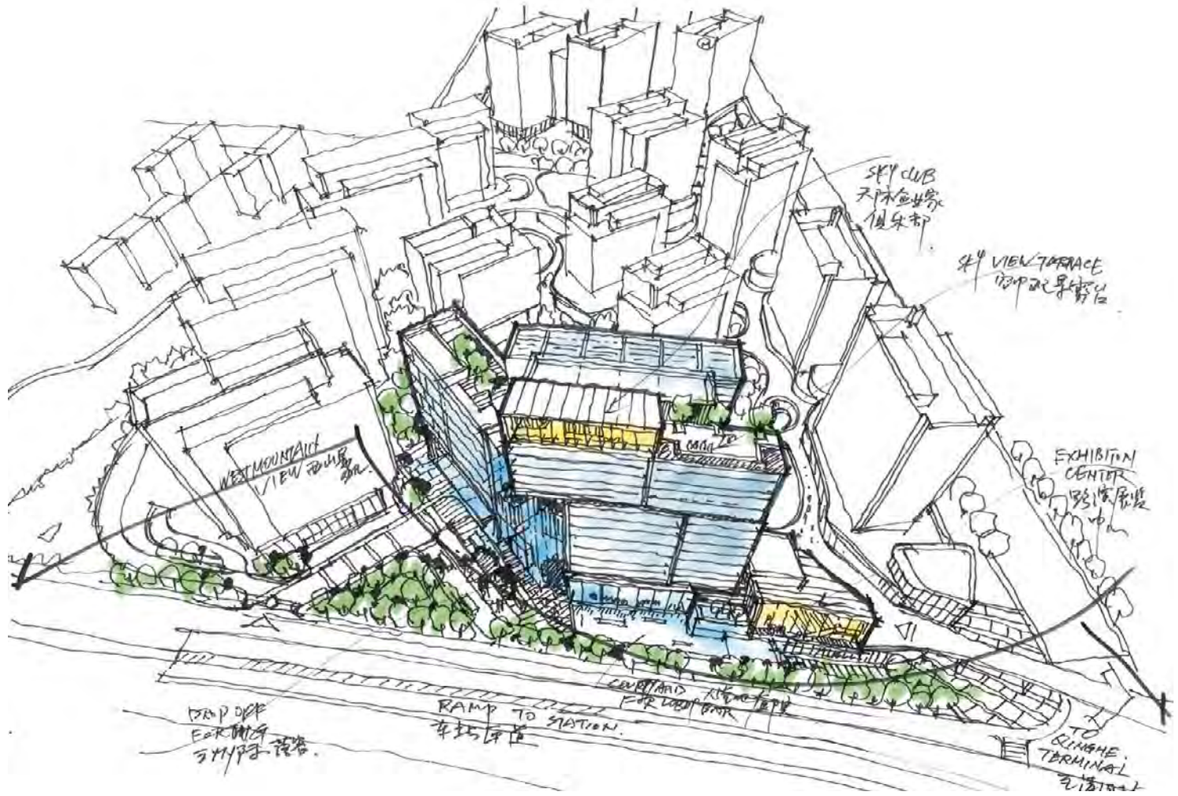
Summer 2024 / Professional Work / Project Architect: Johnny Chen / Phase: SD / Contribution: Site Analysis, Concept Development, BIM Model, Program Calculation

