GSAPP PORTFOLIO

Selected Work 2023-2024

Stacey Xiong

01 Form Finding at the Urban Scale

May 2023 - August 2023

Site: Rome, Italy

River Pedestrian Bridge Design

02 Air Stewardship in The Andes

September 2023 - December 2023

Site: Cotopaxi, Ecuador

Research with Air-water Infrastructure Design

03 Layered Urbanism

January 2024 - May 2024

Site: Rio de Janeiro, Brazil

Adaptive Reuse

04 The Green Mesh

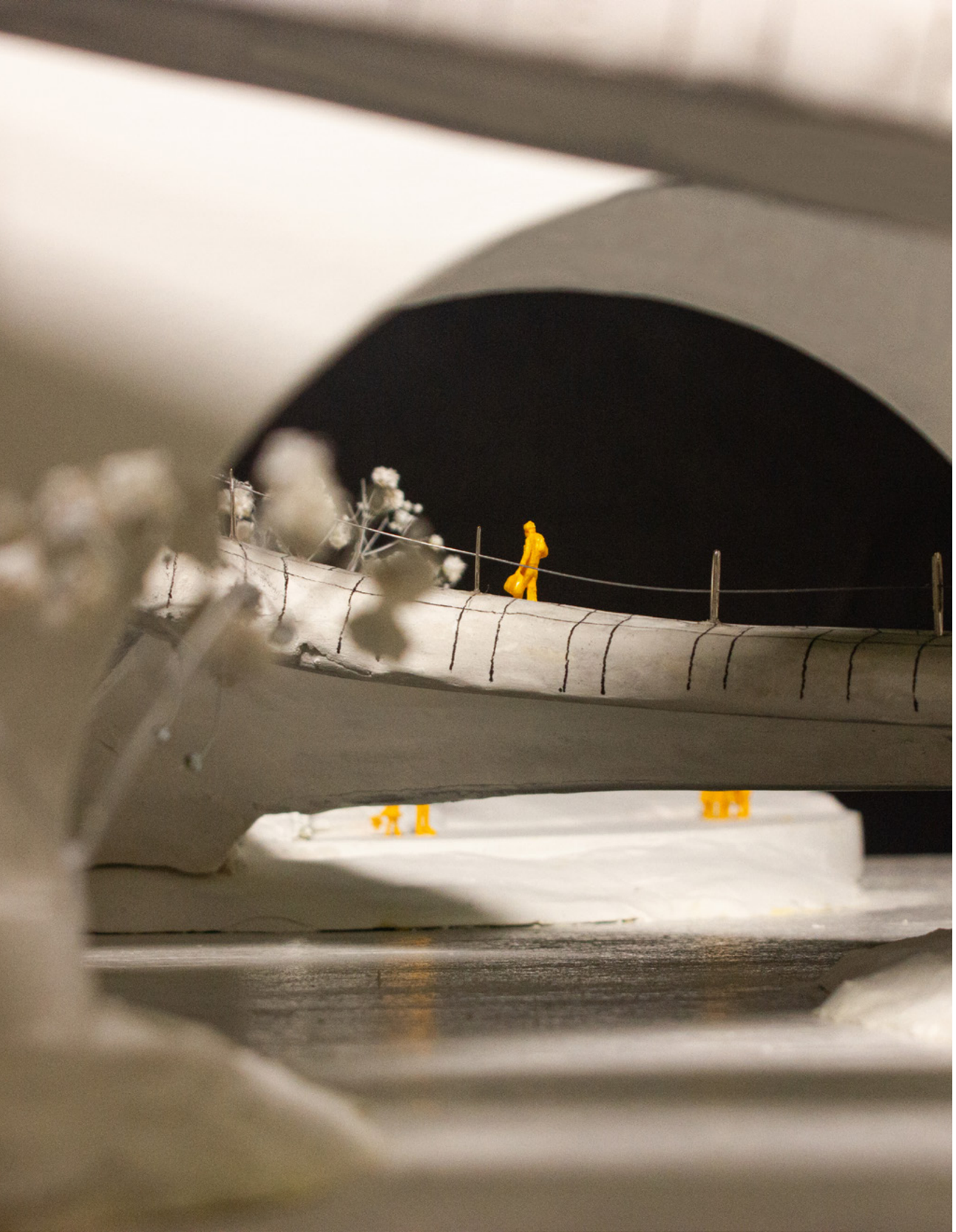
January 2024 - May 2024

Site: New York City, United States

BIM

05 Arch Photography

September 2023 - December 2023



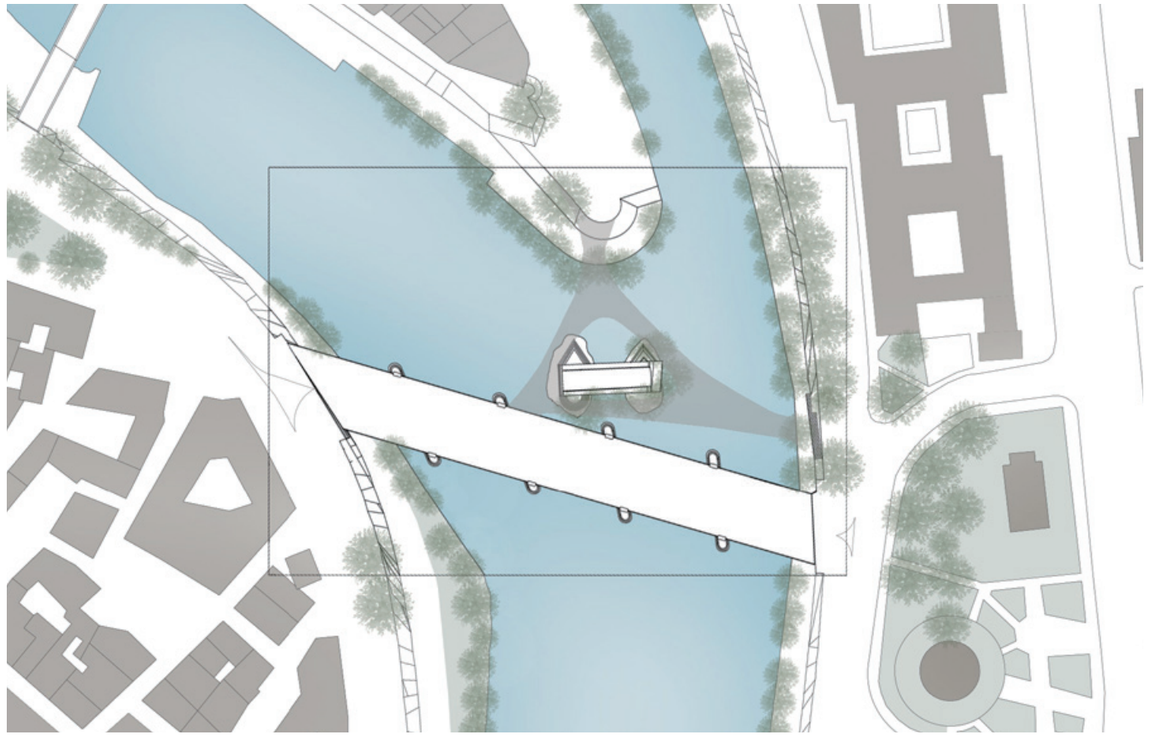
FORM FINDING AT THE URBAN SCALE

Design studio VI: A Proposal for River Pedestrian Bridge on the Tiber River
May 2023 - August 2023
Site: Rome, Italy
Professor: Elias Anastas and Yousef Anastas

Group Design Project

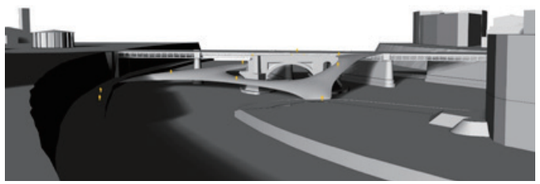
The project aimed to create a compression-only bridge constructed entirely from stone, linking Ponte Rotto, Tiber Riverwalk, Tiber Island, and Ponte Palatino. The primary goal was to revitalize the area, with particular emphasis on the ruins of Ponte Rotto, located in the middle of the Tiber River. In order to achieve a compression-only structure, the design utilized gravity to determine the slope and shape of the bridge. An algorithm was employed to refine and settle on the final shape. The compass method guided the stone joinery and all components were interconnected at angles conducive to the normal force.

PROPOSED PLAN



1.

2.



