

The background is a complex, abstract pattern. It features a grid of thin, dark lines that intersect to form a series of small, irregular shapes. Overlaid on this grid are numerous small, solid black dots. The dots are scattered across the entire frame, with some areas appearing more densely populated than others. The overall effect is a sense of depth and complexity, reminiscent of a data visualization or a technical drawing.

(de)COMPOSE

Preface

(de)COMPOSE is the culmination of a year of architectural inquiry at Columbia GSAPP. Rather than a sequence of isolated projects, this portfolio unfolds as a continuous act: decomposing the systems, typologies, and spatial assumptions that condition the present, while composing alternative ways of inhabiting rooted in energy, ecology, and mutual dependency.

To decompose is not to destroy; it is to unravel, to expose, to disassemble inherited forms of value, occupation, and control. From the housing market's volatility to the territorial impact of food production, from the rigidity of architecture to the ephemerality of air, each project begins by questioning what has been normalized, what resists change, and what must be allowed to decay.

To compose is to reorganize - material, form, presences, and meaning - into spatial propositions that are not permanent, but alive: modular, metabolic, situated. A house becomes a battery; a lab becomes a farm; a pavilion becomes air infrastructure for gathering. Architecture is reframed not as an object that responds to a given world, but as a medium that can alter the terms by which worlds are made.

The architectural act is not positioned as the final answer but as a tool to ask again.

This is not a collection of resolved statements, but of constructed questions. Through thoughts that rise and fall, adapt and connect, each work gestures toward an architecture that does not represent stability, but engages uncertainty - **an architecture that composes by decomposing.**

composing

decomposing

Multispecies encounter zone shaped by microbial intra-actions.

Anthropocentric hierachies of waste and value.

01

Compose by Decomposing
Challenging the Concept of ‘Waste’

Hybrid industrial-habitable urban systems for local food autonomy.

Industrial meat infrastructure and its extractive ecological footprint.

02

Vertical Meatworks

Market-responsive urban ecologies for carbon capture and redistribution.

Bureaucratic and monopolized control over carbon sequestration.

03

Manhattan CO2-Sink
Environmental system for CO2 removal scalability

Modular housing systems grounded in energy sovereignty and adaptability.

Real estate speculation detached from spatial and social needs.

04

Grounding Autonomy: Land, Shelter, and Energy
Escaping Economic Volatility through Domestic Energy Sovereignty

Ephemeral structure of collective presence through suspension and air.

Rigid boundaries of architecture dissolving into porous atmospheres.

05

cloud

Presence by weaving together memory, data, and the remnants. A digital-physical reality.

Fixed boundaries between life and death as known--(un)death--dissolving the body into code and soil.

06

Remnant(‘s) Intra-actions

It is not an attempt to save species that are in danger of extinction because of the cement industry's colonialistic behavior. It is a composition of their new reality to which they are going to **intra-act, shape** and **be shaped**.





Note: The visual compositions presented challenge anthropocentrism by establishing relationships not only between humans and non-human agents, but also among humans themselves.

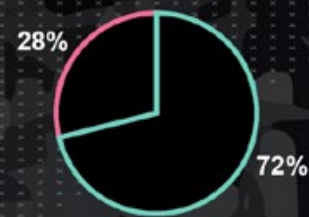



Note: Agents that have participated in the histories of Split Rock Quarry.

Actors Involved

Deaths in the munition industry explosion

- 52 workers deaths.





Unidentified dead workers

28% 72%

Ghost hunt in the ruins

- Ghost Finders Association of Central New York.
- NY Shadow Chasers.
- CNY Paranormal.

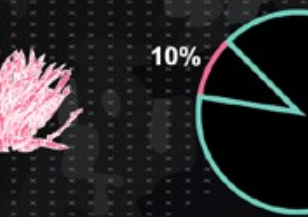



Paranormal research organizations

- Shadow Chasers** Research, documentation and public education.
- CNY Paranormal** Scientific methods, media appearances, documentation.
- CNY Paranormal** Historical research, workshops and consultation services.

Asplendium Scolopendrium

- Light. Prefers partial to full shade. Thrives in forest understories and shaded rock faces.
- Soil. It grows in limestone-rich soils, providing necessary pH balance. Should be well drained yet retain some moisture.
- Moisture. Consistent moist conditions.



Current state of conservation

10% 90%

Parties in the ruins

- Halloween Parties.
- Spontaneous Events.

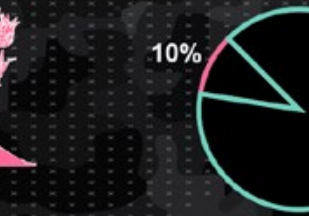



Main illegal party

10% 90%

Leedy's Roserrot

- Light. Partial to full shade. Environments that protect it from direct sunlight. Cool, moist conditions.
- Soil. Rocky, calcareous soils. Well-drained. Thrives in thin soil layers over limestone or dolomite bedrock.
- Moisture. Consistently moist conditions. Areas with high humidity and stable moisture levels.



Current state of conservation

10% 90%

Cycling and Hiking paths

- 3150 meters of existing paths.
- Suitable for Cross-Country (XC). Length: 3-10 km per lap, with races covering 20-50 km. Terrain: Mixed terrain with climbs, descents, and flat sections.



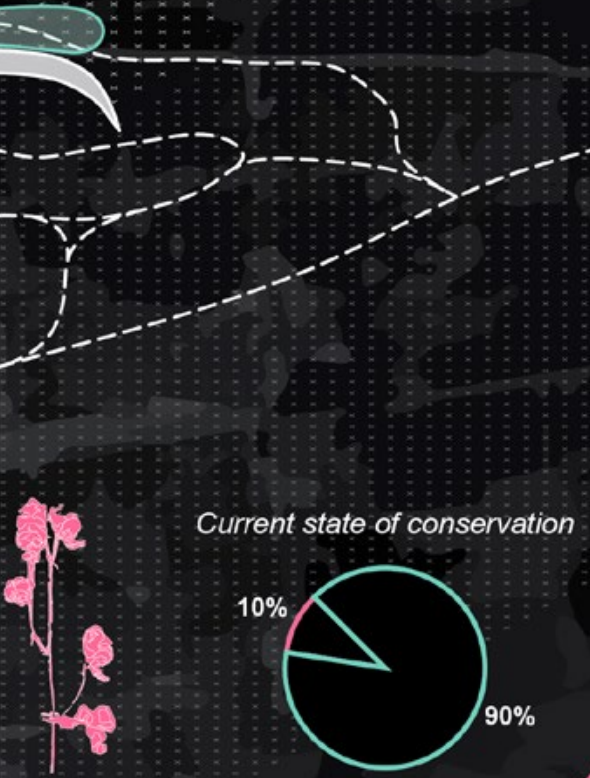
Relevant cycling activities

16% 23% 61%

Onondaga Cycling Club Rides
CNY DIRT Series
Tour of Syracuse

Northern Wild Monkshood

- Light. Partial to full shade. Sheltered from direct sunlight, such as shaded cliff and wooded ravines.
- Soil. Calcareous soils rich in organic matter, well-drained yet retain adequate moisture.
- Moisture. Consistently moist conditions. Near springs, seeps, and along shaded stream banks.




Current state of conservation

Conservation Status	Percentage
Good (Green)	90%
At Risk (Red)	10%

Scattered limestone rocks

- 395 cubic meters of available limestone rocks.

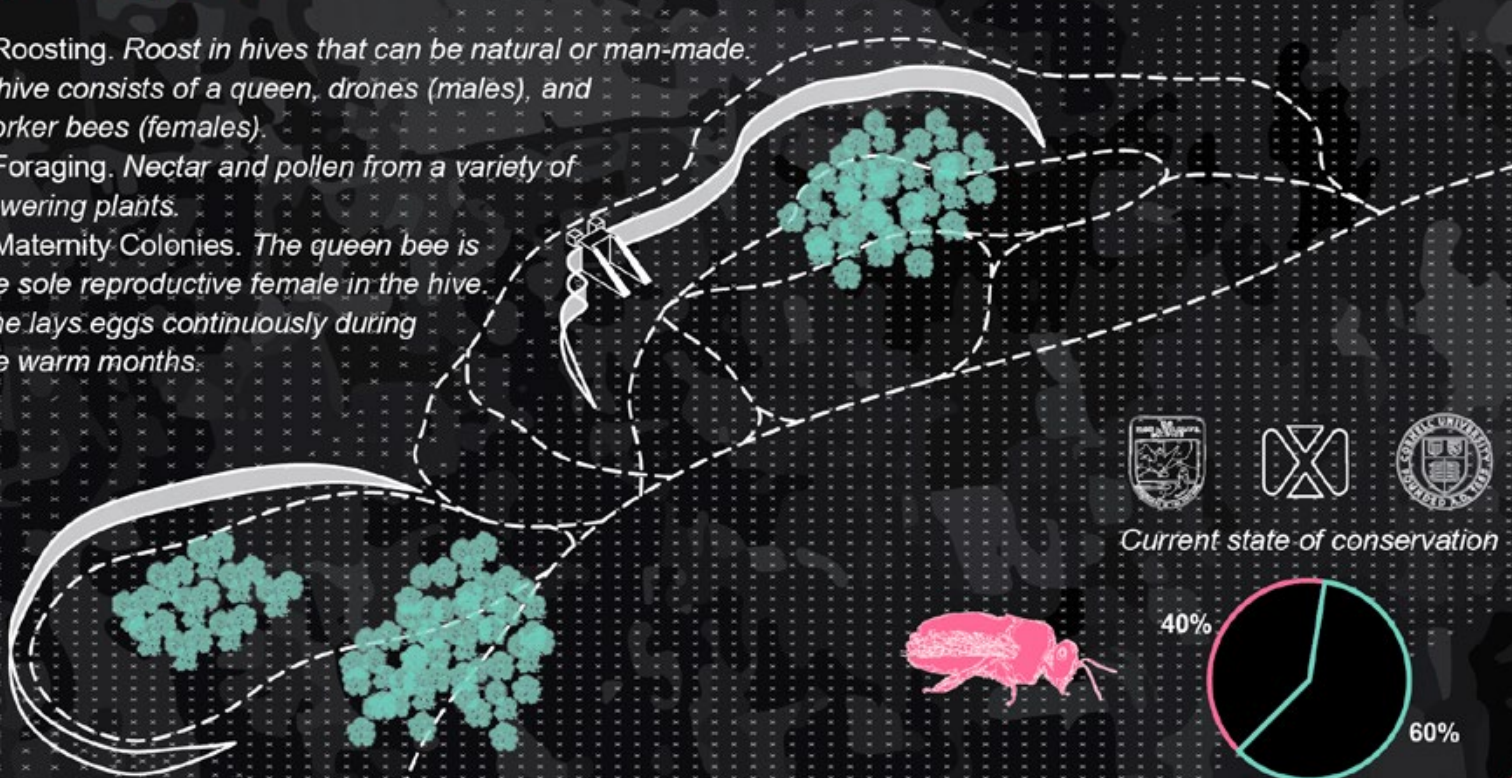


Volume of scattered rocks

Dimensions (m)	Volume (m³)
5.00 x 5.00 x 15.80	395

Apis Mellifera

- Roosting. Roost in hives that can be natural or man-made. A hive consists of a queen, drones (males), and worker bees (females).
- Foraging. Nectar and pollen from a variety of flowering plants.
- Maternity Colonies. The queen bee is the sole reproductive female in the hive. She lays eggs continuously during the warm months.

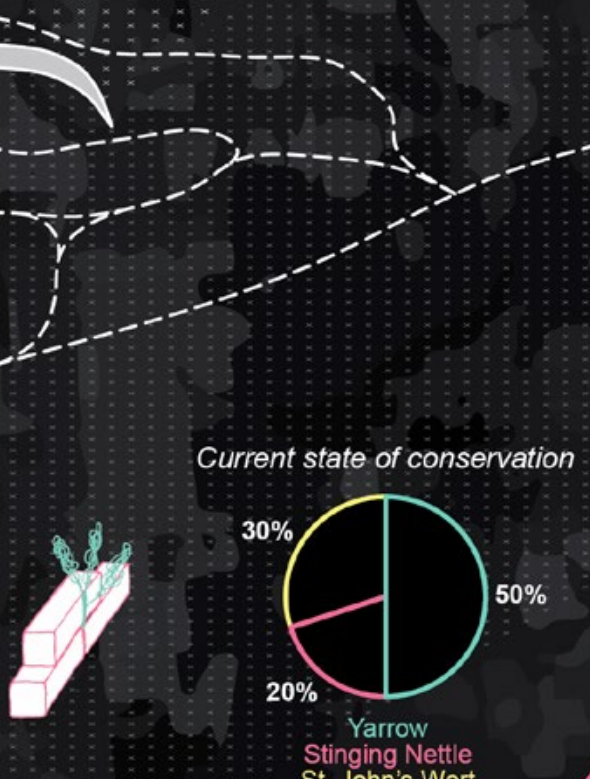


Current state of conservation

Conservation Status	Percentage
Good (Green)	60%
At Risk (Red)	40%

Damaged bodies

- They don't have enough nutrients neither a well-oriented place to grow, making it change their characteristics.
- Yarrow (Achillea millefolium)
- Stinging Nettle (Urtica dioica)
- St. John's Wort (Hypericum perforatum)

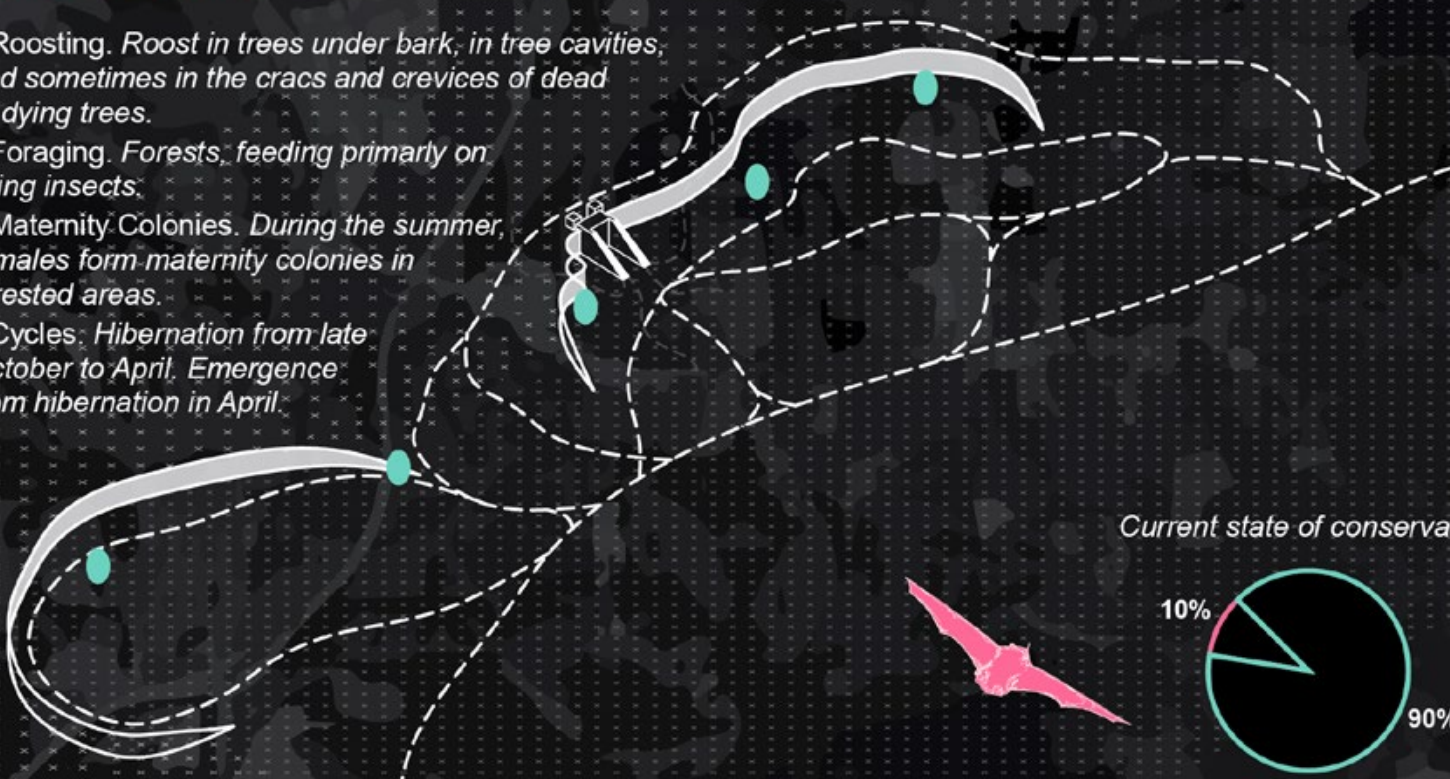


Current state of conservation

Conservation Status	Percentage
Good (Green)	50%
At Risk (Red)	30%
Uncertain (Yellow)	20%

Myotis Sodalis

- Roosting. Roost in trees under bark, in tree cavities, and sometimes in the cracks and crevices of dead or dying trees.
- Foraging. Forests, feeding primarily on flying insects.
- Maternity Colonies. During the summer, females form maternity colonies in forested areas.
- Cycles. Hibernation from late October to April. Emergence from hibernation in April.




Current state of conservation

Conservation Status	Percentage
Good (Green)	90%
At Risk (Red)	10%

Void surfaces for limestone mounds

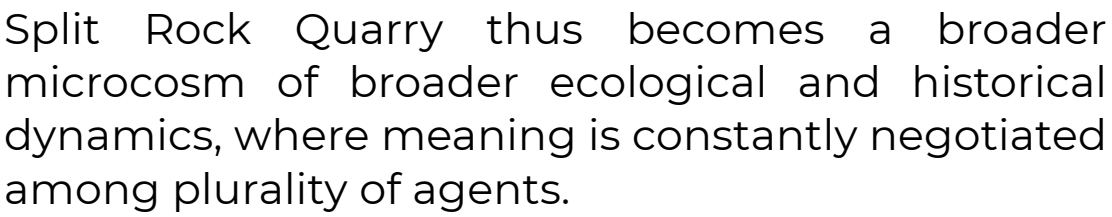
- 15000 square meters of flora voids.



Void-surfaces of flora

Conservation Status	Percentage
Good (Green)	81%
At Risk (Red)	19%

Each agent plays a crucial role in shaping the multiple histories present on the site through their intra-actions. There is not a single, unified History, but rather as many histories as there are agents involved.



Processes Performed by the Agents

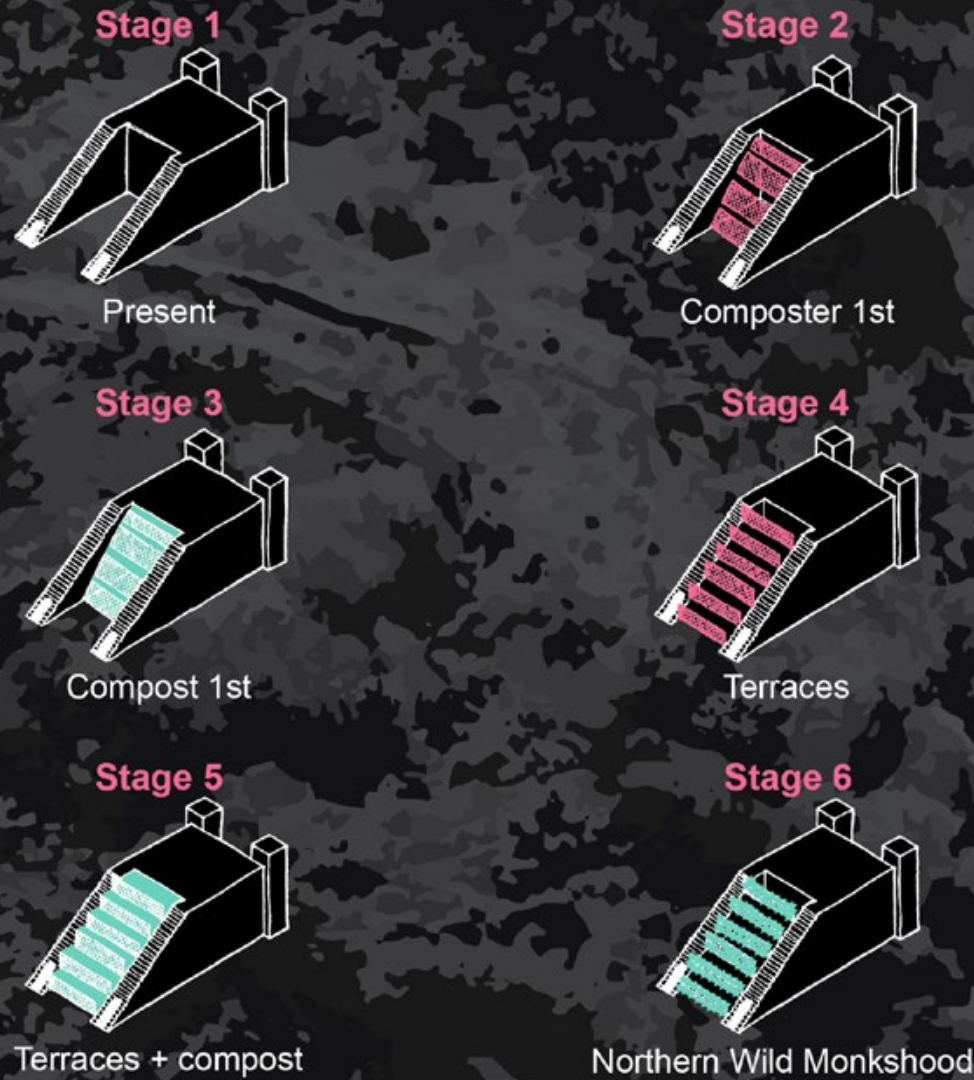
Compost maker ~ Northern Wild Monkshood habitat

- Works as a continuous system composter.

Compost produced

- 2 kg/m2 of organic material per year x 3500 m2 (building) = 7500 kg/year organic material.
- 7500 kg of organic material = 2700 kg of compost.
- 2700 kg of compost = 4.50 m3 of compost.
- 750 m3 total capacity of compost maker.

160 Solar Cycles producing compost.
Habitat of Northern Wild Monkshood.



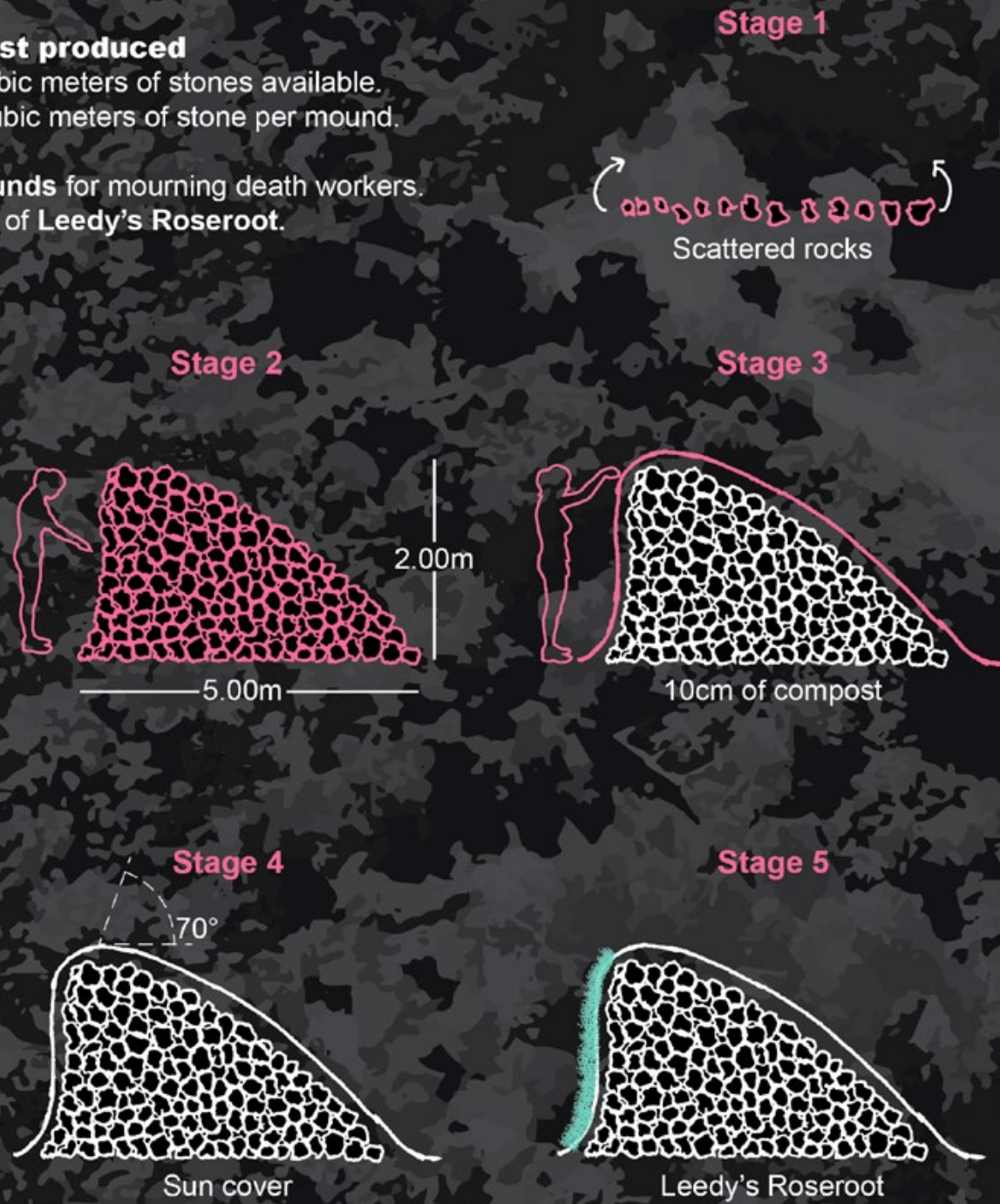
Mounds for mournings death workers ~ Leedy's Roserroot habitat

- Made with scattered dolomite limestone rocks.

Compost produced

- 395 cubic meters of stones available.
- 7.60 cubic meters of stone per mound.

52 mounds for mourning death workers.
Habitat of Leedy's Roserroot.



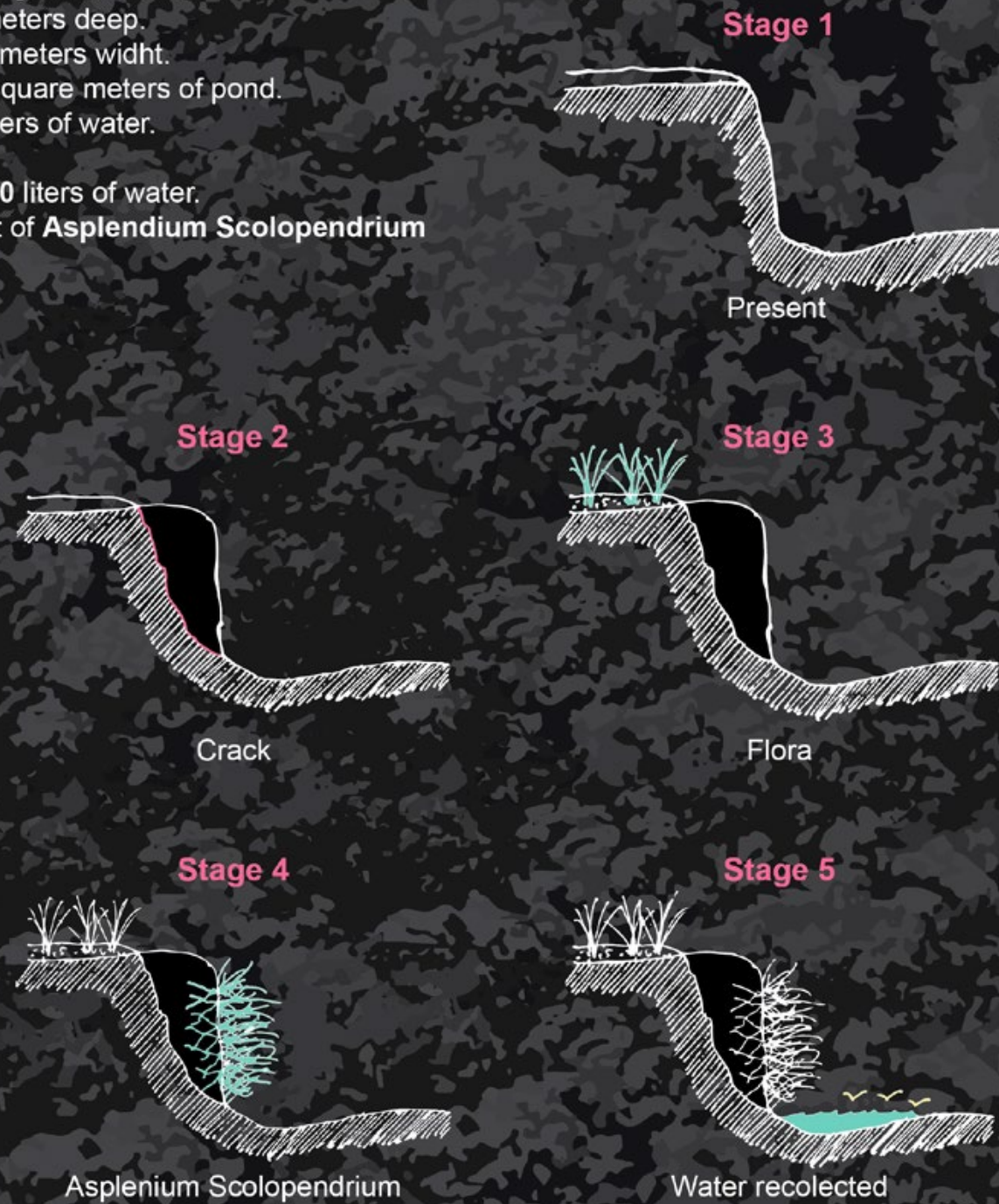
Cracks for filter water to the pond ~ Asplenium Scolopendrium habitat

- Pond for birds to be able to inhabit the area.

Cracks performance

- 0.50 meters deep.
- 1 centimeters widht.
- 1500 square meters of pond.
- 0.30 liters of water.

450.000 liters of water.
Habitat of Asplenium Scolopendrium



Cave ~ **Myotis Sodalis** habitat

• Once full, the compost maker will be abandoned.

Hibernation habitat

• Temperature that remains consistently between 3°C and 6°C.

• High humidity levels around 74% and 100%.

• Compost heat capacity vary in the range of 2.0 to 2.5 kJ/kg.°C.

• Between day and night a temperature variation of 15°C is estimated in the northern of NY state.

• The compost could experience a temperature variation between day and night in winter in northern New York State in the range of approximately 3.40°C to 5.70°F.

Myotis Sodalís hosted.

Become bat's habitat after 160 solar cycles.

Stage 1

Present
750 m3 for compost

Stage 2

+ Thermal inertia
+ Humidity

Hive ~ **Apis Mellifera** habitat

• Landscape pollination.

Mound hives

• 0.20 m2 of hive could host 20000 bees.

• 6.00 m2 of hive per mound x 15 mounds = 90.00 m2 of mound hives.

• 90.00 m2 of mound hives = 450 hives of 0.20 m2 each one.

• 450 hives = 9.000.000 of bees.

• Can effectively pollinate 1 km to 2 km, up to maximum 5 km from the hive.

• Hives should be oriented southwest to receive morning sun and enact bees to forage.

• They should be protected from north winds in winter.

9.000.000 of Apis Mellifera.

12.56 square kilometers pollinated.

Stage 1

Galvanized metal structure

Stage 2

Dolomite limestone bedrock

Stage 3

Compost

Stage 4

Hive

Galvanized metal **nests** ~ **Birds** habitat

• Made of galvanized metal. Lasts approximately 75 years.

Birds hosted

• American Robin (*Turdus migratorium*) -6m

• Eastern Bluebird (*Sialia sialis*) -6m

• Blue Jay (*Cyanocitta cristata*) +6m

• Cedar Waxwing (*Bombycilla cedrorum*) +6m

• Northern Cardinal (*Cardinalis cardinalis*) -6m

• Hermit Thrush (*Catharus guttatus*) -6m

6 species of birds hosted.

Degrades after 75 years.

Stage 1

6.00m

Structure

Stage 2

3.00m

Recognition

Stage 3

Nest

Stage 4

Decomposition

Each agent—and the role it performs within this ecological system—is intrinsically linked to the rest, forming a network of mutual dependencies and continuous intra-actions.

Composter's operating logic.

- 750 cubic meters.
- 7500 kg of elements to decompose per year (3.500 m2 of forest).
- Average density of compost 600 kg/m3.
- Compost production per year 4.50 cubic meters.
- Solar chimney for compost ventilation.

Planting trees for Myotis Sodalis foraging.

- 7500 square meters planted.