MASSING



OPPERTUNITIES & CHALLENGES





CONCEPTS

原始规划
ORIGINAL PLAN

优化落位
OPTIMIZED POSITIONING

视线通廊
VIEW CORRIDOR

海淀之门
THE GATE OF HAIDIAN

都市景框
URBAN WINDOW

都会立面
METROPOLITAN

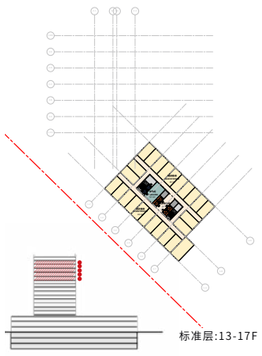
1ST FLOOR PLAN

2ND FLOOR PLAN

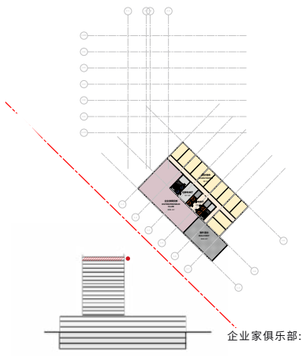
3RD FLOOR PLAN

B1 FLOOR PLAN

TOP FLOOR PLAN

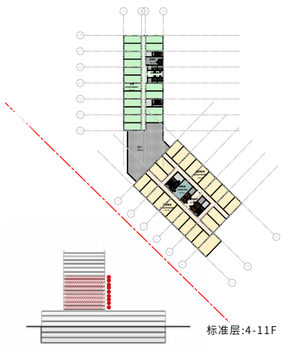


标准层:13-17F

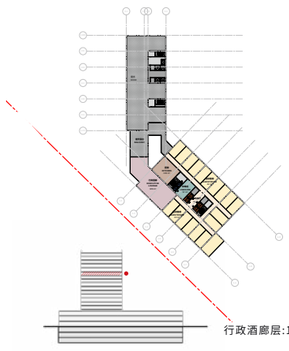


企业家俱乐部:18F

TYPICAL FLOOR PLAN



标准层:4-11F



行政酒廊层:12F

DESIGN COMPARISON

Economic and Technical Indicators

海开安宁庄洲际酒店					
空间用途 Function		单位	建筑总面积		备注
			面积	面积占比	
客房及套房	Guest RM	M^2	24840	57.9%	352个BAY 328个房间
餐饮及配套	Dinning RM	M^2	3000	7.0%	
宴会功能区	Banquet	M^2	6900	16.1%	
公共区	Public Area	M^2	1240	2.9%	
健身娱乐	Gym	M^2	1050	2.4%	位于B1层
行政管理	Admin.	M^2	350	0.8%	位于B1层
后勤区	Logistics Area	M^2	2050	4.8%	位于B1层
