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GSAPP Fall 2022

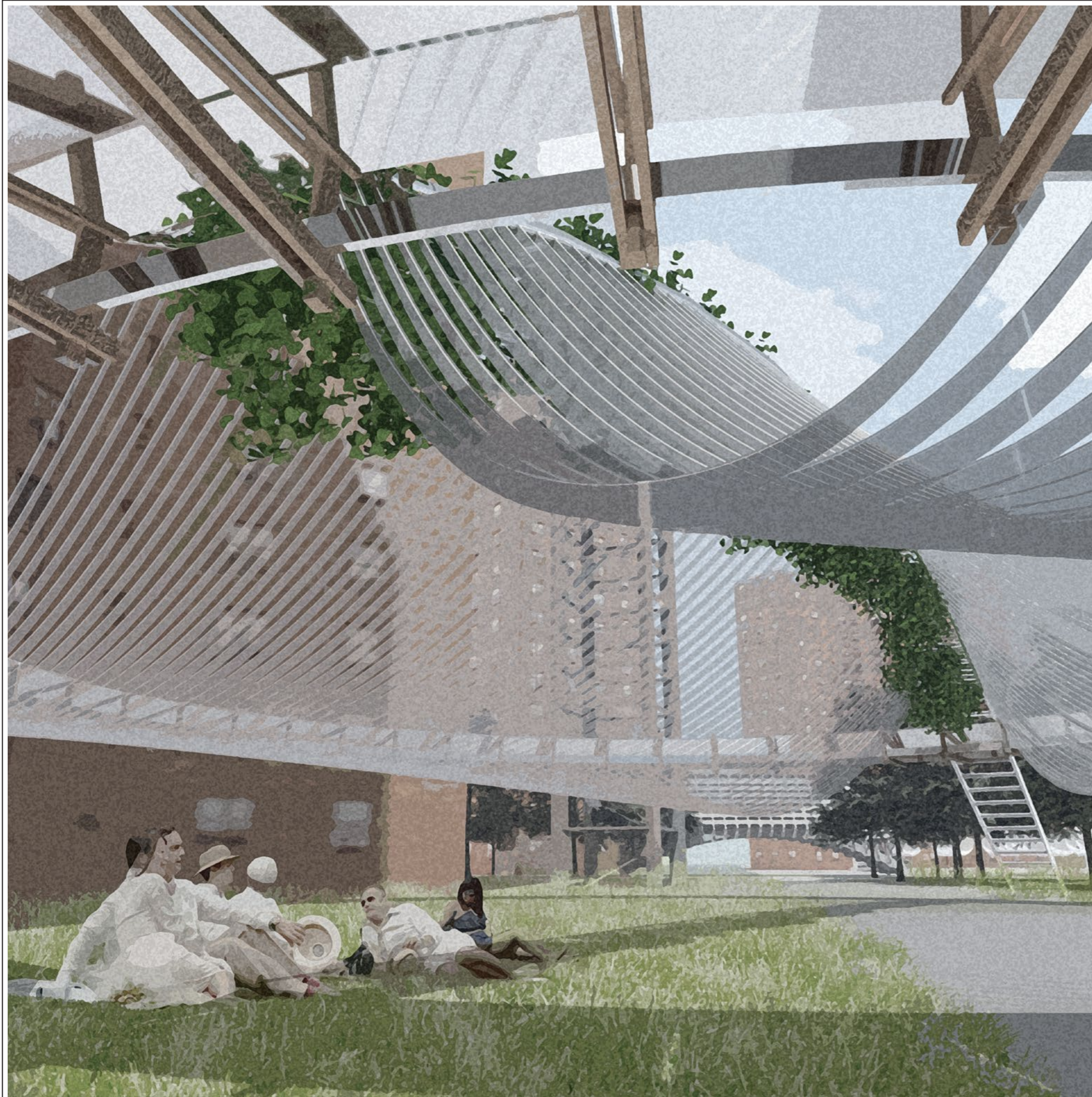
ARCHA4634

Instructor: Daniel Vos

Individual Work

05 MISCELLANEOUS

GSAPP 2022-2023



01

GREEN CAPITAL

The relationship between capital, class and canopy

GSAPP Summer 2022

ARCHA4853

Instructor: Ersela Kripa, Stephen Mueller

Individual Work

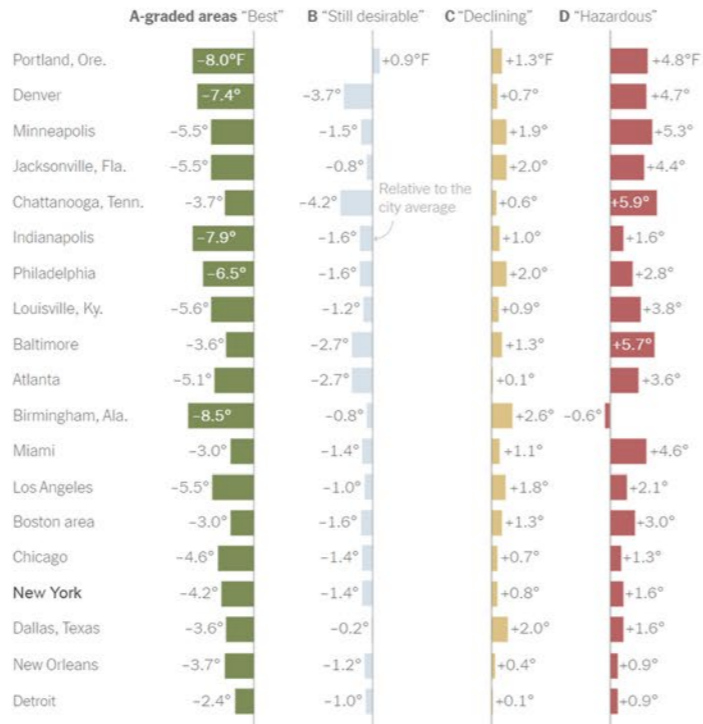
Shade can be recognized as a luxurious amenity that brings a touch of peace to this heat-laden forest of concrete and glass. But with the growing heat island effect accompanied by the frequent 100-degree heat waves it brings, we need to consider shade as a useful public resource. However, at least for now, this resource is not equitably distributed. In different cities across the United States, we can find evidence that the *density of the tree canopy* correlates with income or *racial distribution*, due to a complex set of historical factors, and it is up to us now to remedy these inequities as best we can.

New York has long been considered to be at the forefront of urban greening. New York's "*Million Trees*" project reveals the government's commitment to addressing *environmental injustice*. In the government's presentation of the results, we can see that areas that were environmentally fragile have been well compensated with new trees. However, if we take a closer look at the actual condition of the trees, we can see that the situation is not as rosy as we thought.