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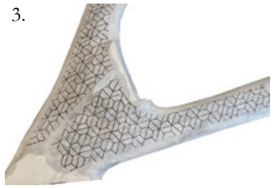
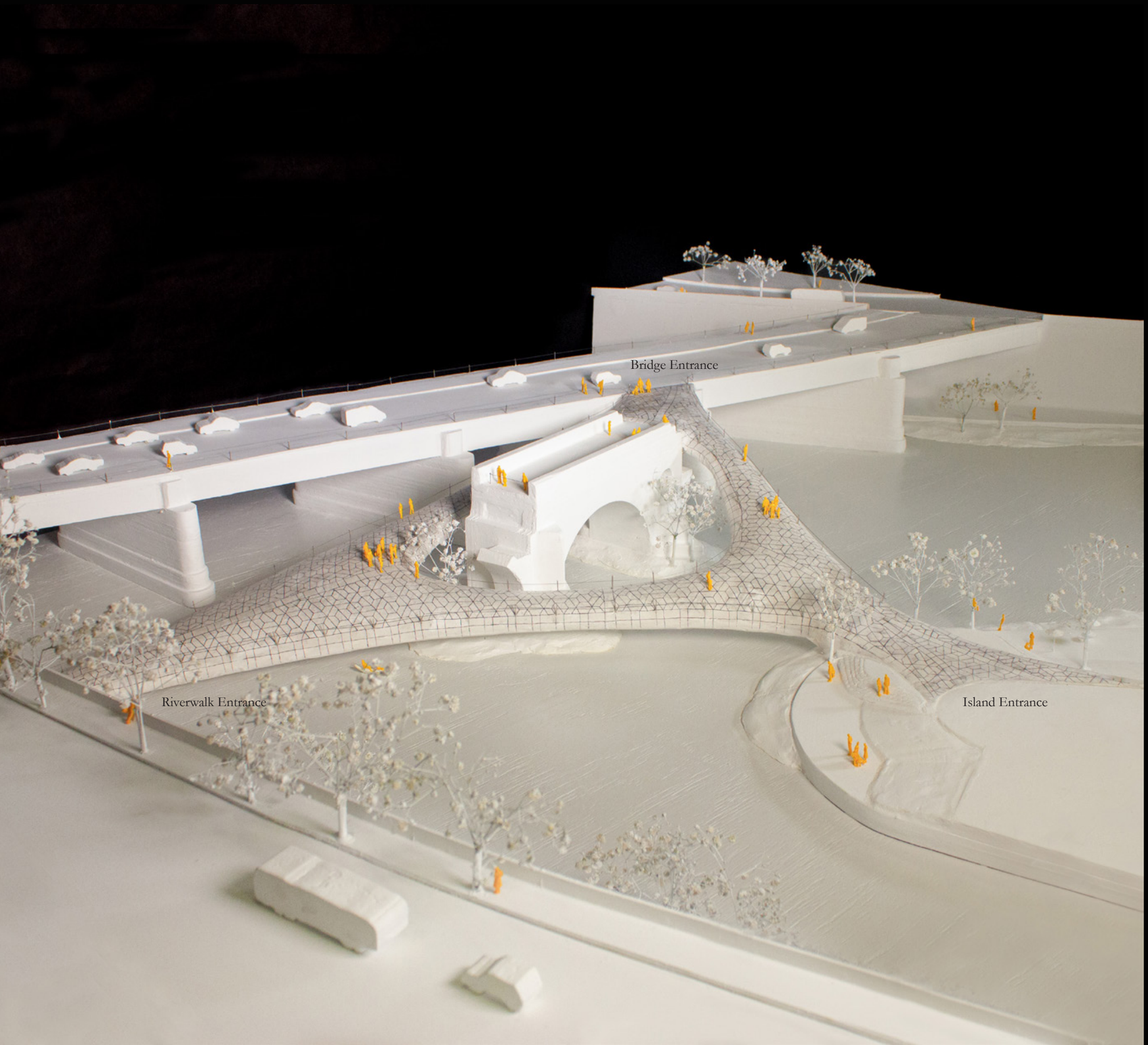


4.

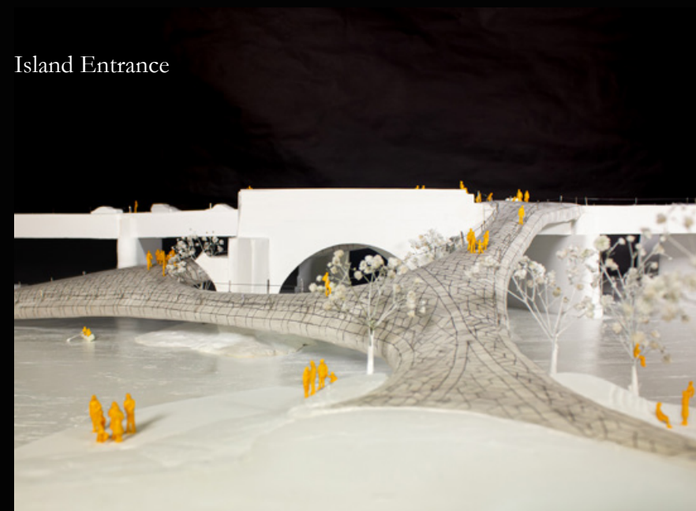
1. Physical Form Finding Model with Context
2. Rhino Form Finding Model with Context
3. Joinery Model Using Compass Method
4. Stereotomy Model

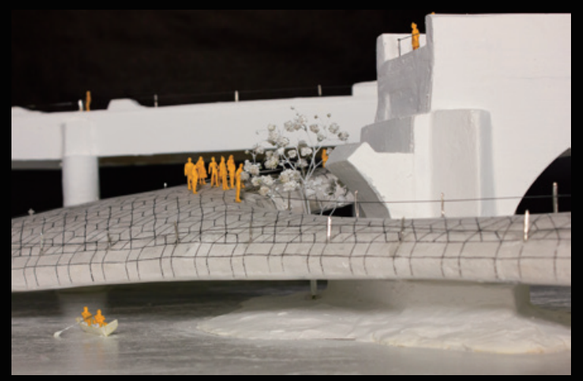
Media: Wood, Plaster
Size: 48inch*66inch*7inch

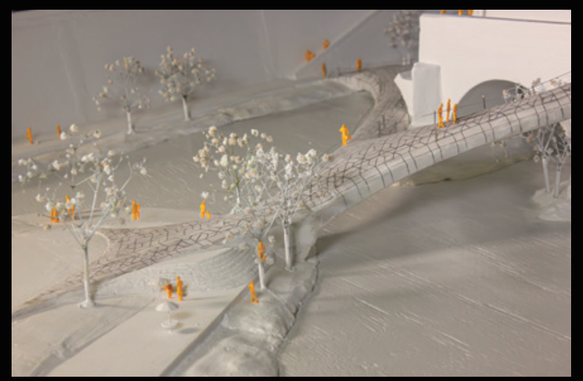

Bridge Entrance
Riverwalk Entrance
Island Entrance

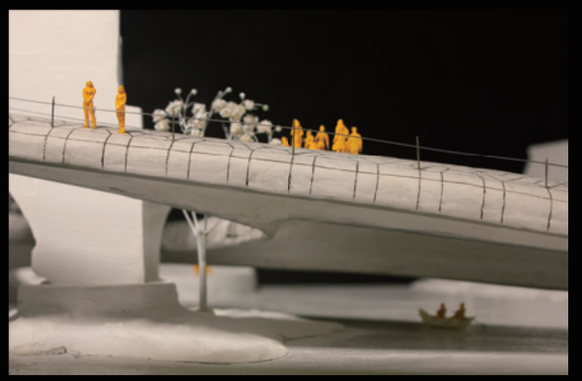

Bridge Entrance

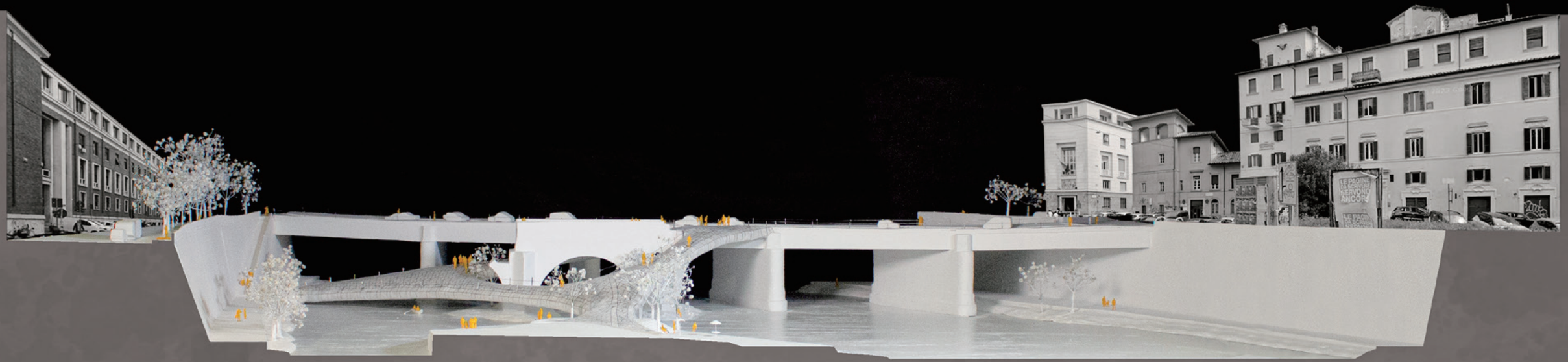

Riverwalk Entrance


Island Entrance









AIR STEWARDSHIP IN THE ANDES

Design studio
September 2023 - December 2023
Site: Cotopaxi, Ecuador
Professor: Nahyun Hwang

Group Design Project

Our focus is on the San Isidro region in Ecuador's Cotopaxi province, situated on the edge of the Amazon within the inter-Andean valleys. The Panzaleo people, a subgroup of Kichwa, inhabit this area, practicing traditional Andean chakra agriculture. The arrival of the Spanish in the 16th century disrupted their society, leading to unequal land distribution. The legacy of colonialism persists, evident in disparities in land concentration and resource distribution. One notable conflict involves Empresa Nintanga, a broccoli plantation using anti-hailstone cannons without permission, impacting indigenous crops. This highlights ongoing issues of inequality. We propose adaptable structures in five potential sites, tailored to atmospheric river dynamics and addressing the region's unique challenges.