设备机房	MEP	M^2	3447	8.0%	位于B1,B2层
地上	Above Ground	M^2	**35980**	83.9%	
地下	Underground	M^2	**6897**	16.1%	
合计		M^2	**42877**	13.6%	

每间客房平摊面积(area per key) 130平方米
每自然间平摊面积(area per bay) 121平方米

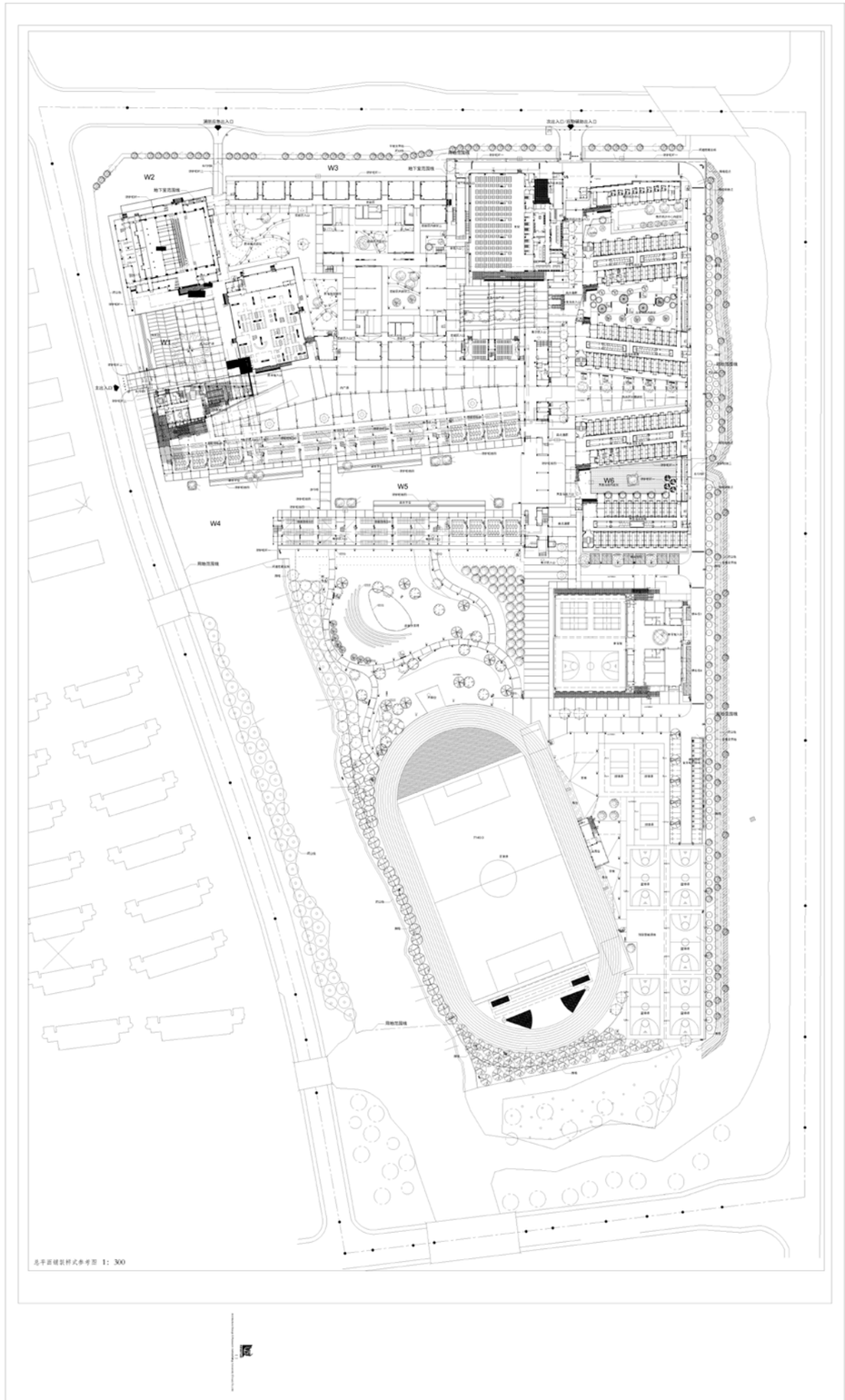
HOTEL 酒店					
LEVEL	PRIMARY PROGRAM	F-F HEIGHT	FL ELEVATION	GFA_L-ZONE-APT	BAYS
	TOP OF PARAPET		79.0		
	ROOF	1.8	77.2	250	
L18	CLUB	5.1	72.1	1000	
L17	HOTEL	3.8	68.3	1900	29
L16	HOTEL	3.8	64.5	1900	29
L15	HOTEL	3.8	60.7	1900	29
L14	HOTEL	3.8	56.9	1900	29
L13	HOTEL	3.8	53.1	1900	29
L12	HOTEL	3.8	49.3	1570	23
L11	HOTEL	3.8	45.5	1570	23
L10	HOTEL	3.8	41.7	1570	23
L9	HOTEL	3.8	37.9	1570	23
L8	HOTEL	3.8	34.1	1570	23
L7	HOTEL	3.8	30.3	1570	23
L6	HOTEL	3.8	26.5	1570	23
L5	HOTEL	3.8	22.7	1570	23
L4	HOTEL	3.8	18.9	1570	23
L3M	MECH	2.1	16.8	0	
L3	HOTEL	5.4	11.4	2400	
L2	HOTEL	5.4	6.0	5300	
L1	HOTEL	6	0.0	3400	
				35980	352