Elm

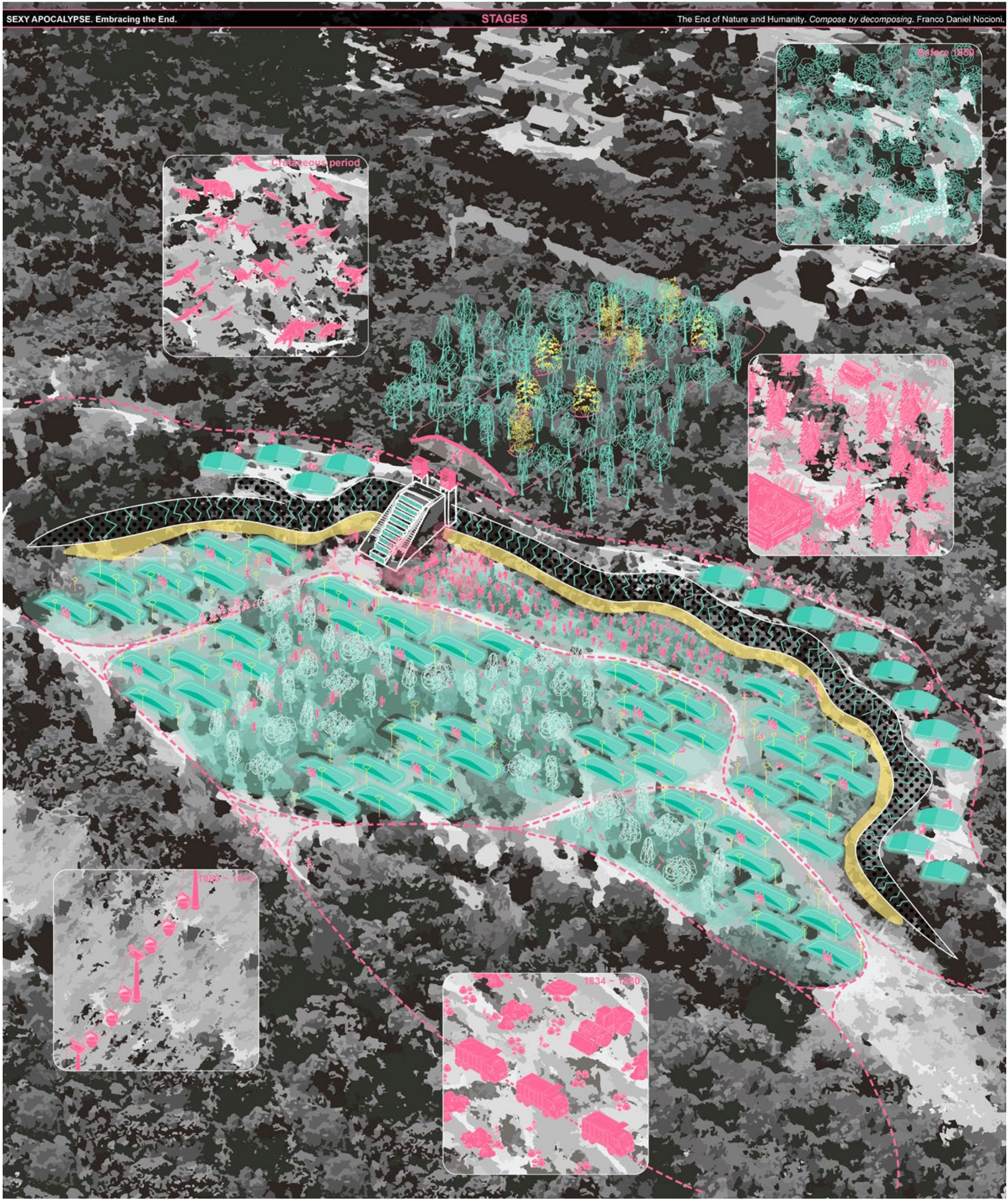
Bitternut Hickory

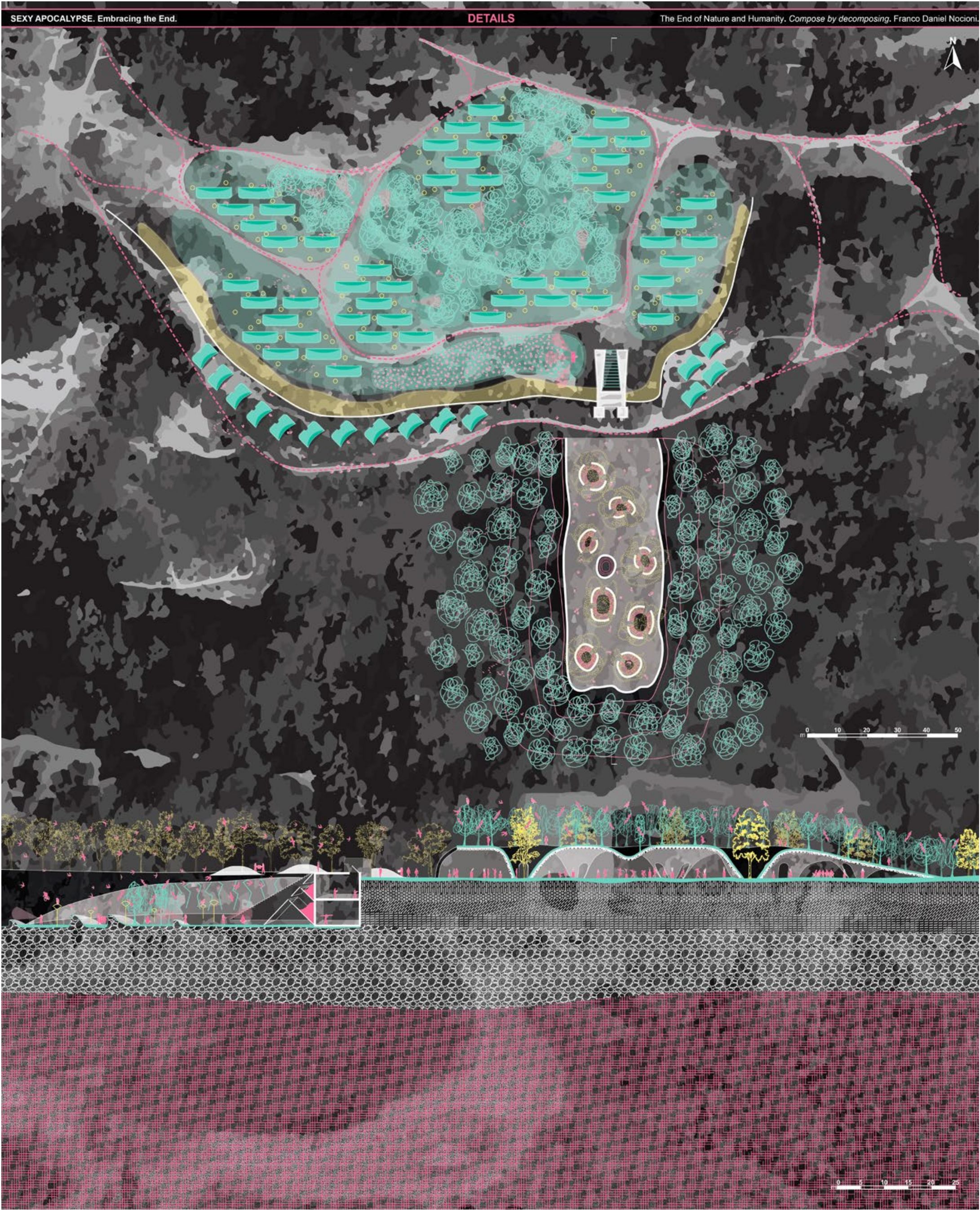
Silver Maple

Pignut Hickory

Shagbark Hickory

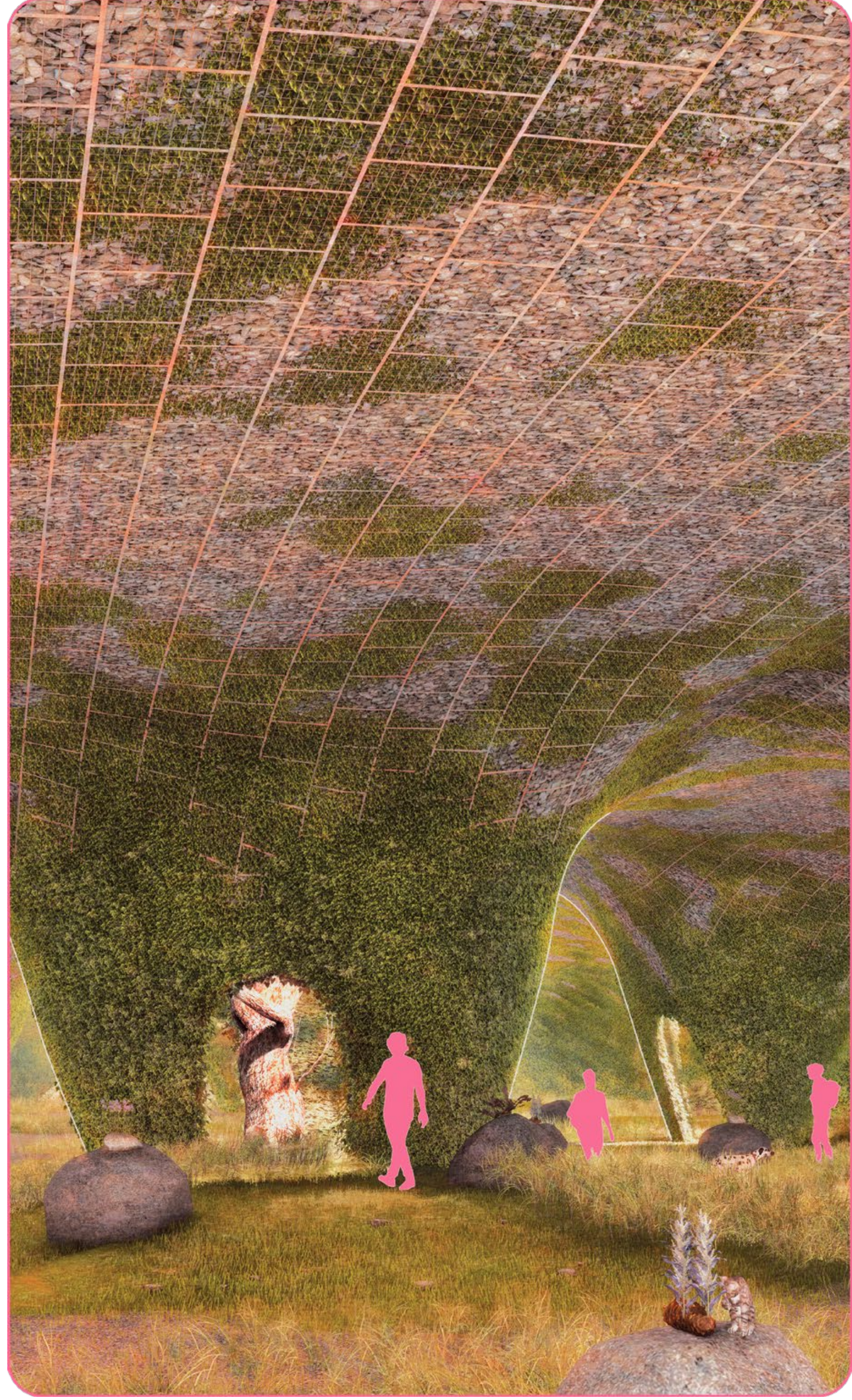
White oak





Spatial articulation of a landscape where decomposition is no longer hidden but central to architectural and territorial processes. Set in Split Rock Quarry, the project refuses the logic of restoration and instead composes with what remains - scars, waste, and memory.

The site becomes an encounter zone, shaped by intra-actions between humans, matter, and microorganisms. It proposes no utopia, no salvation —only the slow and visible reconfiguration of land through decay. In this landscape, the end is not erased, but composed with.

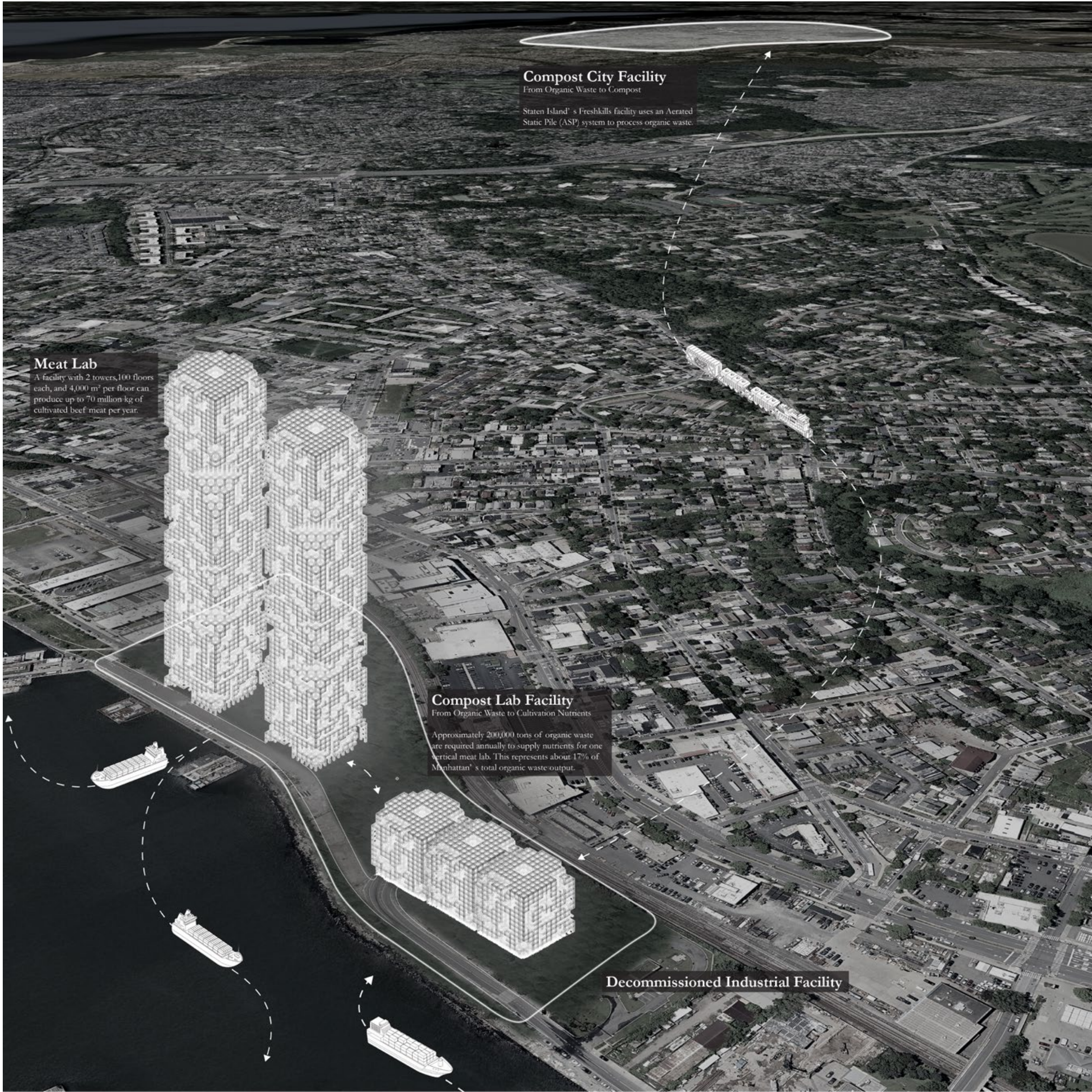


Vertical Meatworks

This project proposes a radical reconfiguration of **New York City's food infrastructure** by relocating beef production from **rural land** to **vertical labs** within the city. Currently, NYC's annual beef consumption requires over 1.5 million acres—an area equivalent to 102 Manhattan Islands—resulting in massive **ecological costs** in land, water, and CO2 emissions. Through speculative design, the project visualizes an alternative: a **network** of high-rise facilities that cultivate meat using lab-grown tissue, eliminating the need for slaughter while significantly reducing environmental impact.

By mapping out the spatial, energetic, and economic implications of this shift, the proposal imagines two strategies: concentrating production into one vertical building the size of a city block and 237 floors tall - not viable - or distributing it across three facilities strategically located in underutilized industrial zones in Staten Island, The Bronx, and Queens. These sites are chosen based on infrastructure access, land value, and proximity to compost and distribution networks. The project not only redefines the **urban role in food production** but also critiques the industrial meat system through a lens of **ecological justice** and **spatial equity**.





Vertical Lab: This aerial view of Staten Island illustrates the proposed integration of Vertical Meatworks within a decommissioned industrial zone. Two towers anchor the site, surrounded by composting and bioreactor facilities that process organic waste into nutrient-rich inputs for lab-grown meat—transforming a neglected urban edge into a hub of circular food production.

| **Course**
Design Studio

| **Supervisor**
David Benjamin

| **Semester**
Winter

Manhattan CO2-Sink

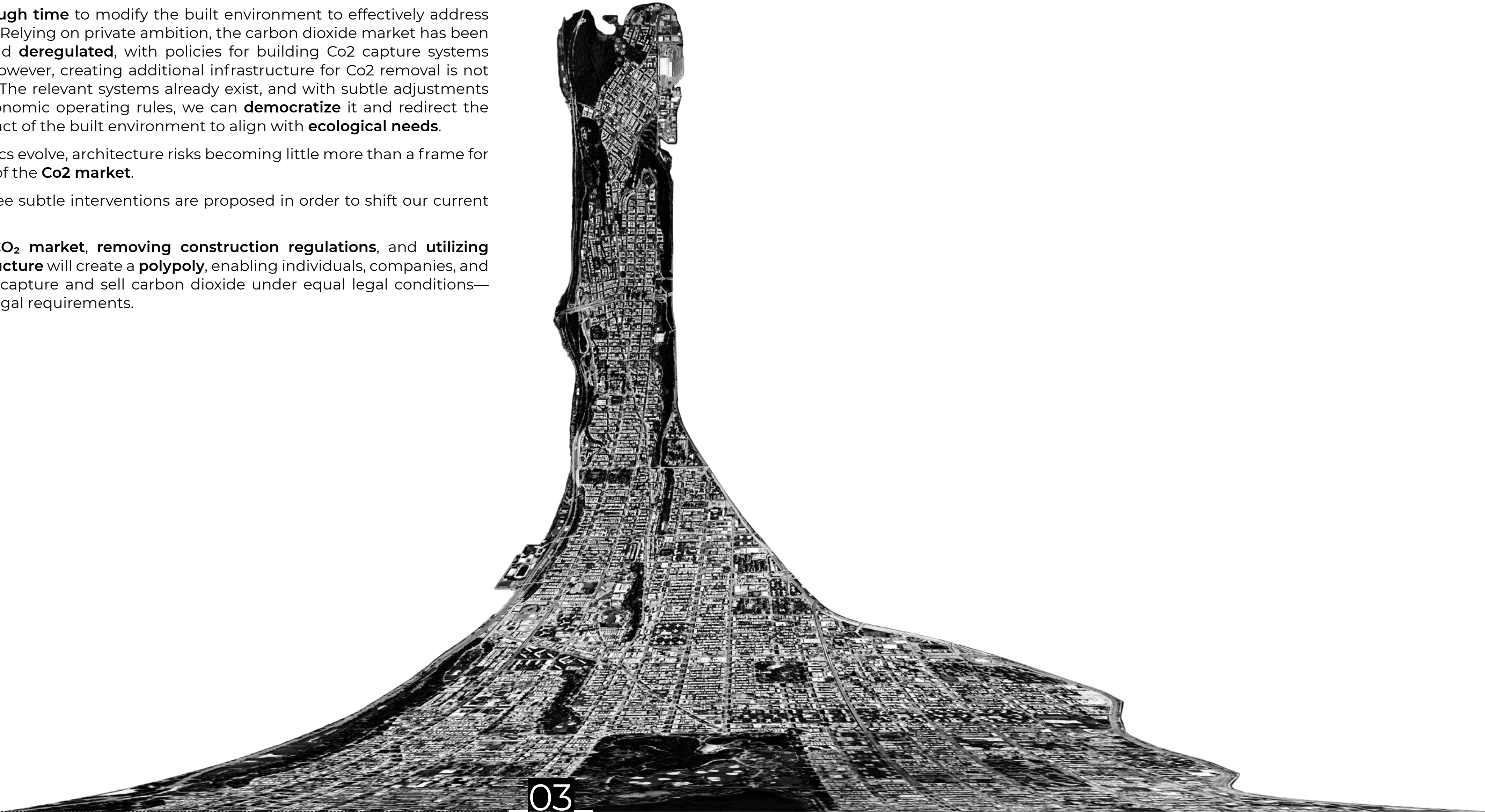
Environmental system for CO2 removal scalability

There is **not enough time** to modify the built environment to effectively address **global warming**. Relying on private ambition, the carbon dioxide market has been **commodified** and **deregulated**, with policies for building Co2 capture systems largely erased. However, creating additional infrastructure for Co2 removal is not strictly required. The relevant systems already exist, and with subtle adjustments to social and economic operating rules, we can **democratize** it and redirect the detrimental impact of the built environment to align with **ecological needs**.

As urban dynamics evolve, architecture risks becoming little more than a frame for the fluctuations of the **Co2 market**.

For this goal, three subtle interventions are proposed in order to shift our current path:

Liberating the **CO₂ market**, **removing construction regulations**, and **utilizing existing infrastructure** will create a **polypoly**, enabling individuals, companies, and organizations to capture and sell carbon dioxide under equal legal conditions—that is, without legal requirements.





not enough time

Priority

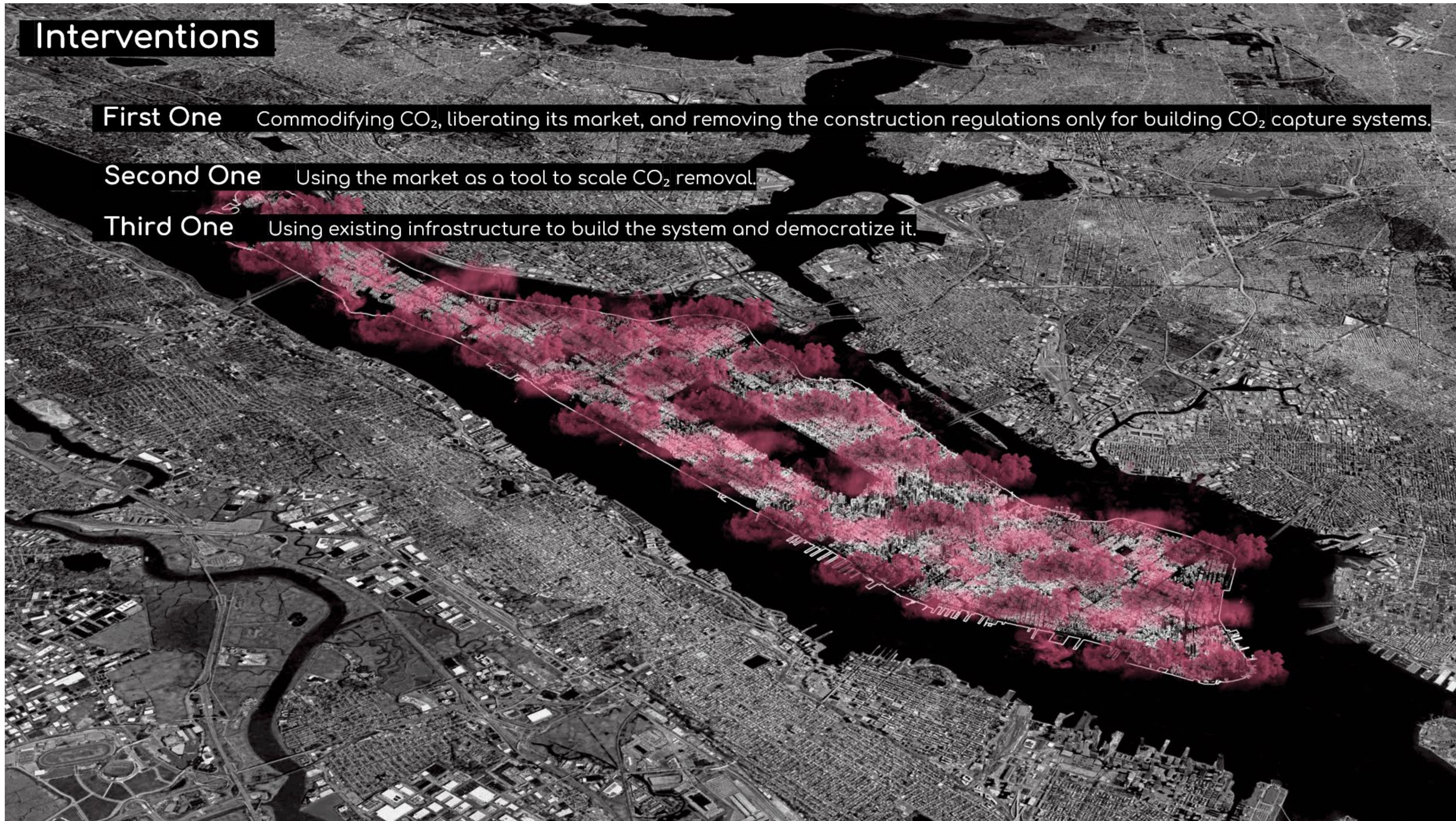
remove as much **Co2** as possible, as soon as possible

Interventions

First One Commodifying CO₂, liberating its market, and removing the construction regulations only for building CO₂ capture systems.

Second One Using the market as a tool to scale CO₂ removal.

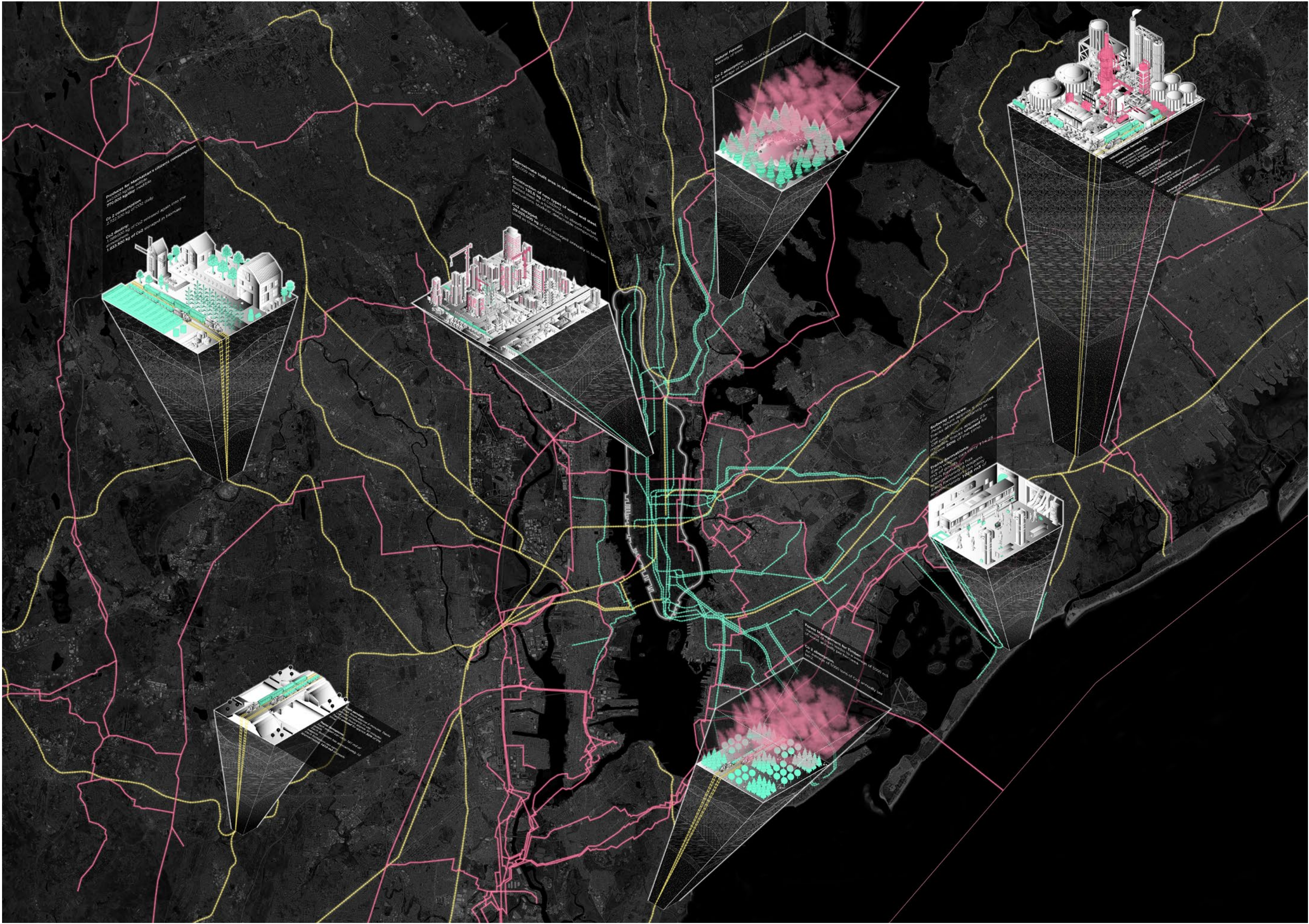
Third One Using existing infrastructure to build the system and democratize it.



1st. Even though CO₂ is already a commodity, its implementation within the economic cycle is limited due to restrictive regulations.

2nd. By delegating to the private sector's ambition for economic gain, the market will be directed to serve as a tool for the rapid implementation of CO₂ removal systems.

3rd. In a market dominated by large companies that possess the needed infrastructure, it is neither necessary nor timely to build new ones for CO₂ removal democratization, as that infrastructure already exists.



Project Structure

The existing infrastructure that will be used to democratize the system is the **gas infrastructure**, which is homogeneously distributed across Manhattan. As technical aspects allow, **gas pipelines** will be used in **reverse** to transport the captured CO₂ to the surrounding areas of the island. *Pink color*

Since CO₂ is utilized by **various industries** such as chemical, medical, and agricultural sectors, they will shape the demand for **raw carbon dioxide**. These industries will be located in hubs where the gas infrastructure intersects with transportation systems; **train** and **subway networks**, which will be used to deliver the finished products back to Manhattan as well as surrounding areas. *Zoom in*

As subway and train systems have idle time slots within their passenger transport schedules, they will be utilized not only for transporting products—turning **stations into dynamic markets**—but also for carrying **vegetable waste** from farms and surrounding forests to build the environment. *Green color*

Possible New Typologies



- left to right*
- . New residential and commercial buildings.
 - . Extensions to existing structures.

- left to right*
- . Modular equipment in current buildings
 - . Extensions to individual homes.



Note: By deregulating the carbon market and removing restrictions on the construction of such systems, certain vulnerabilities will inevitably emerge. Lower-income communities may be forced to choose between having access to sunlight within their homes or earning a few coins by capturing Co2.

Modular Direct Air Capture 4x4_Module

As a new architectural typology designed to integrate DAC systems, a modular steel grid—structured in 4m x 4m units—was developed to respond flexibly to market fluctuations.

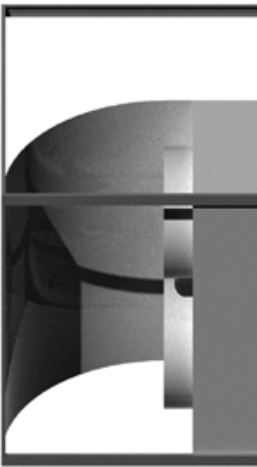
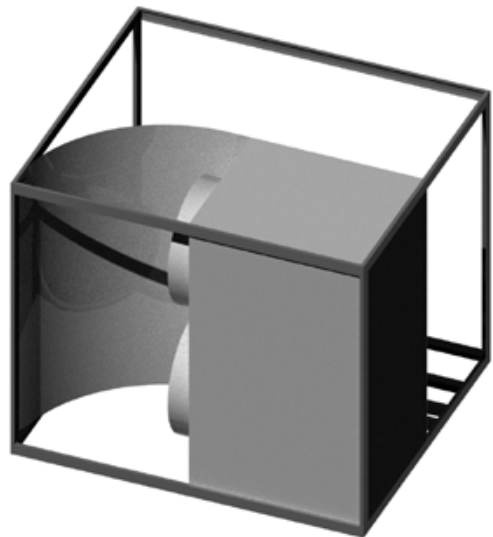
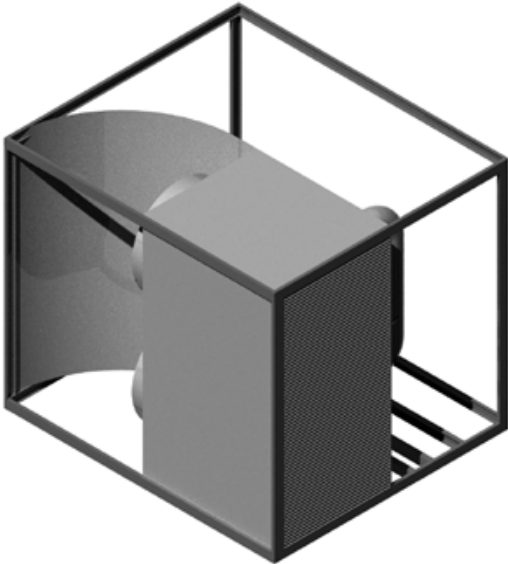
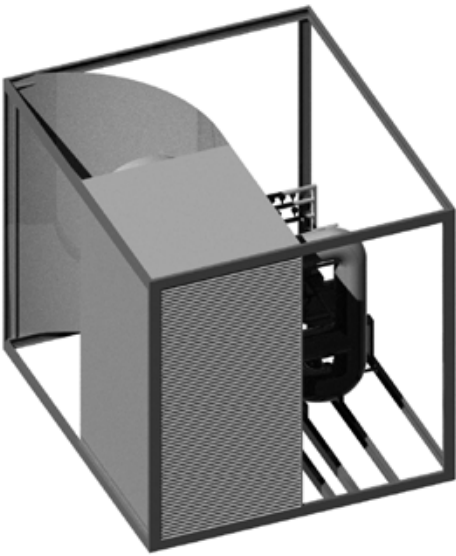
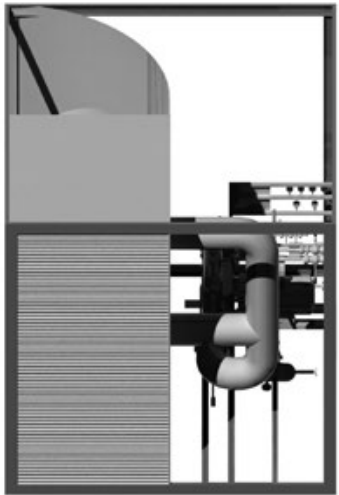
This system allows for both expansion and contraction over time, enabling the architecture to adapt to changing environmental and economic pressures.

The grid supports the insertion of habitable modules alongside 4m x 4m Direct Air Capture (DAC) units for carbon sequestration.

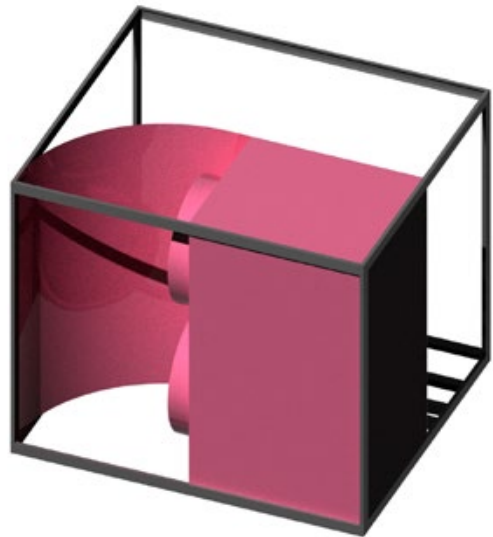
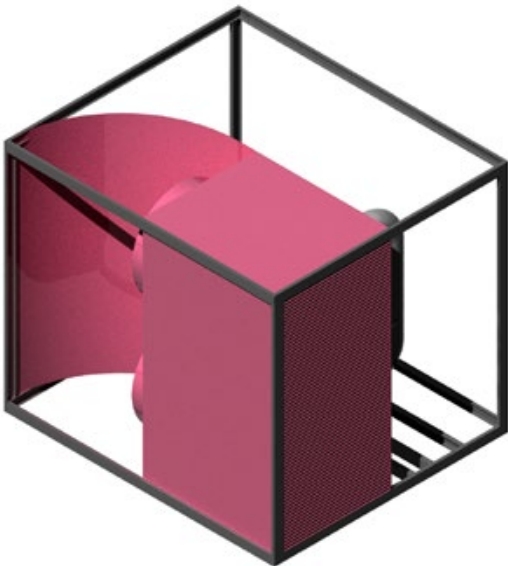
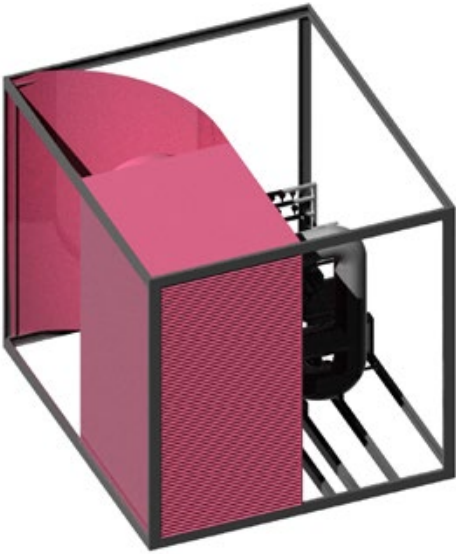
The balance between residential space and DAC infrastructure remains fluid, dictated not by fixed programming but by real-time market demand.