ATMOSPHERIC RIVER

"Flying rivers," often referred to as aerial rivers, are a natural phenomenon crucial to the well-being of the Amazon Forest basin and South America's forest. Contrary to their appearance as clouds, they are actually vapor trails and play a fundamental role in the floating river phenomenon. Flying rivers function by transporting water vapor towards the mountains, creating a suction effect that draws in additional moisture from the Atlantic Ocean. This process results in heavy rainfall that drenches the South American. These rivers extend for thousands of kilometers throughout the forested areas of the Amazon. They are indispensable for maintaining the ecological balance and are a key element in regulating the forest's temperature.

40000 ft

30000 ft

Condensation

Precipitation

Evaporation

Transpiration

Dust

Aerosols

Dust

1. In Amazonia, water is given off by the ground and plant life in the form of evapotranspiration along with further moisture due to the humidity. The region winds shape the course of flying rivers.

2. Moving west, the vapour sporeaches the Andes. Blocked by the mountains, it circles back, over Amazon

3. In Amazonia, water is given off by the ground and plant life in the form of evapotranspiration along with further condensation due to the humidity. The region winds shape the course of flying rivers.

4. Part of the humidity falls as rain, helping the rivers of the Amazon Basin

5. The flying rivers carry the accumulated humidity to the interior of Brazil, causing rain to fall in other regions

6. The concentrated humidity arrives in the south and southeast of Brazil, reaching as far as Argentina before dispersing

The Mysterious Amazon Mist ARU

In the Amazon, there's a natural occurrence known as "Aru," which is a thick fog or mist that appears in the early morning after sunrise. It adds a mystical atmosphere to the forest and is a part of local legends. Indigenous people believe Aru is a divine gift from the Gods, as it brings fertility to the forest. During ceremonies, they share knowledge through songs, dance, storytelling, and food exchanges. Aru also aids them in hunting by attracting animals when it moves through the forest. These ceremonies also serve as social gatherings and opportunities for arranging marriages among the indigenous communities.

Transport

Condensation

Precipitation

Biogenic Salts

Transpiration

Evaporation

VOC

Biogenic Potassium Salt from Trees

Cloud droplets above the Amazonian rainforest mainly form around organic aerosols, which are particles rich in potassium salts emitted by the vegetation. These potassium-rich particles act as seeds for the growth of organic aerosol particles, serving as condensation nuclei for water droplets. These biogenic salt particles provide a surface for the condensation of low- or semi-volatile organic compounds generated through the atmospheric oxidation of isoprene and terpenes, molecules produced in abundance by various Amazonian plants.

Hydrological Cycle

The hydrologic cycle is the continuous movement of water within the Earth-Atmosphere system. It primarily involves water transitioning from the Earth's surface to the atmosphere and returning. The key processes in this cycle include evaporation, transpiration, condensation, precipitation, and runoff.

Forests Help Make Clouds

Forests contribute to cloud formation and play a crucial role in cooling the Earth. Trees are a critical cog in the global water cycle. Trees pull water from the ground and release it into the atmosphere as vapor through pores in their leaves in a process called transpiration, which can drive temperatures and rainfall across the globe.

Precipitation

PR-4

Infiltration

Uptake

DYNAMIC CLOUD SEEDING

1. Silver Iodide crystals have almost exactly the same shape as ice crystals

2. Water droplets supercooled to less than 31F attach to silver iodide and freeze

3. Ice crystals stick together and begin falling as snow within 20 minutes.

4. Water releases heat as it freezes; warmed air rises

5. Updrafts lift moist air into cloud, making more snow

Cloud Wars

As the Middle East and North Africa dry up, countries in the region have embarked on a race to develop the chemicals and techniques that they hope will enable them to squeeze rain drops out of clouds that would otherwise float fruitlessly overhead. The United Arab Emirates uses two seeding substances: the traditional material made of silver iodide and a newly patented substance developed at Khalifa University in Abu Dhabi that uses nanotechnology that researchers there say is better adapted to the hot, dry conditions in the Persian Gulf. The pilots inject the seeding materials into the base of the cloud, allowing it to be lofted tens of thousands of feet by powerful updrafts. And then, in theory, the seeding material, made up of hygroscopic (water attracting) molecules, bonds to the water vapor particles that make up a cloud. That combined particle is a little bigger and in turn attracts more water vapor particles until they form droplets, which eventually become heavy enough to fall as rain — with no appreciable environmental impact from the seeding materials, scientists say.

Rainmaking Used As Weapon

Operation Popeye (Project Controlled Weather Popeye / Motorpool / Intersociety Composition) was a military cloud-seeding project carried out by the U.S. Air Force during the Vietnam War in 1967–1972. The highly classified program attempted to extend the monsoon season over specific areas of the Ho Chi Minh Trail, in order to disrupt North Vietnamese military supplies by softening road surfaces and causing landslides.Operation Popeye's goal was to increase rainfall in carefully selected areas to deny the Vietnamese enemy namely military supply trucks.

Hail suppression

The program, initiated in 1996, aims to minimize hail damage to urban properties such as homes and vehicles. It operates using seeding planes from June to September 15th annually. Cloud seeding, involving silver iodide to produce ice crystals, is used to reduce hail size. This process transforms potentially golf ball-sized hail into smaller hailstones or rain before they reach the ground, preventing property damage. Cloud seeding is not a hail "off" switch but diminishes hailstone size. While cloud seeding serves various purposes worldwide, in Alberta, it's exclusively employed for hail mitigation.

Weather modification

Cloud seeding is a weather modification technique used in the western United States to artificially induce or enhance precipitation by dispersing substances into clouds. These substances can be either solid particles or chemicals that encourage the formation of ice crystals or raindrops within the clouds, ultimately increasing rainfall or snowfall in areas that need it. Cloud seeding is often employed for purposes like water resource management, agricultural needs, and environmental preservation.

Tourism

It has become a tradition in Beijing to seed the clouds before public holidays, such as National Day on 1 October, to make rain, disperse pollution and ensure clear skies on the day. But for the opening ceremony, the purpose was simply rain dispersal – bringing on a downpour but not on the Olympic stadium. Friday saw the biggest effort yet, as the "weather changers" began firing rockets from a battery of artillery into the clouds above Beijing four hours before the opening ceremony and continued firing until 11.40pm, shortly before the finale.

HYGROSCOPIC CLOUD SEEDING

Cloud Seeding

The intent of seeding is to disrupt the natural processes of cloud evolution to alter how precipitation is formed. Here we define precipitation as any type of hydrometeor that reaches the ground, for example, rain, snow, graupel or hail. The two components of the atmosphere that must be present to form precipitation are aerosol particles and water vapour. There is little that can be done to enhance the water vapour artificially. Hence, cloud modification is only attempted through changes in the aerosol particle population.

AHOGS (Automated High Output Ground Seeding)Systems

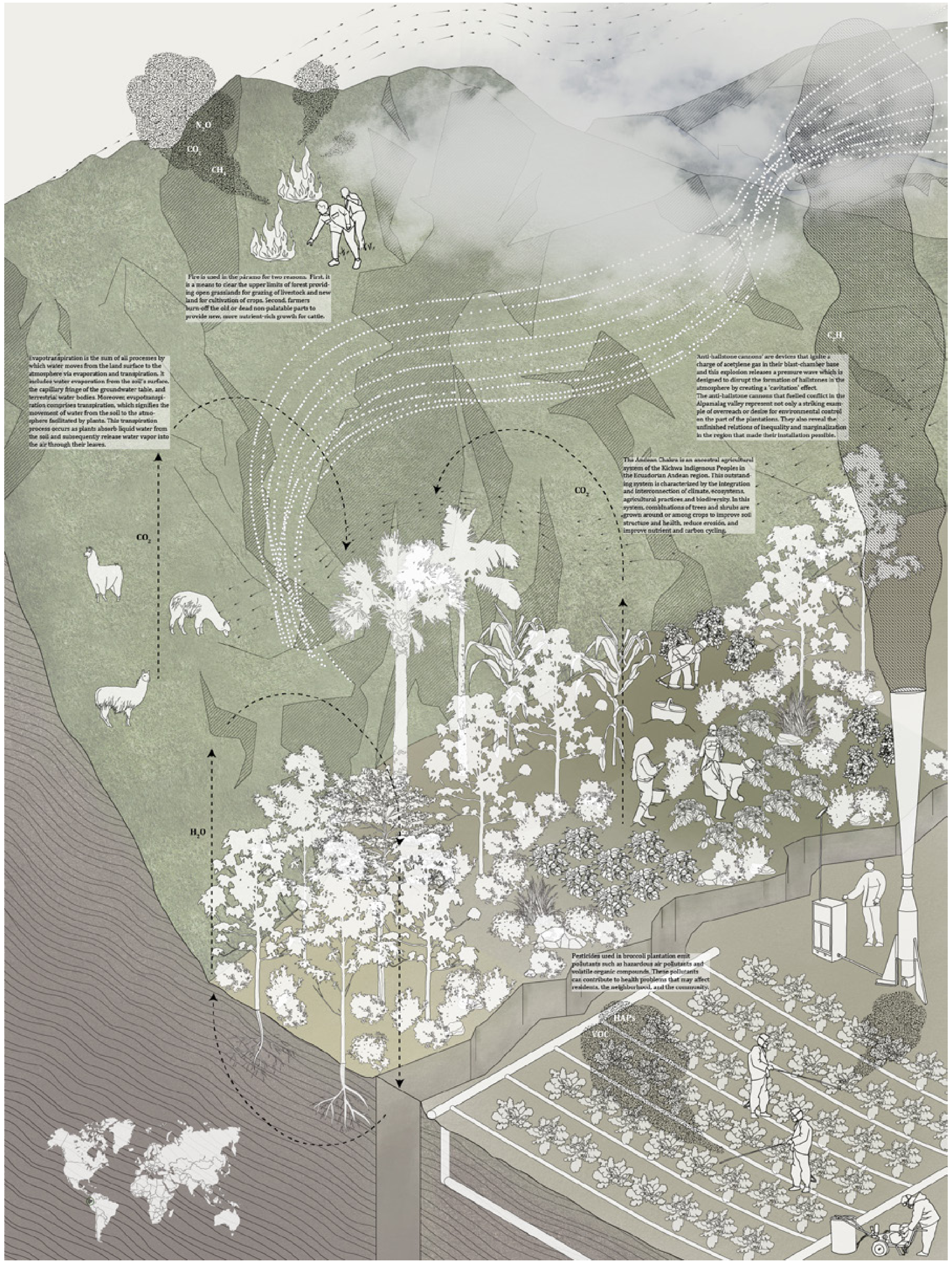
This system boasts several key features, including its suitability for intense convective storms with turbulence, the ability to provide a higher concentration of silver iodide, and the capability to be operated remotely for rapid release