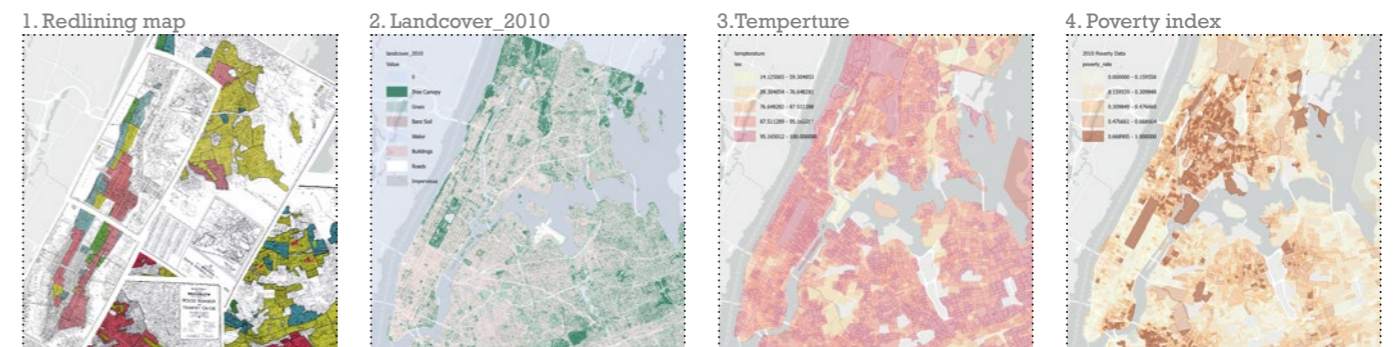
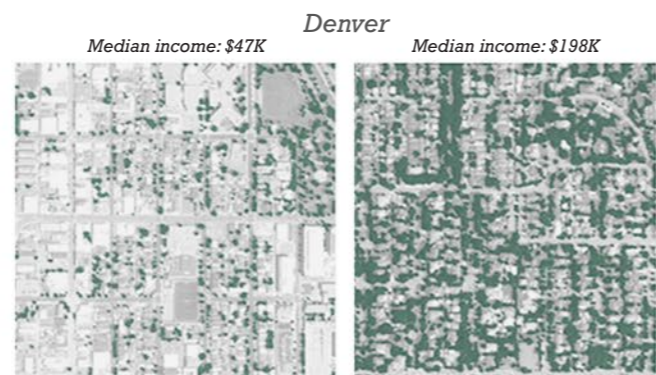
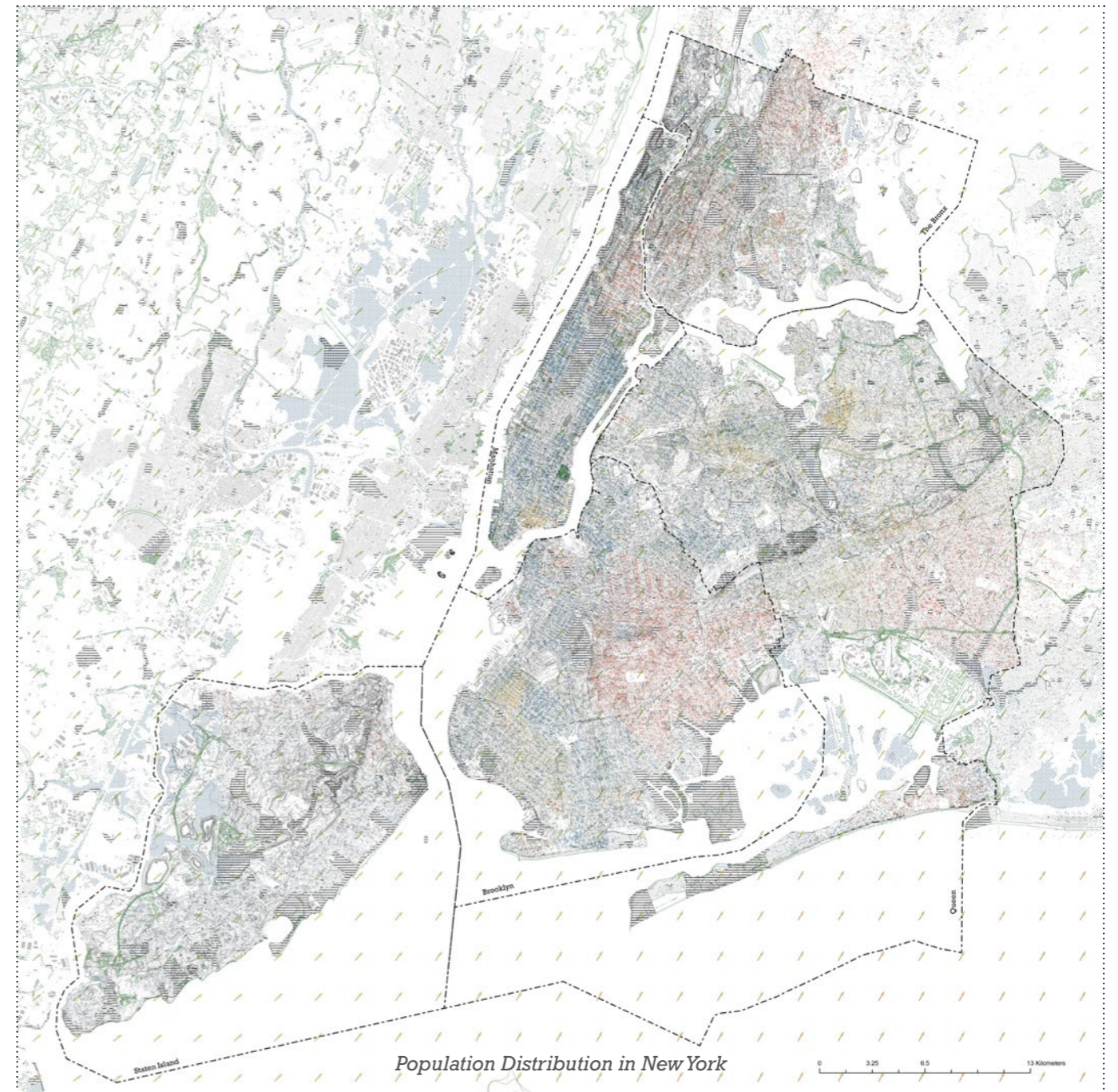
Environmental Injustice

Due to the complex and demanding environment, tree growth in the city requires care, and in the 2015 tree count, trees in the Museum Street area registered the most stewards, and therefore the growth of trees in this area is ideal. But as is inevitable between data and reality, there are many well cared for trees that are not registered as stewards. There are many such invisible stewards in the city, and they are an integral part of the urban forest ecosystem.

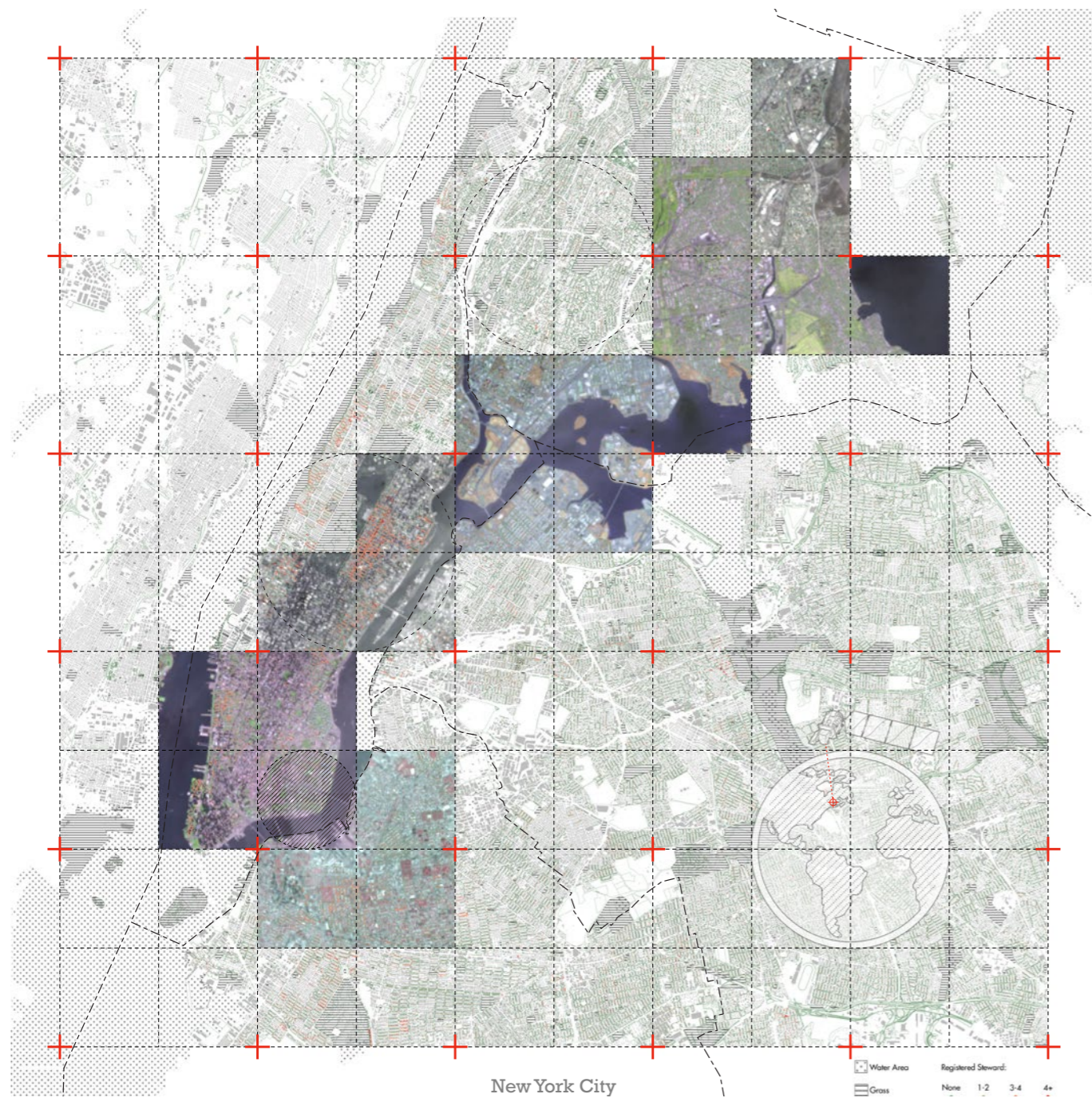
As for the reasons for canopy decline, there are certainly environmental factors other than lack of human care. So if we want to think about how to protect and increase the urban canopy, we need to consider both environmental factors and invisible stewards. By zooming in on the map to the Lower East area - an area that has shown anomalies in canopy decline - we can clearly see how the canopy is declining. I selected one of these sites for study and proposed a prototype neighborhood-scale tree protection system.