In this model, architecture is reduced to a calibrated framework - no longer a static object, but a responsive infrastructure shaped by and for market volatility.

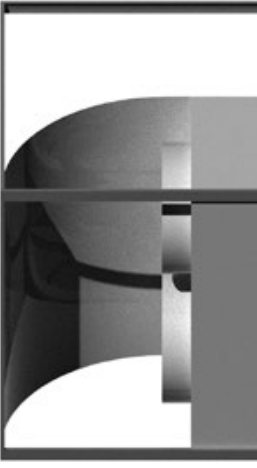
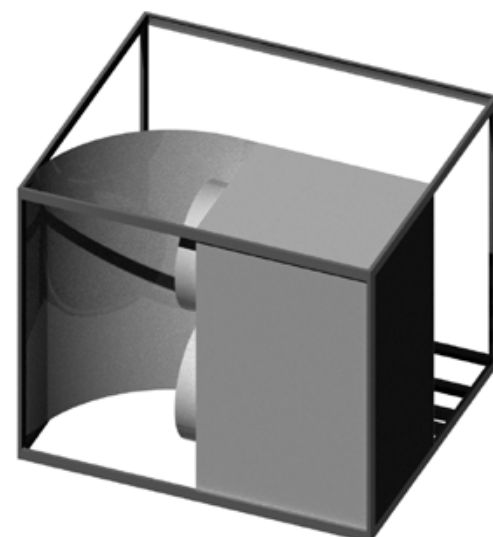
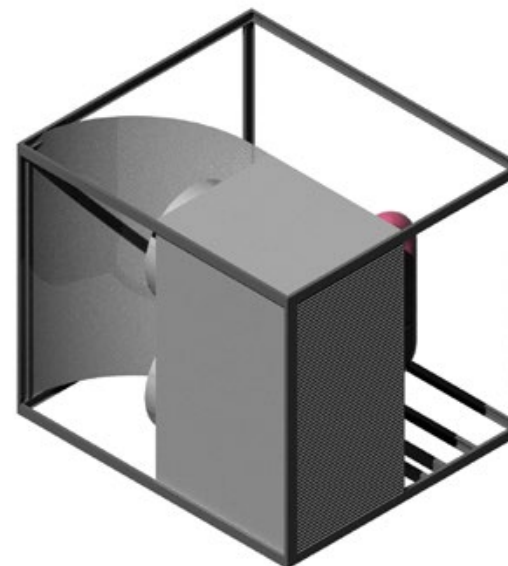
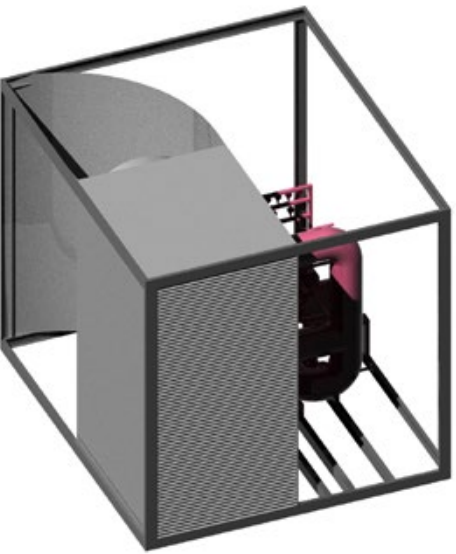
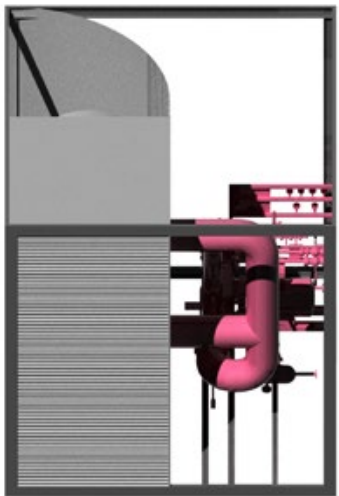
Module

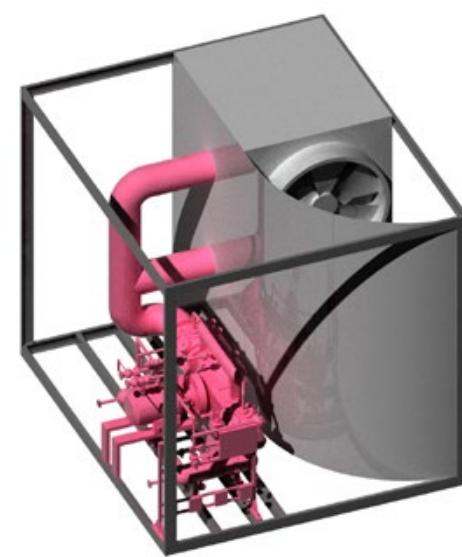
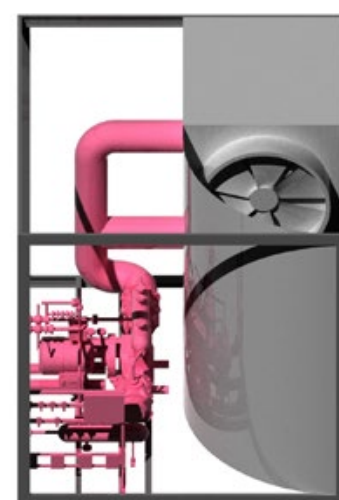
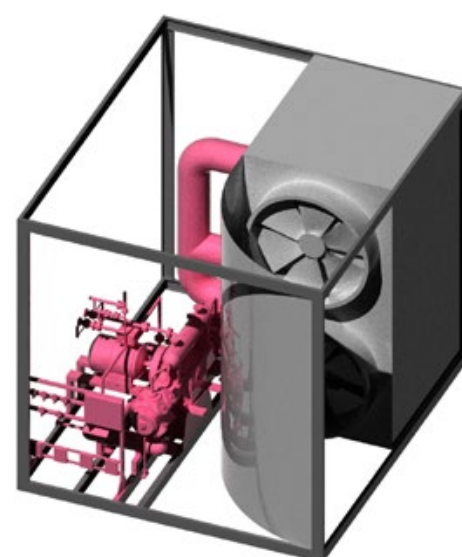
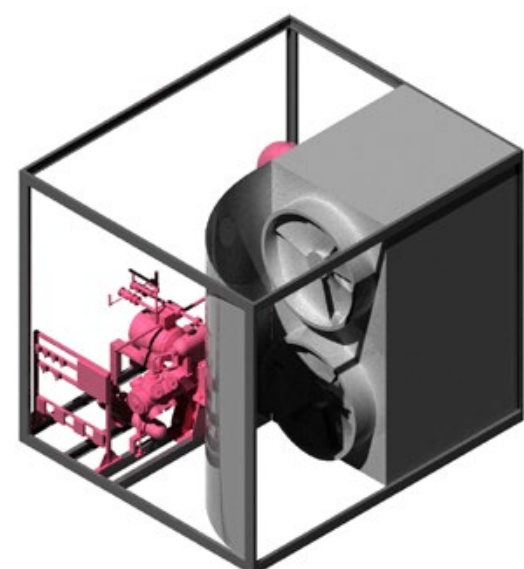
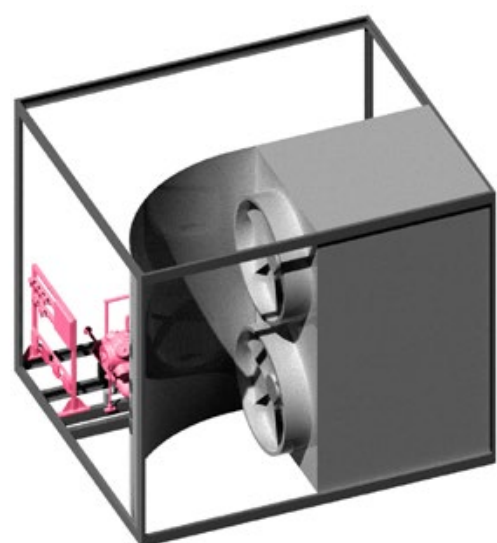
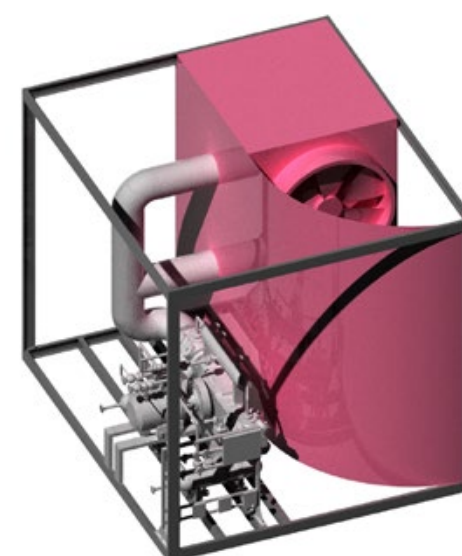
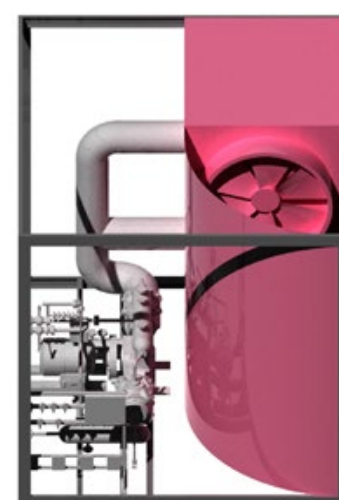
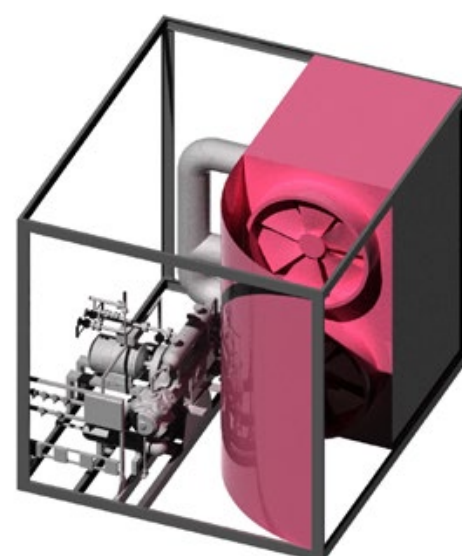
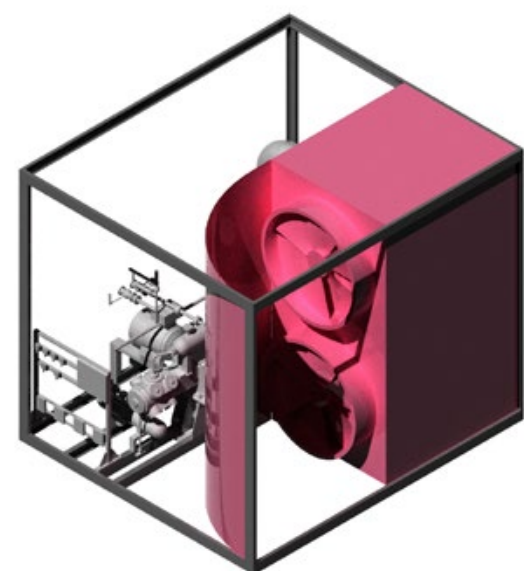
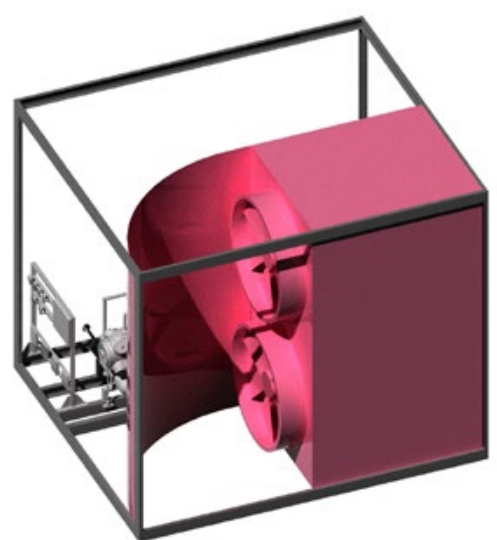
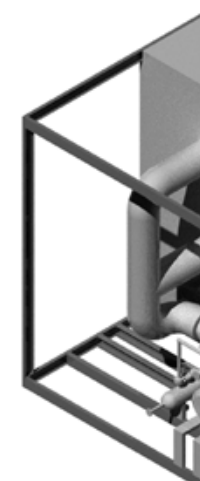
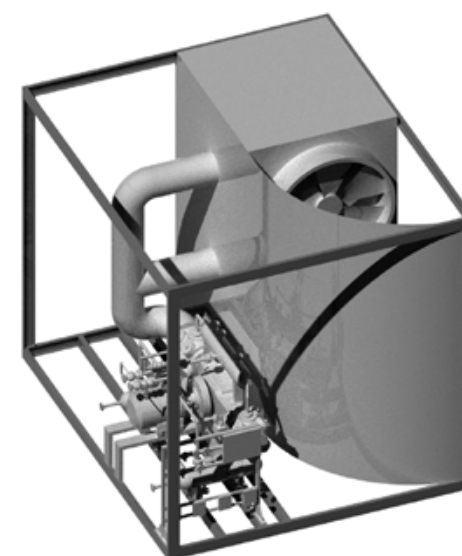
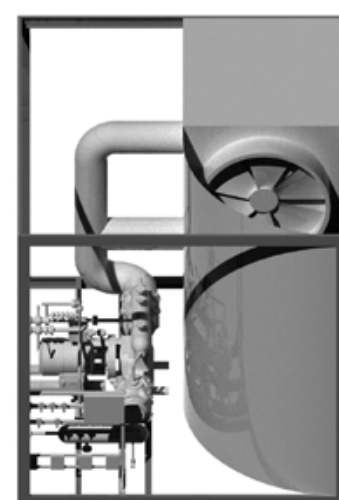
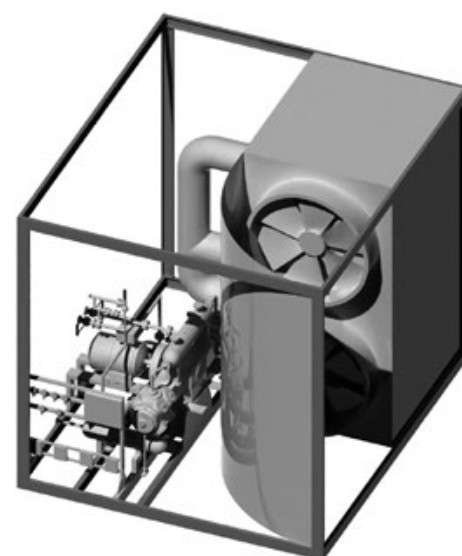
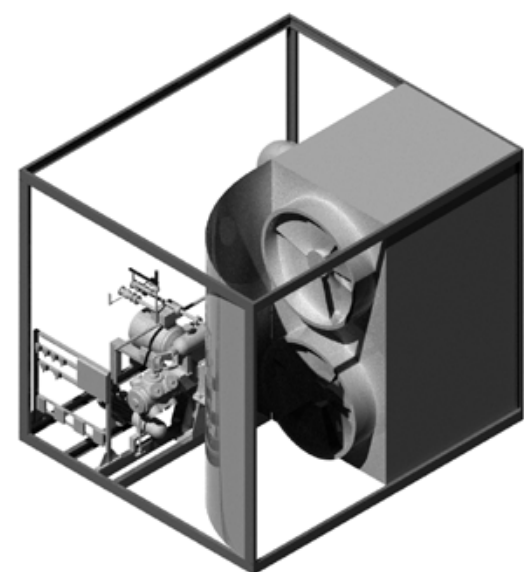
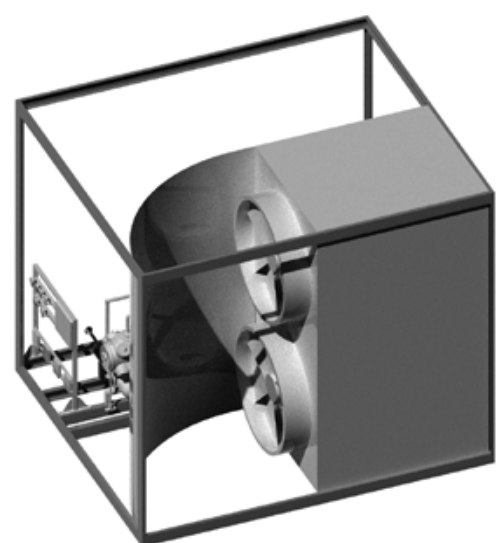


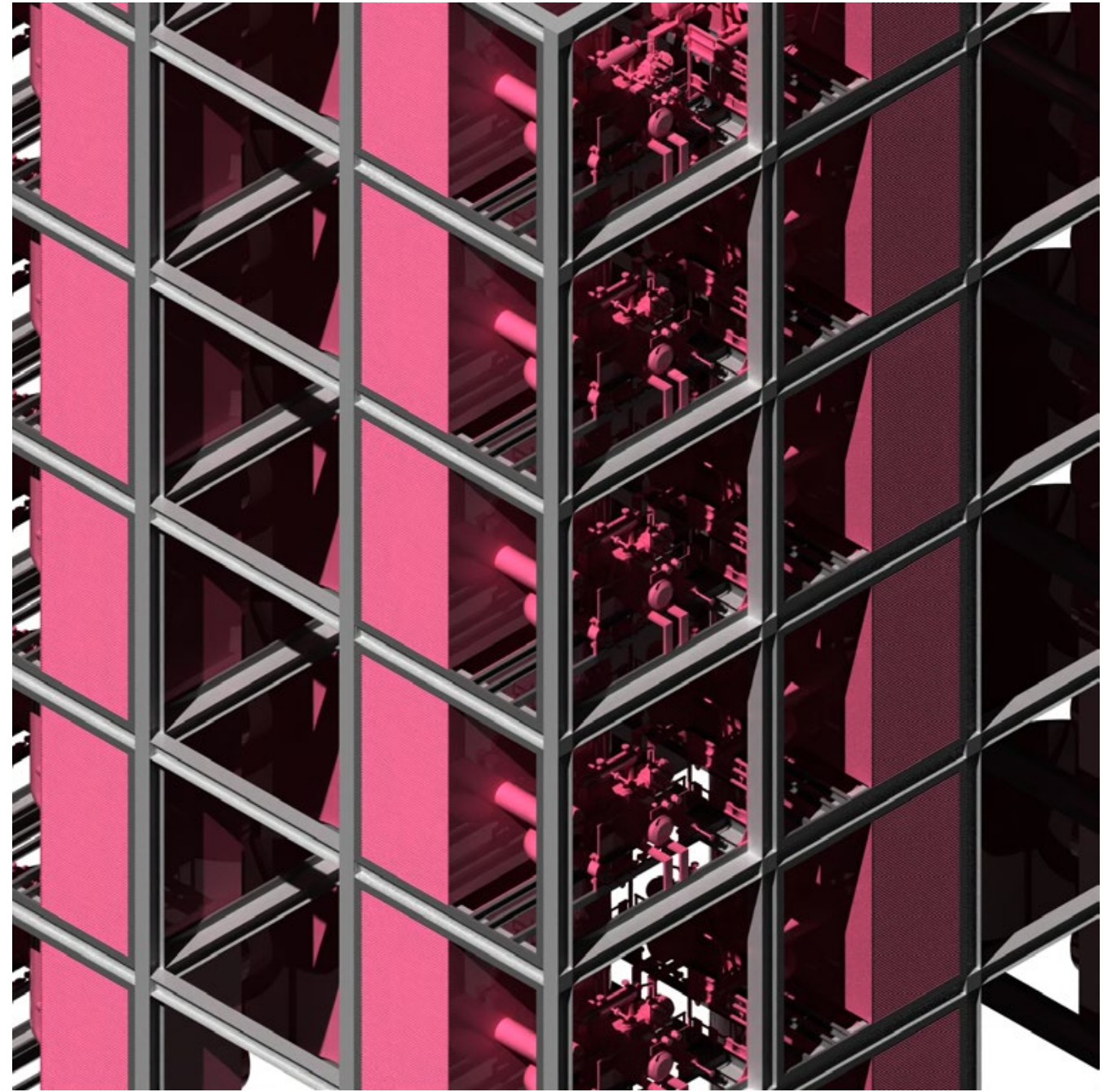
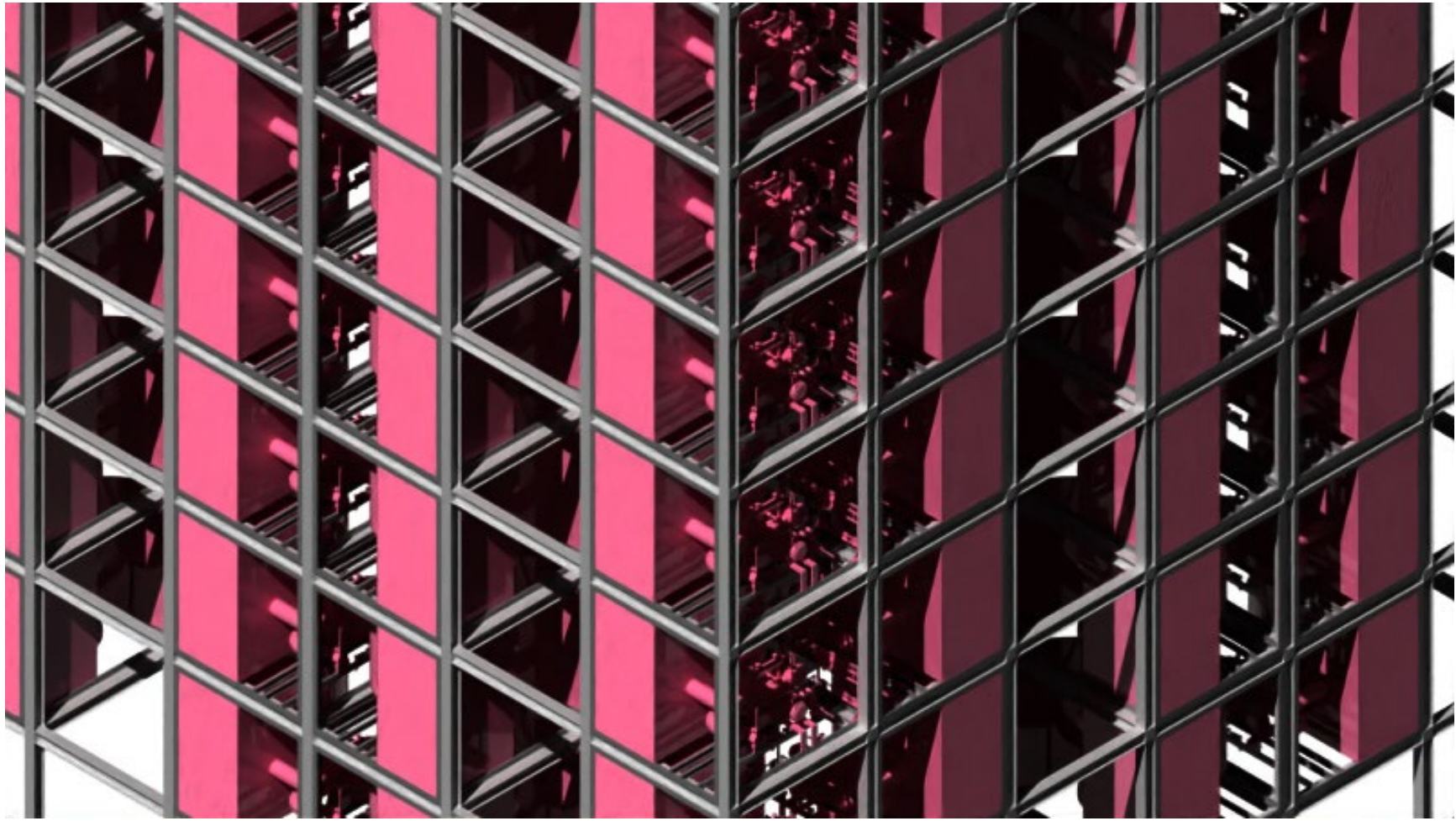
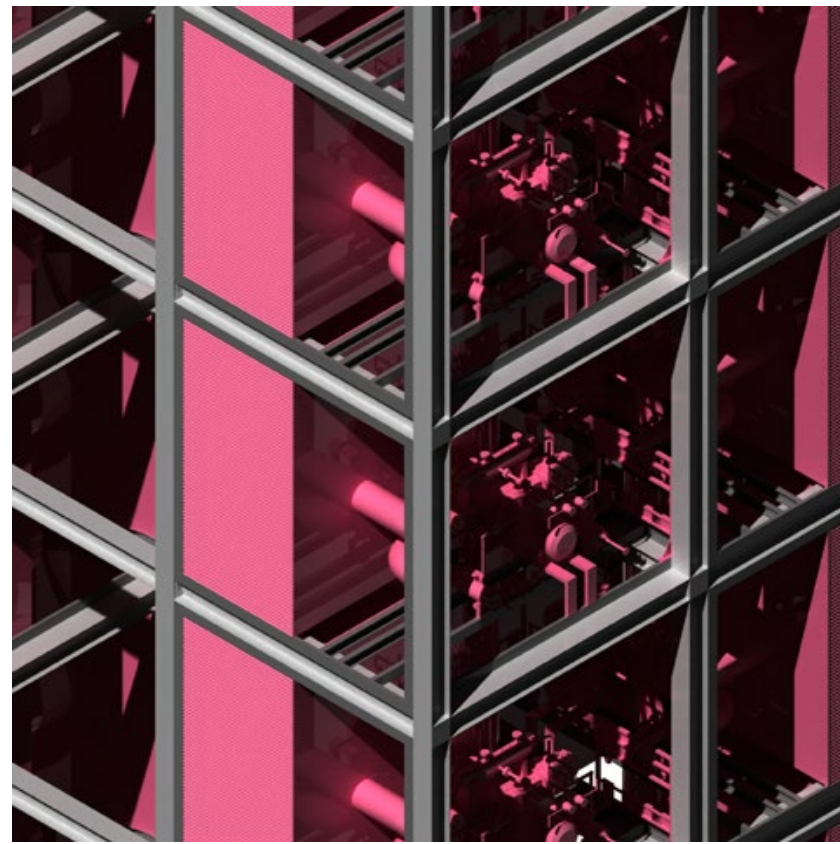
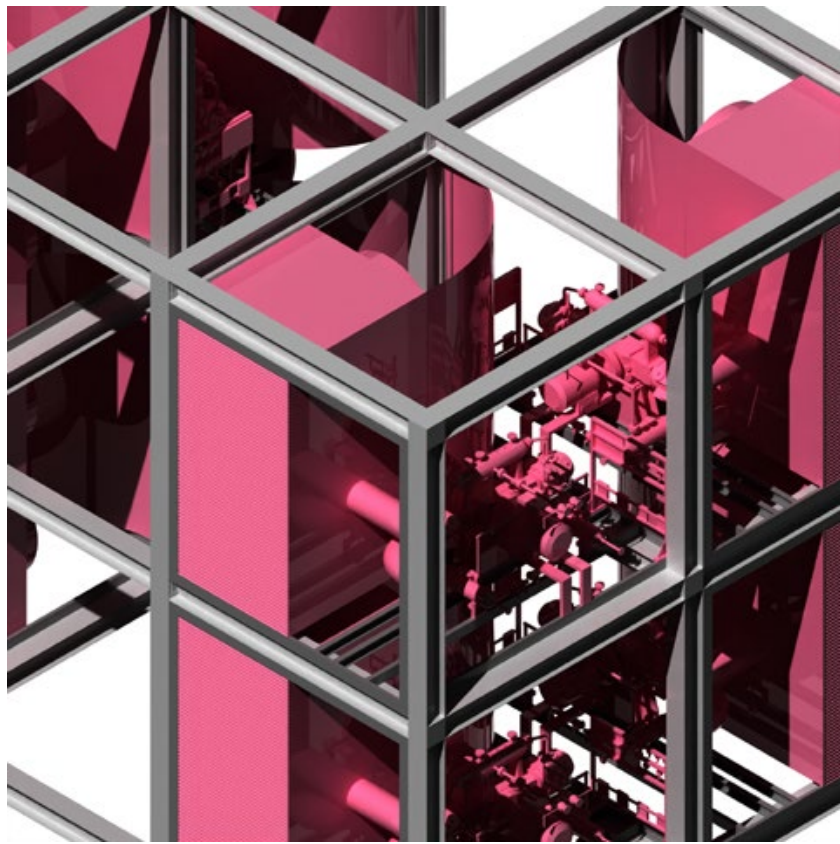
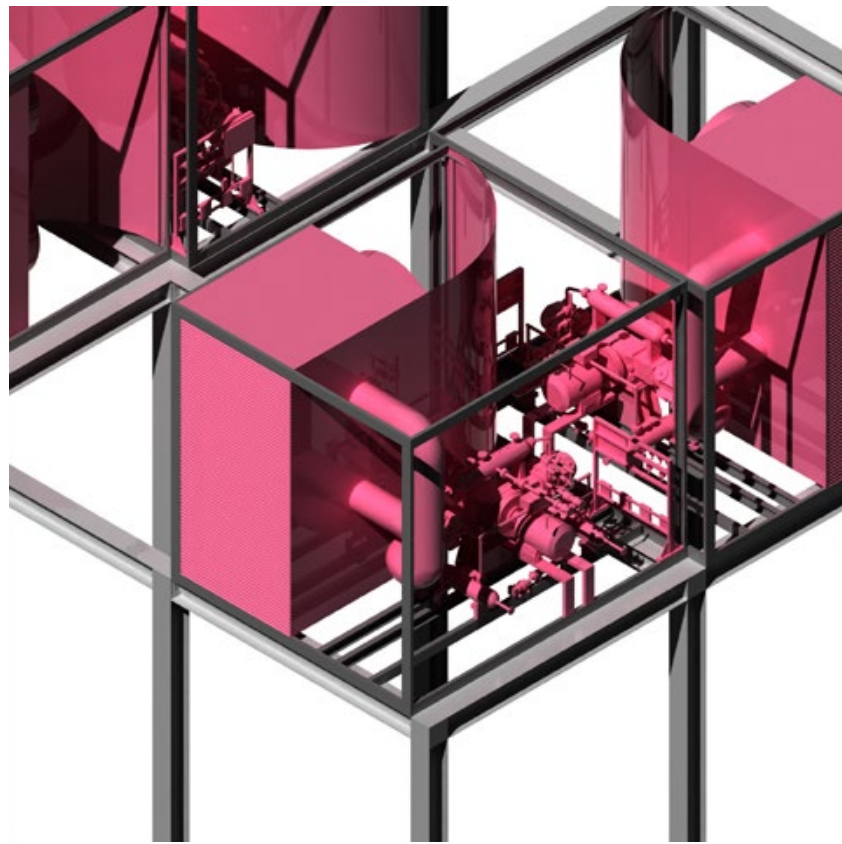
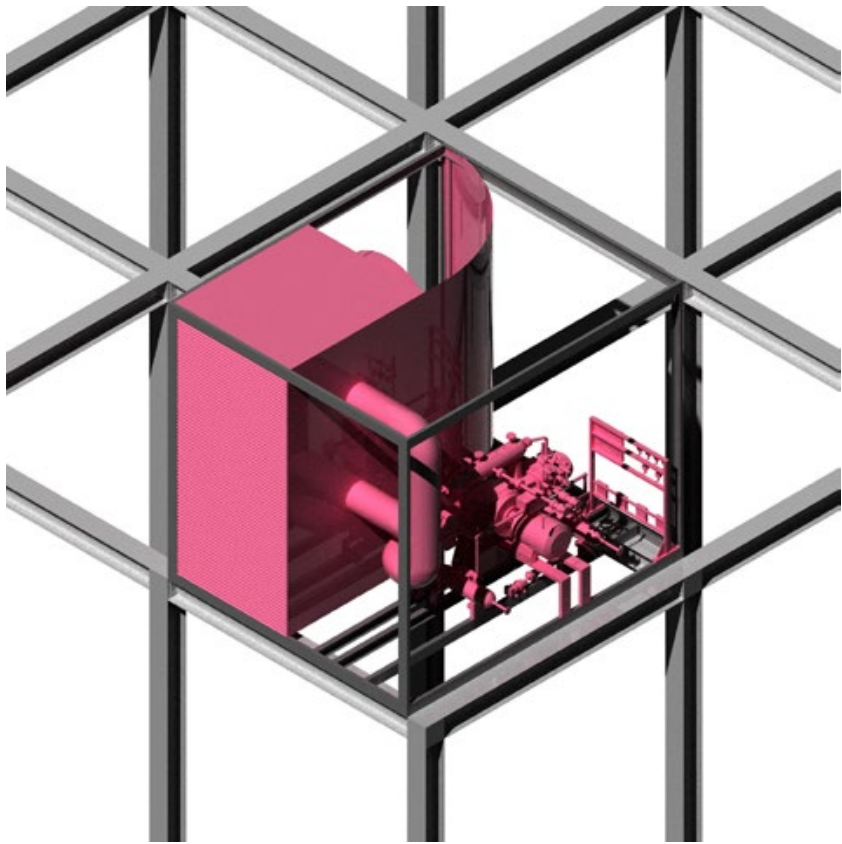
DAC Fans



Compressor





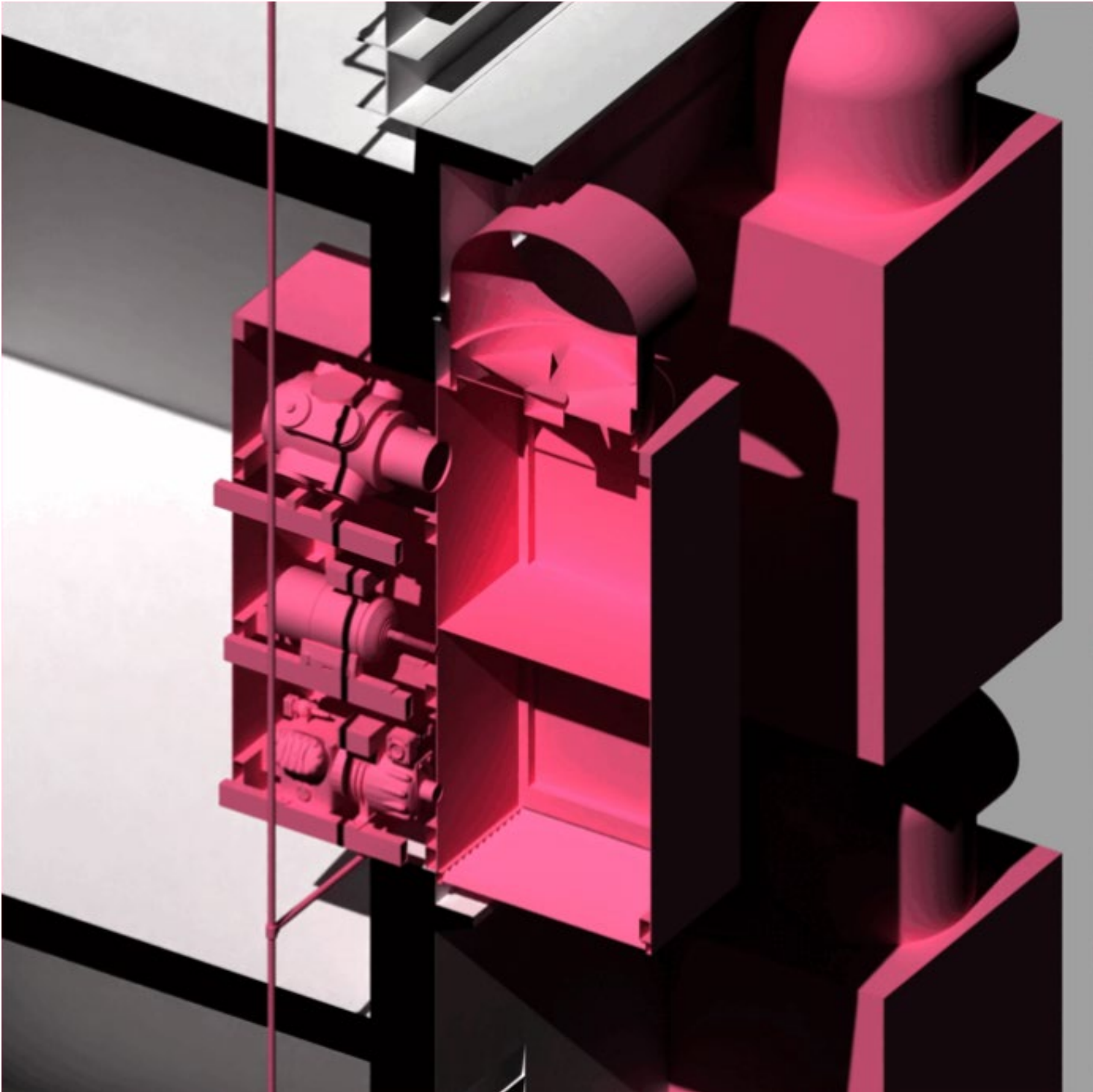


Modular Direct Air Capture Window_Module

Building on the modular and standardized dimensions of typical window openings found in New York's townhouses and tenement buildings—a recurring typology across the city—this proposal introduces a modular Direct Air Capture (DAC) system specifically designed for retrofitting existing facades.