1. Rain starts to form when water molecules in a cloud start to condense on dust particles, forming small cloud droplets

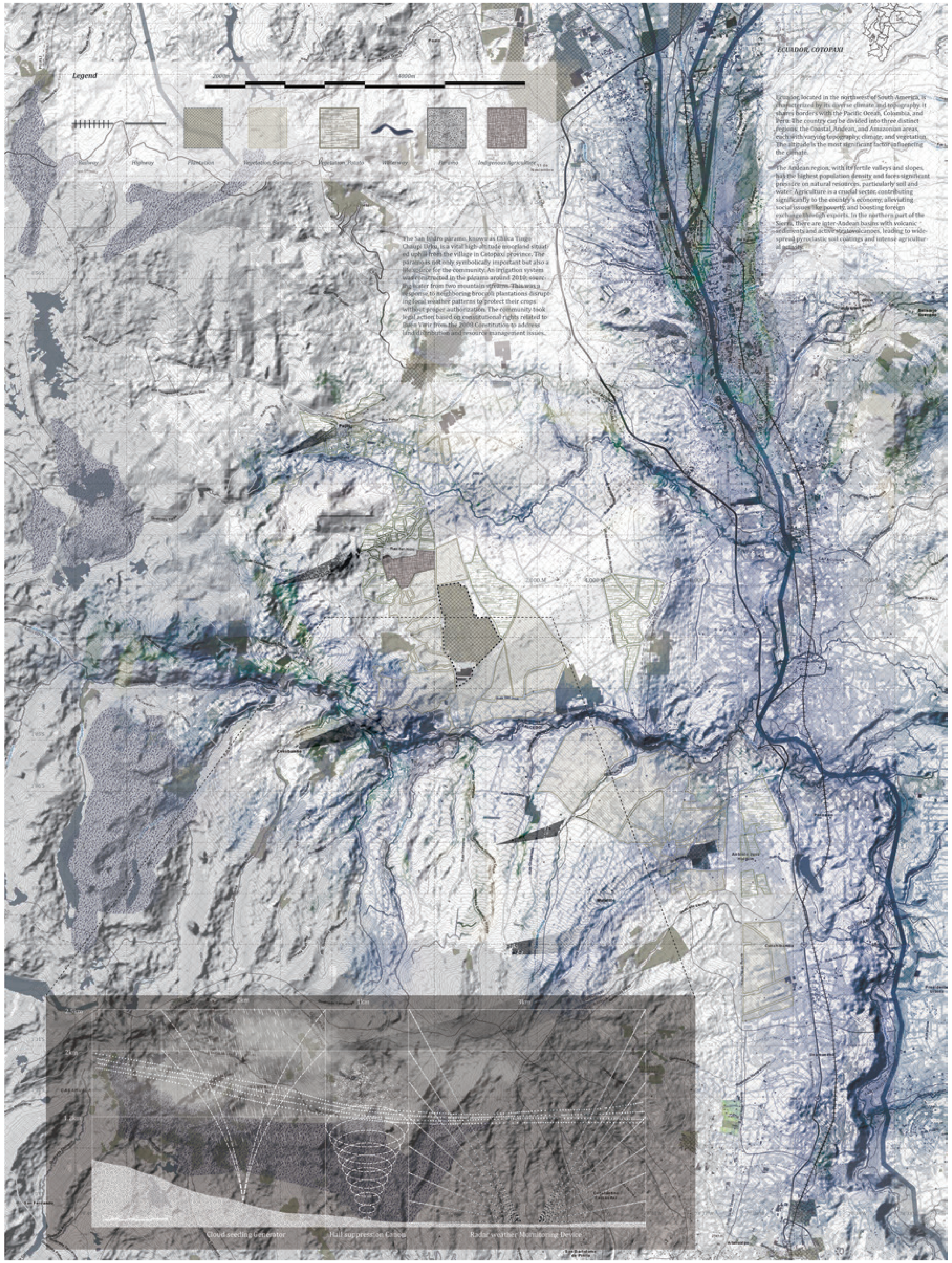
2. As those cloud droplets collide with other droplets, they grow

3. Cloud seeding speeds up thus collision process. Silver iodide Particles are shot into clouds, which give the droplets inside more material on which to condense. The resulting particles grow faster and are usually bigger than normal

4. Once they get big enough, the droplets begin to fall from the cloud as rain

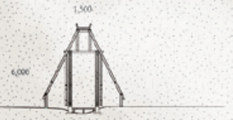


N_2O
CO_2
CH_4
Fire is used in the páramo for two reasons. First, it is a means to clear the upper limits of forest providing open grasslands for grazing of livestock and new land for cultivation of crops. Second, farmers burn-off the old or dead non palatable parts to provide new, more nutrient-rich growth for cattle.
Evapotranspiration is the sum of all processes by which water moves from the land surface to the atmosphere via evaporation and transpiration. It includes water evaporation from the soil's surface, the capillary fringe of the groundwater table, and terrestrial water bodies. Moreover, evapotranspiration comprises transpiration, which signifies the movement of water from the soil to the atmosphere facilitated by plants. This transpiration process occurs as plants absorb liquid water from the soil and subsequently release water vapor into the air through their leaves.
'Anti-hailstone cannons' are devices that ignite a charge of acetylene gas in their blast-chamber base and this explosion releases a pressure wave which is designed to disrupt the formation of hailstones in the atmosphere by creating a 'cavitation' effect.
The anti-hailstone cannons that fuelled conflict in the Alpamalag valley represent not only a striking example of overreach or desire for environmental control on the part of the plantations. They also reveal the unfinished relations of inequality and marginalization in the region that made their installation possible.
C_2H_2
The Andean Chakra is an ancestral agricultural system of the Kichwa Indigenous Peoples in the Ecuadorian Andean region. This outstanding system is characterized by the integration and interconnection of climate, ecosystems, agricultural practices and biodiversity. In this system, combinations of trees and shrubs are grown around or among crops to improve soil structure and health, reduce erosion, and improve nutrient and carbon cycling.
CO_2
CO_2
H_2O
Pesticides used in broccoli plantation emit pollutants such as hazardous air pollutants and volatile organic compounds. These pollutants can contribute to health problems that may affect residents, the neighborhood, and the community.
HAPs
VOC



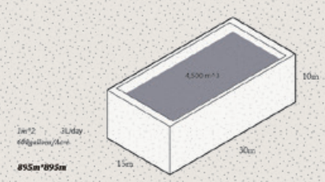
Legend
2000m
4000m
ECUADOR, COTOPAXI
Ecuador, located in the northwest of South America, is characterized by its diverse climate and topography. It shares borders with the Pacific Ocean, Colombia, and Peru. The country can be divided into three distinct regions: the Coastal, Andean, and Amazonian areas, each with varying topography, climate, and vegetation. The altitude is the most significant factor influencing the climate.
The Andean region, with its fertile valleys and slopes, has the highest population density and faces significant pressure on natural resources, particularly soil and water. Agriculture is a crucial sector, contributing significantly to the country's economy, alleviating social issues like poverty, and boosting foreign exchange through exports. In the northern part of the Sierra, there are inter-Andean basins with volcanic sediments and active stratovolcanoes, leading to widespread pyroclastic soil coatings and intense agricultural impacts.
The San Isidro páramo, known as Chica Tingo Chaupi Urku, is a vital high-altitude moorland situated uphill from the village in Cotopaxi province. The páramo is not only symbolically important but also a lifesource for the community. An irrigation system was constructed in the páramo around 2010, sourcing water from two mountain streams. This was a response to neighboring broccoli plantations disrupting local weather patterns to protect their crops without proper authorization. The community took legal action based on constitutional rights related to Sumak Kawsay from the 2008 Constitution to address land distribution and resource management issues.
Cloud seeding Generator
Hail suppression Canon
Radar weather Monitoring Device

Aqueduct



The indigenous people around San Isidro have a longstanding tradition of celebrating the gathering of water, particularly associated with fog. This type is situated in steep areas, creating a water channel from the main waterway to form a new reservoir. The collected water cascades down through the water canal, resembling a waterfall. The indigenous community celebrates around the gathered water, expressing gratitude and partaking in ritual celebrations. Through these ceremonial activities, the indigenous people not only commemorate their historical cultural awareness of water but also use the space for gatherings and relaxation.