Catalogue



Workflow



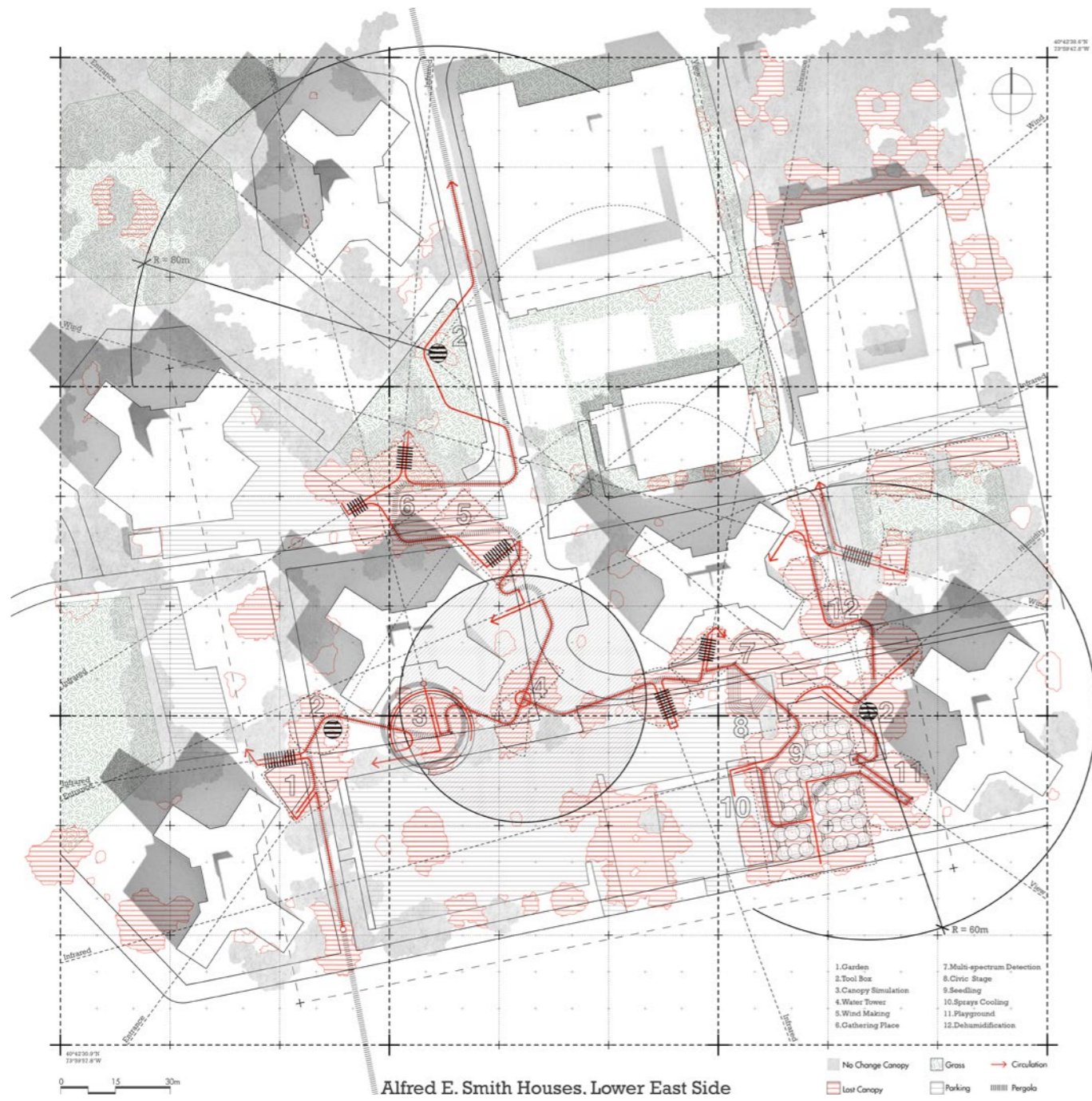
Abnormal



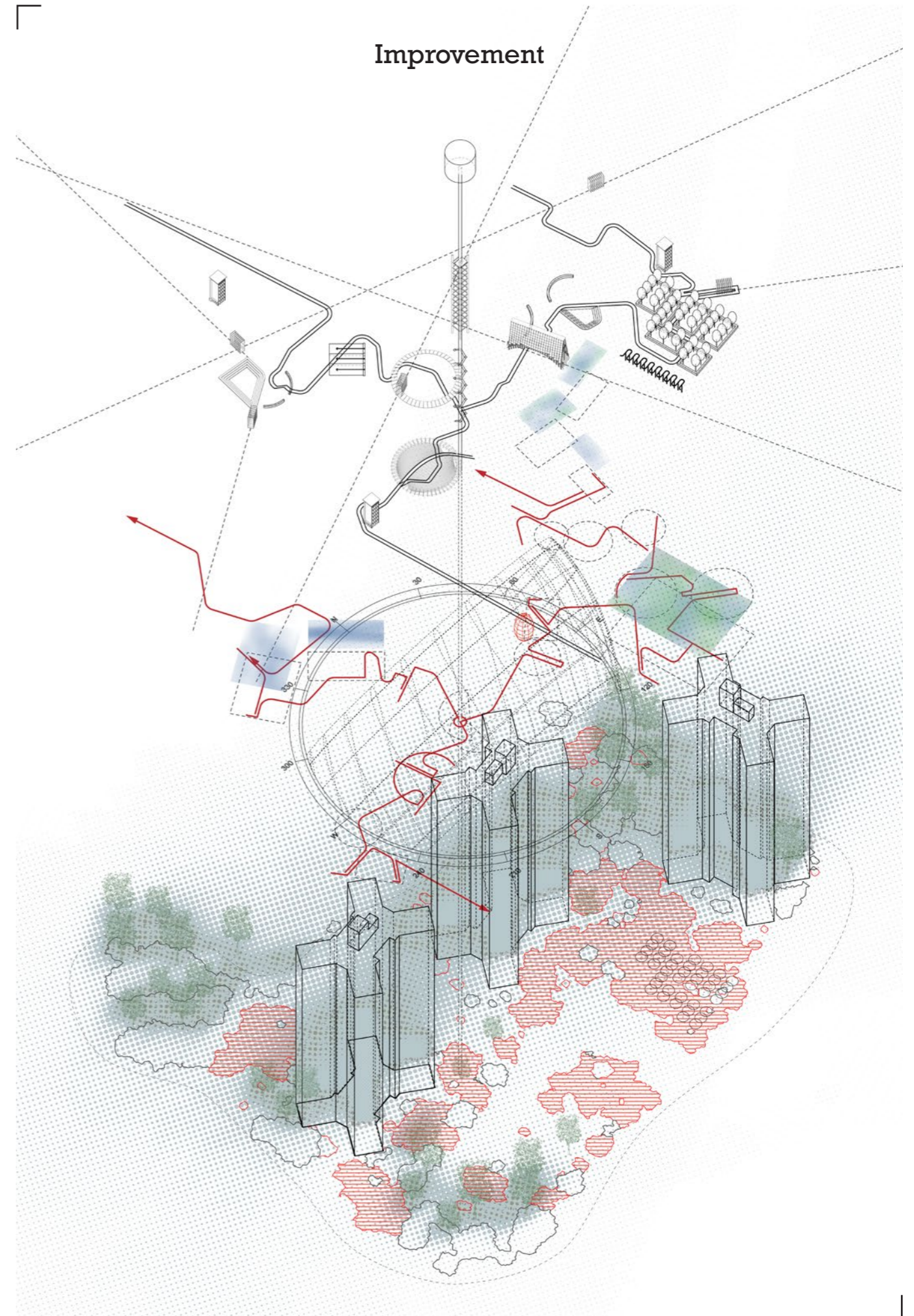
Landsat 8 is the latest installment of the U.S. Landsat satellite series, operated by National Aeronautics and Space Administration (NASA) and United States Geological Survey (USGS). The Landsat program represents the world's longest continuously acquired collection of spaceborne data in history and since late 2008, all data were made available to all users free of charge. Each of these channels has been designed to perform certain tasks, e.g., retrieving atmospheric aerosol properties and detect cirrus clouds for corrections of atmospheric distortions.

Since the 1970s, grassroots activists have been fighting against air pollution, toxic facilities, the lack of trees and green spaces. But their environmental struggle has now also become a housing struggle. With the "One Million Trees" plan, some of those neighbourhoods suddenly became green, and quickly gentrified, attracting other sectors of the population that want to live there because it is now a desirable atmosphere. Now that these activists have trees, they are forced to fight back to stay in place, because of trees. That is one of the paradoxes that emerged in NYC.

Masterplan



Improvement



Since the 1970s, grassroots activists have been fighting against air pollution, toxic facilities, the lack of trees and green spaces. But their environmental struggle has now also become a housing struggle. With the "One Million Trees" plan, some of those neighbourhoods suddenly became green, and quickly gentrified, attracting other sectors of the population that want to live there because it is now a desirable atmosphere. Now that these activists have trees, they are forced to fight back to stay in place, because of trees. That is one of the paradoxes that emerged in NYC.



02

RICE ECOLOGY 2030

GSAPP Fall 2022

ARCHA4105

Instructor: David Benjamin

Group Work With: Ze Meng, Renwen Yu

The world is suffering a food crisis these days. Undoubtedly, rice is the most suitable role to end this disaster. But now we are facing two problems. Firstly, to relieve inventory pressure and increase the unit price, the food suppliers prefer to burn the rice into biofuel with no carbon-saving benefit. Secondly, rice production is always regarded as a high carbon emission process. Whoever started the trouble should end it. So how to solve this deal of trouble with *rice ecology*? We propose to build warehouses to store more rice. And more importantly, we think about how to make the carbon emission into the carbon sink with *architectural methods* in this proposal.