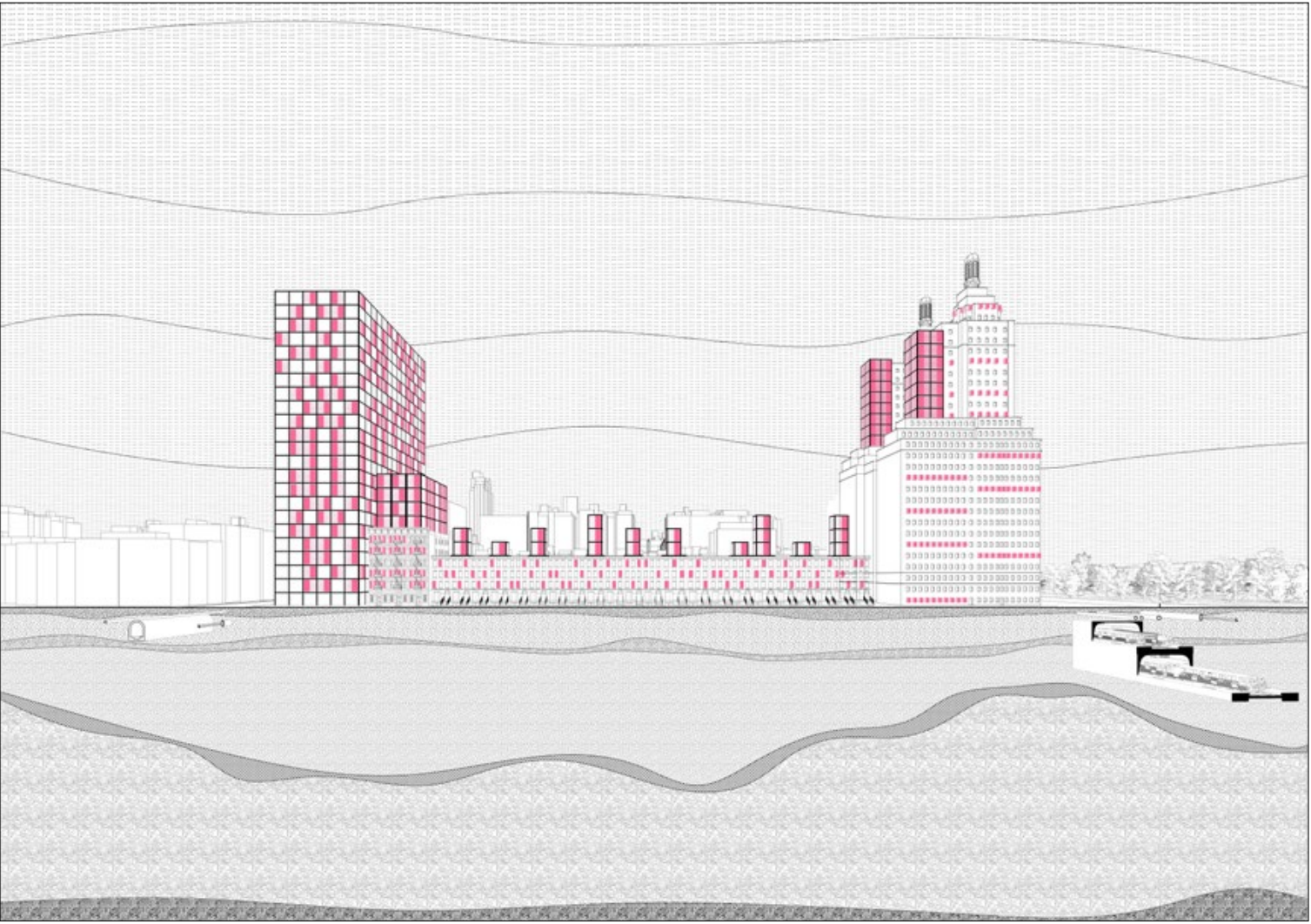
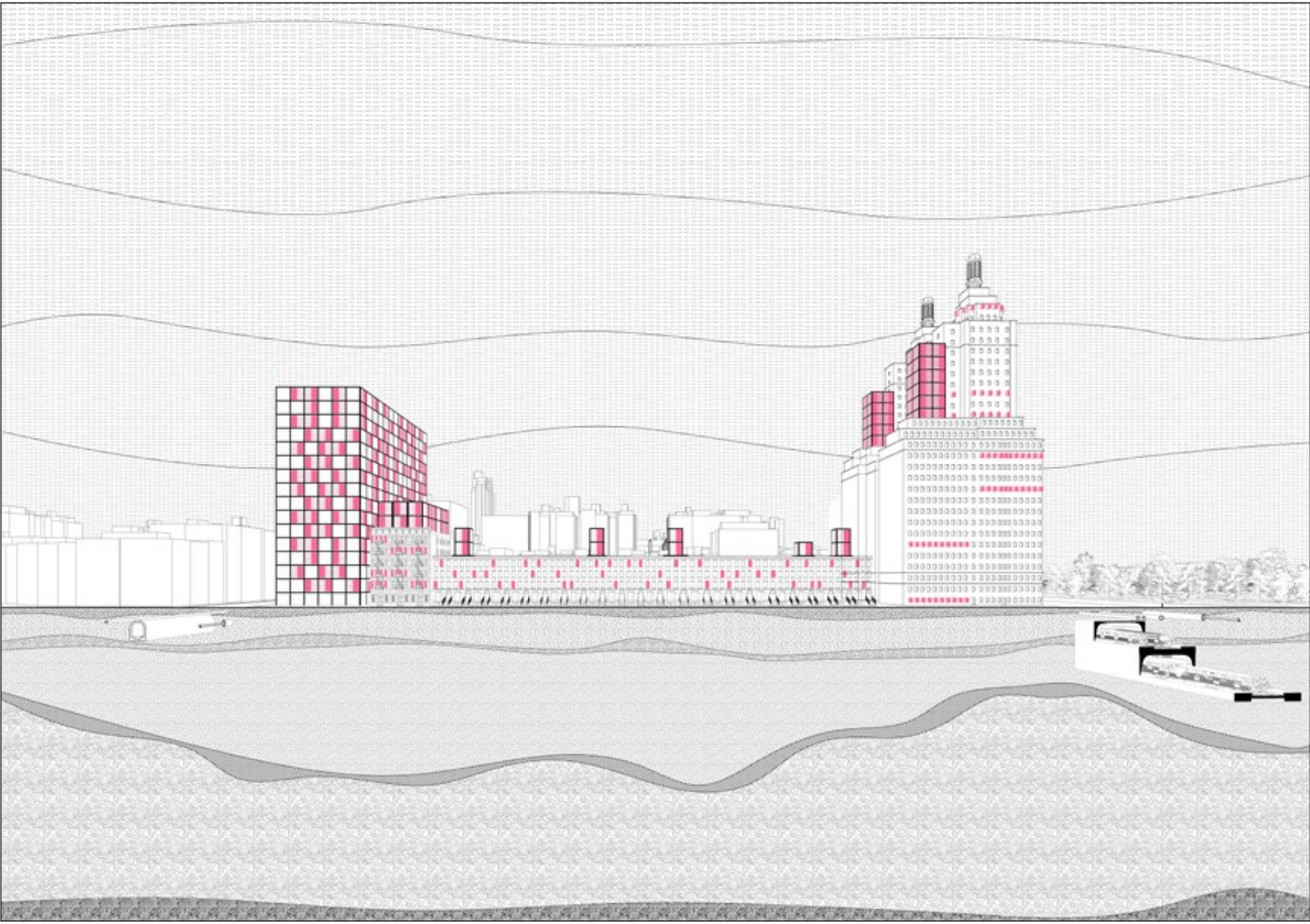
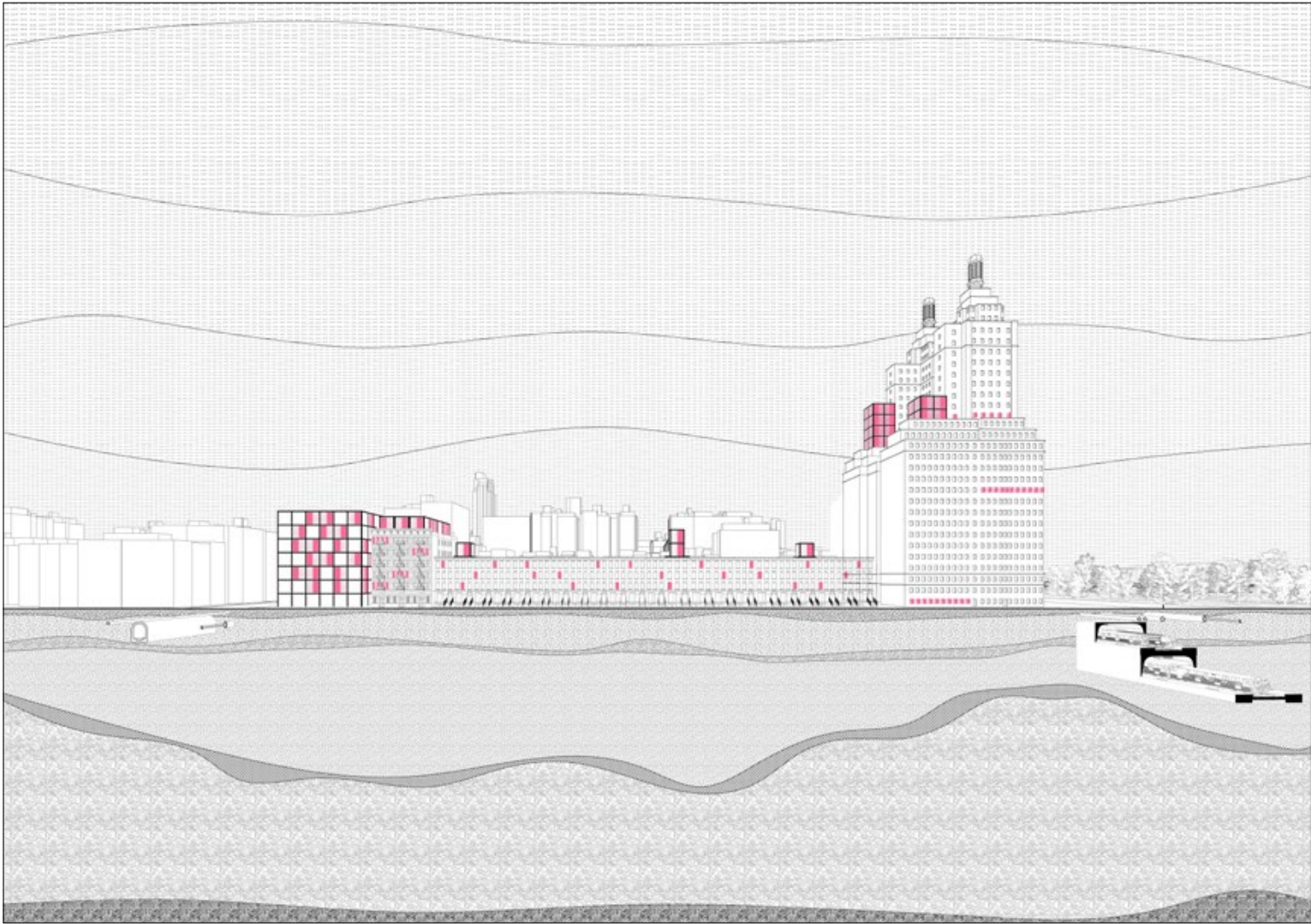
By aligning with the architectural logic of these historical structures, the system leverages an existing urban fabric to integrate carbon capture technology without requiring large-scale redevelopment.

This approach reframes the window not only as an aperture for light and air, but as a productive threshold - capable of participating in a distributed, citywide climate infrastructure.

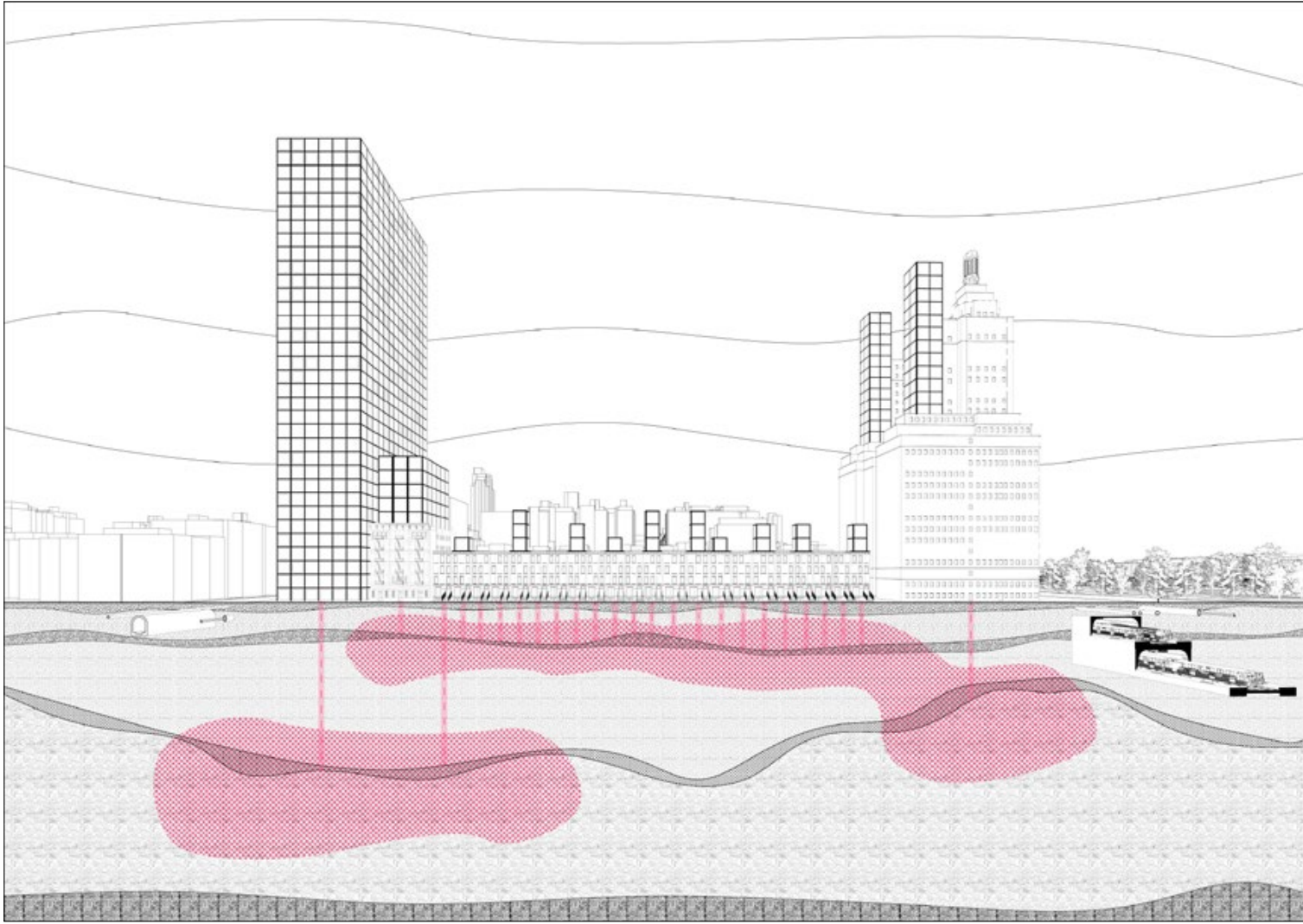
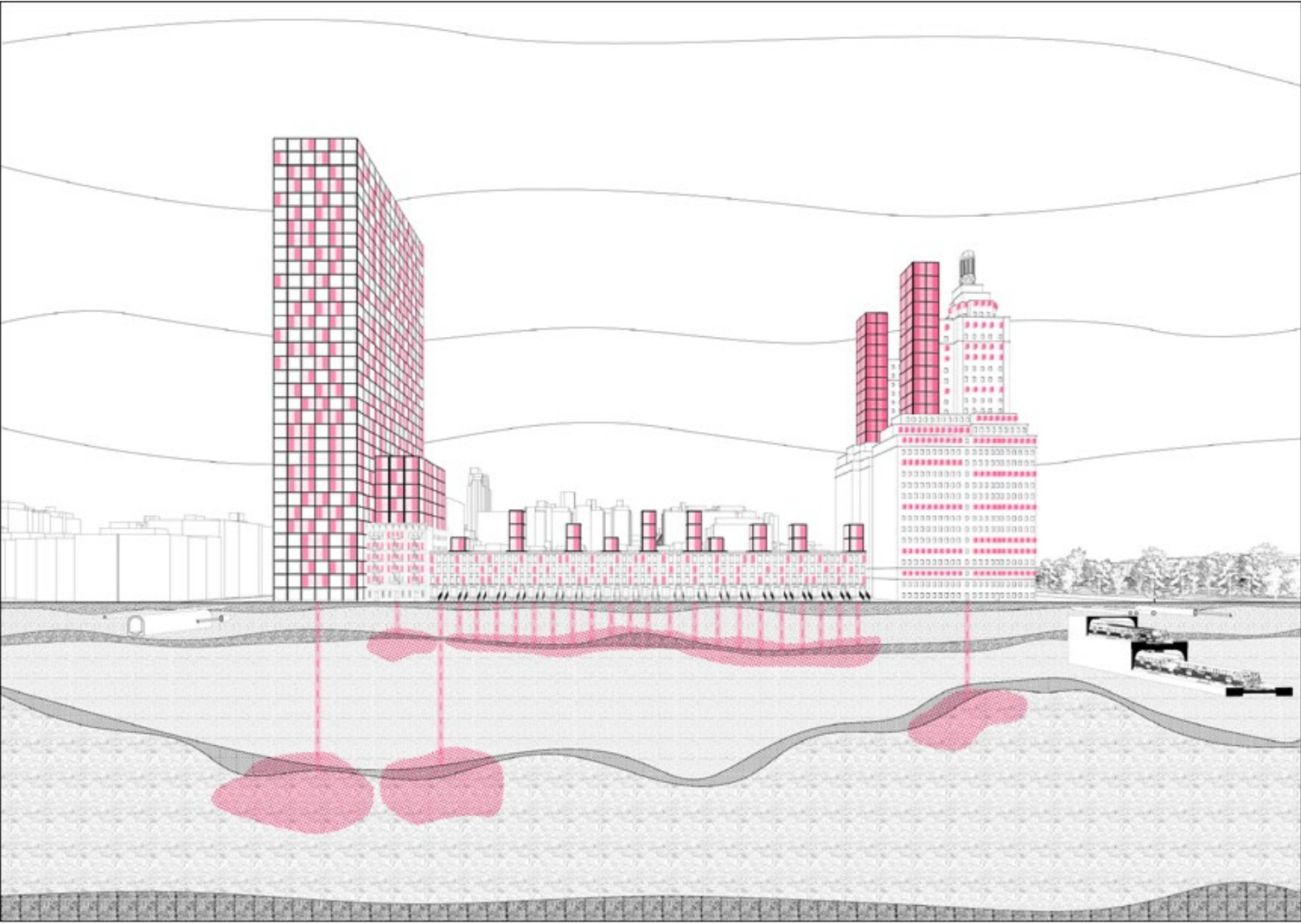
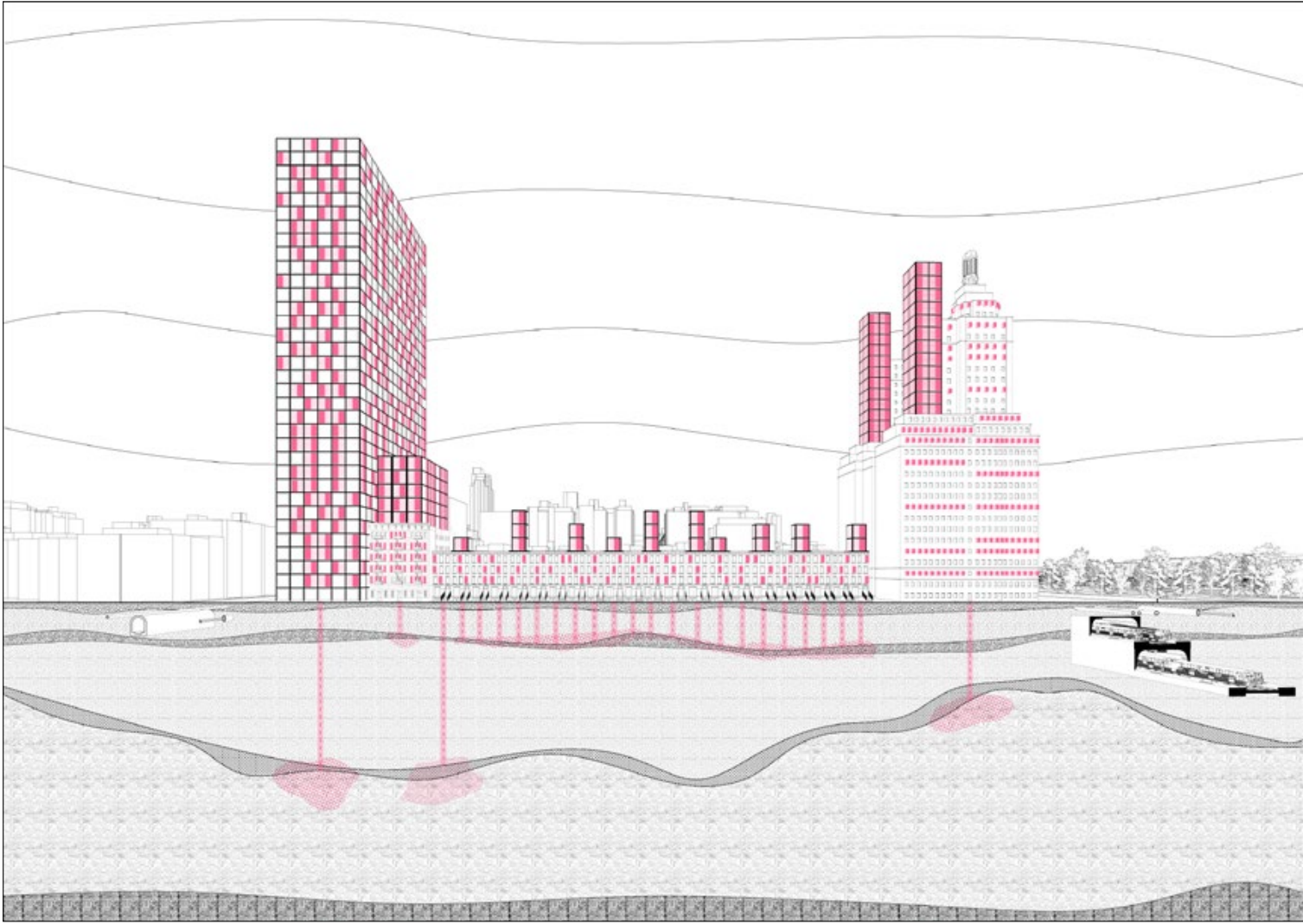
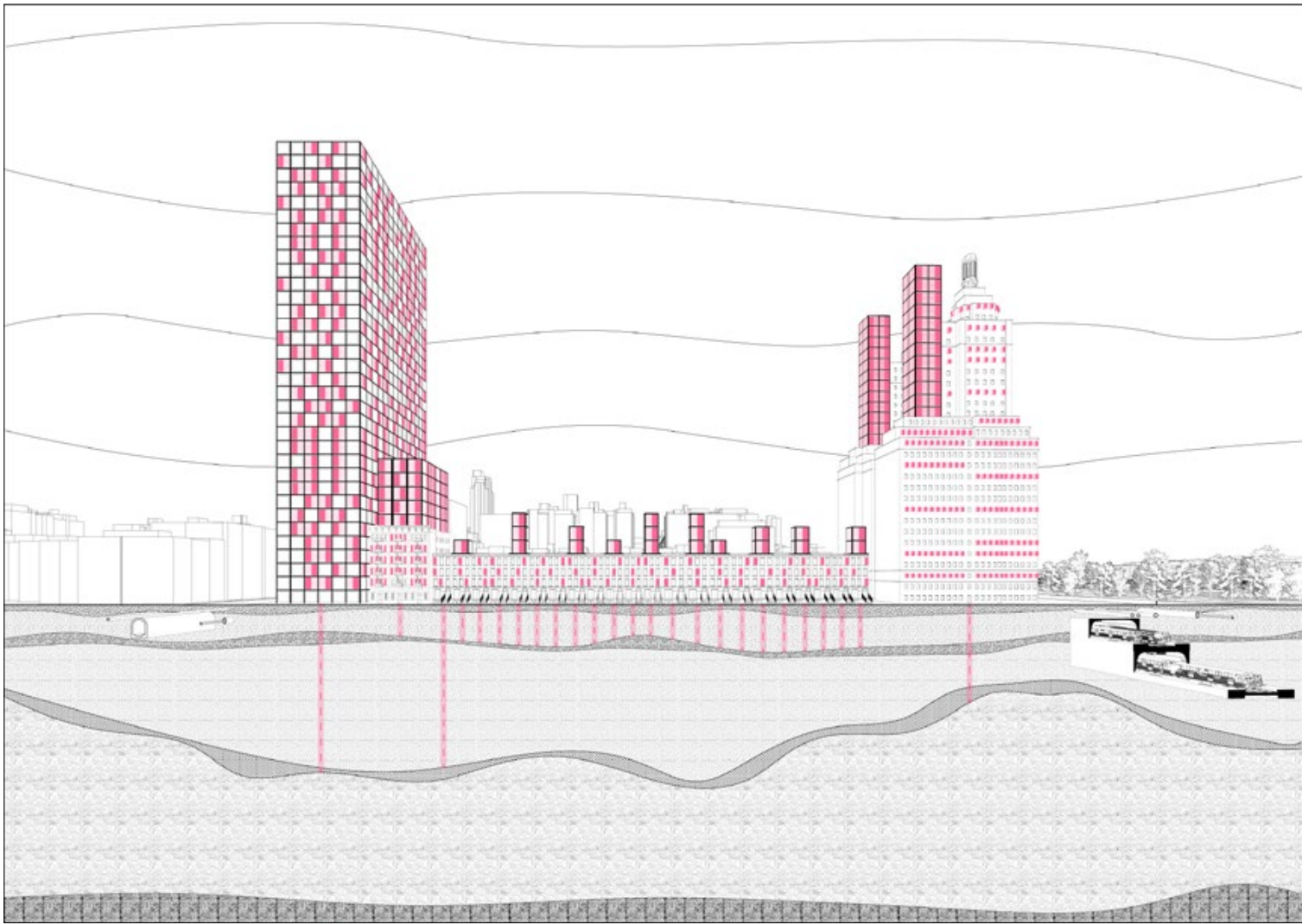
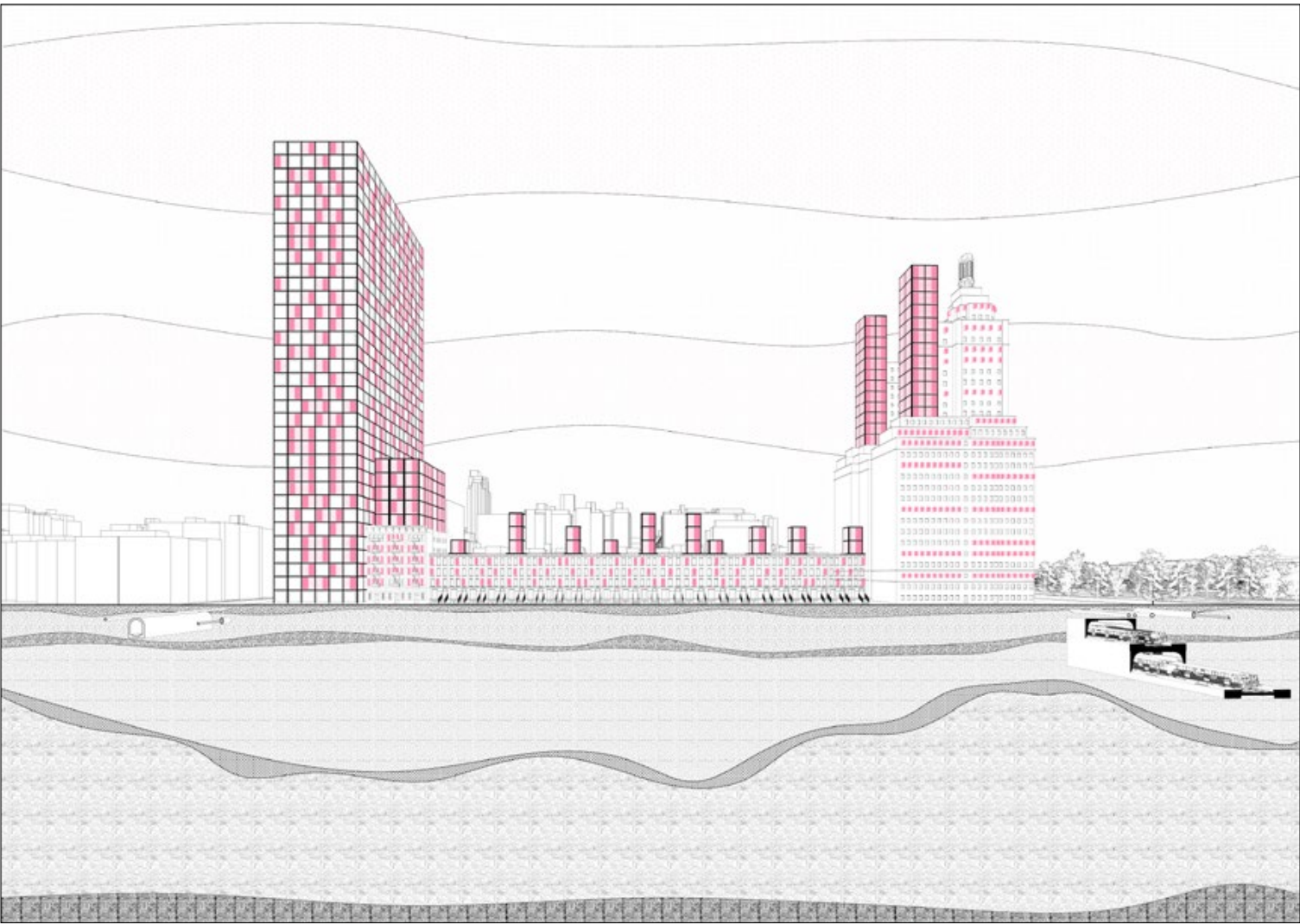
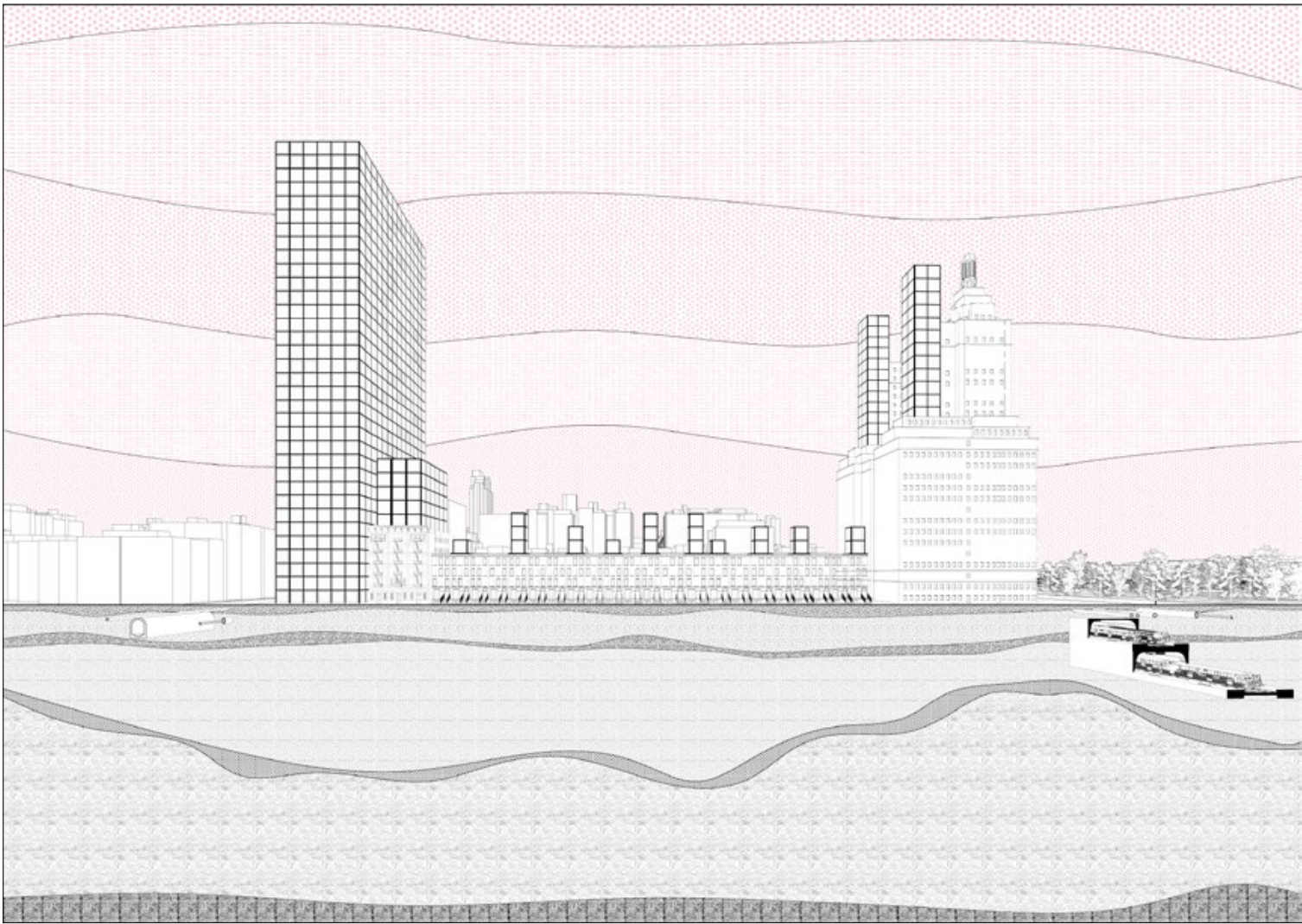