Fog Net



1m^2 3L/day
6Gallon/Acre

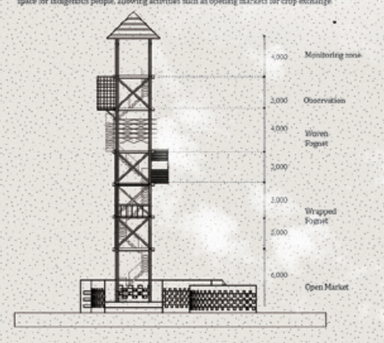
#95m*895m

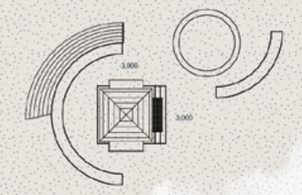
Fog nets are innovative devices designed to harness water from the atmosphere by facilitating condensation. The collected water is channeled into water reservoirs situated alongside agricultural fields, thereby establishing a microclimate distinct from the ambient atmospheric conditions. Demonstrated benefits of these water channels include enhancing crop resilience through the moderation of nighttime temperatures, mitigating the adverse effects of drought, facilitating irrigation, and minimizing soil erosion.

Monitor Tower

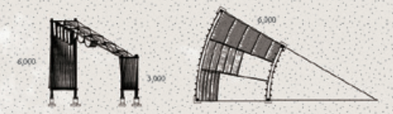
The third type is a tower that actively integrates air and water, with an emphasis on monitoring plantation activities. Standing at approximately 24 meters, this tower is structured with programs segmented based on height. Indigenous people can open markets or gather beneath the tower which is supported by their traditional material, clay. The lower structure draws inspiration from the indigenous traditional dwelling, featuring a form where clay on stone foundations structurally supports wood.

In the middle section of the tower, fog nets are intertwined between wooden structures or can enclose the entire tower. As people ascend the tower, they can learn about various methods of water collection through the fog nets. The section between 9 and 15 meters primarily serves as the installation area for monitoring devices, facilitating both physical and technical surveillance and providing an observation space to oversee the surroundings. This monitoring tower, capable of technically observing the surroundings, is positioned on the highest floor. The lower part of the tower functions as a communal space for indigenous people, allowing activities such as opening markets for crop exchange.





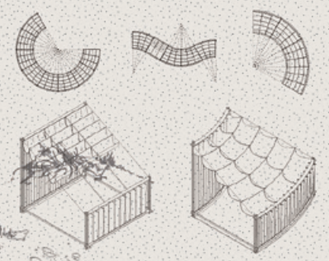
Aria (mist)



The second pavilion type draws inspiration from indigenous agroforestry traditions, incorporating a circular design reminiscent of the circular shaped homes and arrangements of indigenous communities. Situated within the forest, the pavilion facilitates the exchange of air and water. It employs a vertical fog net to collect water, creating a base waterway that flows through the land. The horizontally collected water provides moisture to nearby trees, fostering water circulation in the forest and contributing to the strengthening of the hydrological cycle.

This pavilion can be adapted into three main variations. On flat terrain, it takes on a circular arrangement, serving as an outdoor classroom space for schools. On sloped terrain, it aligns parallel to the slope, enhancing moisture for the forest, trees, and the atmosphere.

Closely tied to sustainability, the pavilion's design allows for interaction with the forest over time. Depending on the growth rate of planted trees, the upper fog net can be walked on or expanded. This pavilion embodies robust sustainability, persisting and thriving as it continues to coexist harmoniously with the forest environment.



Module A (change)

Module A (change)

- A Water Channel
- B Wood deck
- C Foldable fognet
- D Water reservoir
- E Fognet curtain
- F Monitoring device
- G Observation zone
- H Woven Fognet
- I Observation zone
- J Clay
- K Thatch
- L Open Market
- M Celebration
- N Outdoor classroom


0 100 200 400 600 1000 1400m
Negotiation Center
The Negotiation Center is located in close proximity to the community center in San Isidro village (Comunidad San Isidro). At present, the community center, along with the village square situated in front of it, serves as a multifunctional space for hosting
This includes
interviews
community.
Crop Market
Situated in a strip mall along Via La Merced, a main thoroughfare connecting to the city center of Pujili, the proposed Crop Market serves as a pivotal space for food exchanges and trades. This initiative aims to support households in the surrounding area by offering an alternative outlet for locally grown produce. The market not only facilitates the exchange of goods but also empowers residents by granting them greater control over access to food and the choices available to them.
Research Center
Positioned adjacent to the preserved forest, the proposed Research Center serves a dual purpose. Firstly, it offers a dedicated space for the practice of the traditional Andean Chakra system at a higher altitude. ital data on climate change, with a specific focus on humidity and air pollution. The primary research objective is to assess how agroforestry practices contribute to the water cycle and cultural systems in this elevated environment. Additionally, the center endeavors to investigate any potentially suspicious weather modification practices by agricultural companies operating in the region.
School with Agroforestry
Positioned on the campus of the existing Buena Esperanza De Juigua school, the proposed school is strategically located near the agriculture fields of the indigenous people. Within this context, the traditional agricultural system of the Panzaleo community, known as Andean chakra, holds historical significance. Unfortunately, this system is currently on the decline, yielding to monocropping due to the impacts of colonization.
The proposed school serves as a dedicated space for younger generations to engage with and learn about these traditional practices, understanding their role in sustaining natural systems. By offering insights into the Andean chakra, the school aims to contribute to the preservation and appreciation of the Panzaleo people's unique agricultural heritage.
Art Center
Nestled within a community center in close proximity to the plantation area, the proposed Art Center caters to the Panzaleo indigenous community, renowned for their vibrant traditions in dance and pottery. While open soccer and basketball fields are prevalent in these areas, typically located at the village center, the scarcity of indoor gathering spaces is evident. Addressing this gap, the envisioned Cultural Center serves as a crucial indoor venue, designed to facilitate the learning and preservation of the indigenous people's time-honored practices.
Assemly of ARU
Aqueduct
Monitor tower

These adaptable structures, designed for atmospheric river dynamics, serve as communal spaces with the flexibility to expand into larger buildings. We've identified five potential sites, each with integrated programs aligned with the three distinct types. The landscape drawing illustrates the combined development of the research center and negotiation center. The Negotiation Center, strategically located near the community center in San Isidro village, addresses conflicts related to air stewardship, specifically tensions between the indigenous population and the adjacent plantation. The Climate Research Center is proposed near a preserved forest, with its primary objective being the study of atmospheric river changes and investigation of potentially suspicious weather modification practices by agricultural companies in the region.

LAYERED URBANISM

Design studio
January 2024 - May 2024
Site: Rio de Janeiro, Brazil
Professor: Galia Solomonoff

Group Design Project

Our vision is to transform A Noite into a hub of contemporary information exchange, a place where the voices long silenced by the shadows of censorship can be heard. As the top floor of the building used to be the home of Radio Rational, we're transforming it into a space where suppressed stories can thrive, especially those of Afro-brazilian and indigenous people.

Divided into five distinct sections, each showcasing a different aspects of underrepresented culture and knowledge, A Noite becomes a tapestry of diversity and expression. From dance performances to graphic art galleries, from culinary exploration to video and podcasting studios, every corner of the building pulsates with creativity and exploration. But A Noite is more than just a structure; it's a bridge between past and present, between silence and expression. Its open atrium and connecting stairs serve as conduits, drawing people from the bustling urban landscape into a space where their stories matter, where their voices resonate. Here, amidst the echoes of history, a new narrative unfolds—one of inclusion, empowerment, and the unyielding pursuit of truth.