Scenario

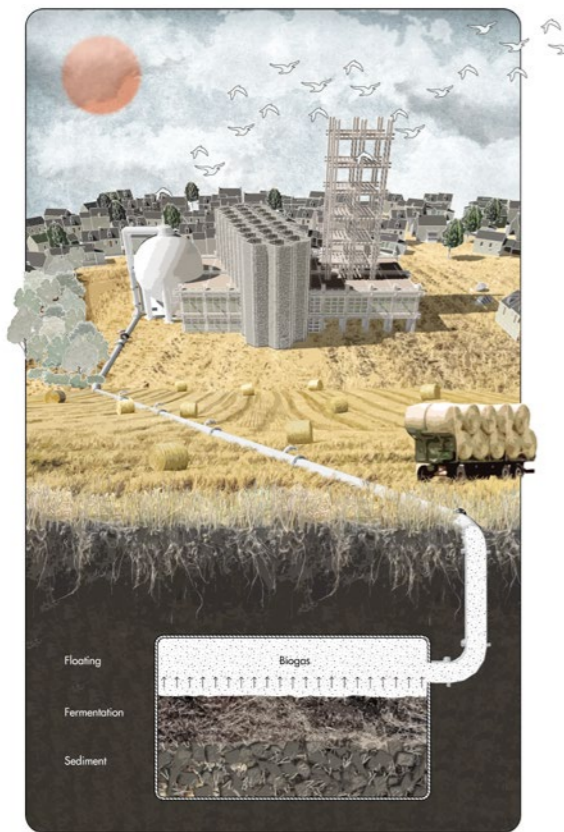
Binder Options



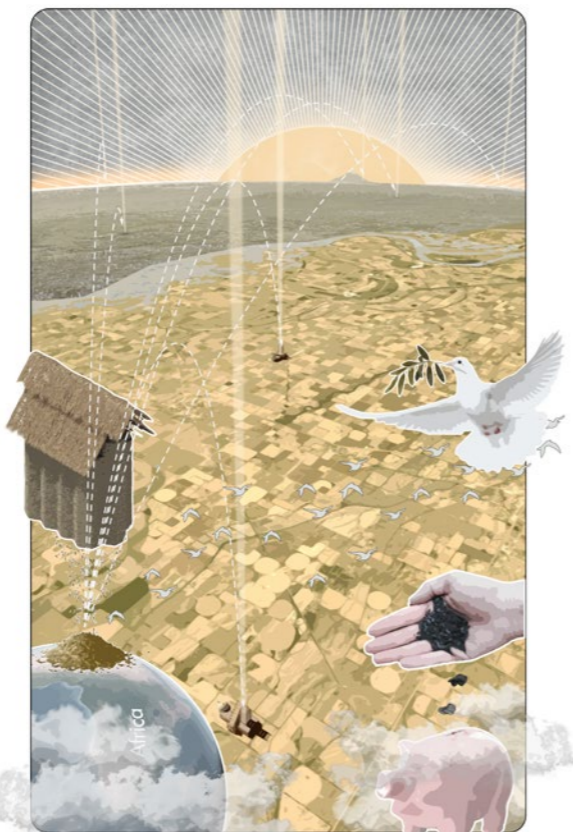
Issues
2022



Policy
2024



Proposal
2028



Prospect
2032



Rice Straw + Water + Corn Starch
40% 10% 50%



Rice Straw + Water + Corn Starch
60% 10% 30%



Rice Straw + Water + Paper Pulp
40% 10% 50%



Rice Straw + Water + Paper Pulp
60% 10% 30%

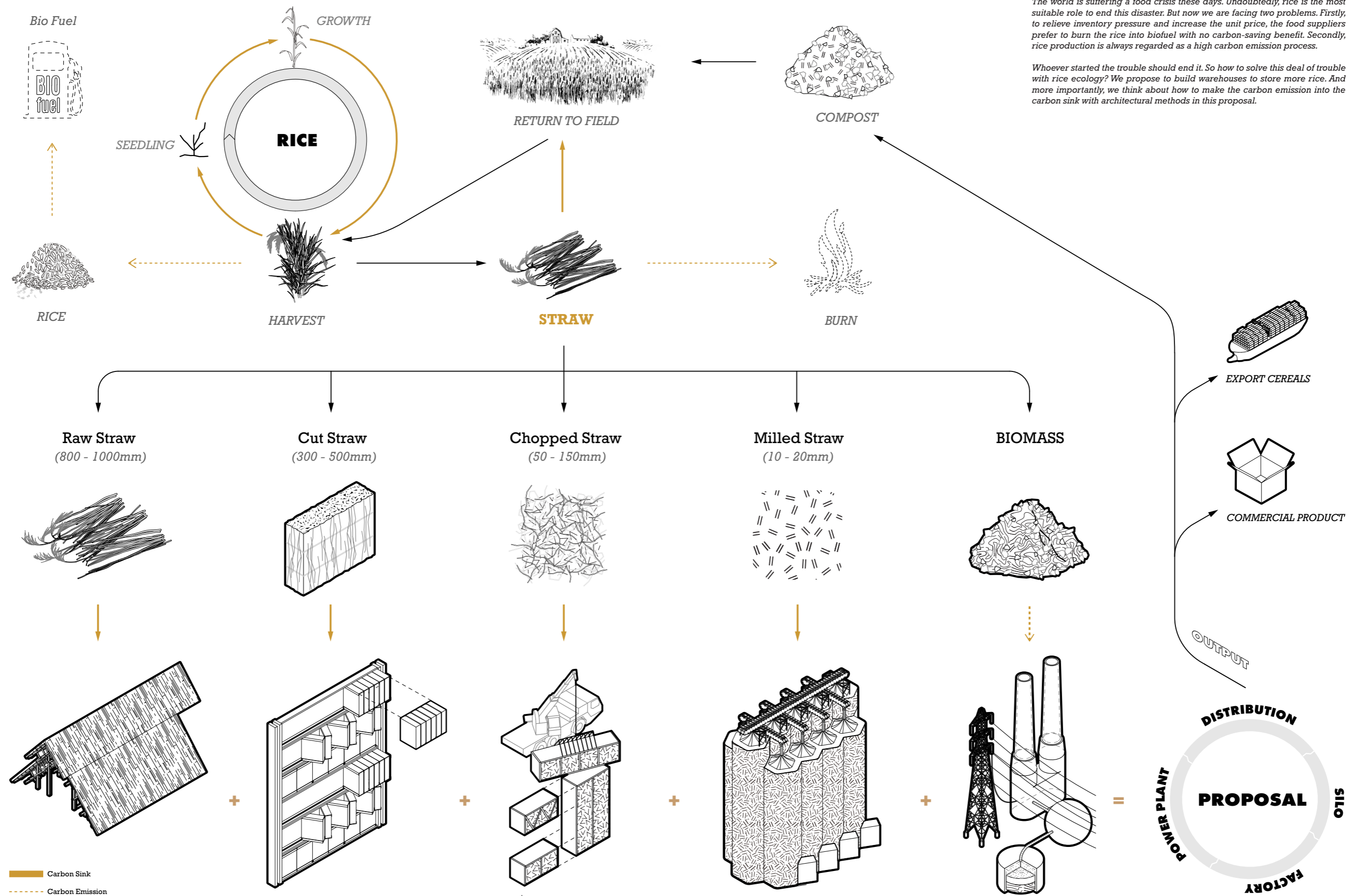


Rice Straw + Water + Corn Starch
80% 10% 10%



Rice Straw + Water + Paper Pulp
80% 10% 10%

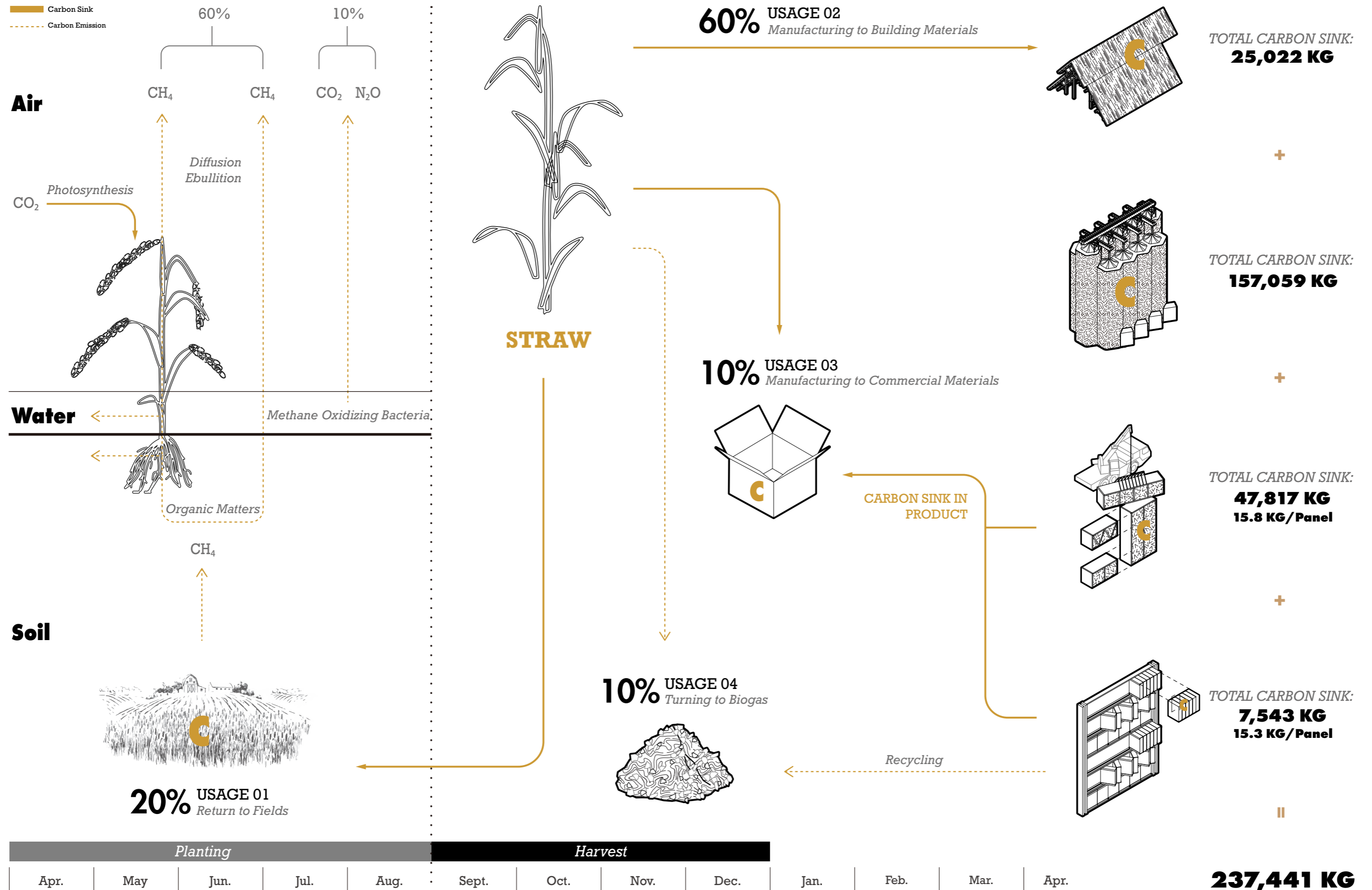
Project Catalog



The world is suffering a food crisis these days. Undoubtedly, rice is the most suitable role to end this disaster. But now we are facing two problems. Firstly, to relieve inventory pressure and increase the unit price, the food suppliers prefer to burn the rice into biofuel with no carbon-saving benefit. Secondly, rice production is always regarded as a high carbon emission process.