Growth and Adaptation of the System

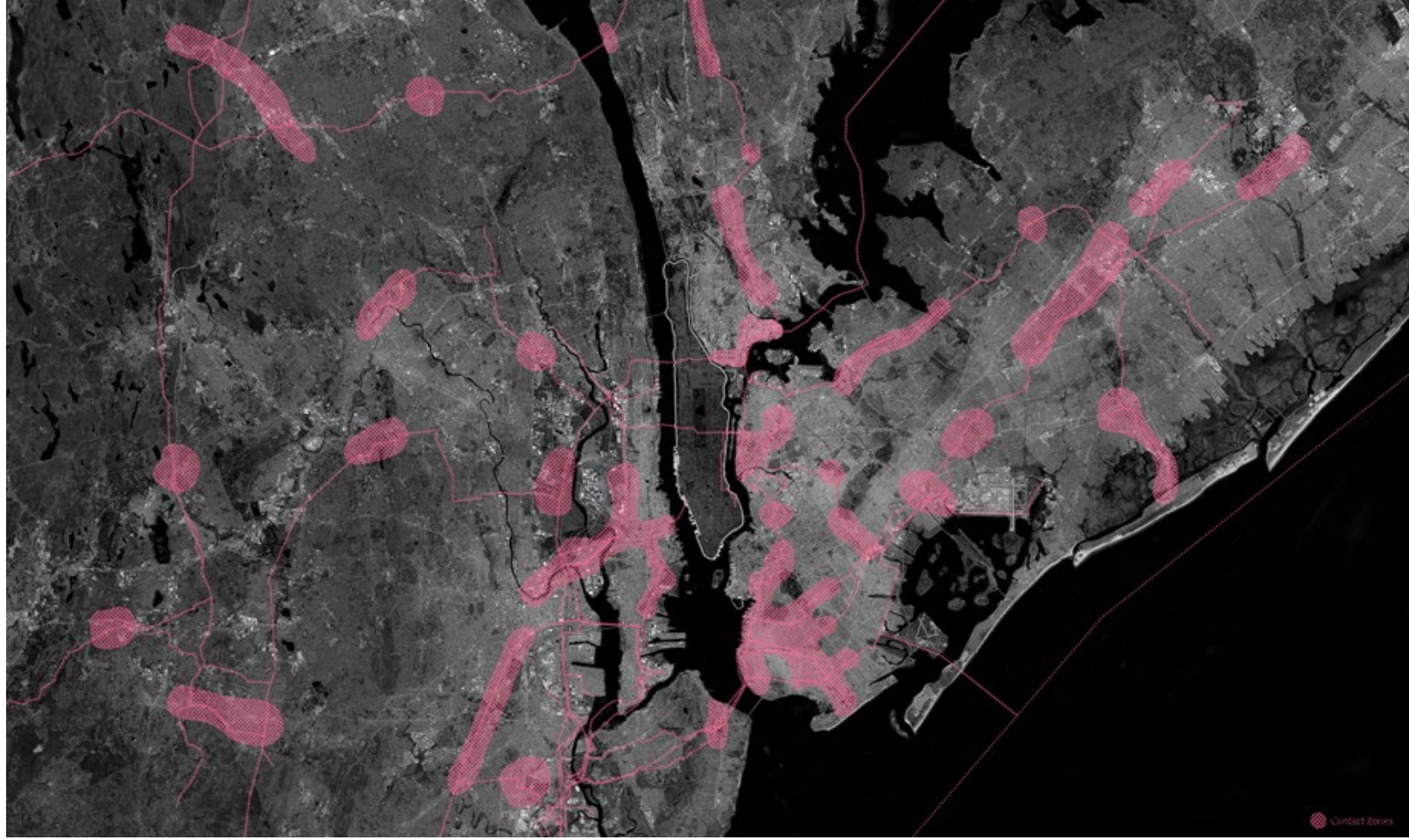
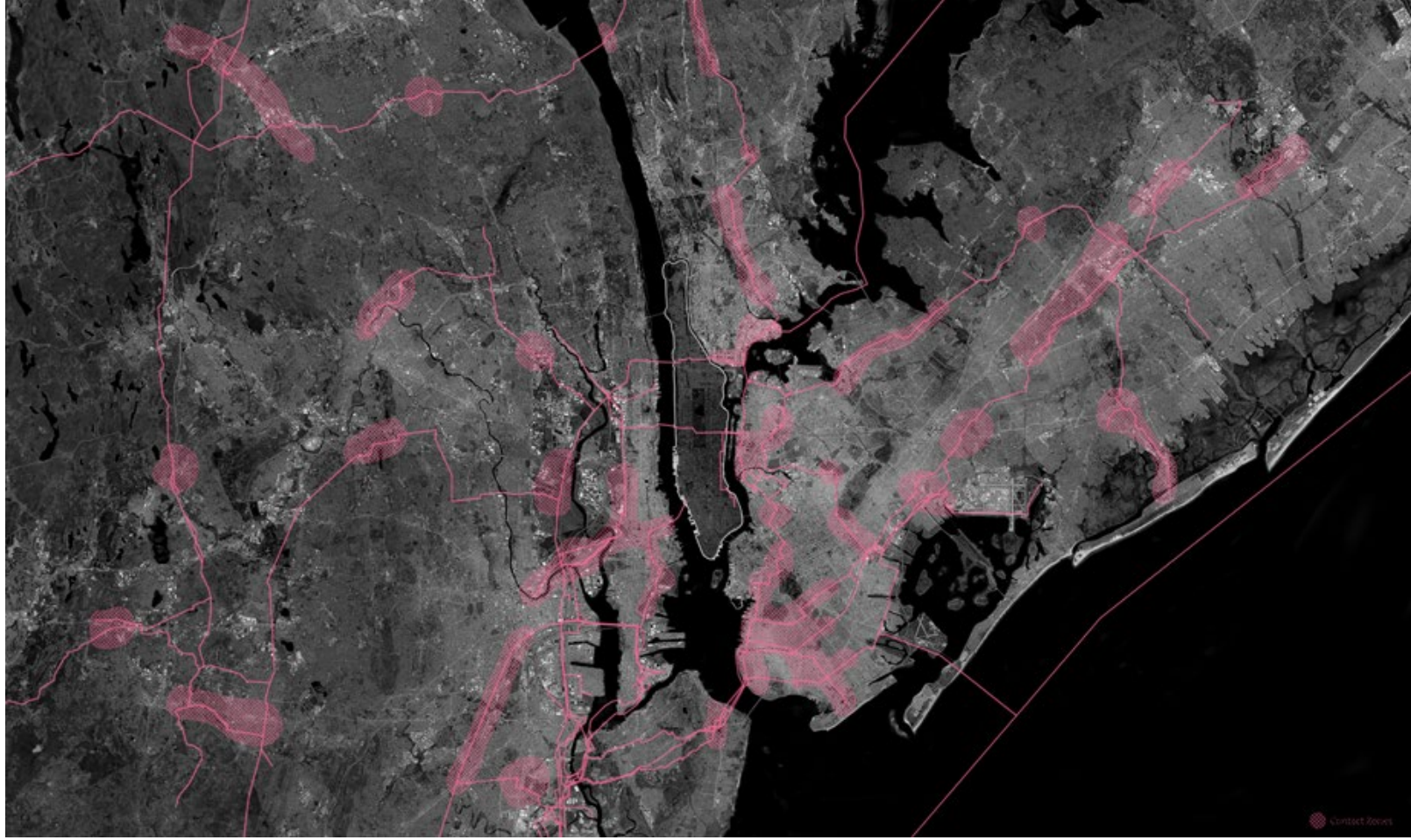
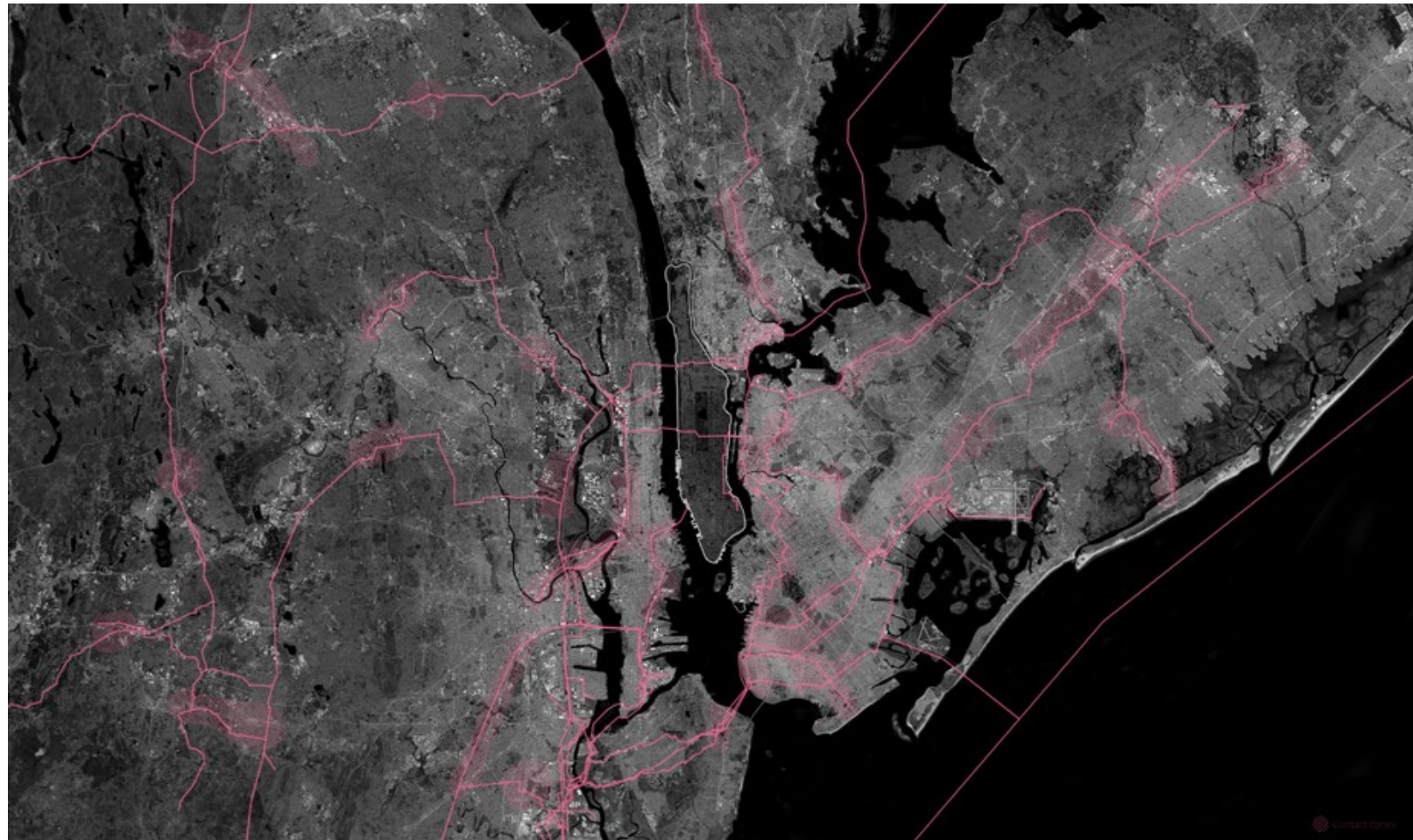
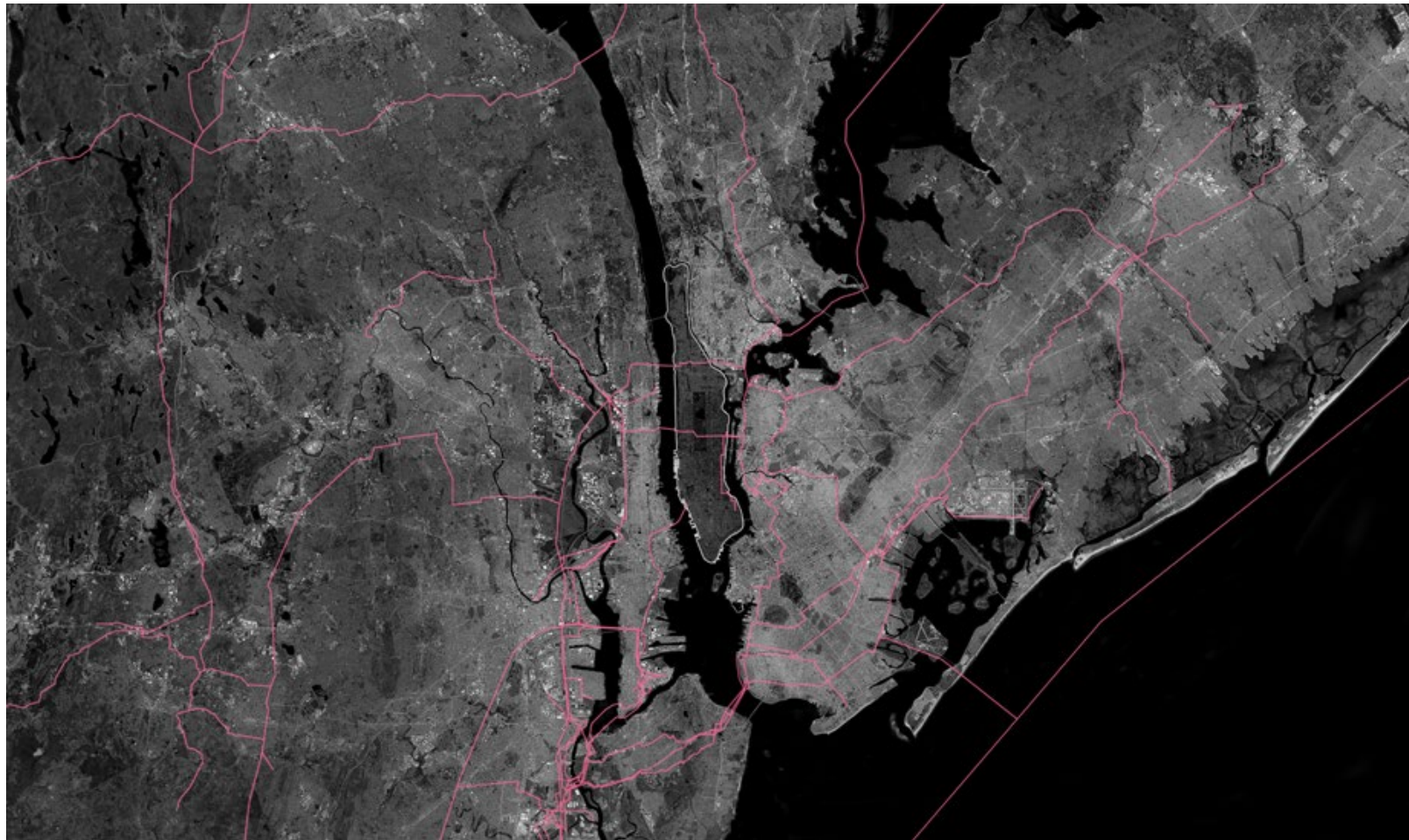
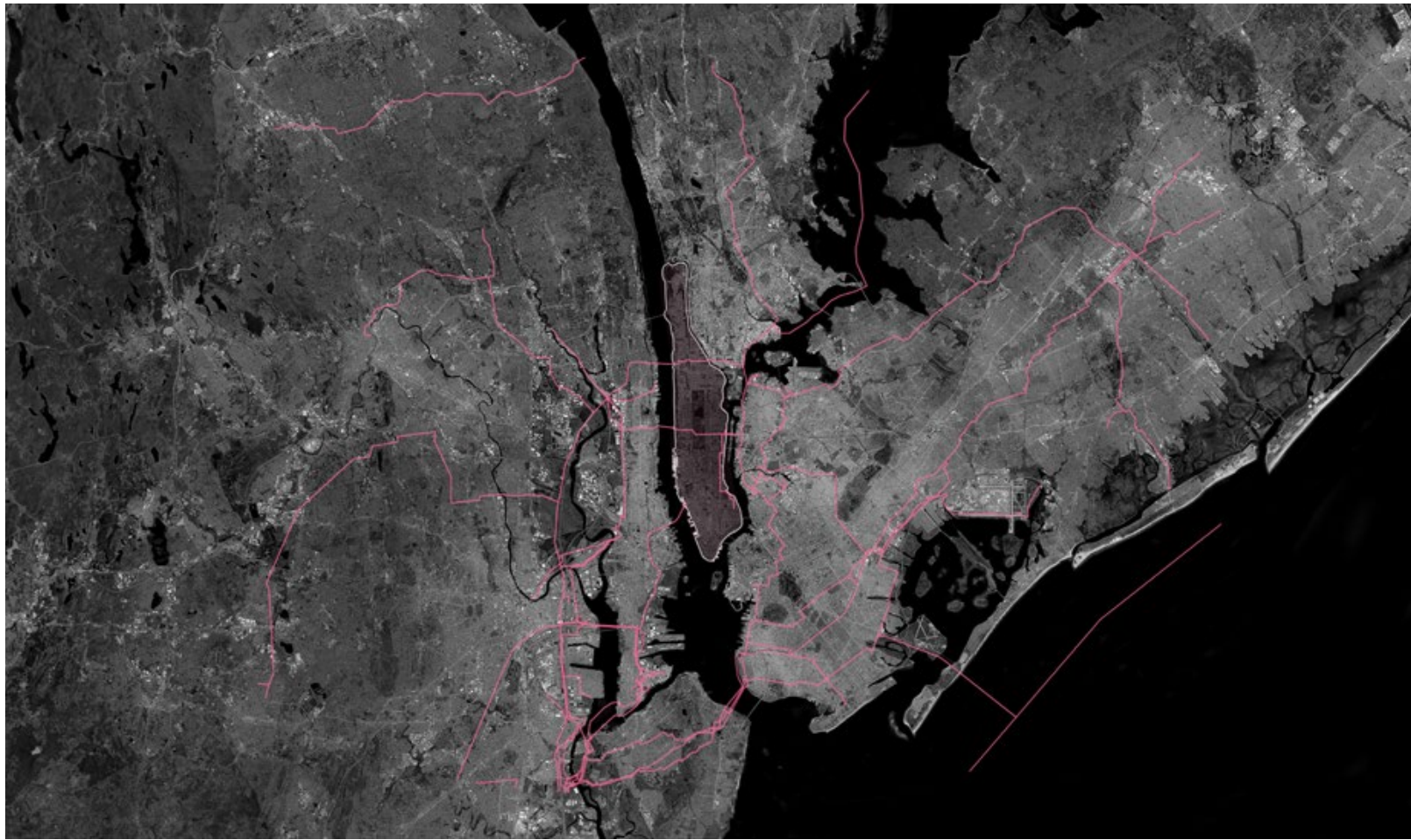


Flow of Carbon Dioxide Through the System_City scale

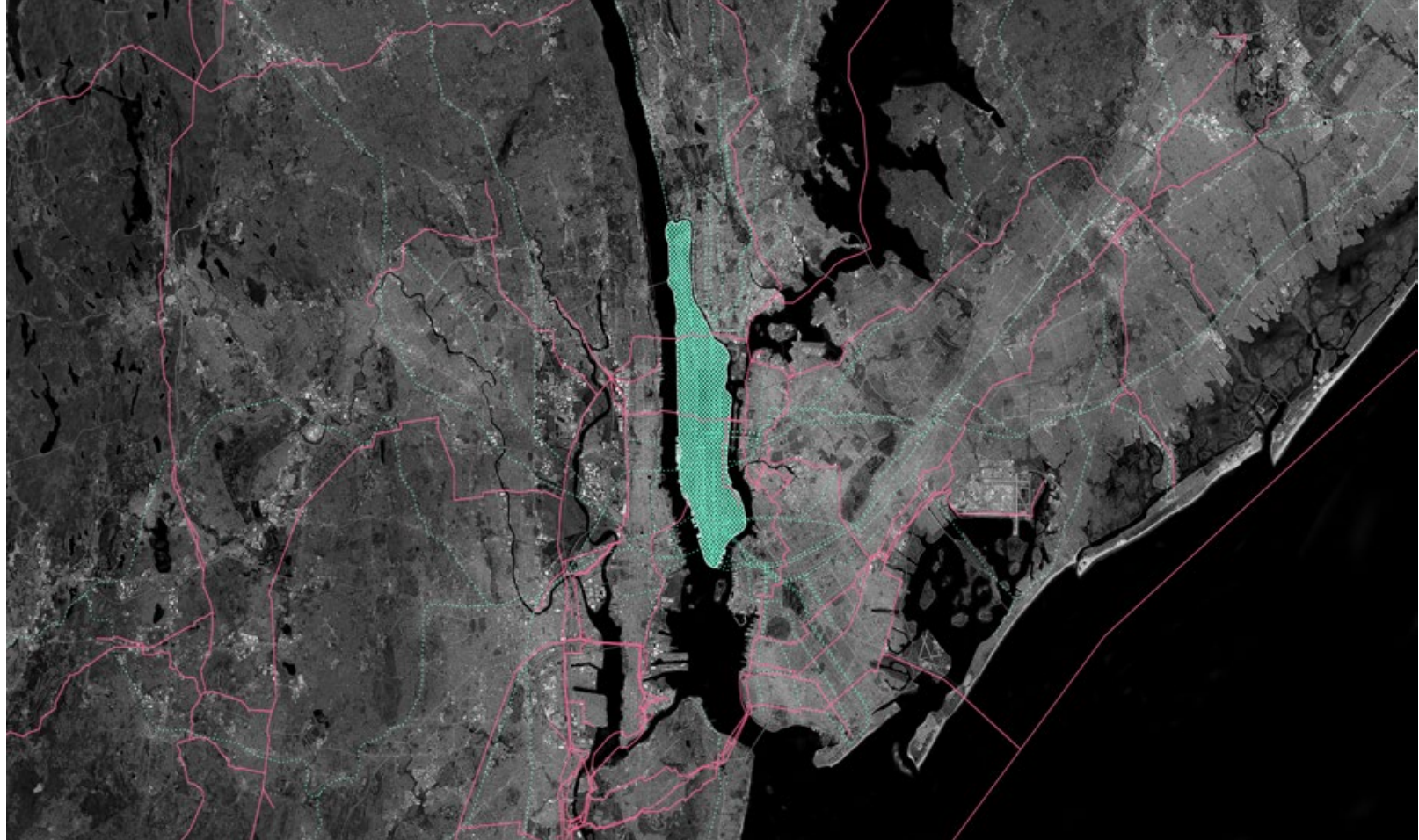
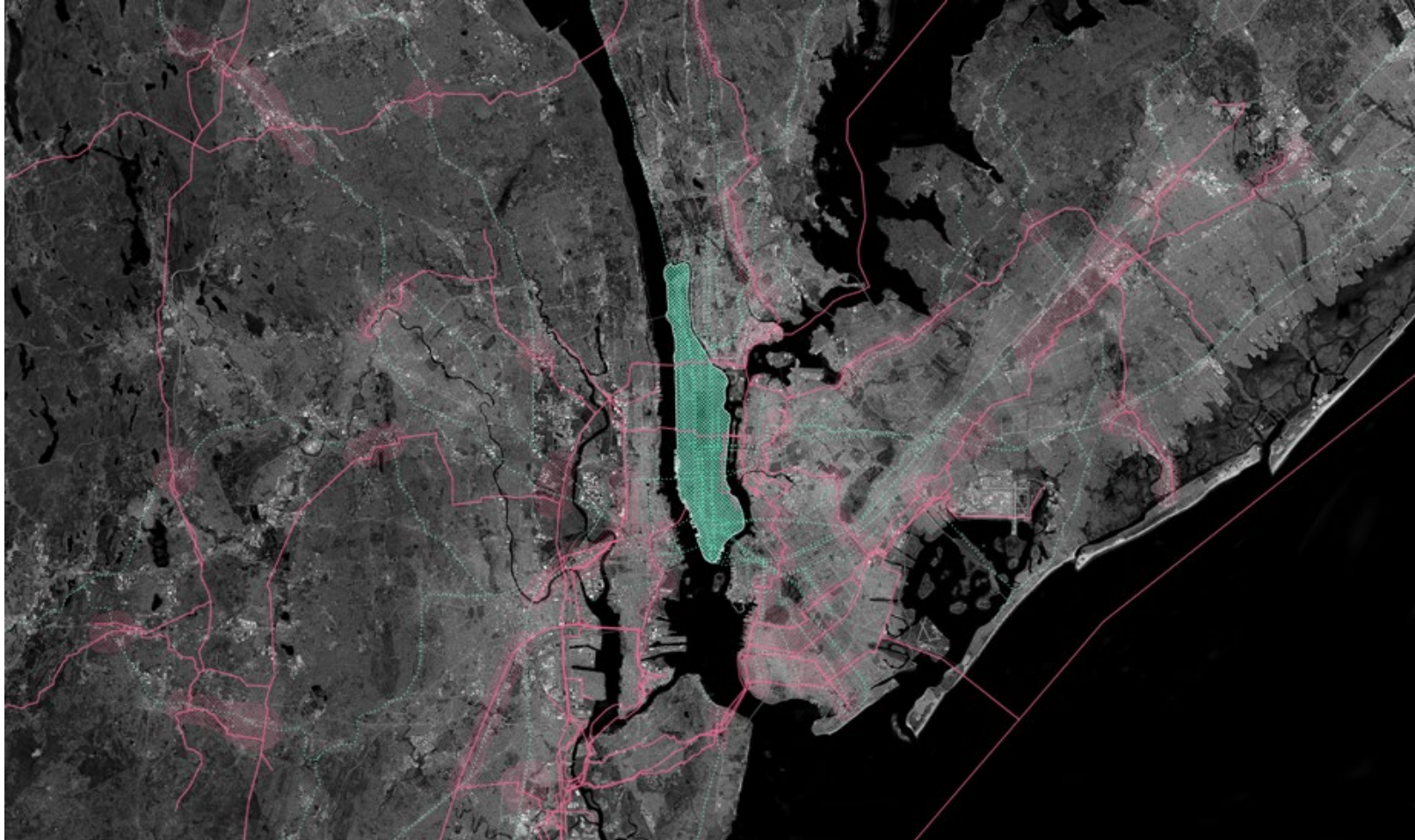
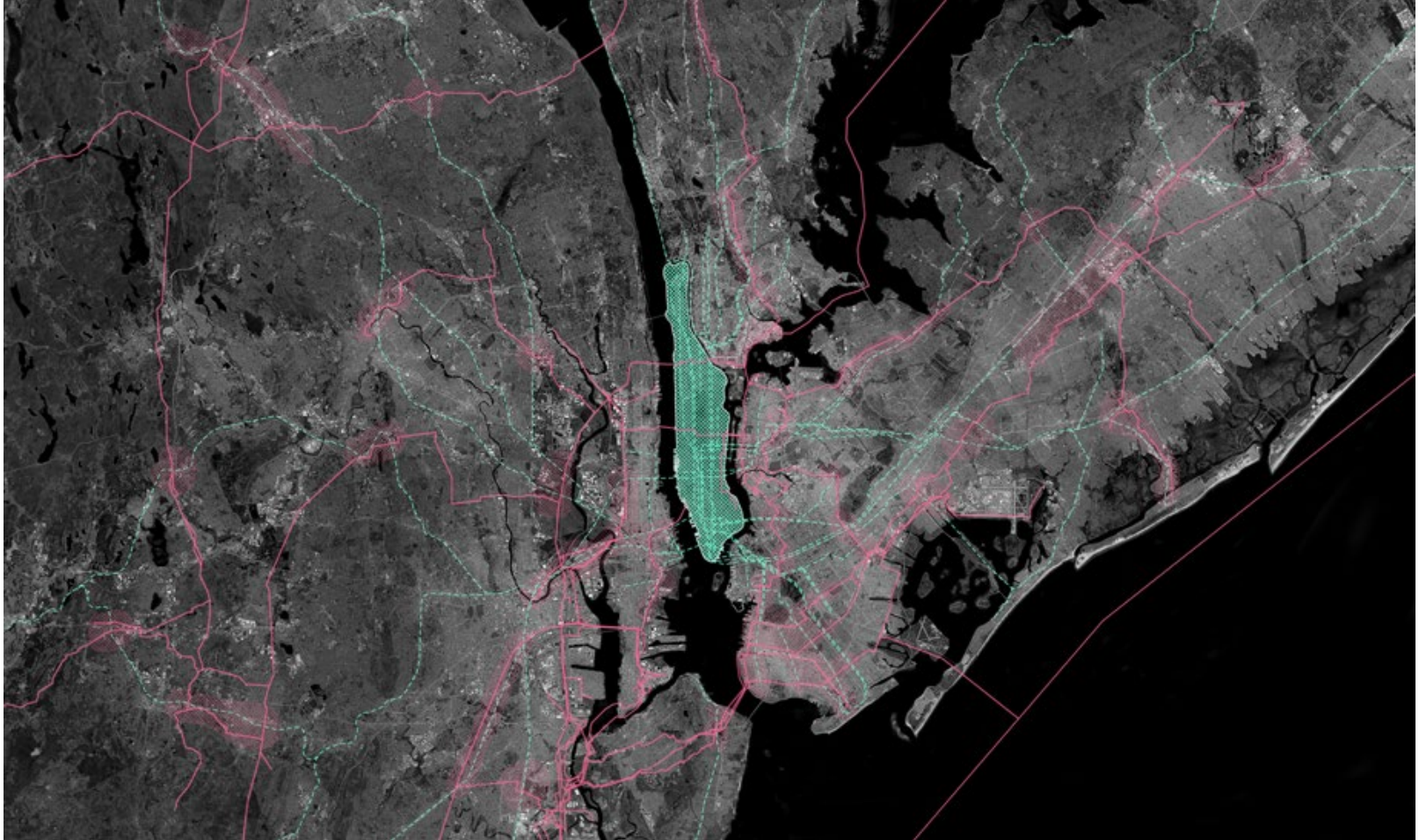


Flow of Carbon Dioxide Through the System_ *Metropolitan scale*

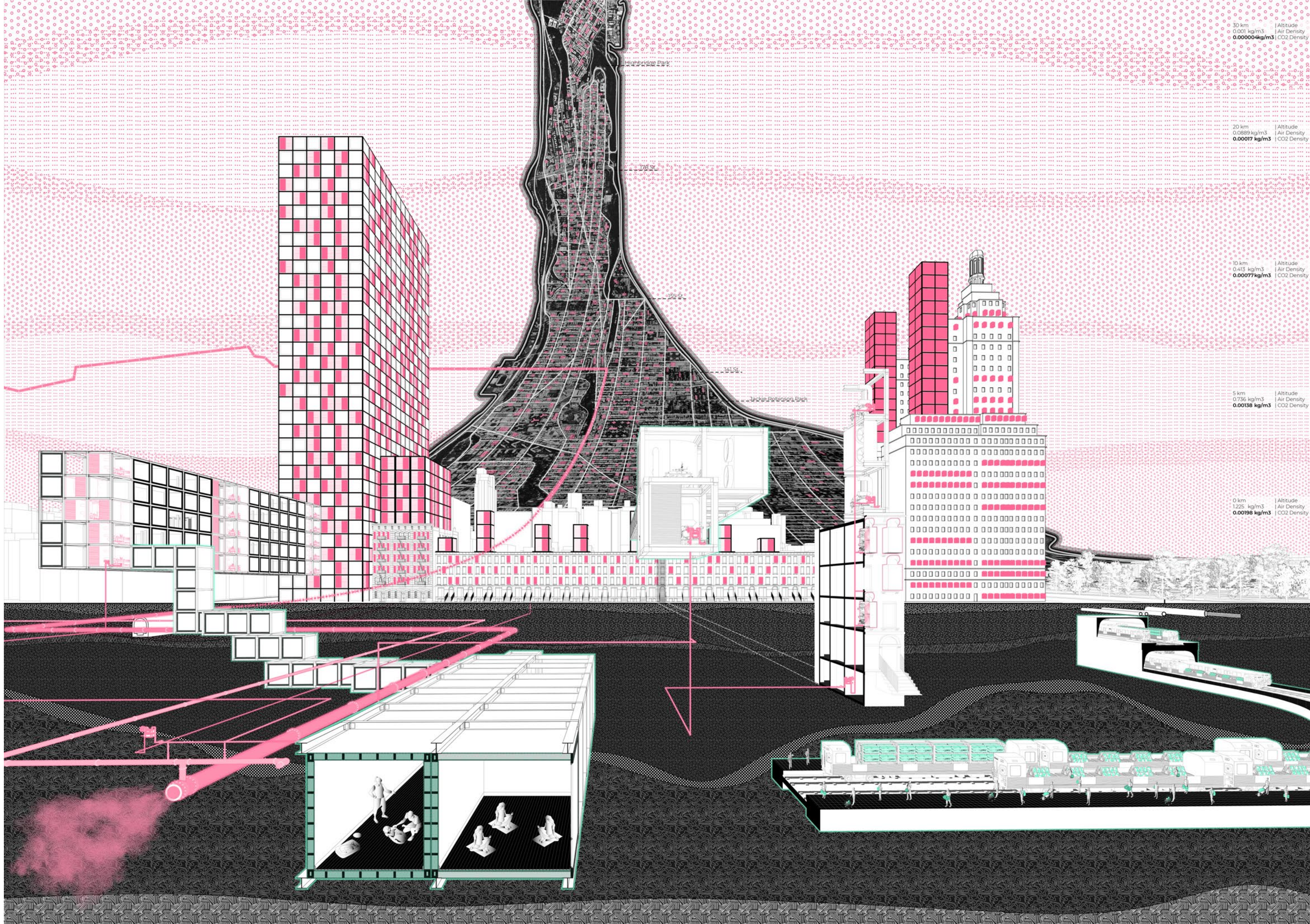








Flow: Air > DAC > Gas pipelines > Industries > Products > Train/Subways > Consumer.