Amsterdam
Antwerp
Northern U.S.
Chesapeake
Carolinas/ Georgia
Gulf Coast
Lisbon
Seville
Azores
All Europe
9,000
27,000
128,000
210,000
22,000
Veracruz
Acapulco
Havana
Jamaica
Portobelo
Panama
Cartagena
779,000
1,020,000
390,000
2,692,000
73,000
294,000
31,000
British/Dutch/ French Guiana
144,000
Amazonia
Mauritsstad
Recife
Salvador
Rio de Janeiro
Callo
Lima
Rio de la Plata
98,000
Senegambia
Sierra Leone
Windward
Gold Coast
Bight of Benin
Bight of Biafra
755,000
389,000
337,000
1,209,000
1,999,000
1,595,000
818,000
1,568,000
2,281,000
5,695,000
West Central Africa
Cape Town
543,000
Mozambique
Southeast Africa
Madagascar
Mauritius
Goa
Cochi
Chinsura
Nagasaki
Macau
Manilla
Tidore
Ternate
Malacca
Macassar
Batavia
Major Port
Dutch trade Routes
Portuguese trade Routes
Spanish trade Routes
5,000,000
1,000,000
200,000
Slave trade from African to American Regions

NOITE Edição especial

DE HOJE — O TRIUMPHO DE PLAUCHUT

1926

Launch of the competition with the recommendation:
"The project should express the importance of the newspaper and its value: contemporaneity and progress"
Five proposals were ranked, and the winner was architect Joseph Andre Gire's

1929

The newspaper A Noite occupied the basement and the first four floors: part of the ground floor, mezzanine (overstorey), and the 2nd and 3rd floors

1936

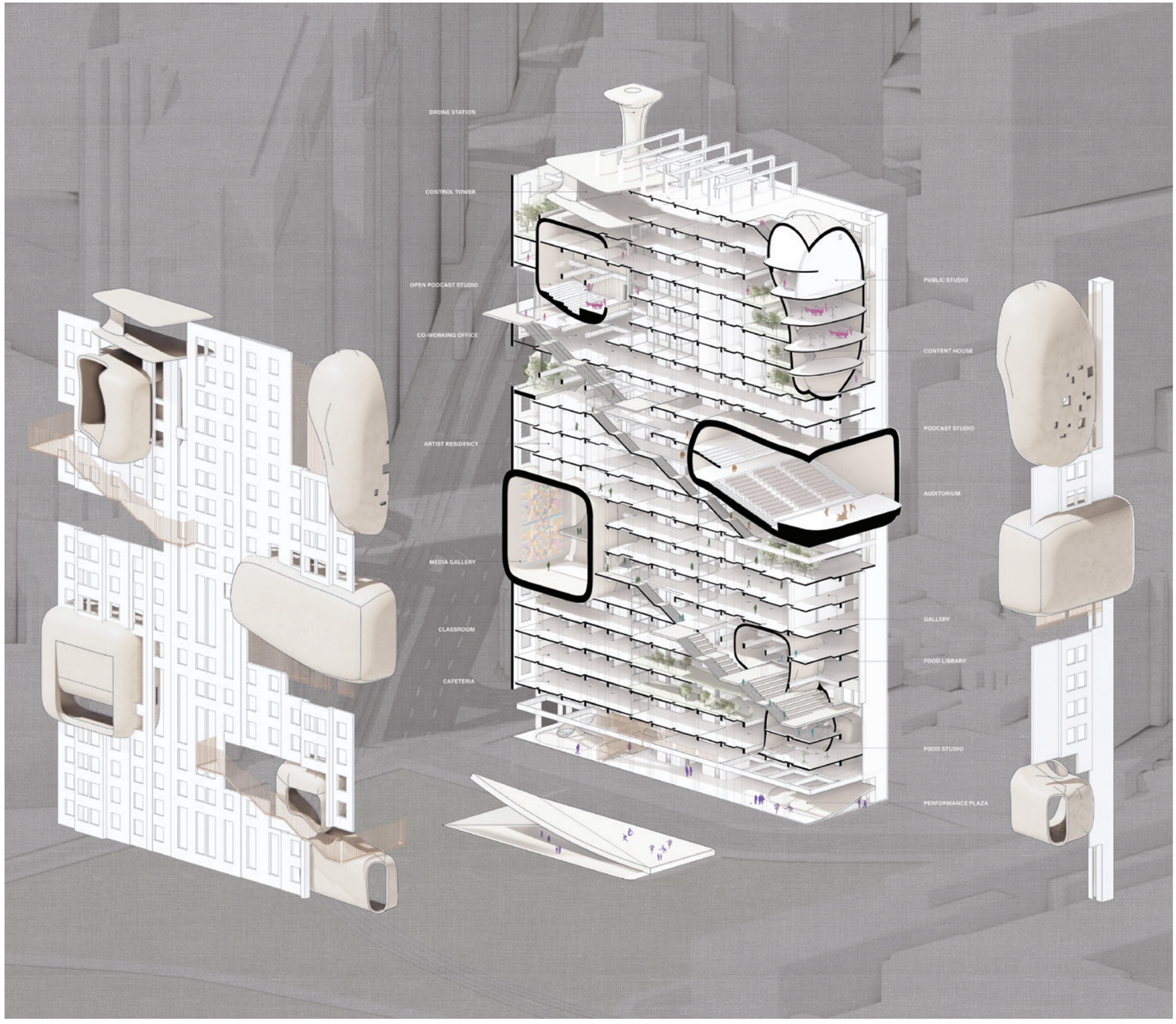
From 1937 onwards, without the newspaper, it was the home of Rádio Nacional. During that time, it was very popular due to its talk shows and radio soap operas. Great singers like Silvio Caldas, Francisco Alves and Orlando Silva passed through the radio auditorium, as well as arranger Radamés Gnattali.

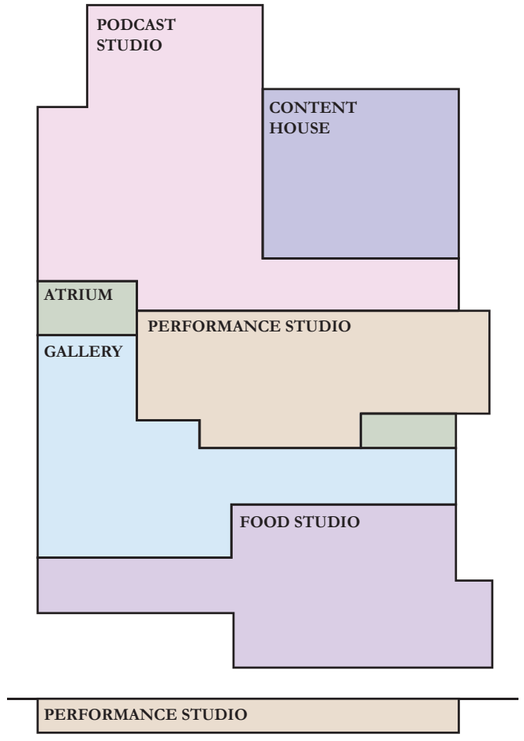
1940

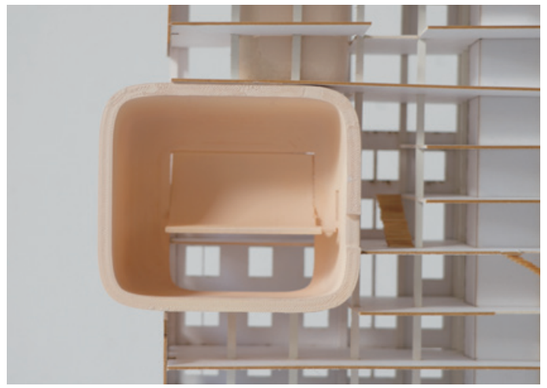
President Getúlio Vargas, who needed a vehicle that would be the official voice of the government, took over the Rádio Nacional. Radio Nacional became the broadcaster of EBC
A Noite was also used as the headquarters of the National Institute of Industrial Property.