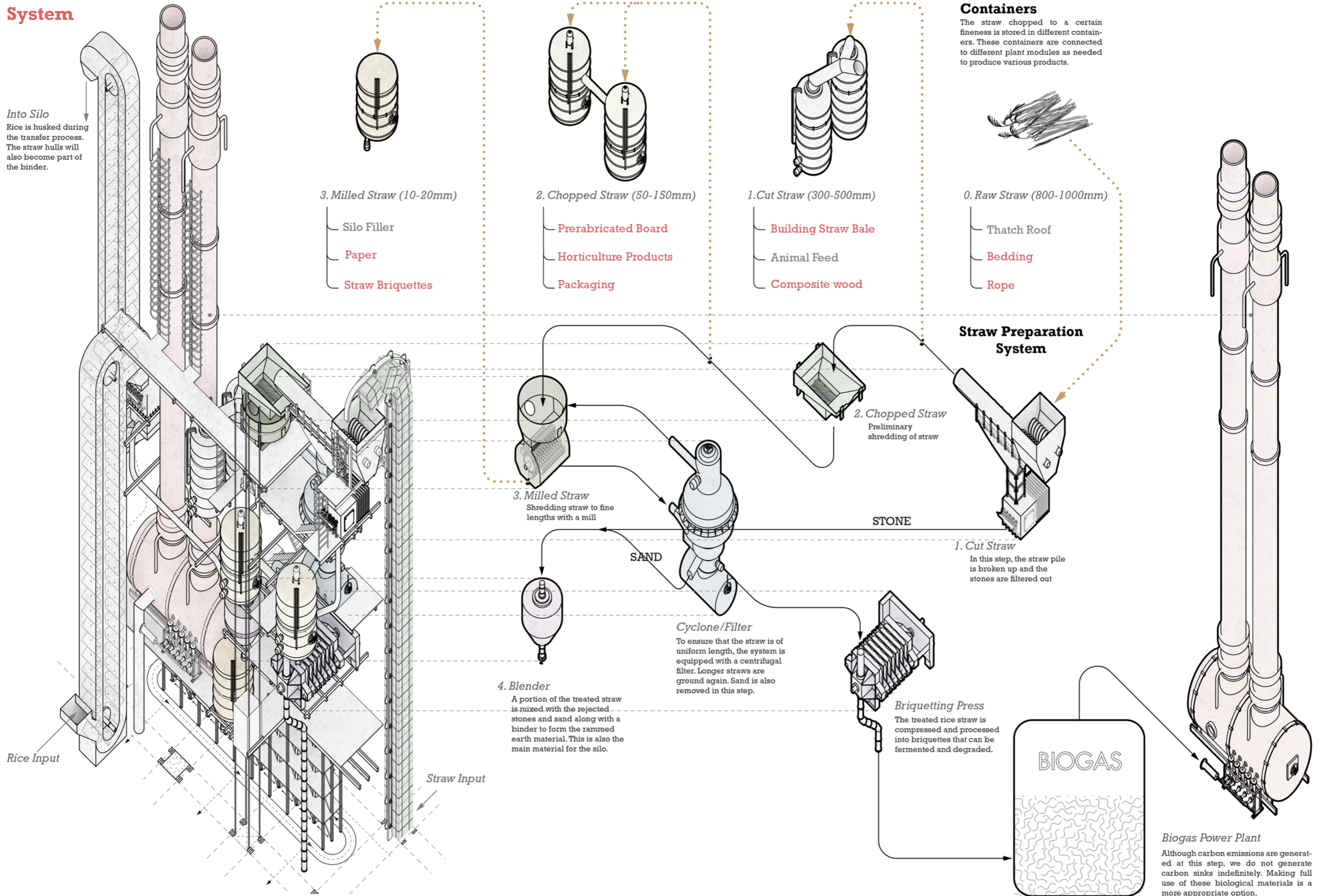
Whoever started the trouble should end it. So how to solve this deal of trouble with rice ecology? We propose to build warehouses to store more rice. And more importantly, we think about how to make the carbon emission into the carbon sink with architectural methods in this proposal.

Carbon Flow



System

Into Silo
Rice is husked during the transfer process. The straw hulls will also become part of the binder.



Containers

The straw chopped to a certain fineness is stored in different containers. These containers are connected to different plant modules as needed to produce various products.

- 0. Raw Straw (800-1000mm)
 - Thatch Roof
 - Bedding
 - Rope

1. Cut Straw (300-500mm)

- Building Straw Bale
- Animal Feed
- Composite wood

2. Chopped Straw (50-150mm)

- Prerabricated Board
- Horticulture Products
- Packaging

3. Milled Straw (10-20mm)

- Silo Filler
- Paper
- Straw Briquettes

Straw Preparation System

1. Cut Straw
In this step, the straw pile is broken up and the stones are filtered out

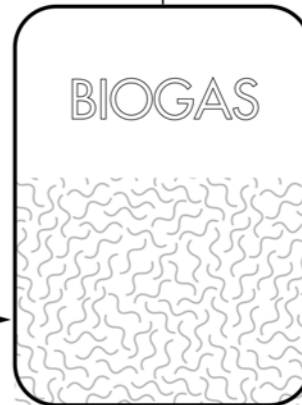
2. Chopped Straw
Preliminary shredding of straw

3. Milled Straw
Shredding straw to fine lengths with a mill

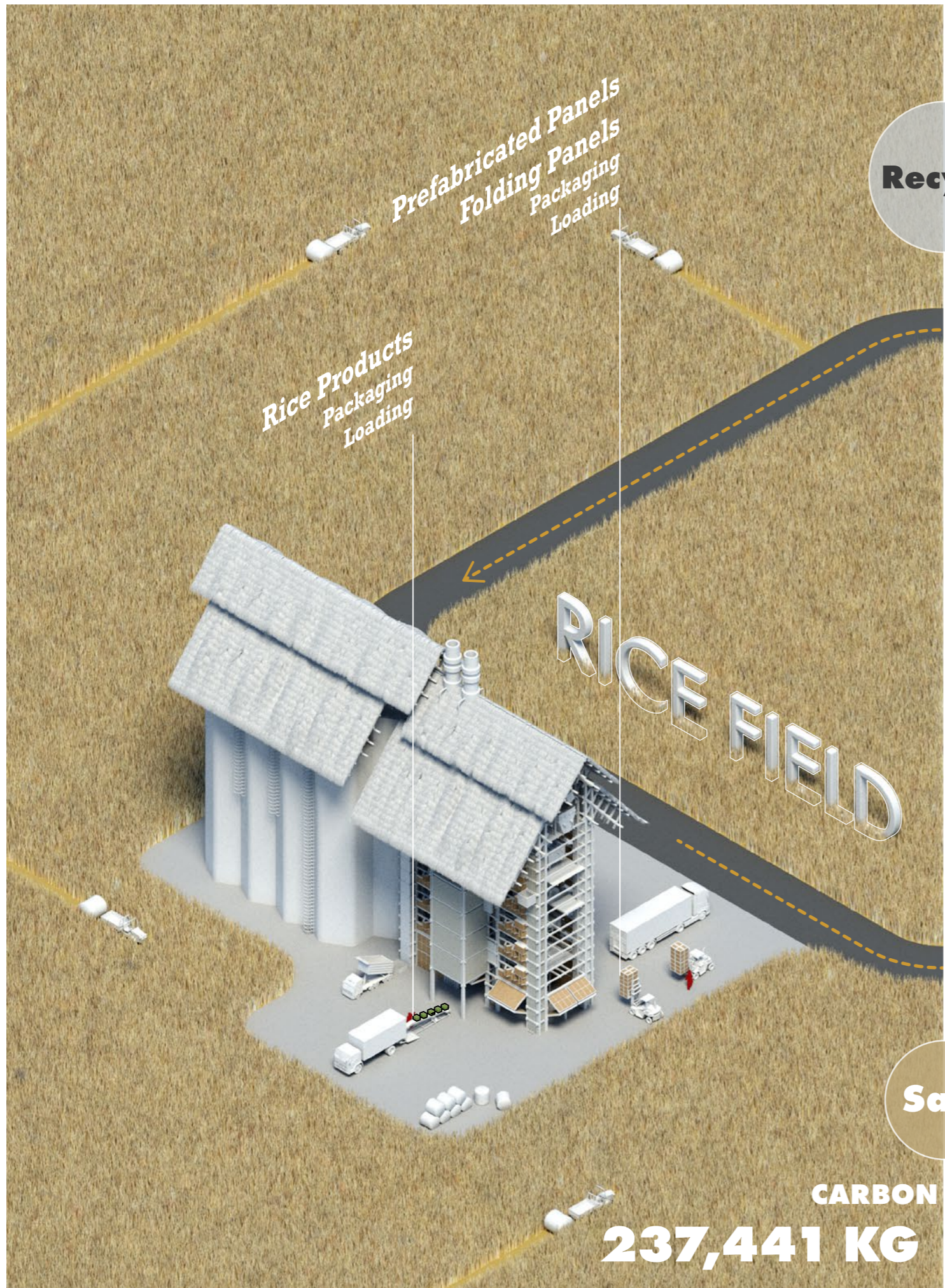
Cyclone/Filter
To ensure that the straw is of uniform length, the system is equipped with a centrifugal filter. Longer straws are ground again. Sand is also removed in this step.