30 km
0.0001 kg/m³ | Altitude
0.00004 kg/m³ | Air Density
0.00004 kg/m³ | CO2 Density

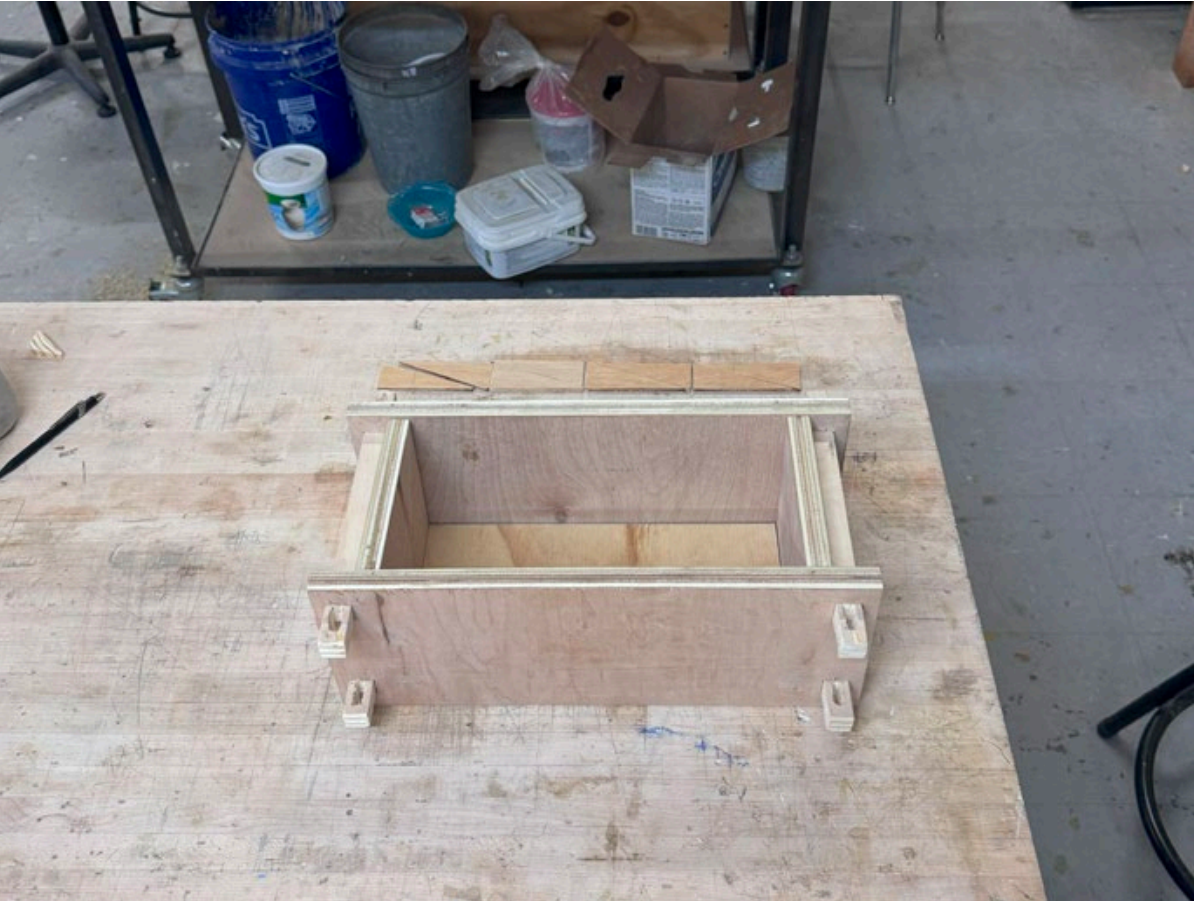
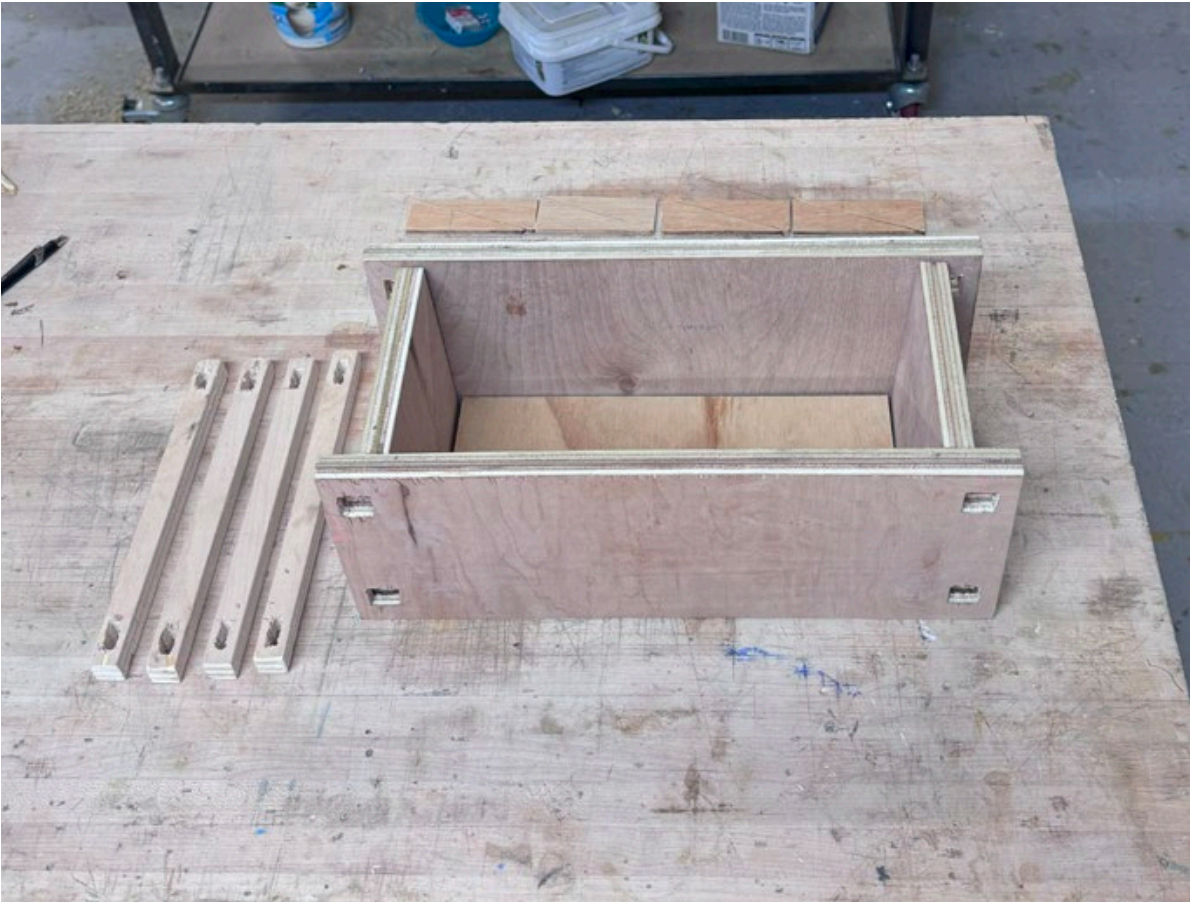
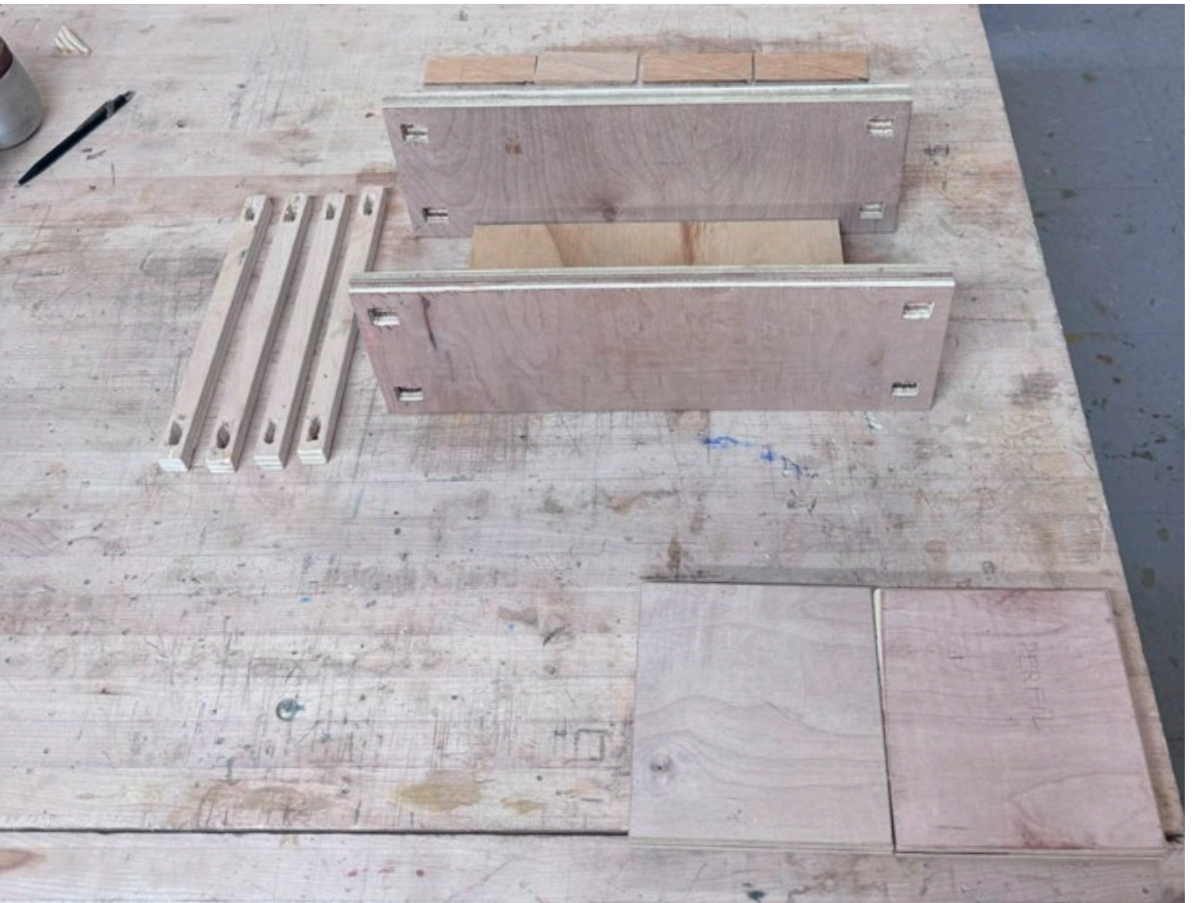
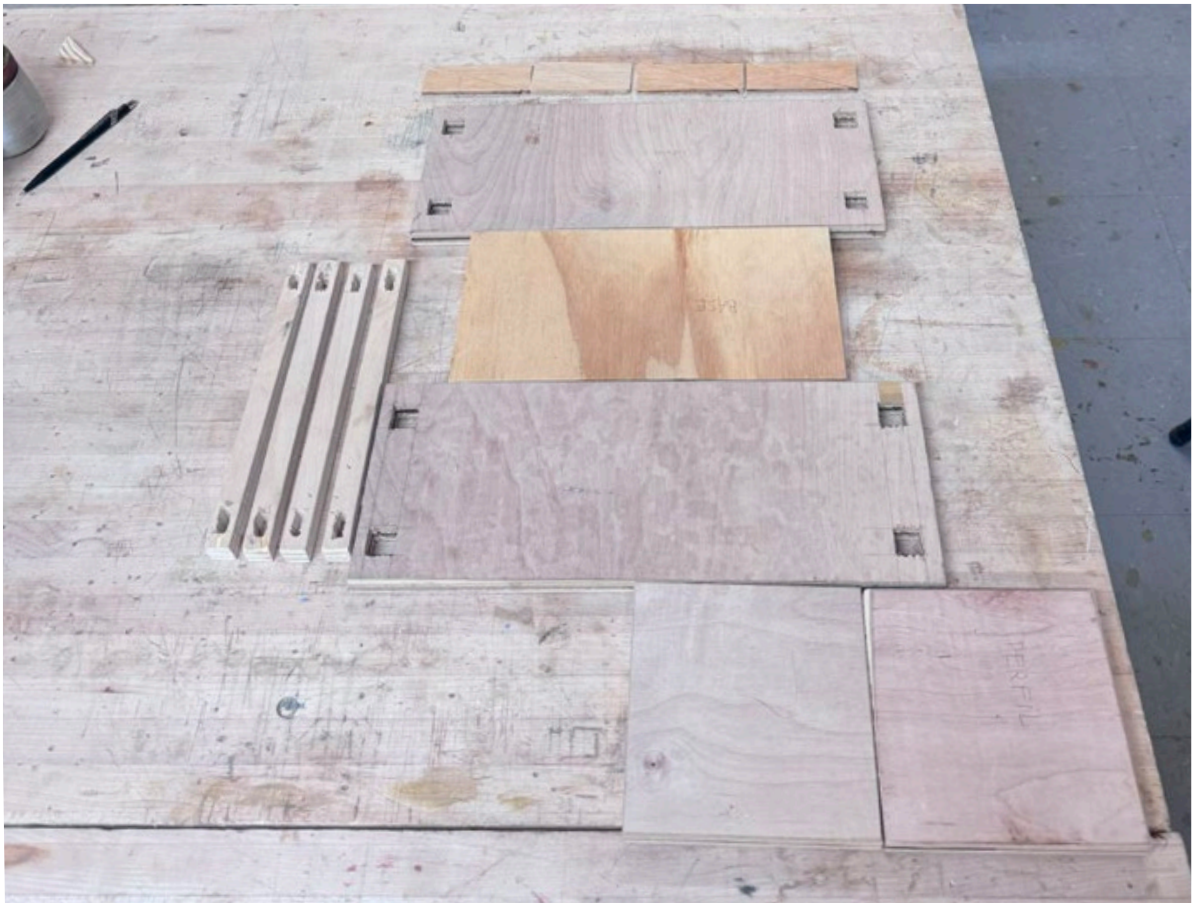
20 km
0.00017 kg/m³ | Altitude
0.00017 kg/m³ | Air Density
0.00017 kg/m³ | CO2 Density

10 km
0.413 kg/m³ | Altitude
0.00077 kg/m³ | Air Density
0.00077 kg/m³ | CO2 Density

5 km
0.0889 kg/m³ | Altitude
0.00138 kg/m³ | Air Density
0.00138 kg/m³ | CO2 Density

0 km
1.225 kg/m³ | Altitude
0.00198 kg/m³ | Air Density
0.00198 kg/m³ | CO2 Density

Material Experimentation_Rammed Earth





Housing Module Slab Model



Grounding Autonomy: Land, Shelter, and Energy

Escaping Economic Volatility through Domestic Energy Sovereignty

Housing in the United States has become deeply entangled with financial speculation. In many cities, homes function more as investment assets than as places to live. Housing values are increasingly shaped by global capital flows and investor behavior, often disconnected from local incomes. Mortgages, real estate investment trusts, and other speculative tools have eroded housing’s traditional role as stable shelter. This paper proposes that housing can be partially liberated from these financial dynamics through energy sovereignty—the ability of a home to generate and store its own energy. Reframing houses as energy-resilient infrastructures enables greater economic stability and autonomy while supporting typologies that adapt to shifting needs.

What if dwelling no longer meant sheltering from the world, but actively engaging with it; storing, generating, and circulating energy as part of a larger infrastructural metabolism?

In this scenario, the house would not merely protect life; it would sustain it, power it, and connect it.

Reimaging the dwelling as autonomus energy infrastructure directly addresses the growing disconnect between labor mobility and housing rigidity. Unlike property value, energy is a stable, essential resource with rising demand. Anchoring a home’s value to its capacity to generate and store energy reframes it as a resilient, materially grounded asset.

Building on this logic, the dwelling can be reimagined as a modular grid composed of units ranging from 1.20 x 1.20 to 4.80 x 4.80 meters. This system enables components to be added, removed, or reconfigured in repsonse to shifting labor demands, personal needs, and environmental conditions. The spatial flexibility embedded in this framework allows the architecture to adapt dynamically over time.

Each enclosure base module consists of panels measuring 1.20 meters in width and 2.40 meters in heigh, inserted within independent structural frames measuring 3.60 x 3.60 meters. Together with four steel corner columns, these frames support and organize the enclosure system. The floor and ceiling contain technical cavities that accommodate infrastructure systems—such as electrical wiring, water lines, and HVAC ducts—while also enabling the integration of passive environmental strategies like solar chimneys for natural ventilation and thermal regulation.

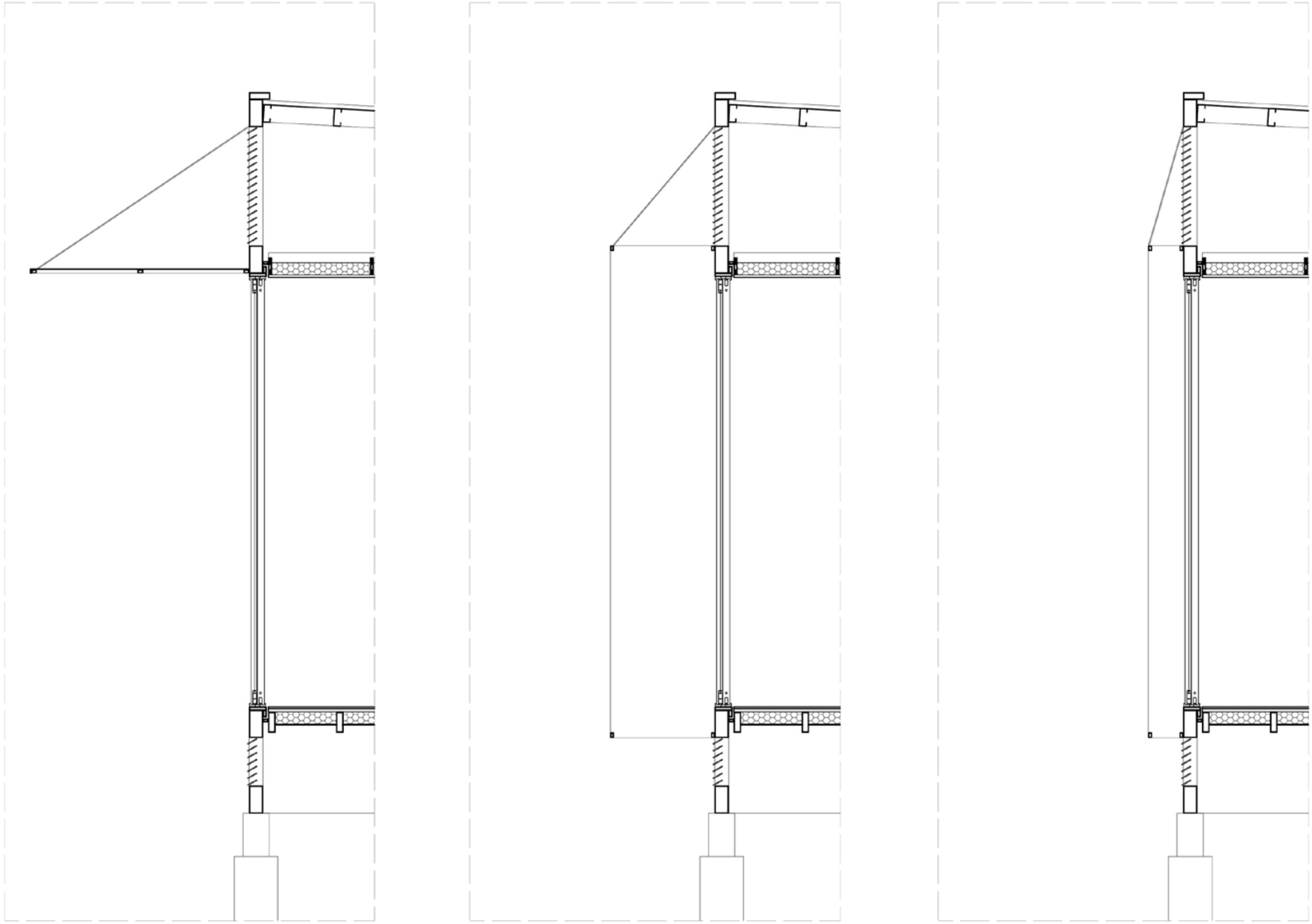
Modules can be organized according to user-defined requirements, shaped by the fluidity of contemporary labor patterns. They may be arranged on one or two levels, enabled by the point-supported structural system composed of a steel column at each corner. This configuration provides vertical continuity and structural coherence, allowing for significant adaptability while maintaining overall stability.

Complementing the modular enclosures, the infrastructural core—typically rigid and immobile—is externalized into a vertical ‘totem’ module. This move decouples technical systems from fixed floor plans, allowing environmental infrastructure to be both efficient and spatially autonomous. This unit heat water using solar radiation and collects both rainwater and wastewater, treating and redirecting it back into the home for secondary uses. Functioning as part of the overall gravitational weight of the house, this totem rises and falls alongside the structure, serving not only as infrastructure but as an energy storage element within the gravity battery system.

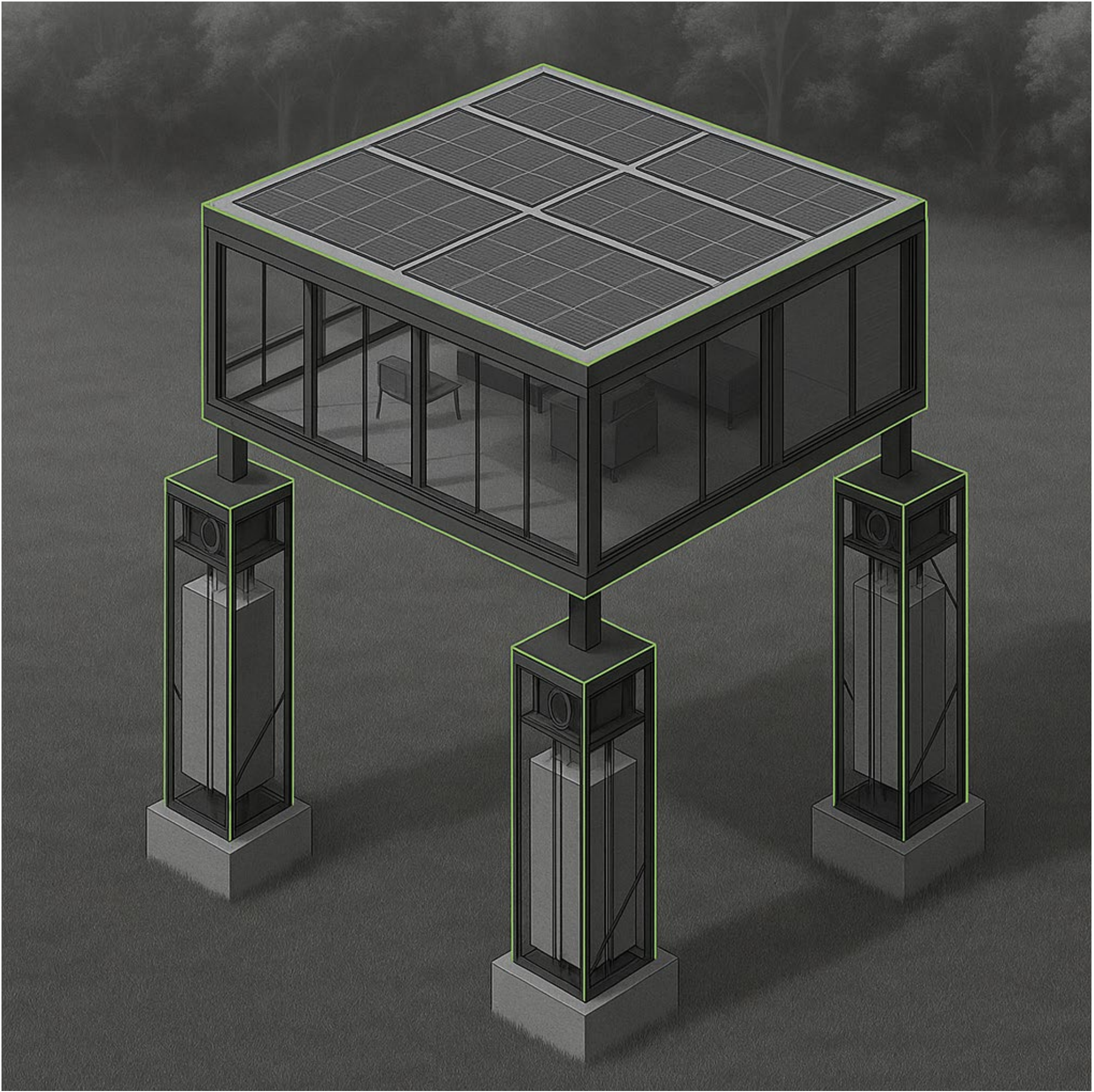
| Course
Re-Scaling Housing: Energy, Economy, Policy

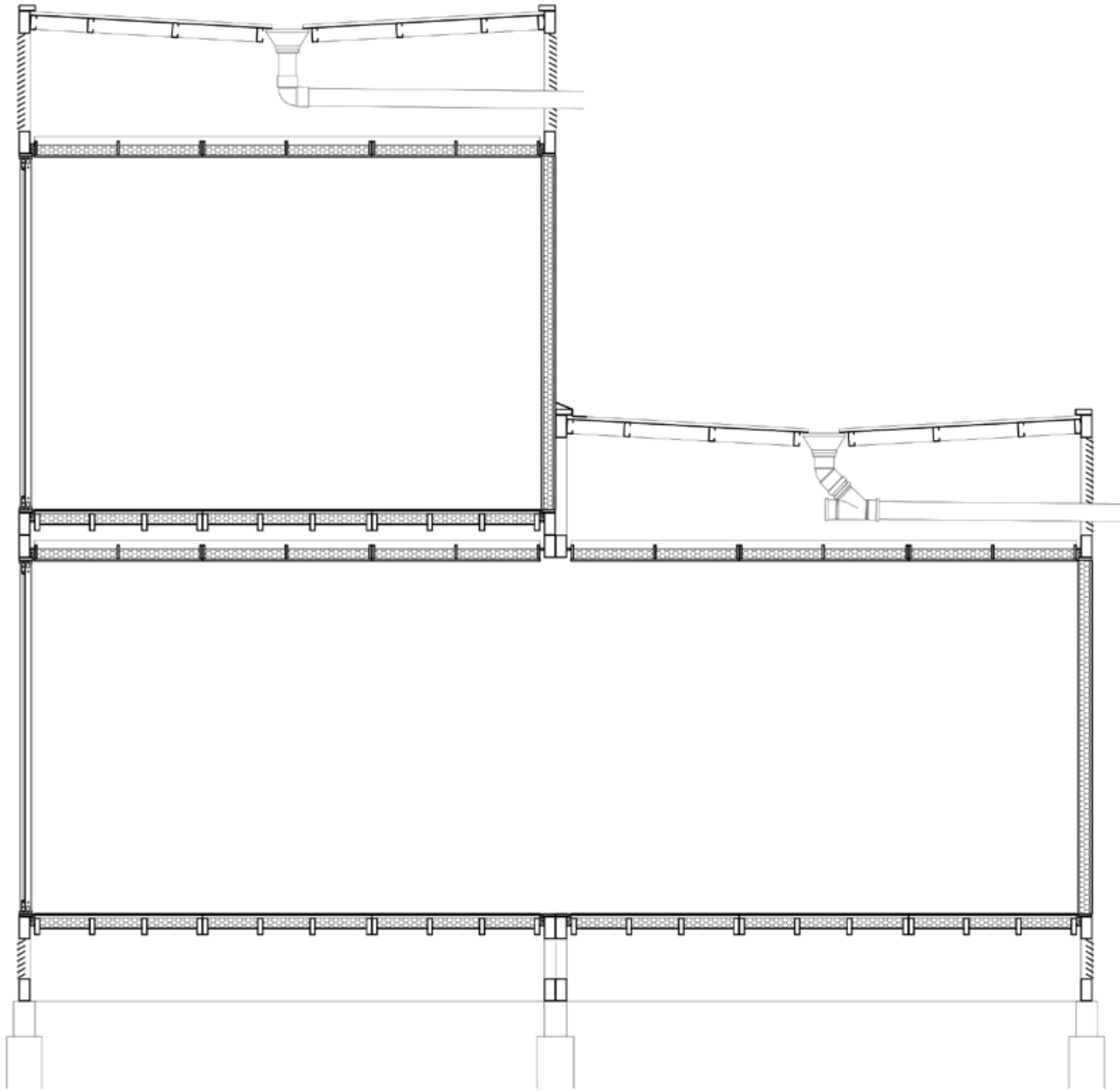
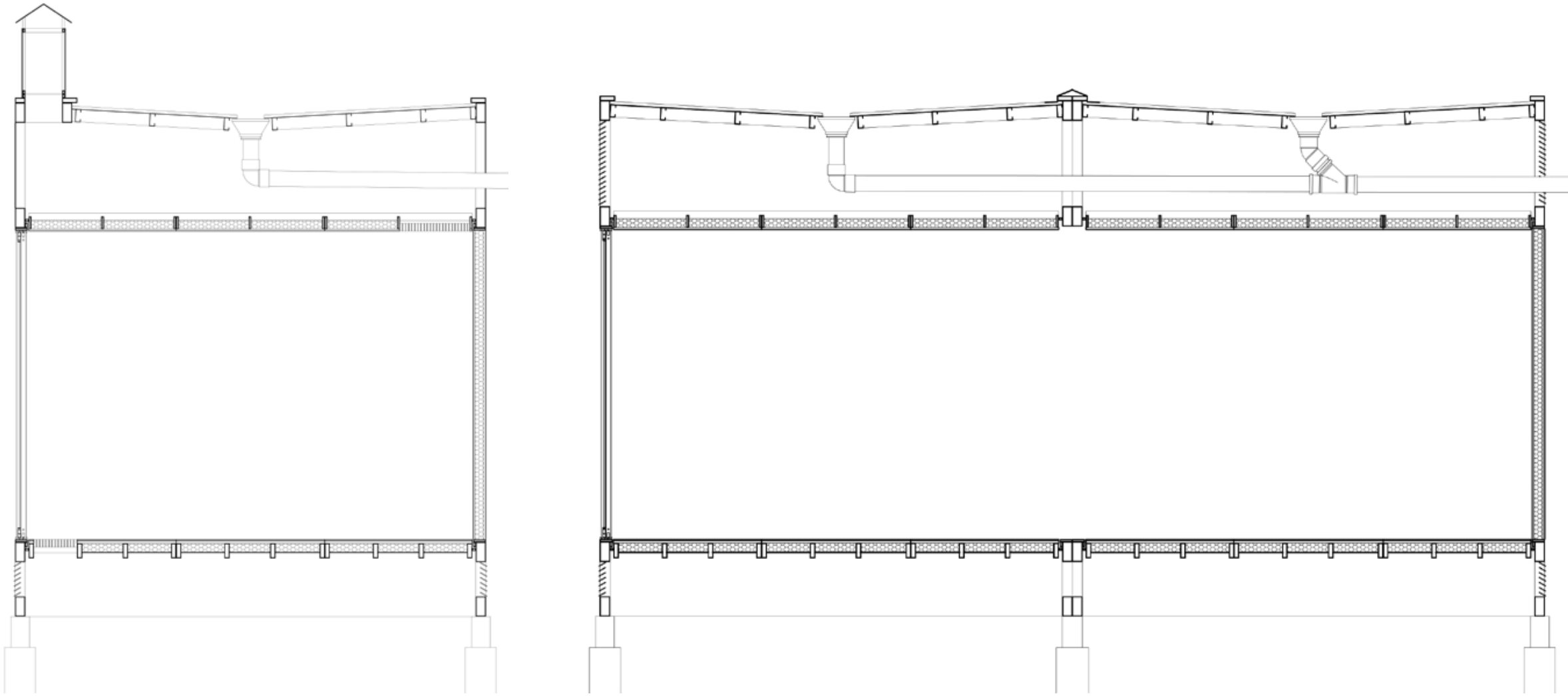
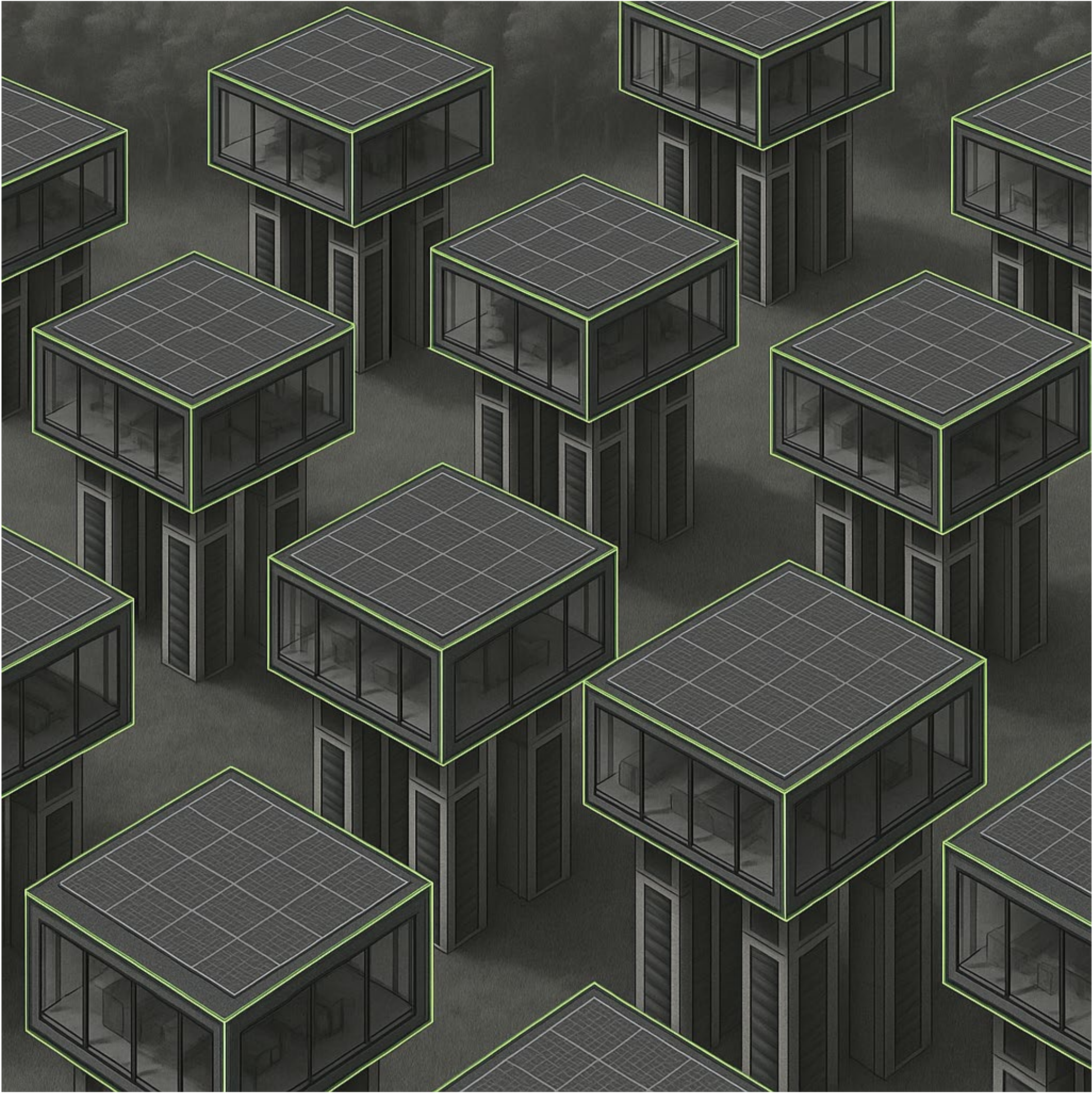
| Supervisor
Michael Bell

| Semester
Spring



• Solar radiation protections depending on orientations and internal spaces needs





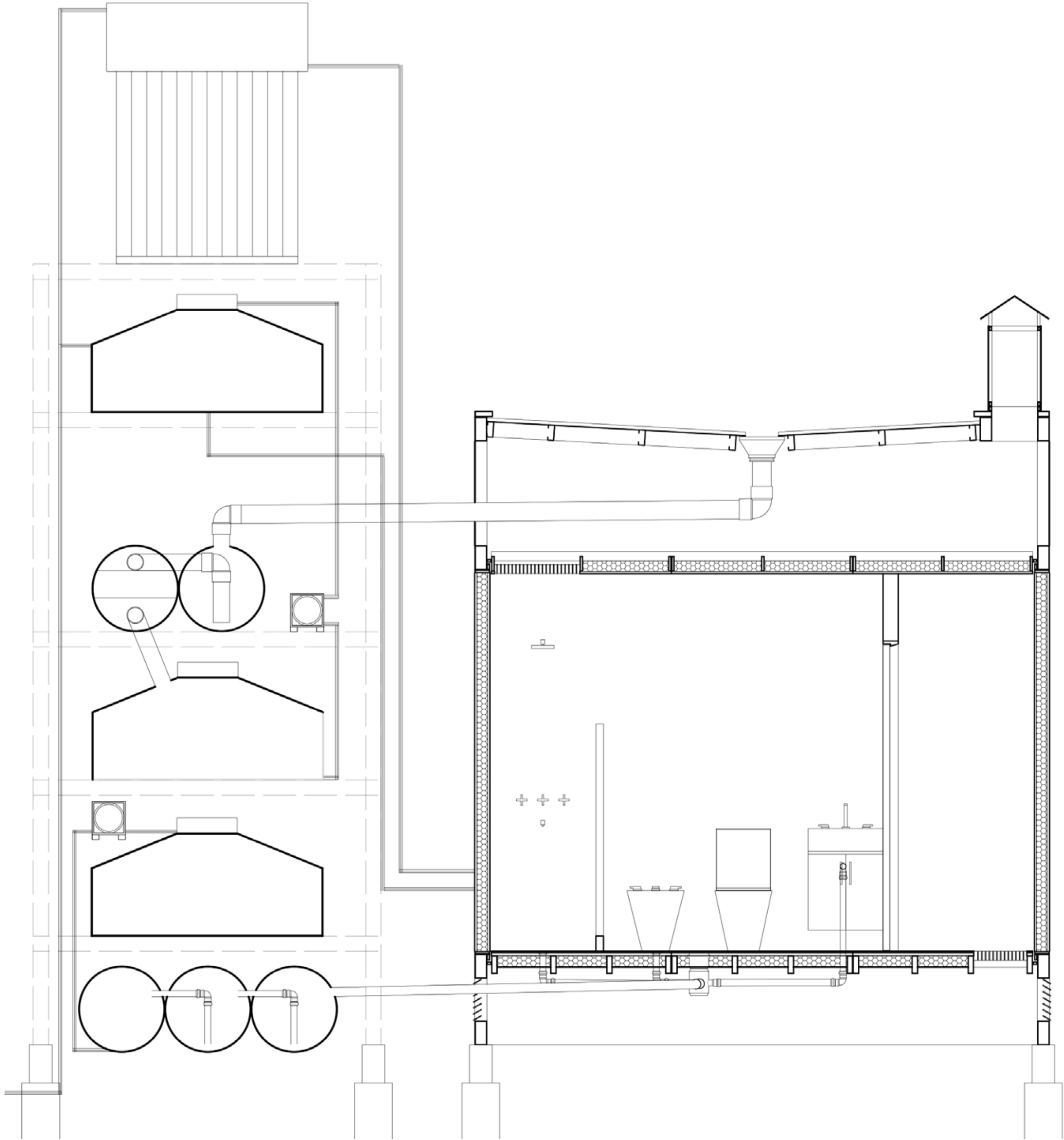
- left to right*
- . Base module
 - . Base module connected (1 level)
 - . Base module connected (2 levels)

Note: Infrastructural Totem

By aligning housing with renewable production, distributed storage, and modular adaptability, we move toward a built environment that protects its inhabitants not only from environmental exposure but from the economic turbulence that defines our era.