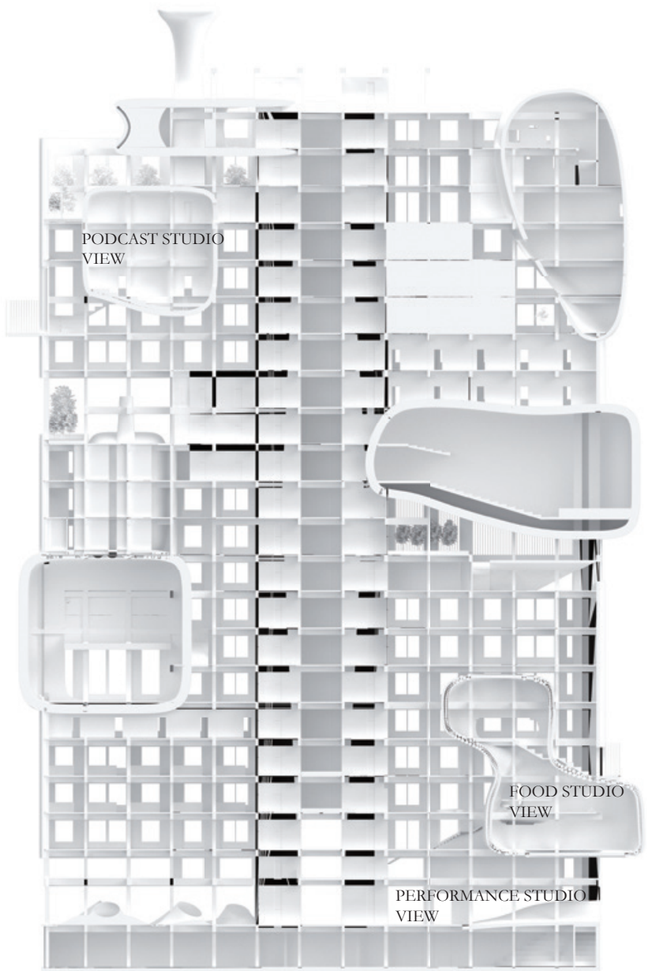
2012

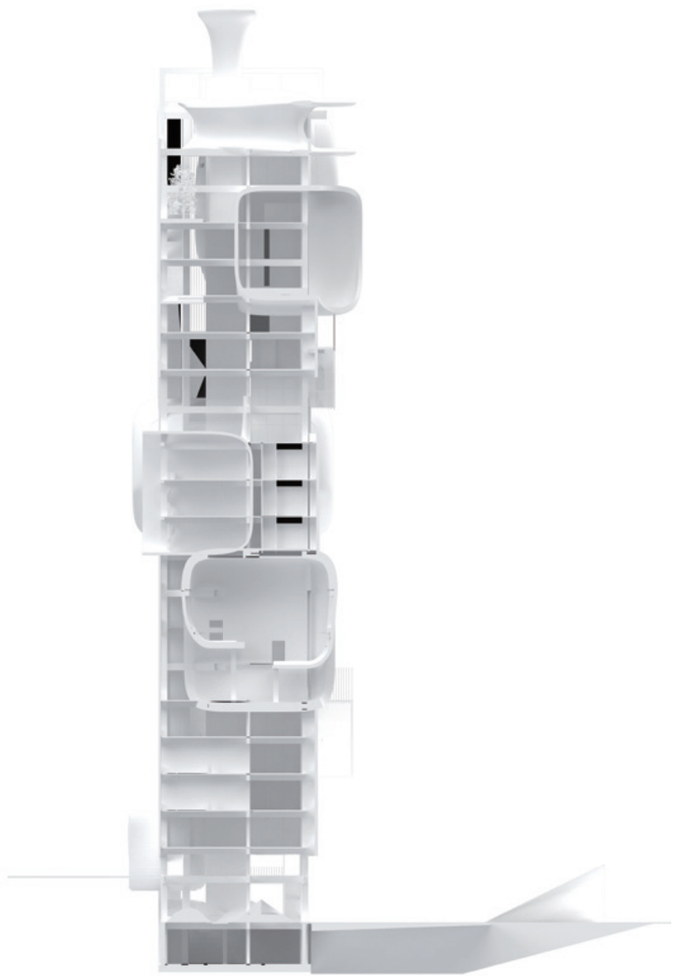
INPI (National Institute of Industrial Property) and EBC (Empresa Brasil de Comunicacao) vacate the building: since then, only a small security and maintenance team remains.

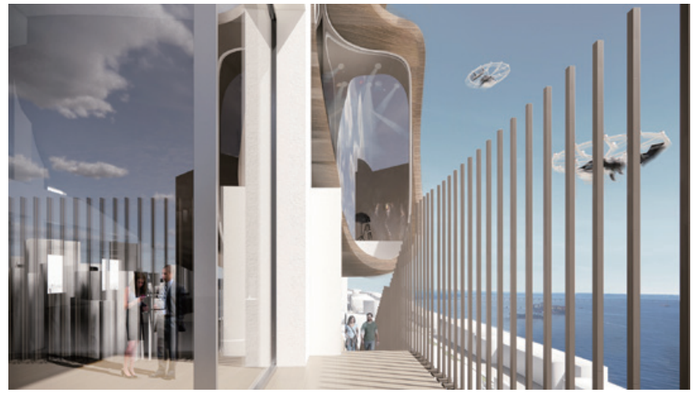

DRONE STATION
CONTROL TOWER
OPEN PODCAST STUDIO
CO-WORKING OFFICE
ARTIST RESIDENCY
MEDIA GALLERY
CLASSROOM
CAFETERIA
PUBLIC STUDIO
CONTENT HOUSE
PODCAST STUDIO
AUDITORIUM
GALLERY
FOOD LIBRARY
FOOD STUDIO
PERFORMANCE PLAZA


PODCAST STUDIO
CONTENT HOUSE
ATRIUM
PERFORMANCE STUDIO
GALLERY
FOOD STUDIO
PERFORMANCE STUDIO









PODCAST STUDIO

FOOD STUDIO

PERFORMANCE STUDIO

THE GREEN MESH

BIM studio
January 2024 - May 2024
Site: New York City
Professor: Joseph A. Brennan

Group Design Project

Site: NOMAD, a neighbourhood situated in the north of Madison Square Park to the east of Penn Station. It contains a mixture of retail and office spaces.

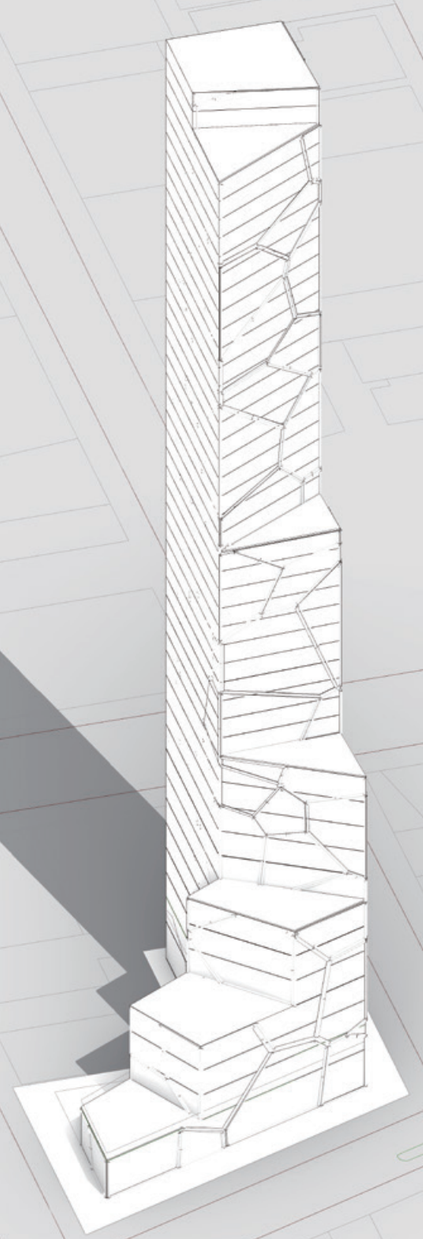
Site Area: 29,900 sqft.

M1-6 FAR : 10.0 = 29,900 sqft.
M1-6 FAR with Public Plaza bonus 12.0 = 358,800 sqft.
SKY EXPOSURE : ZR 43-45

Tower footprint max. 40% of lot area : 11,960 sqft
15 feet from narrow street
10 feet minimum from wide street

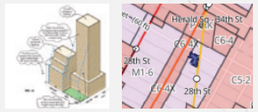
PODIUM LIMIT : 85’ or 6 stories

WORK-FLOW DIAGRAM



SITE ANALYSIS + PLANNING

- ZONING ANALYSIS



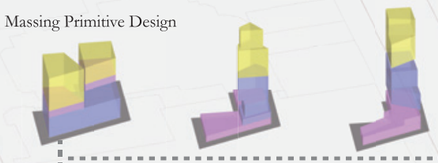
- PRECEDENT STUDY

- SITE ANALYSIS
  - FACADE SOLAR STUDY
  - SKY EXPOSURE
  - PUBLIC ACCESSIBILITY
  - SET BACK
  - PUBLIC PLAZA/PUBLIC TERRACE

CONCEPTUAL DESIGN

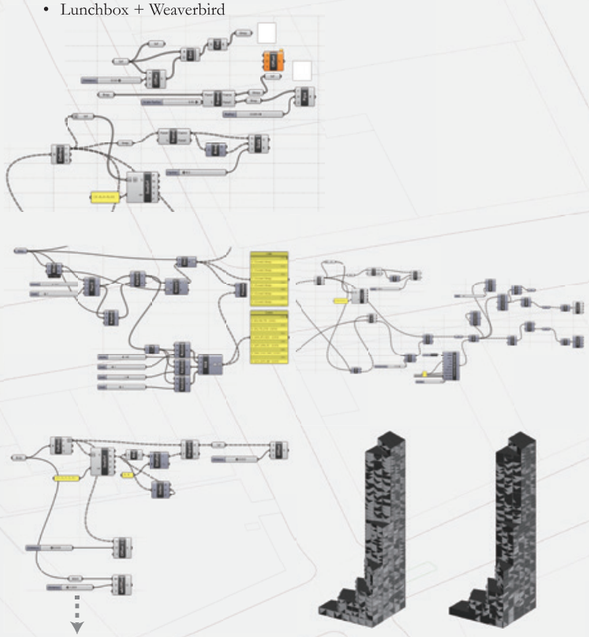
RHINO

- Massing Primitive Design



GRASSHOPPER

- Finalize Massing
- Facade Study
  - Lunchbox + Weaverbird



GOOGLE SHEET

- Floor to Floor Detailed Information

Level	Floor Level Naming	Elevation	F to F (SQ.FT)	Area- Massing A (SQ.FT)	Area- Massing B (SQ.FT)
1	R01	0	24	15608.1	15304.2
2	R02	24	16	13164.3	13134.83
3	R03	40	16	13164.3	13134.83
4	R04	56	16	13164.3	13134.83
5	R05	72	16	13164.3	13134.83
6	C01	88	16	10205.3	10788.78
7	C02	104	16	10205.3	10788.78
8	C03	120	16	10205.3	10788.78
9	C04	136	16	7986.4	10788.78
10	C05	152	16	7986.4	8824.07
11	C06	168	16	7986.4	8824.07
12	C07	184	16	7986.4	8824.07
13	C08	200	16	7986.4	8824.07
14	C09	216	12	6530.2	8824.07
15	C10	228	12	6530.2	8824.07
16	C11	240	12	6530.2	8824.07
17	C12	252	12	6530.2	8824.07
18	H01	264	12	6530.2	6218.98
19	H02	276	12	6530.2	6218.98
20	H03	288	12	6530.2	6218.98
21	H04	300	12	6530.2	6218.98
22	H05	312	12	6530.2	6218.98
23	H06	324	12	6530.2	6218.98
24	H07	336	12	6530.2	6218.98
25	H08	348	12	5364.8	6218.98
26	H09	360	12	5364.8	6218.98
27	H10	372	12	5364.8	6218.98
28	H11	384	12	5364.8	6218.98
29	H12	396	12	5364.8	6218.98
30	H13	408	12	5364.8	4204.13
31	H14	420	12	5364.8	4204.13
32	H15	432	12	5364.8	4204.13
33	H16	444	12	5364.8	4204.13
34	H17	456	12	5364.8	4204.13
35	H18	468	12	5364.8	4204.13
36	H19	480	12	5364.8	4204.13
37	H20	492	12	5364.8	4204.13
38	H21	504	12	5364.8	4204.13
39	H22	516	12	5364.8	4204.13
40	H23	528	12	5364.8	4204.13
41	H24	540	12	5364.8	4204.13
42	H25	552	12	5364.8	
43	H26	564	12	5364.8	
44	H27	576	12	5364.8	
45	H28	588	12	3686.8	
46	ROOF	600	0	3686.8	
Total				325315	306668.52