4. Blender
A portion of the treated straw is mixed with the rejected stones and sand along with a binder to form the rammed earth material. This is also the main material for the silo.

Briquetting Press
The treated rice straw is compressed and processed into briquettes that can be fermented and degraded.



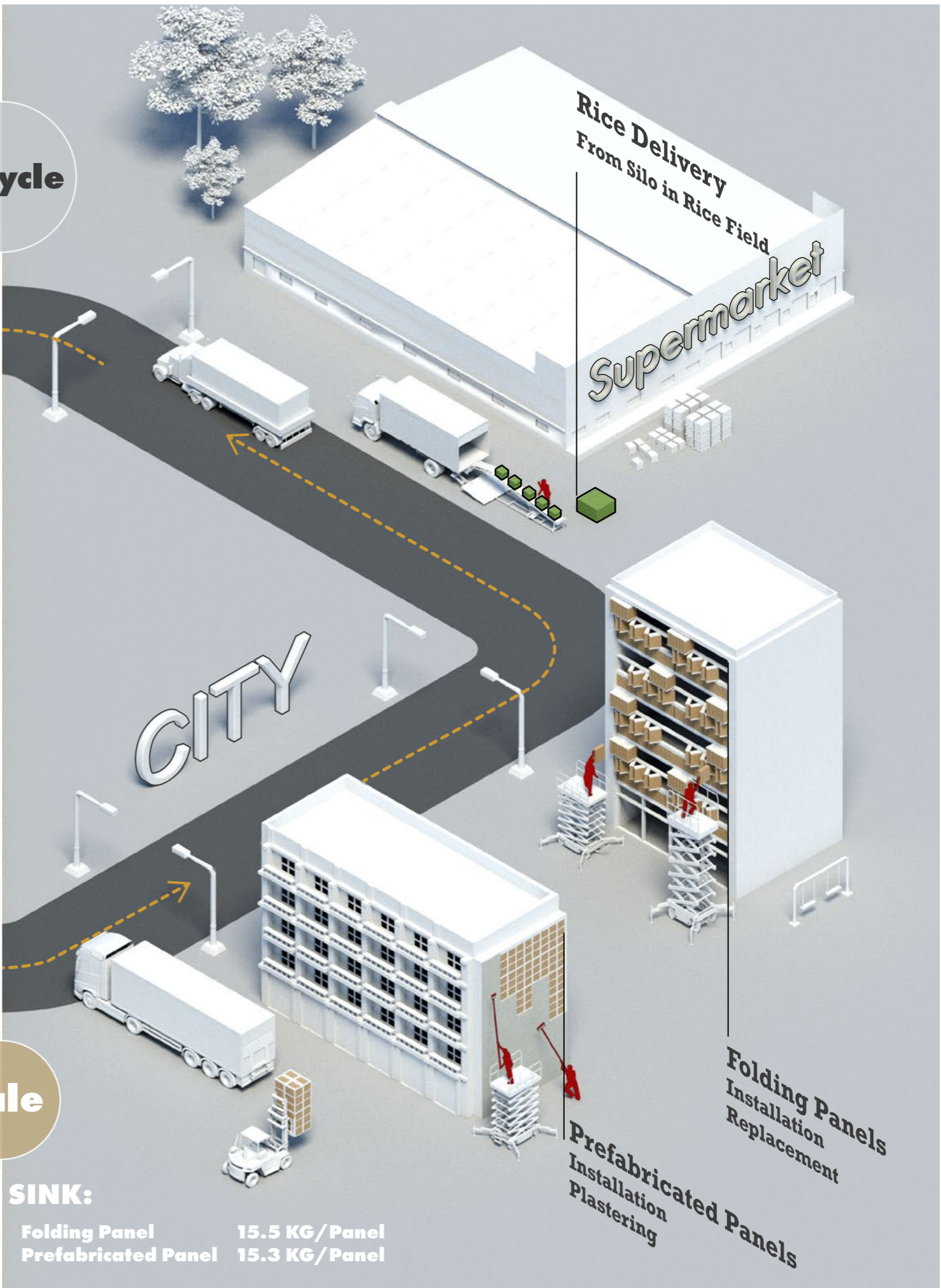
Biogas Power Plant
Although carbon emissions are generated at this step, we do not generate carbon sinks indefinitely. Making full use of these biological materials is a more appropriate option.



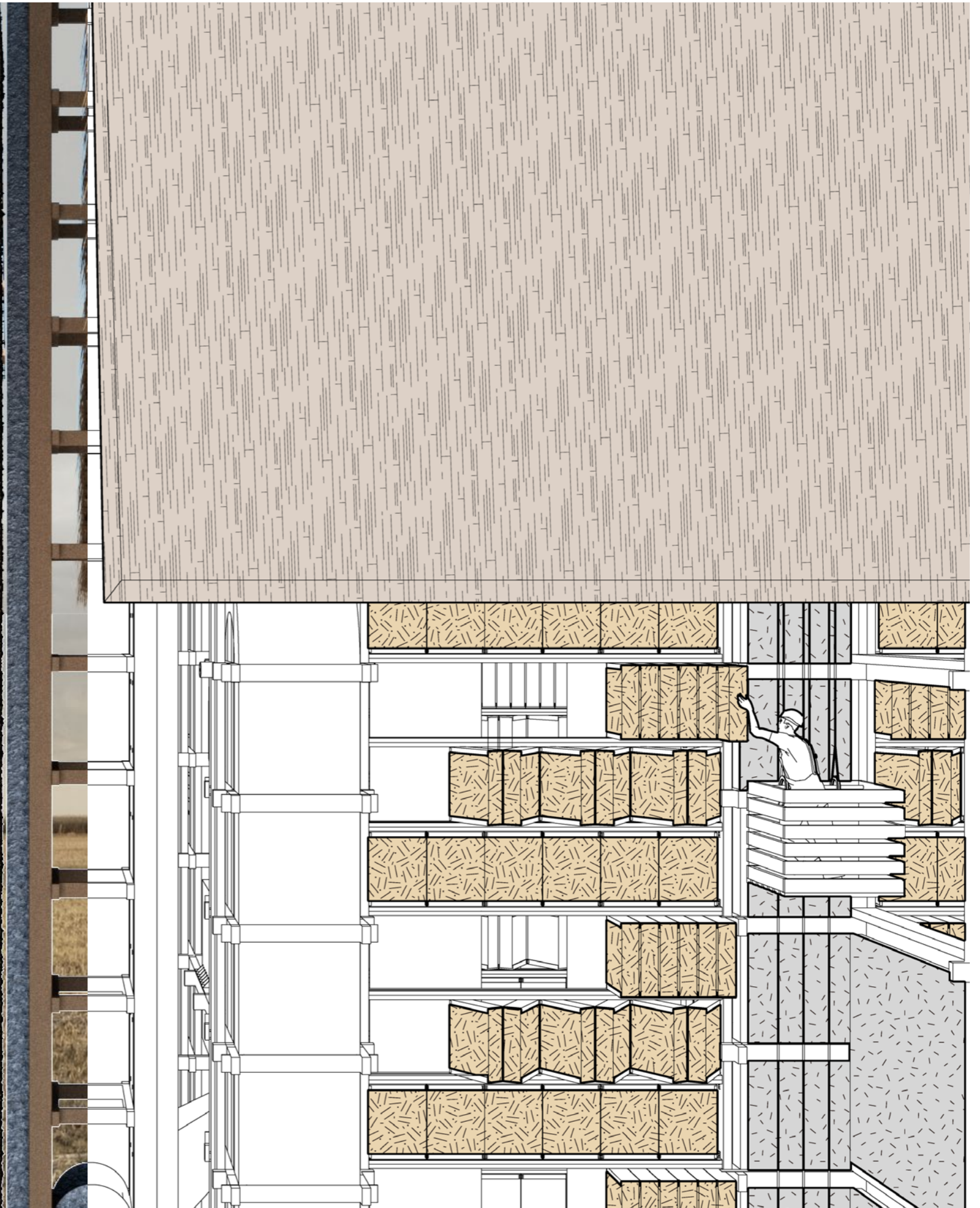
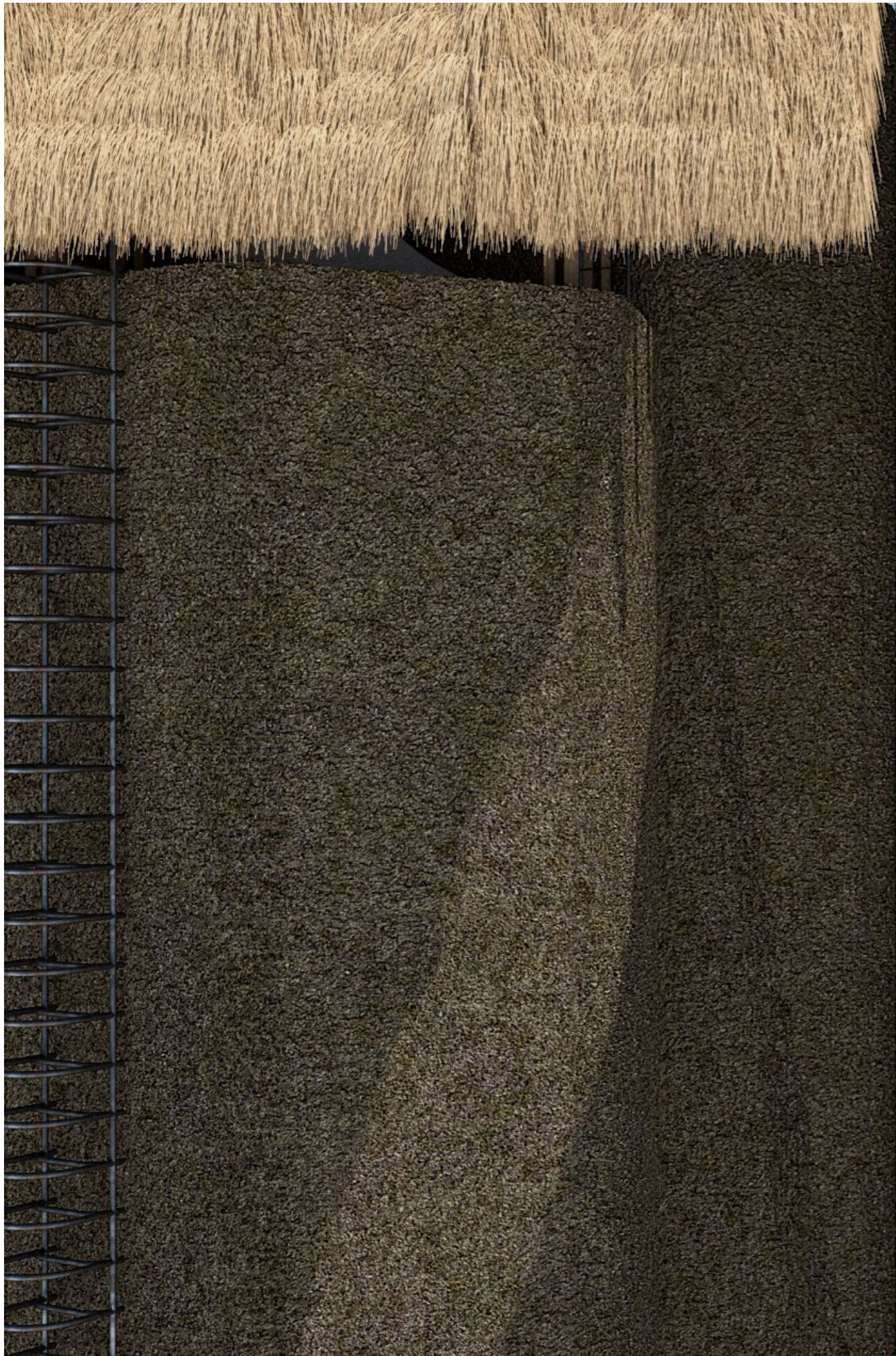
Recycle