This reframing challenges the logic of real estate as pure speculation, and instead proposes an architecture rooted in sovereignty, interdependence, and infrastructural intelligence.

In this emerging paradigm, the home is no longer the endpoint of value consumption—it becomes the origin of value creation. It is no longer passive shelter, but the foundational infrastructure upon which more stable, just, and resilient systems can be built. This model invite us to rethink the home not as an endpoint of growth, but as a regenerative node in a distributed ecology of production and resilience.



cloud

Cloud is not a simply placed—it emerges from within Avery Hall, as if the architecture itself could no longer contain the intensity of collective thought. Suspended above the plaza, the inflatable pavilion **challenges the boundaries** between inside and outside, individual and collective, temporary and transformative.

Developed over two semesters through a design-build seminar, Cloud was conceived, fabricated, and assembled by students, becoming a rare spatial artifact born from pedagogical experimentation. Its form—a circular, air-filled body anchored by cables and expanded by electric blowers-occupies not just space but attention. It **reframes** the courtyard beneath it as a site of gathering, reflection, and action, reconnecting architectural education with embodied presence.

Cloud is an **infrastructure of encounter**. It invites playful interaction, but also offers a contemplative interior where softness becomes structure and lightness gains political weight. Its sewn seams and floating surface reveal an architecture made not of permanence, but of coordination, timing, trust, and **ephimerality**.

Rather than offering a solution, Cloud is a **proposition**: a platform to act from, a reminder that architecture can hold air and still carry meaning.

| **Course**
Outside In Project

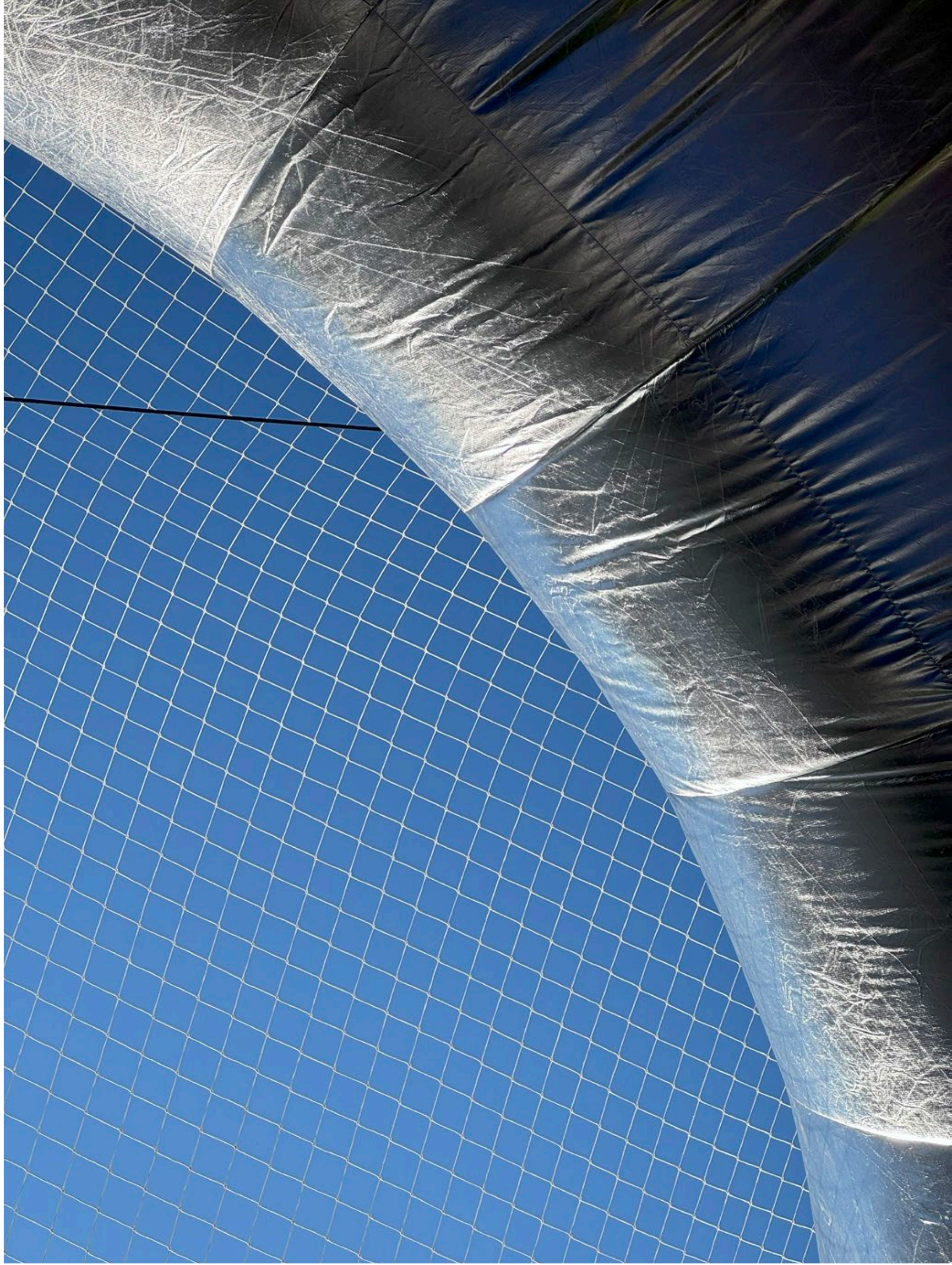
| **Supervisor**
Galia Solomonoff + Laurie Hawkinson

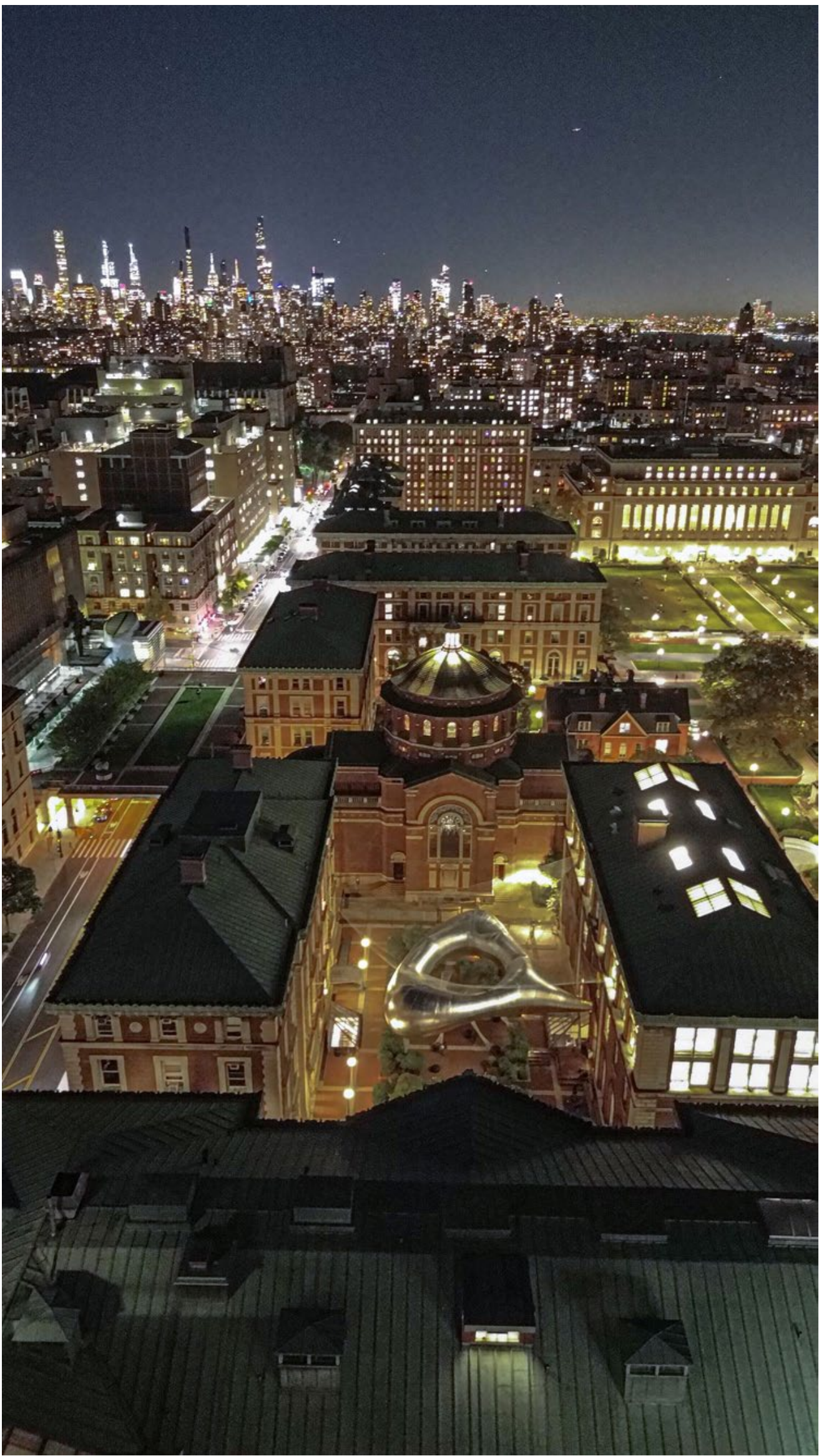
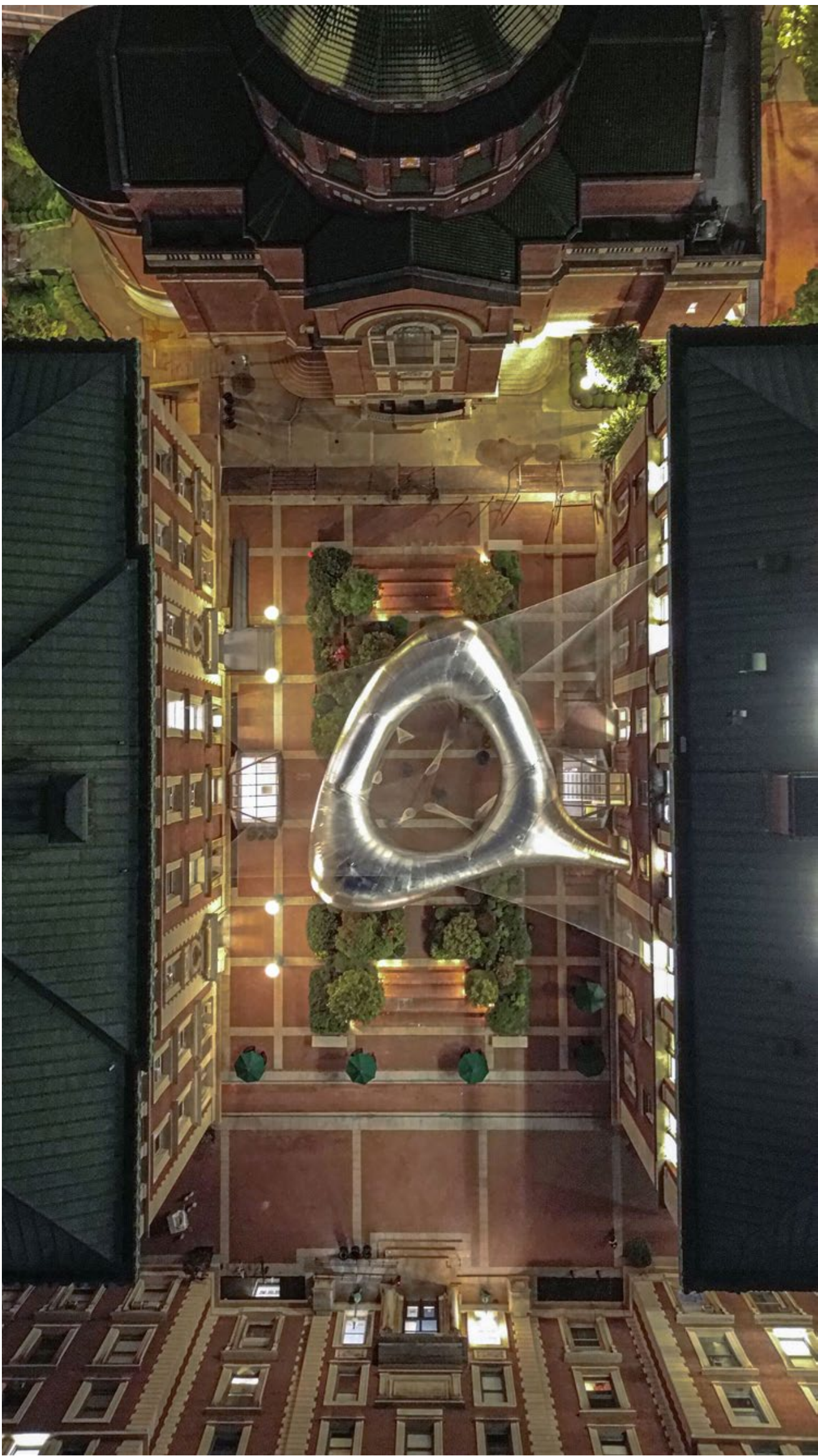
| **Semester**
Winter





Note: A variety of tasks were carried out to ensure the correct and efficient installation of the inflatable pavilion. These included positioning and anchoring the structure, adjusting the blower system, checking cable tension, and aligning seams. The process required coordination, precision, and teamwork.





Remnant(‘s) Intra-actions

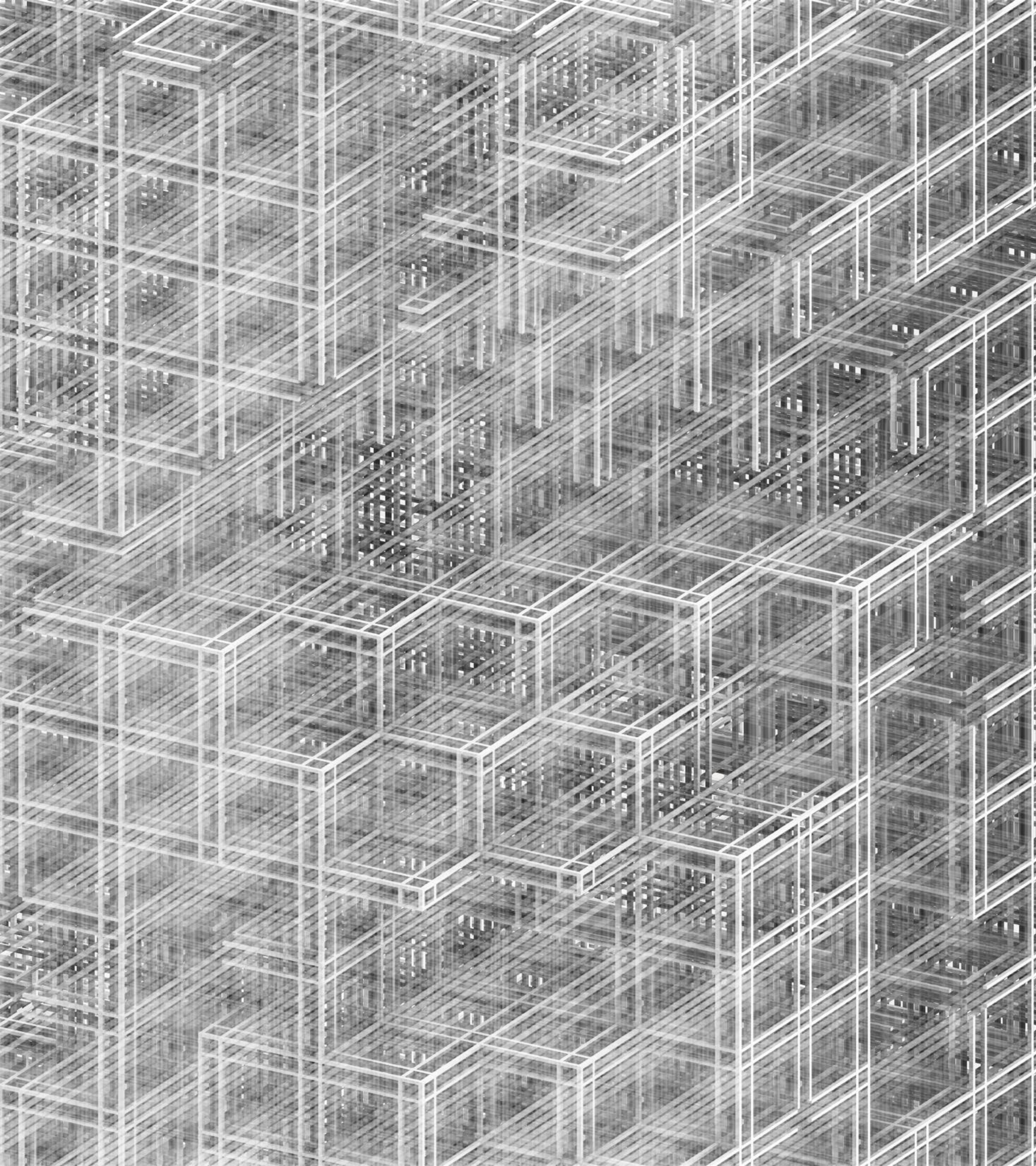
Burial rituals are practices performed by and for the living. Matter is transformed: bodies are buried, submerged, burned, or exposed. Advances in technology allow for a new type of **death** of **(un)death rite**: a person's data can be uploaded/found in the cloud. **Matter** is transformed again: an (un)death through the imprints left by our **digital doubles**. As our virtual extensions become intrinsic to our being, the process of grieving is no longer solely about remembering but about continuing to craft **intra-actions** with the imprints left by our biological selves.

The concept of **impermanence** expands. We are not dying entirely, yet we are not truly alive, as we are moments frozen in time unless someone interacts with our imprints. A liminal space frames **physical-virtual rituals** where the connection between our digital and corporeal remains and those who are still physically alive is stronger than ever. While data is uploaded, the body becomes soil. Through a journey that unfolds across both time and space, matter undergoes transformation: neither people, soil, nor data stay the same. This shadow communication allows digital archives to remain and perdure, as long as they are kept “alive”. Accumulation and growth on the memorial pier allows for intra-actions among those and that that remain.

| **Course**
Design Studio

| **Supervisor**
Karla Rothstein

| **Semester**
Spring

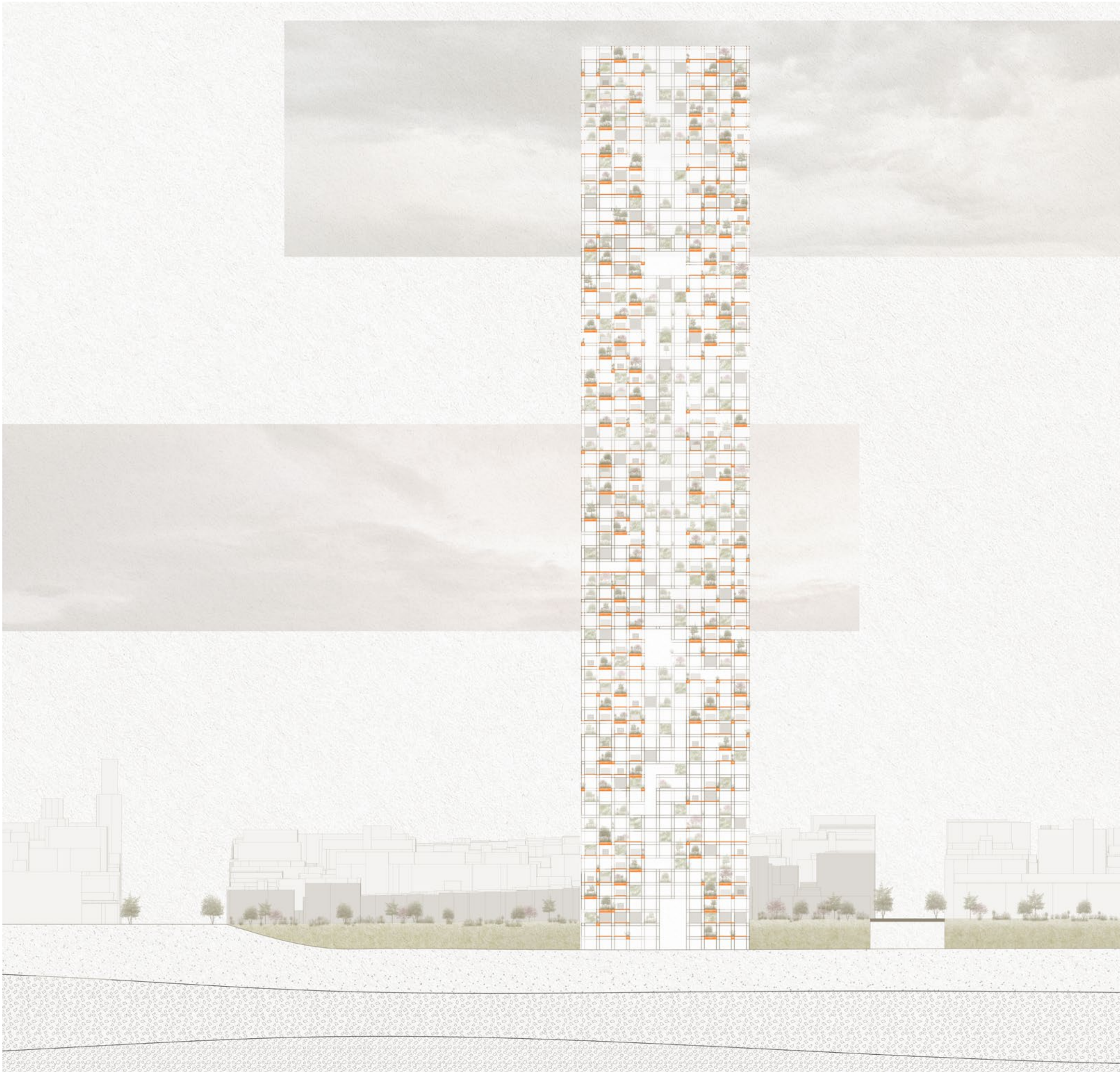




Note: Imaginary of the Grieving Landscape



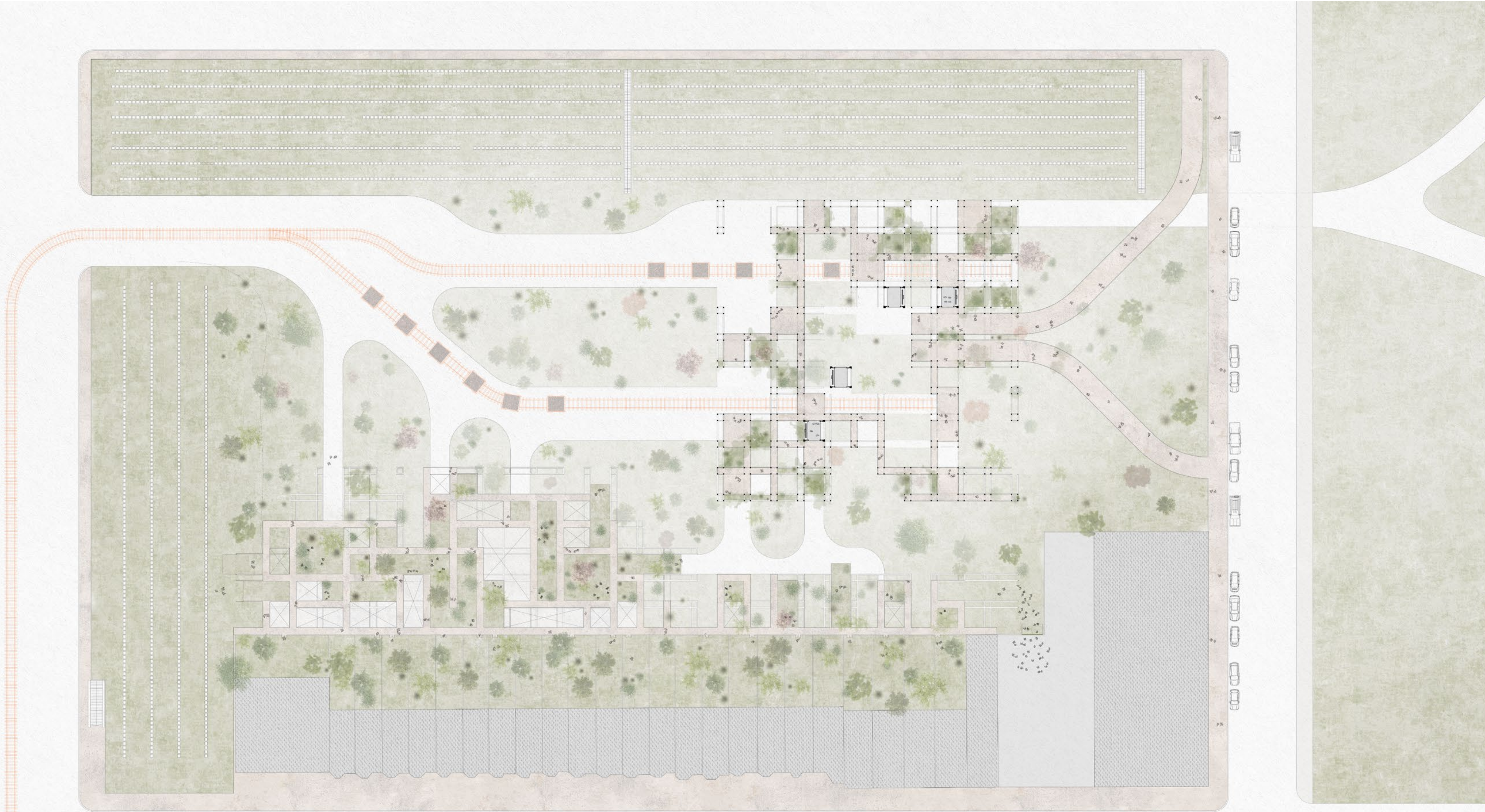
Note: Imaginary of the NOR site



Tower: Developed through two superimposed grids, the tower accommodates distinct yet interconnected programs: spaces where family members of the deceased upload data; vessels where the biological matter (the body) undergoes the Natural Organic Reduction (NOR) process; and data centers that enable the intra-action between digital and physical entities across the pier.

The tower also hosts a variety of plant, animal, and insect species, fostering a hybrid ecology that blurs the boundaries between organic life, technological infrastructure, and memorial ritual.

2nd Level



Tower: The second level of the tower—aligned with the street and functioning as the ground level—acts as an open public space connected to the city through a series of bridges. It serves as the main point of entry, from which visitors can either witness the ritual of transporting soil to the pier below, through strategically designed multiple-height spaces, or ascend to upload the data of a deceased individual or visit the vessels.

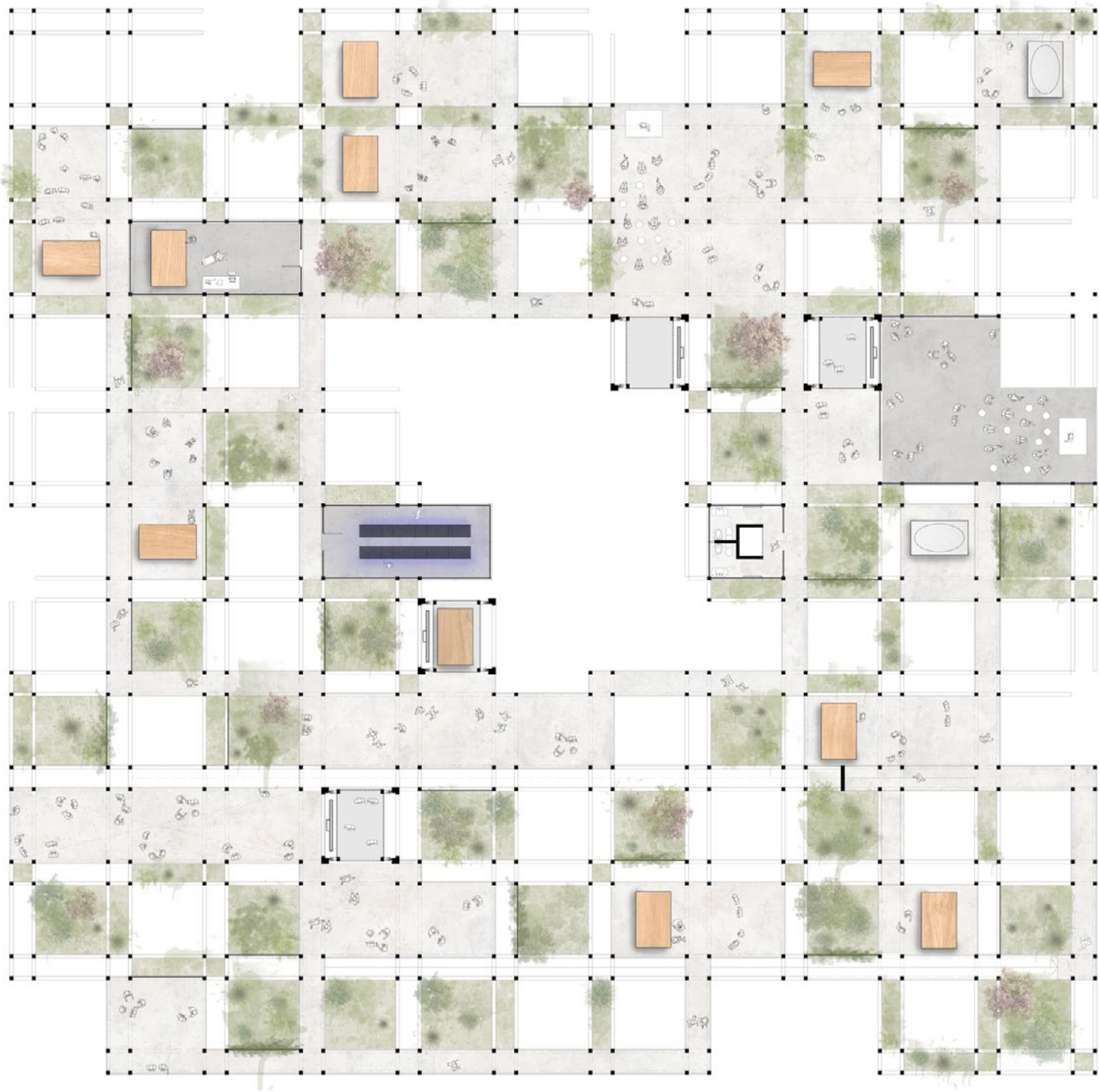
3rd Level



Tower: The third level of the tower is dedicated to the relatives of the deceased, who ascend to access modules embedded within the primary grid, equipped with the infrastructure necessary to upload their love one's data. Upon completion, each family receives a USB drive containing the deceased's digital double, which can be used exclusively to communicate with that digital entity at the pier.

Tower: Once the data is uploaded to the data centers, the biological body is placed into a vessel located on one of the tower's typical floors. These floors follow a spatial layout that allows for both collective grieving and individual introspection, enabled by a layered composition of frames and enclosures generated through the tower's infinite grid system and dense vegetated pockets. The design conceals direct visual access--one does not see what is happening, but rather senses it.