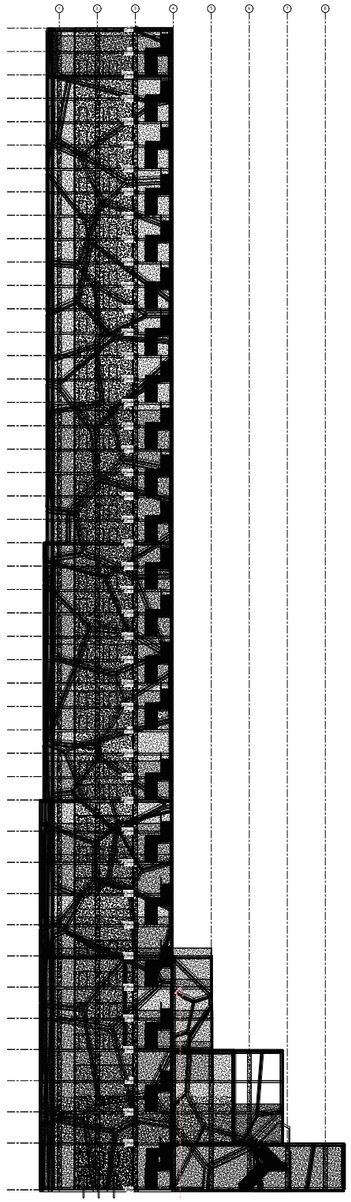
REVIT

- Model with Detailed Information

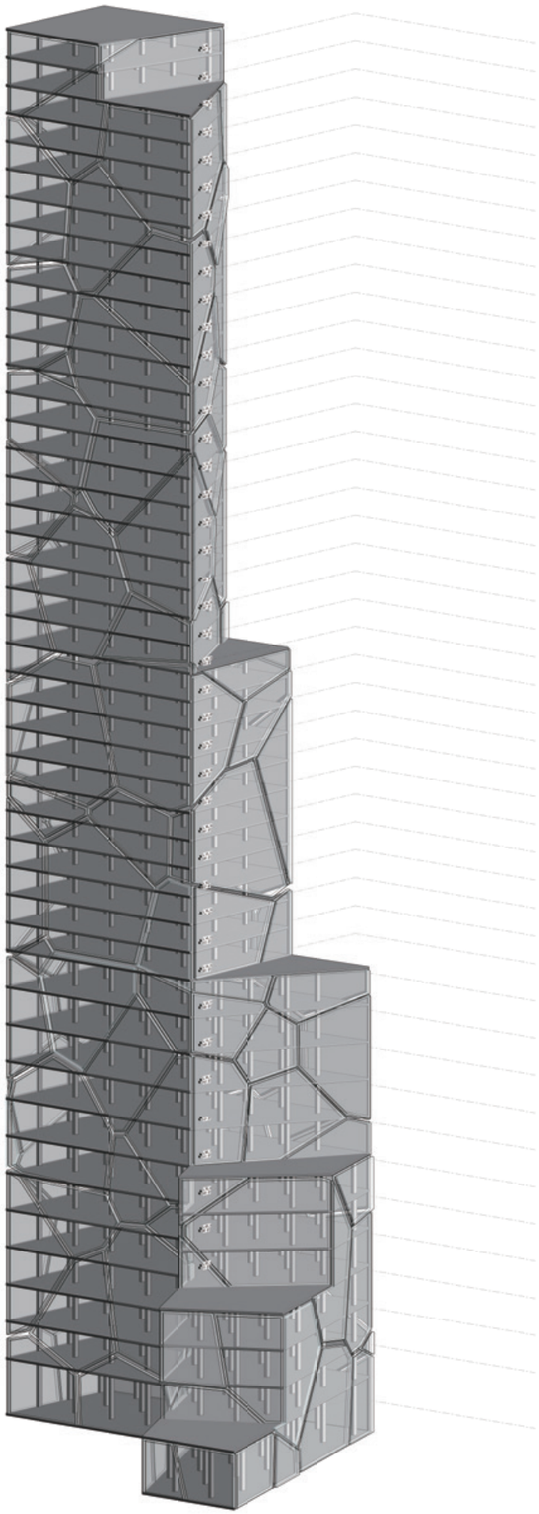
DESIGN DEVELOPMENT

REVIT

- Information Exports (Floor Plans, Site Plan, Section Drawings, Elevations, Perspective Views etc.)

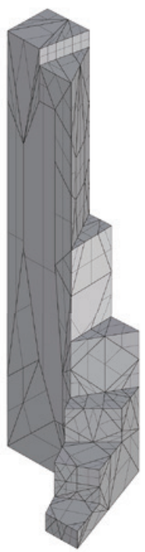


Section

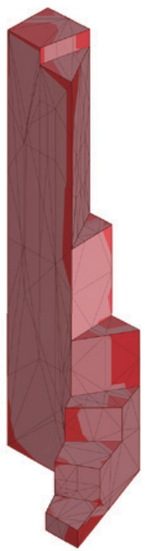


FACADE DEVELOPMENT, using grasshopper, lunchbox and weavebird (Voronoi)

Final form of built mass

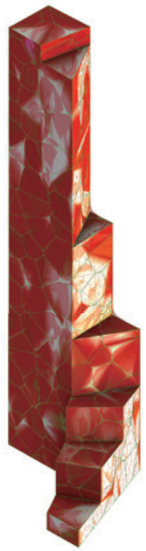


Initial mesh development

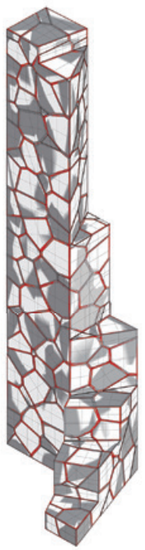


Mesh extracted on the form

Generating polygons on the mesh

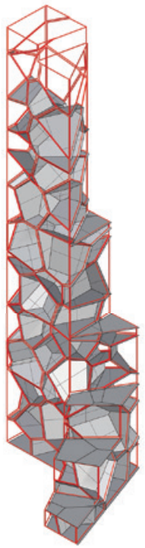


Polygonal surfaces generated

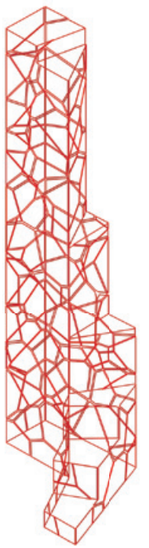


Final polygonal mesh on form

Developing the exterior envelope

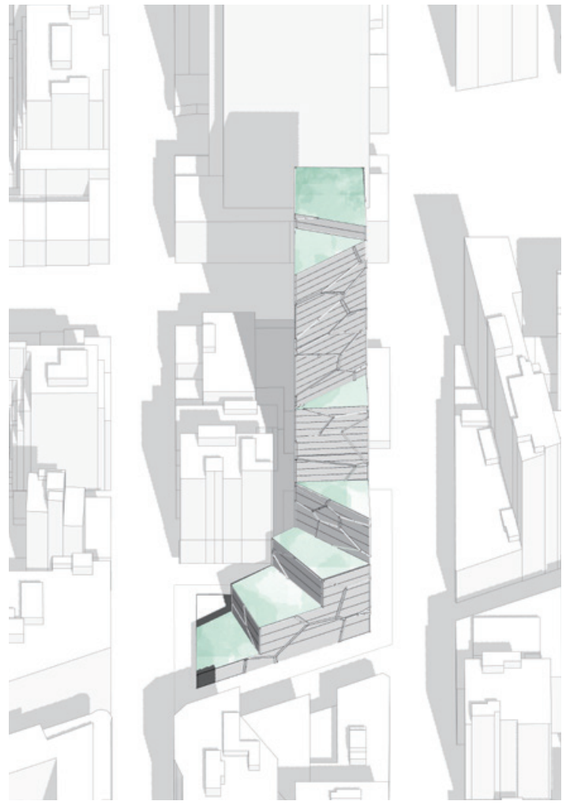


Extracting the interior as per mesh



Final exterior envelope

FACADE DETAIL RENDER



Axon View, Highlighting Stepped Terraces