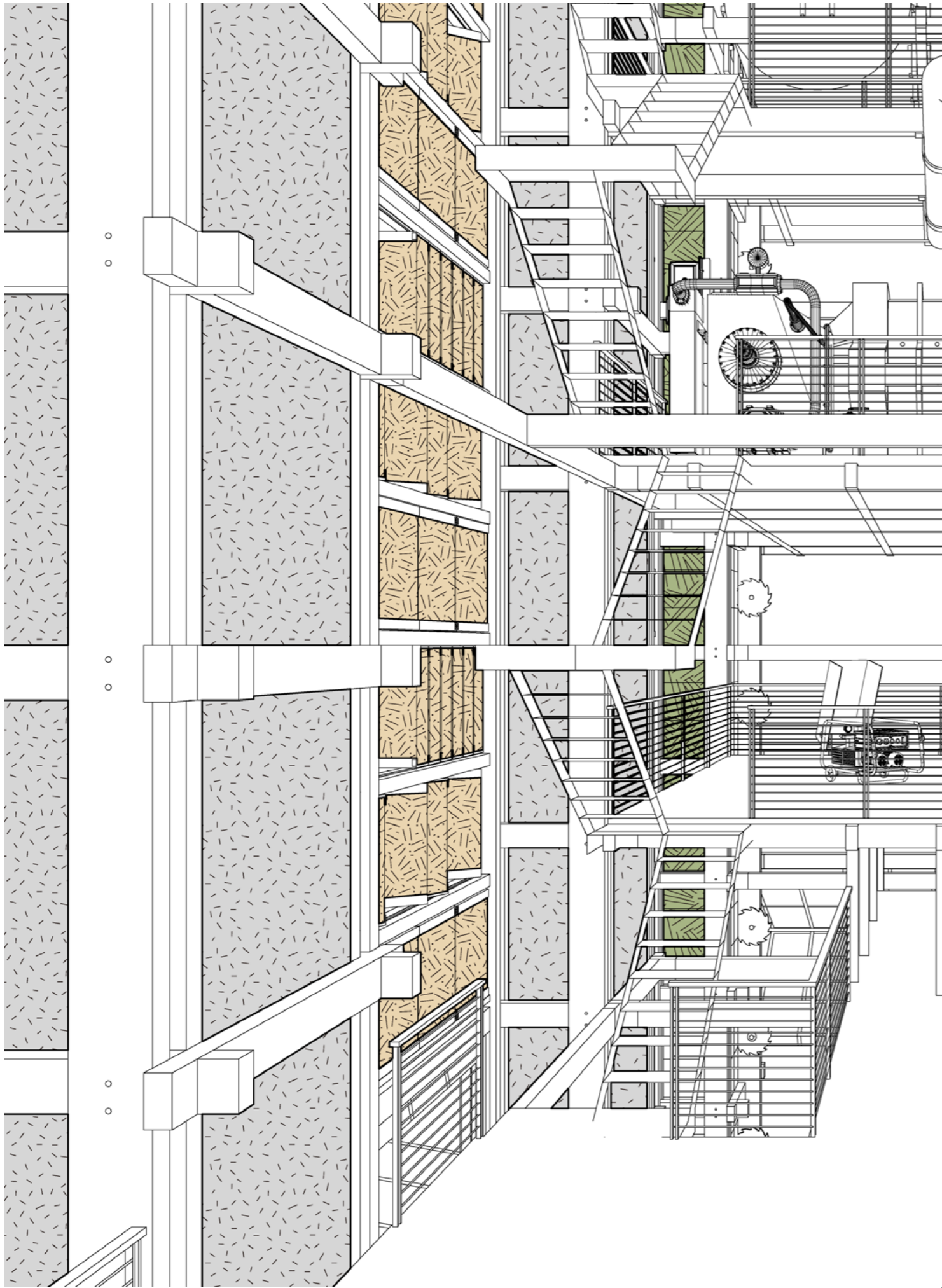
Sale

**CARBON SINK:
237,441 KG**



Folding Panel	15.5 KG/Panel
Prefabricated Panel	15.3 KG/Panel







03

ATYPICAL MONUMENT

GSAPP Spring 2023

ARCHA4106

Instructor: Karla Rothstein

Group Work With: Weiheng Zhao

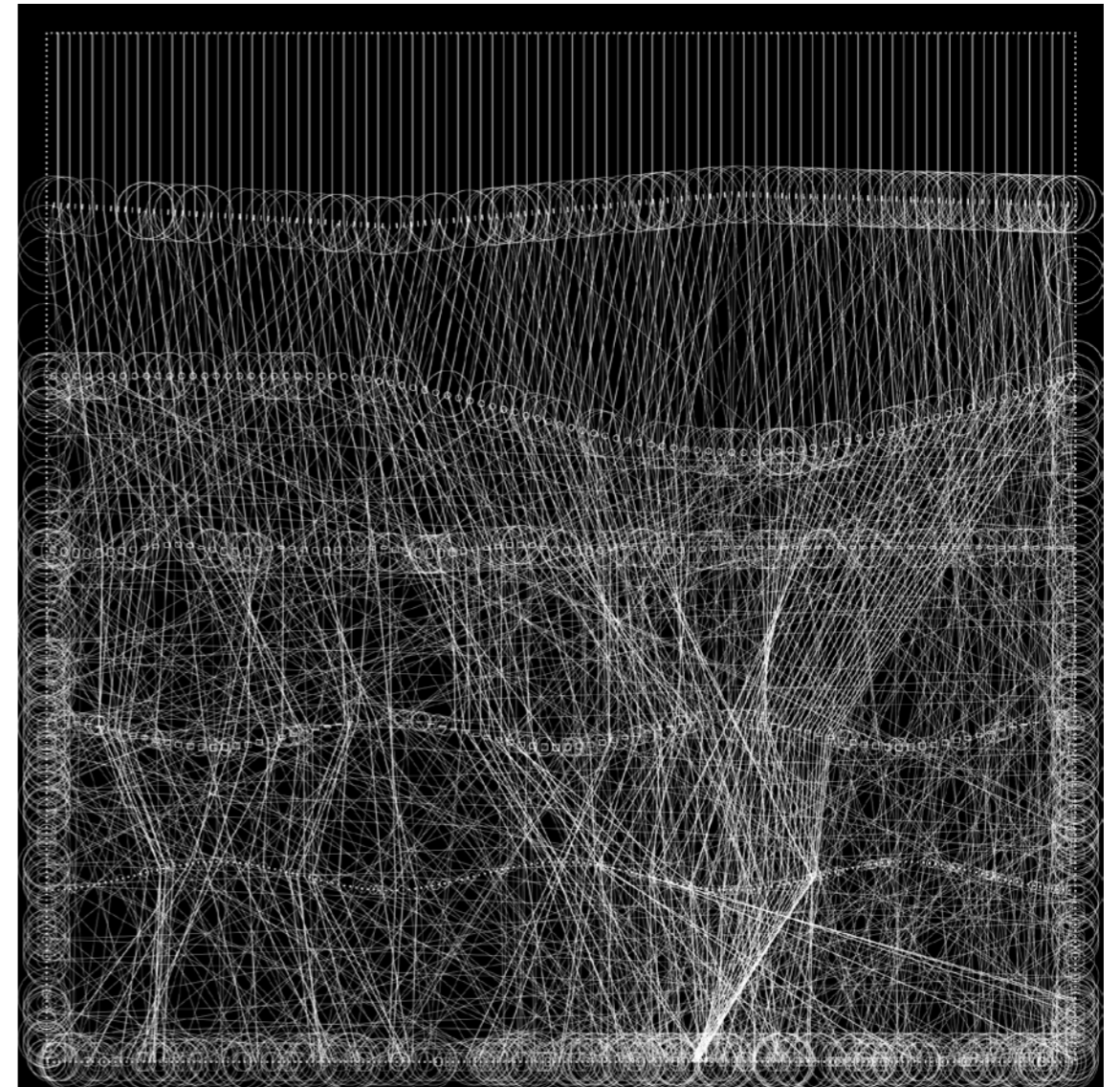
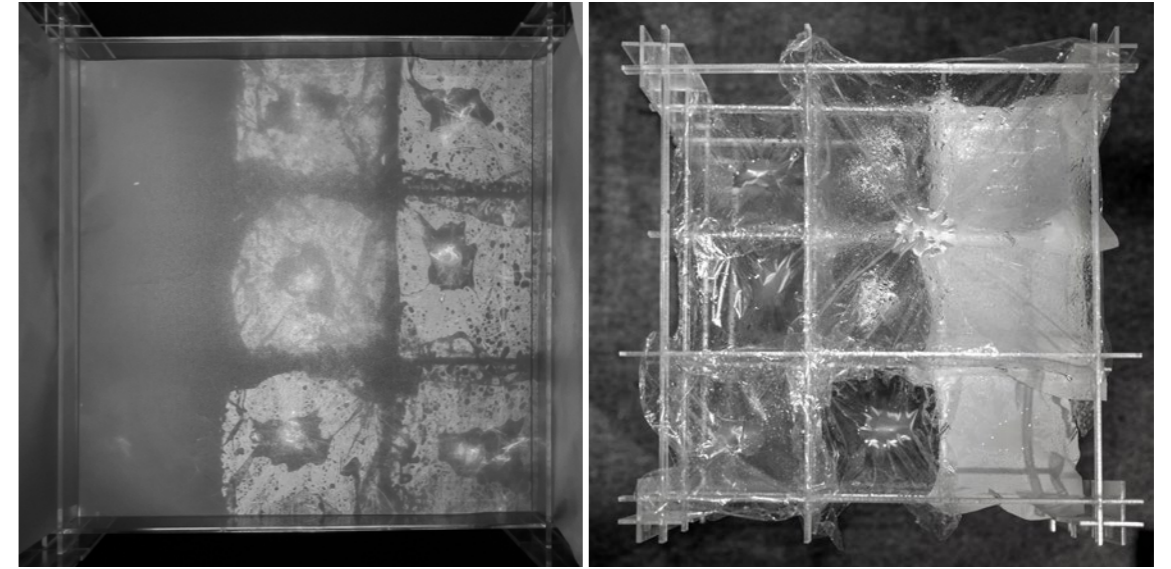
As a waterfront island city, New York suffers from both intensifying storms and sea level rise. The current drainage system is insufficient to address these challenges. For instance, Hurricane Sandy's extensive flooding destroyed large swaths of the electrical system, damaged public infrastructures, stranded, displaced, and made thousands of residents vulnerable. The infrastructure in this city is old, inadequate, and hard to rebuild. It is urgent to develop new, resilient systems which have the potential to re-balance a changing ecosystem.

The subway is an integral part and symbol of New York – quotidian, yet materially and emotionally living in the collective memory. As such, abandoned stations should be commemorated, repurposed and re-valued. As the subway network expanded, some stations were forsaken and turned into underground ruins. As evidenced by the Hudson Yards project, New York is a city that exploits every inch of land. We are repurposing these undervalued subway spaces – currently dead, functionally and memorially – to perform necessary and socially desirable functions.

Opening the stations, inviting in light, air, water and creatures, controlled decay can develop into resilient wetlands installations which provide an oasis for urban dwellers and an interwoven absorptive system for the city. Functioning as an urban moderator as well as the pocket parks, these relics are redefined to receive and provide new vitality from a discarded past. To address city-level flooding we linked a network of pipes through the subway tunnels to connect to the city's sewer system and to a series of constructed reservoirs located underneath the abandoned subway stations. Collectively, these operations on New York's existing infrastructure and bedrock foundation provide the city more resilience and a capacity for new life.