BUILIDNG	APARTMENT 公寓				
LEVEL	PRIMARY PROGRAM	F-F HEIGHT	FL ELEVATION	GFA_APT	BAYS
	TOP OF PARAPET		49.5		
	ROOF	1.8	47.7	200	
L11	APT	3.8	47.7	1100	
L10	APT	3.8	43.9	1100	
L9	APT	3.8	40.1	1100	
L8	APT	3.8	36.3	1100	
L7	APT	3.8	32.5	1100	
L6	APT	3.8	28.7	1100	
L5M	APT	3.8	24.9	1100	
L5	APT	3.8	21.1	1100	
L4	APT	3.8	17.3	1100	
L3	APT	3.8	13.5	750	
L2M	MECH	2.1	6.0	0	
L2	APT	5.4	8.1	200	
L1	APT	6.0	0.0	950	
				12000	

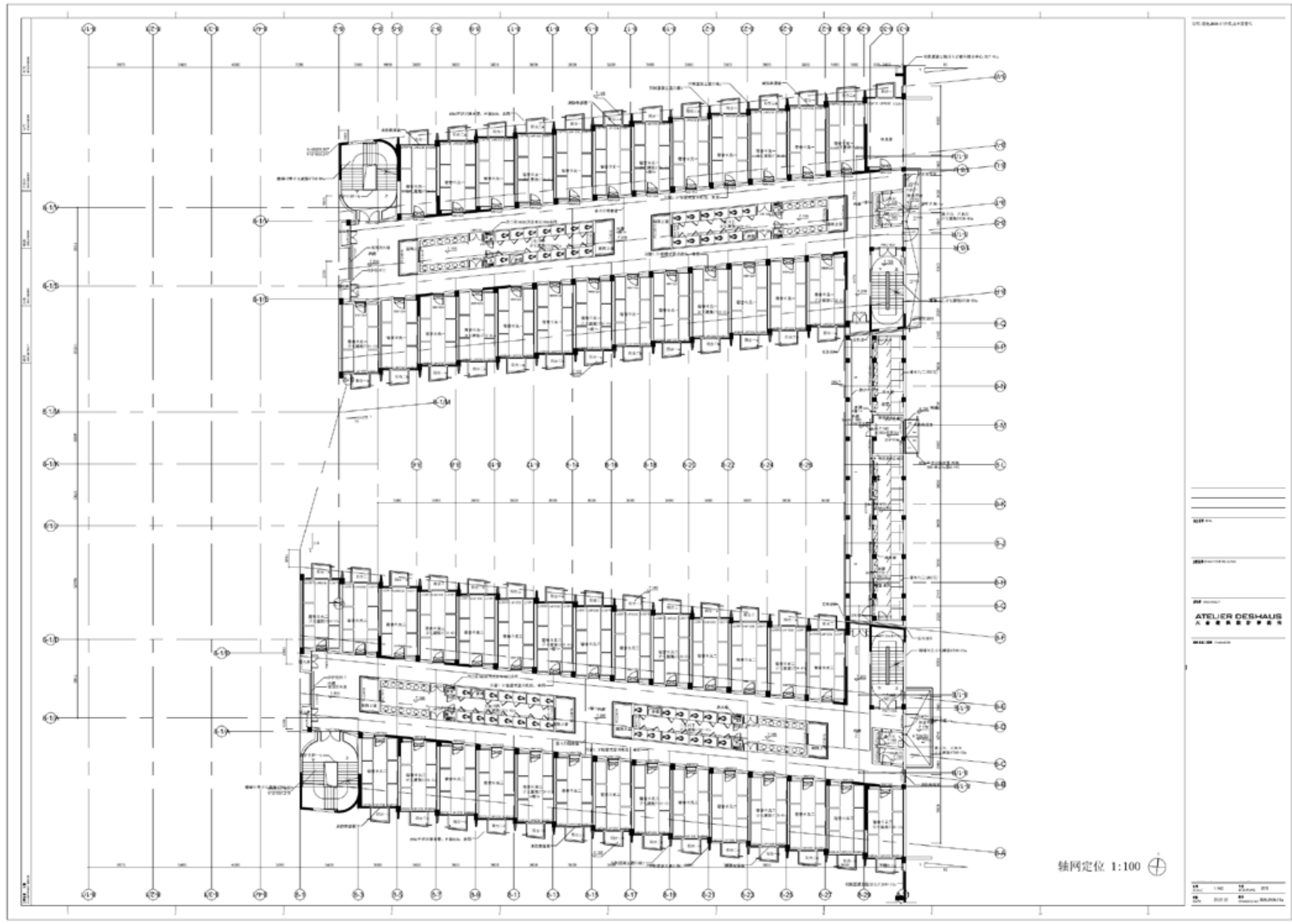
08 JINGXI HIGH SCHOOL

Summer 2023 / Professional Work / Project Architect: Shuyi Wang / Phase: CD / Contribution: BIM Model, Construction Drawings, Drainage System Detailing, Egress & Fire Protection Detailing