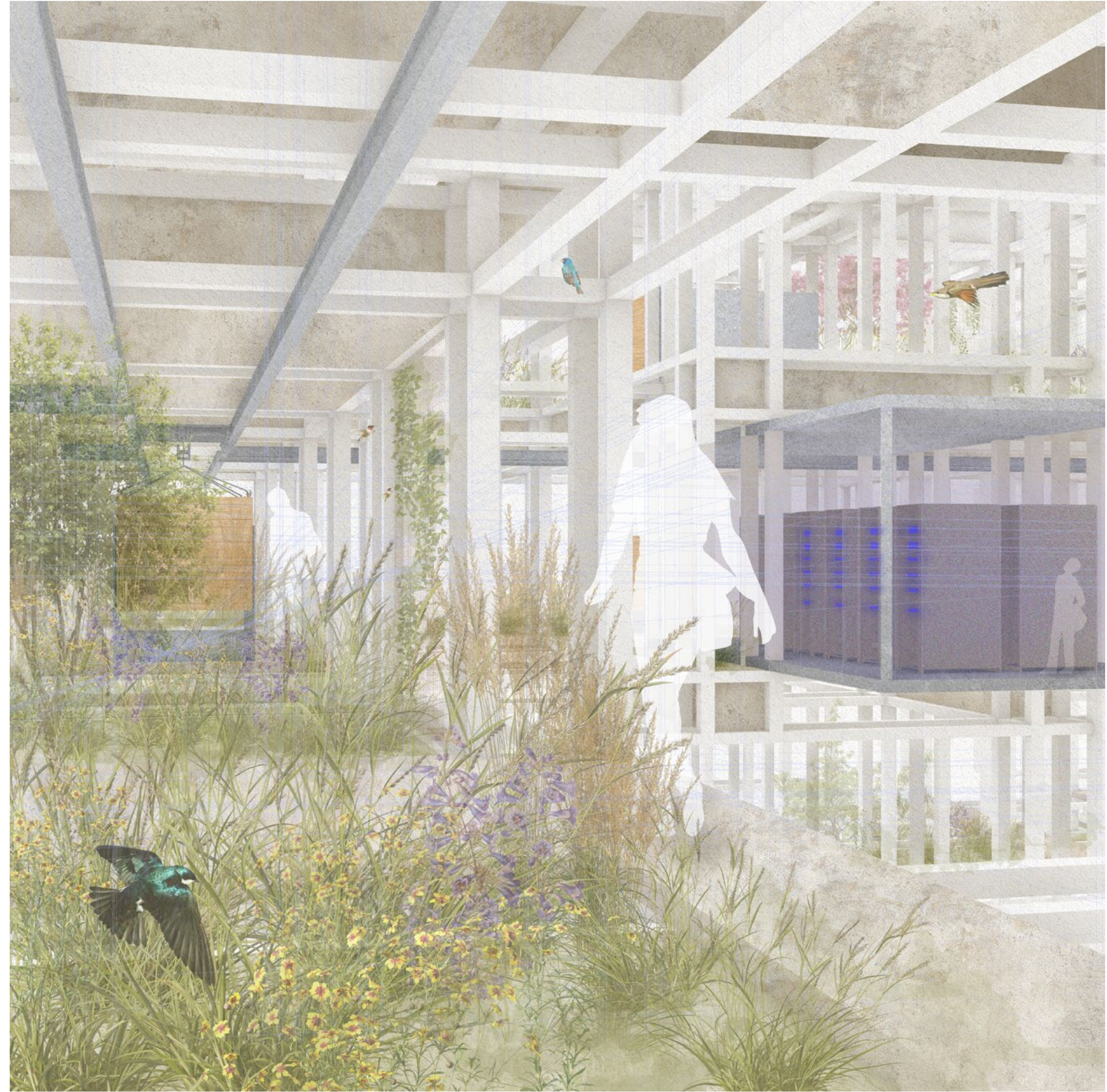
General Floor Layout



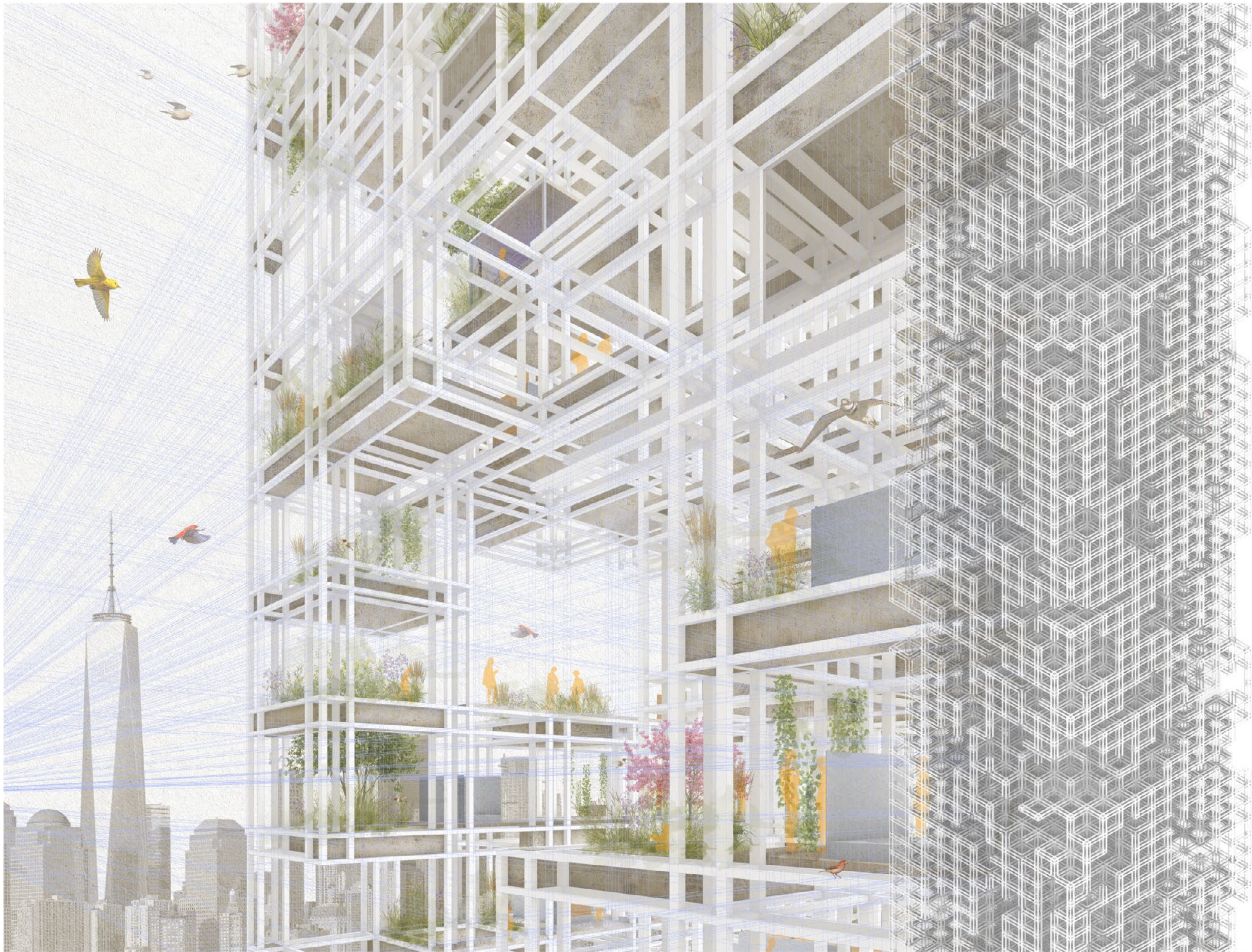


1st Level

Tower: The first level of the tower houses the redesigned maintenance sector and marks the point where the structure meets the ground. At this level, the soil resulting from the NOR process that occurred within the vessels is loaded into wagons that transport it to the pier. This act becomes a ritual, performed weekly, during which relatives may walk alongside the wagon—accompanying the deceased toward their destiny: the pier that terraforms with them.



Tower: Interior view.

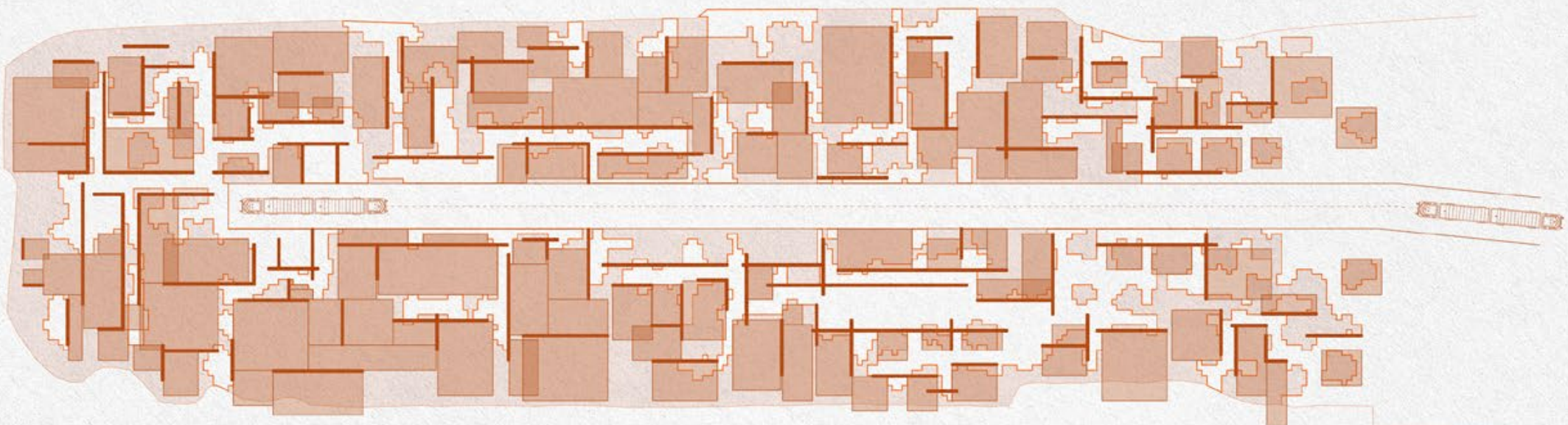
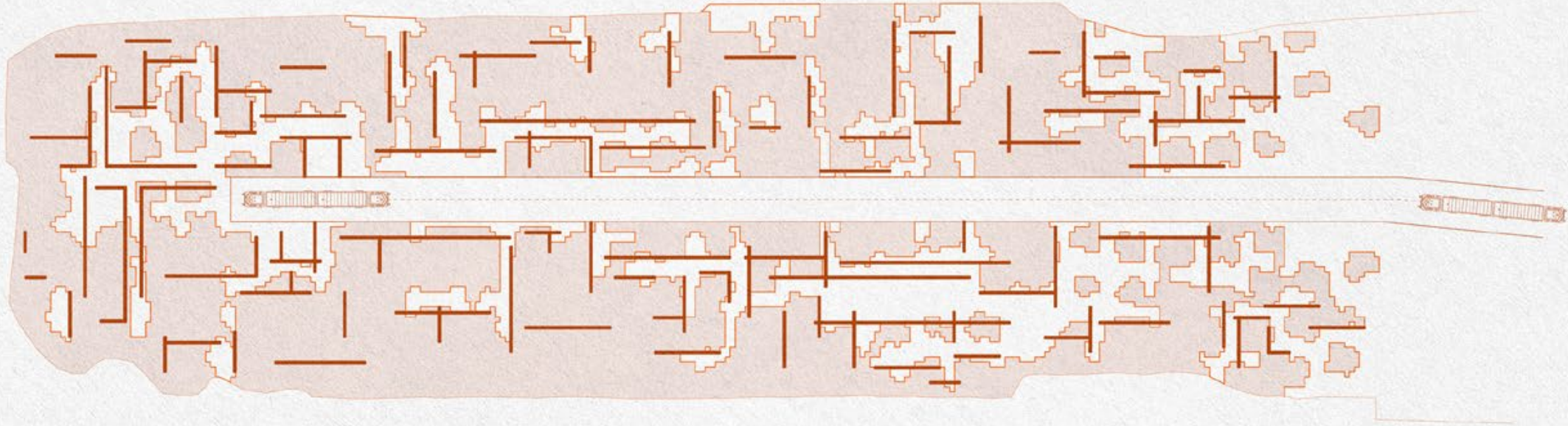
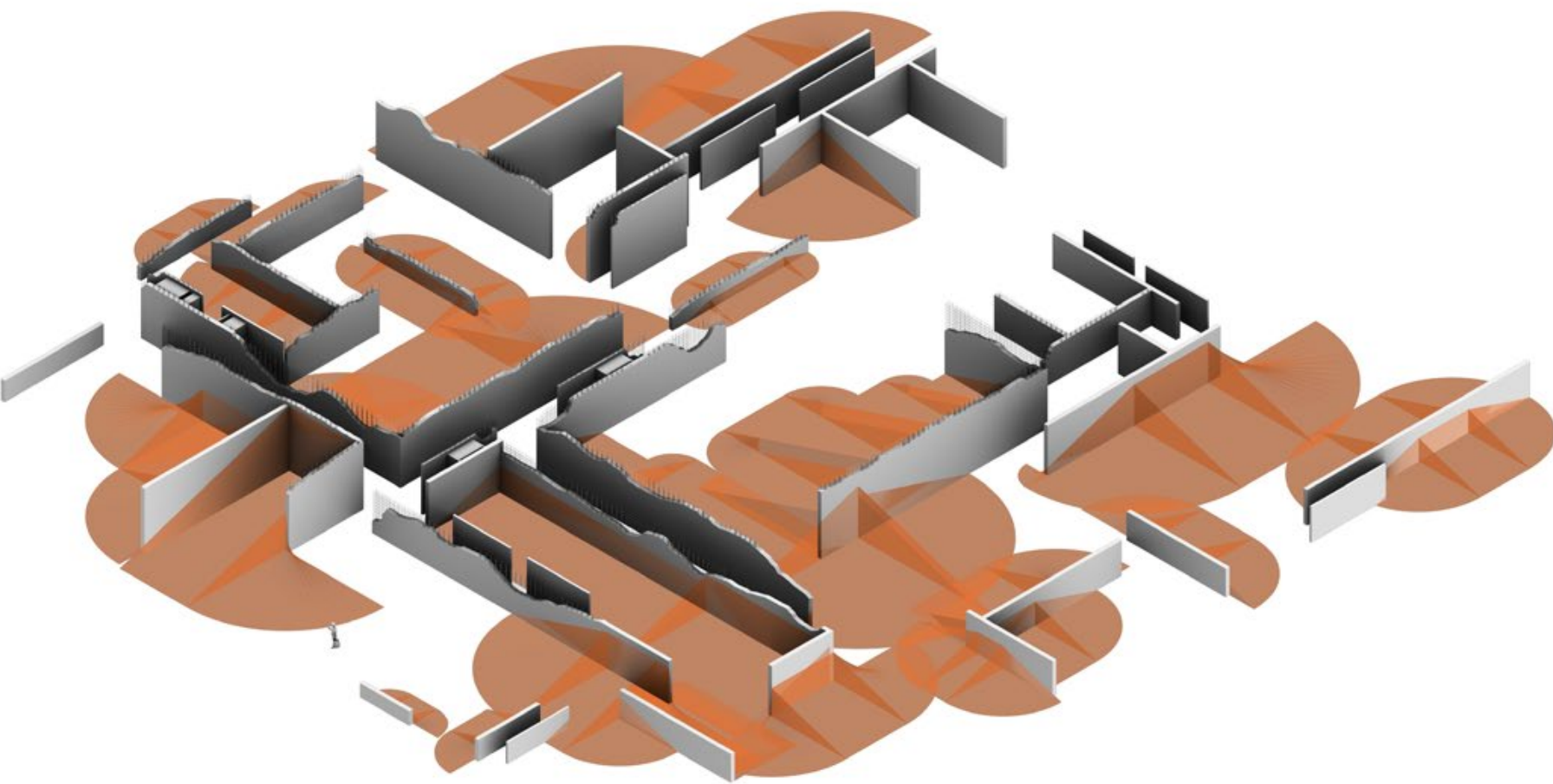
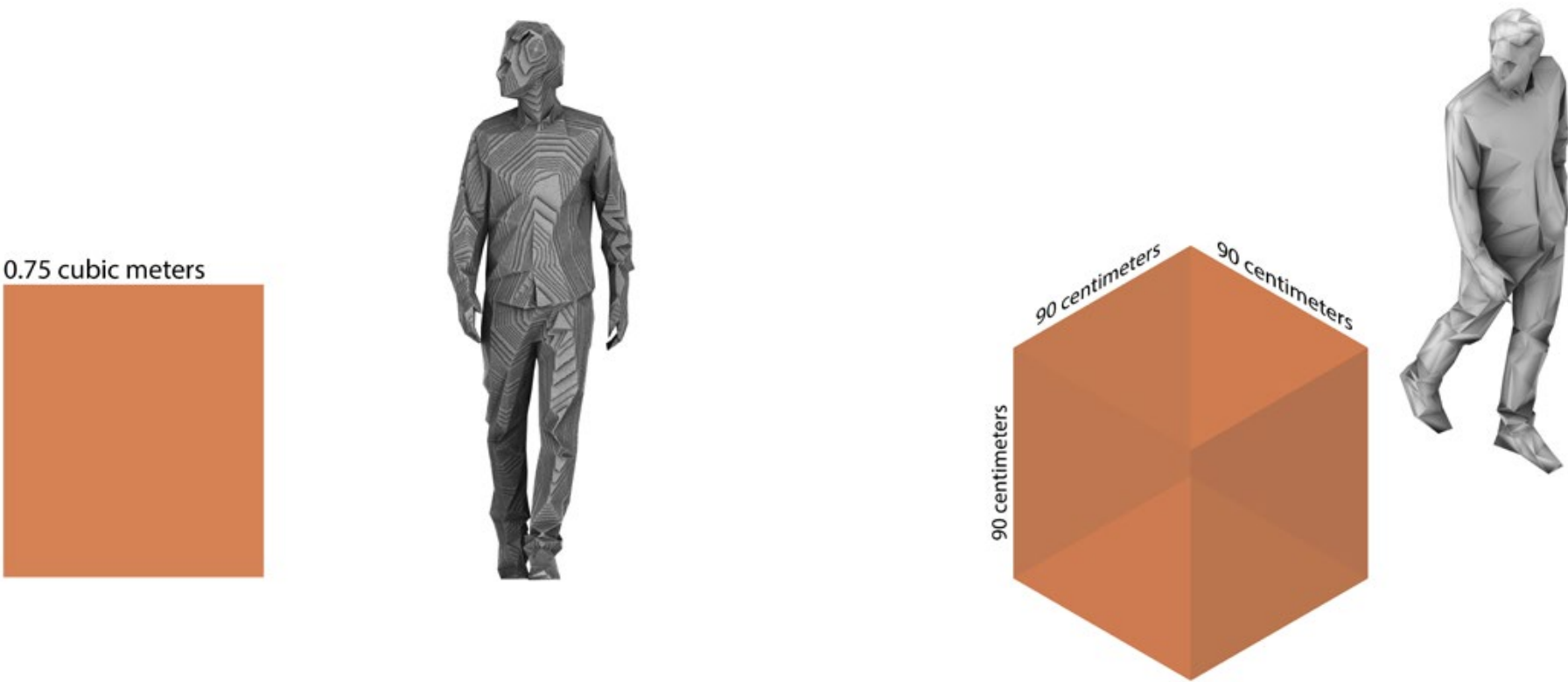


Tower: External view.



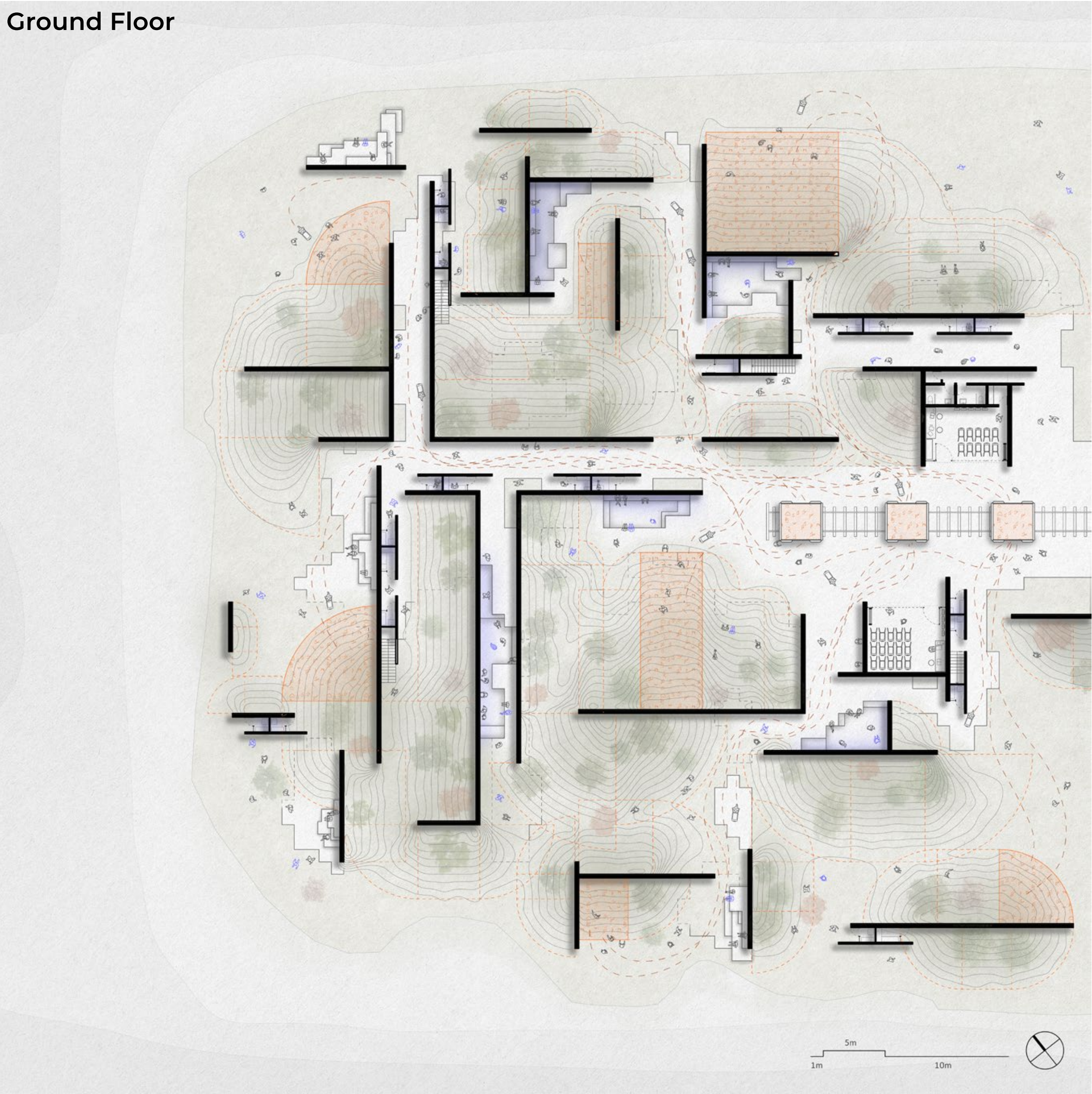
Tower: Section.

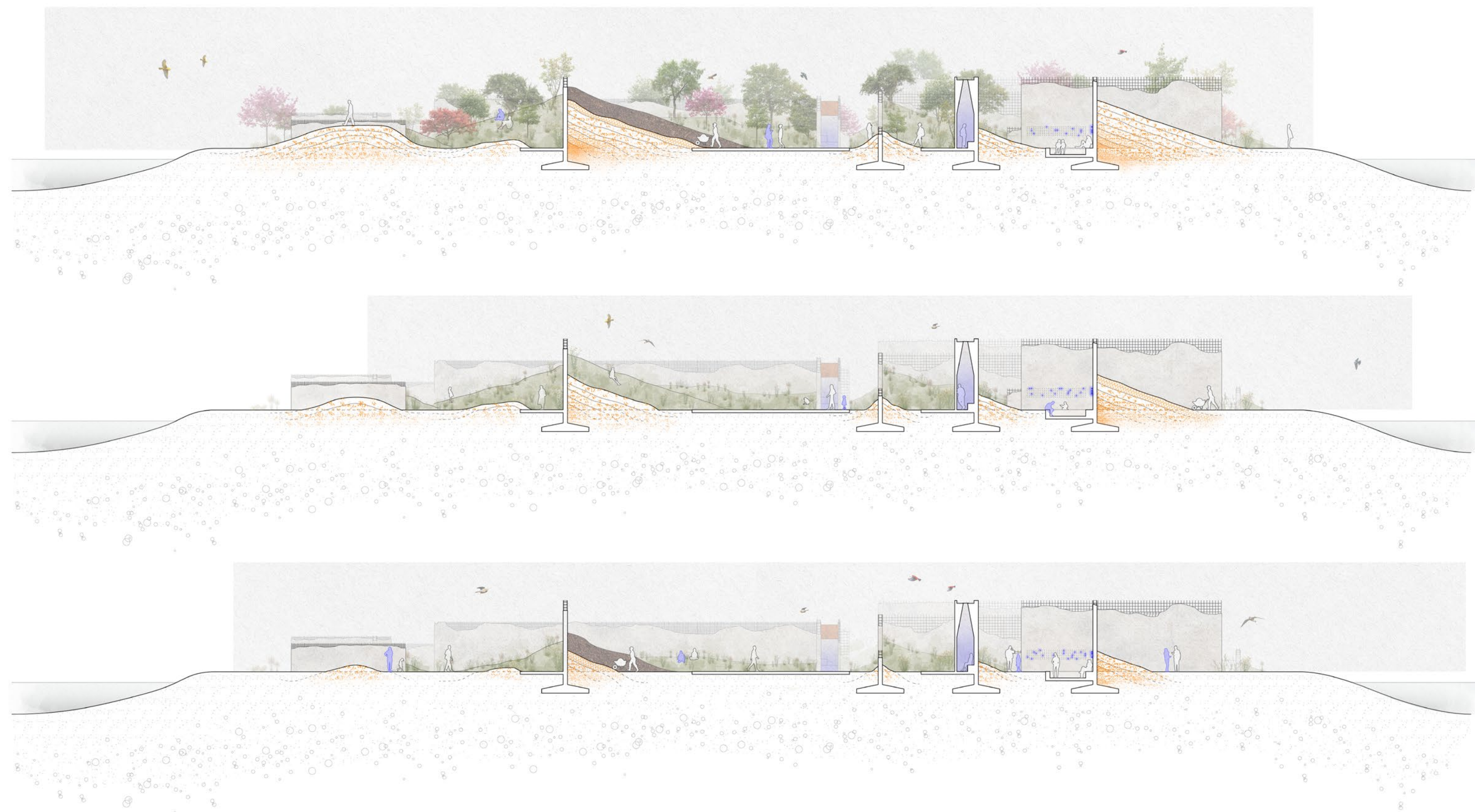
Soil Generated per Body and Its Distribution on the Pier



Pier: Once the soil arrives at the pier, it is distributed into planned mounds following a 3:1 slope ratio to ensure structural stability. A sample of each soil deposit is archived within the pier’s walls, which also house spaces for interacting with the digital double—either collectively or in solitude. These walls operate simultaneously as memorial repositories and as interfaces for communal or personal engagement with the deceased’s digital double.

Ground Floor





Pier: Sections of the terraforming process.

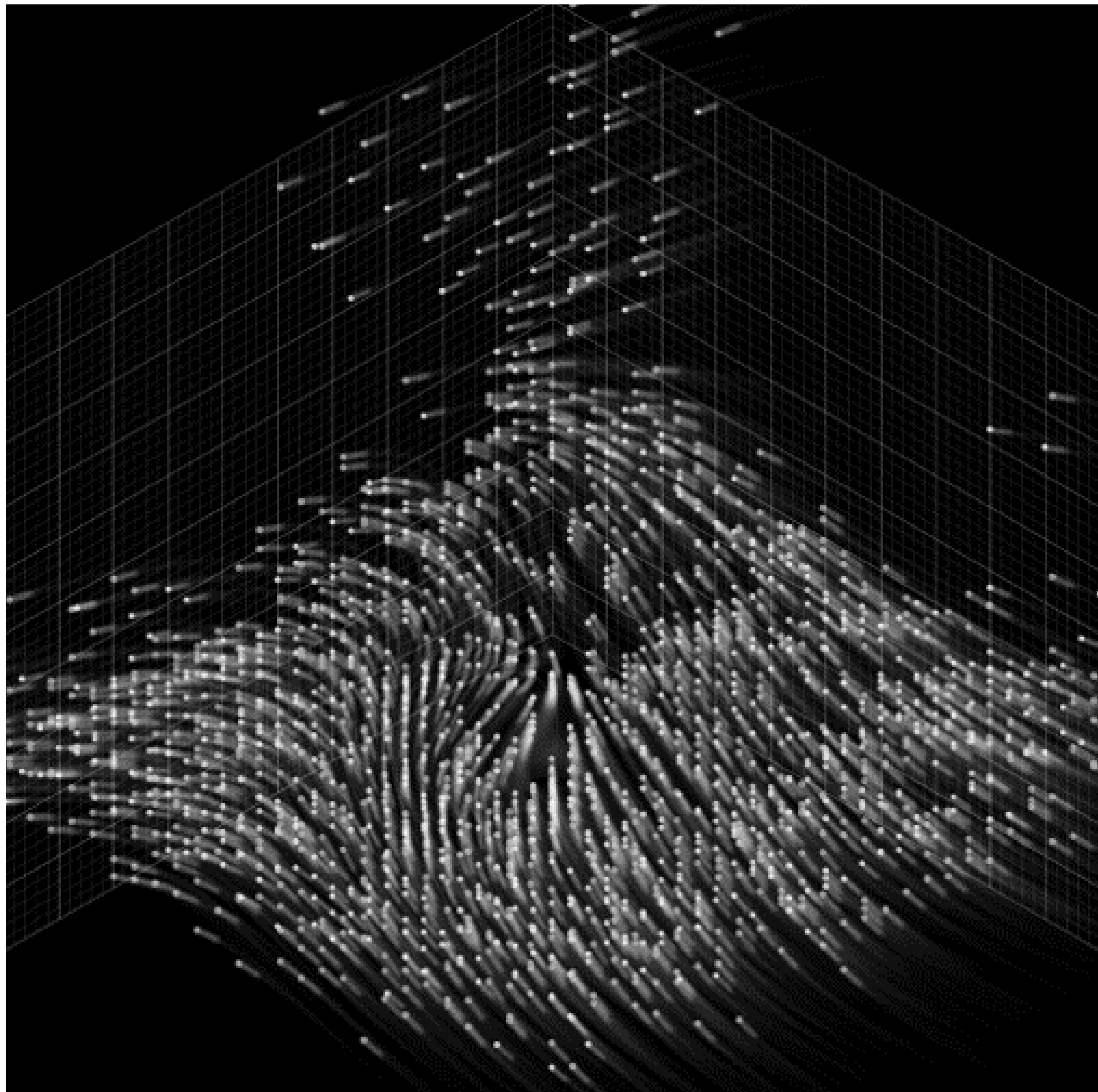




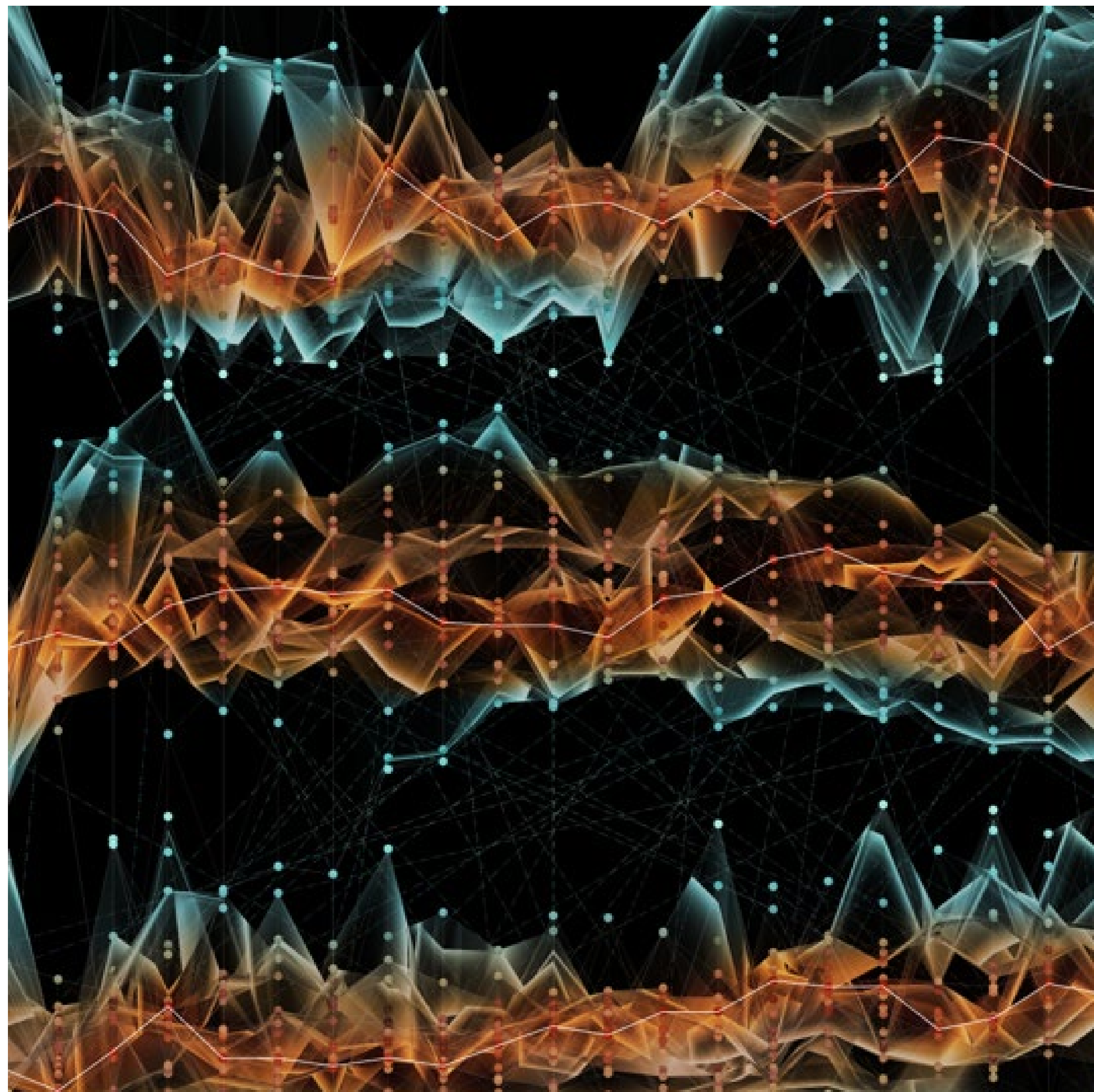
Pier: Soil redistribution view.



Pier: Physical-digital intra-action view.



Note: Digital traces.



Note: Intra-action of digital-physical traces.