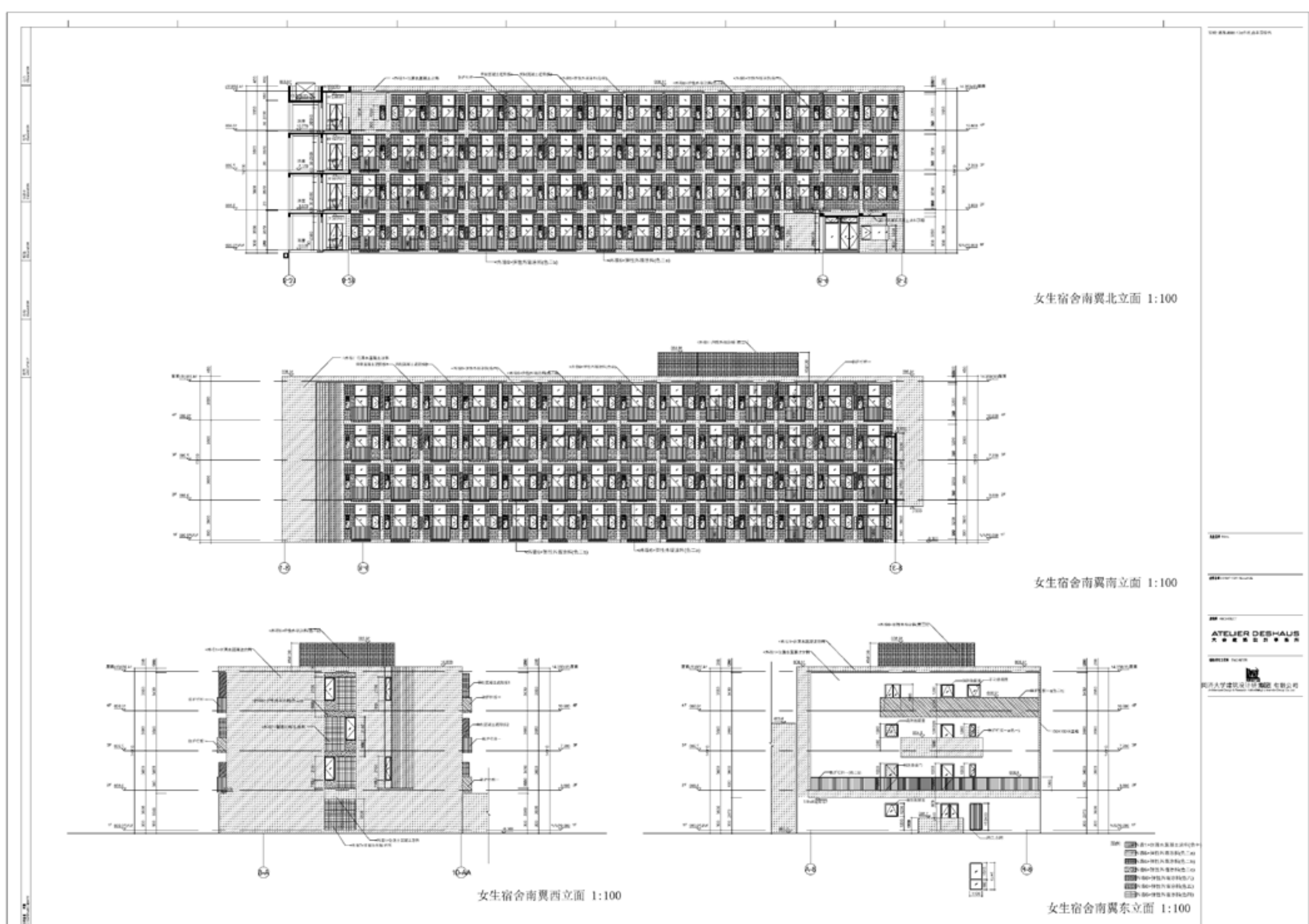
SITE PLAN



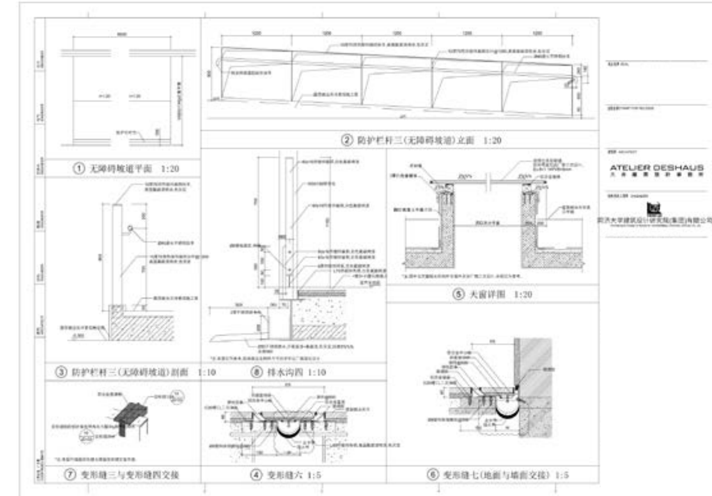
DORM PLAN

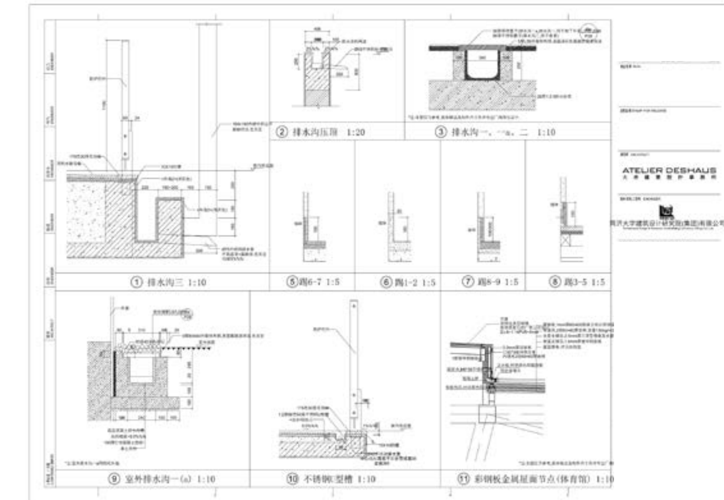


DORM ELEVATION



DORM PLAN





LIFE SAFETY - AUDITORIUM