Material Study



Operative and Analytical

Network System

Sewer System



NYC Sewer System connects each part of the city. There are two types of the NYC Sewer System. One is combined sewer system and the other is separate storm sewer system, attributing 60 and 40 percent of the whole system.

The sewer system is the first step of our strategy. We will invite water into our system when there is too much water for the waste water plant to process. In this way, dirty storm water will not get into the river easily and the possibility of flood will decrease.

Tunnel / Outfall



Catch basin is the infrastructure being used on the street, as the entrance of the city sewer system. Thanks to the special structure, water can be filtered through the catch basin.

When water reaches the edge of island, they will be led to waste water plants in combined sewer system most of the time. In extreme weather, when the plants reach the limit, water will flow into the rivers directly. And water will have another direction to the cistern in our developed out fall.

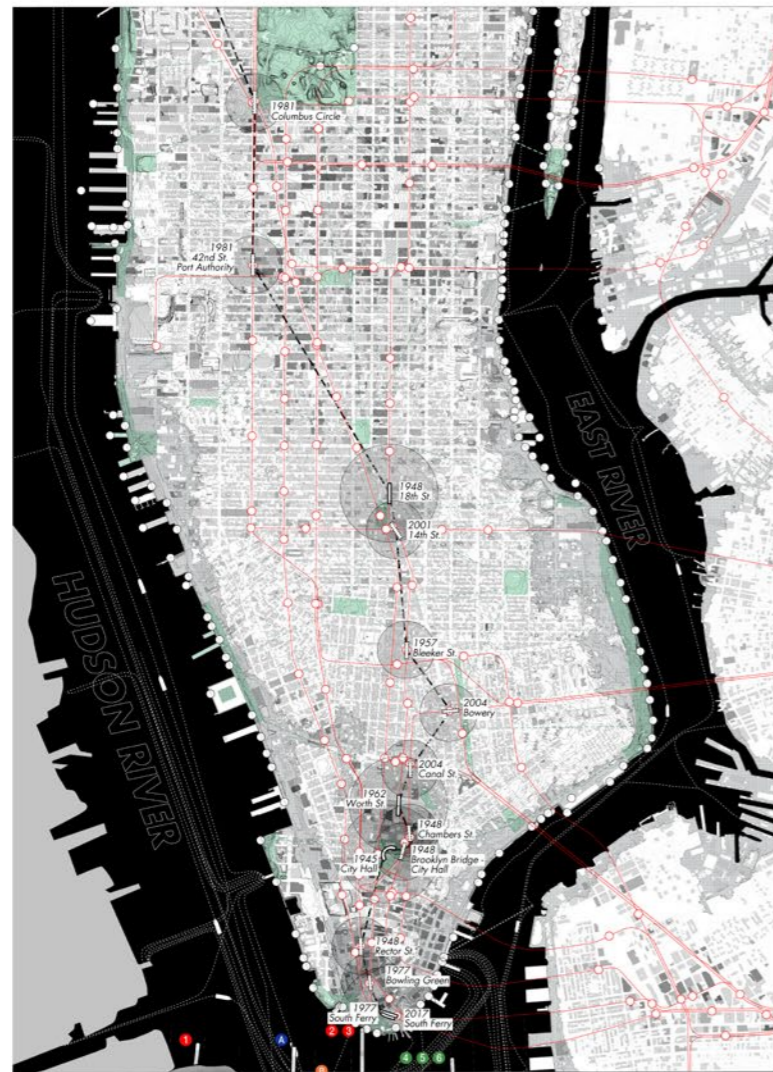
Wetland & Cistern



We transformed some of the abandoned stations to wetlands. Functioning as the oasis of city life, they are also buffers in extreme weathers and emergencies of the cisterns.

The cisterns are spaces we create by digging into the soil, which is the bedrock of NYC. When the soil is saturated, the soil is not. So the extra spaces will provide volume to store the flood. In normal days, the cisterns will be functioned as the concert halls and spaces for fashion shows.

In different times of a day, the experience of being inside of the wetlands, cisterns will change.

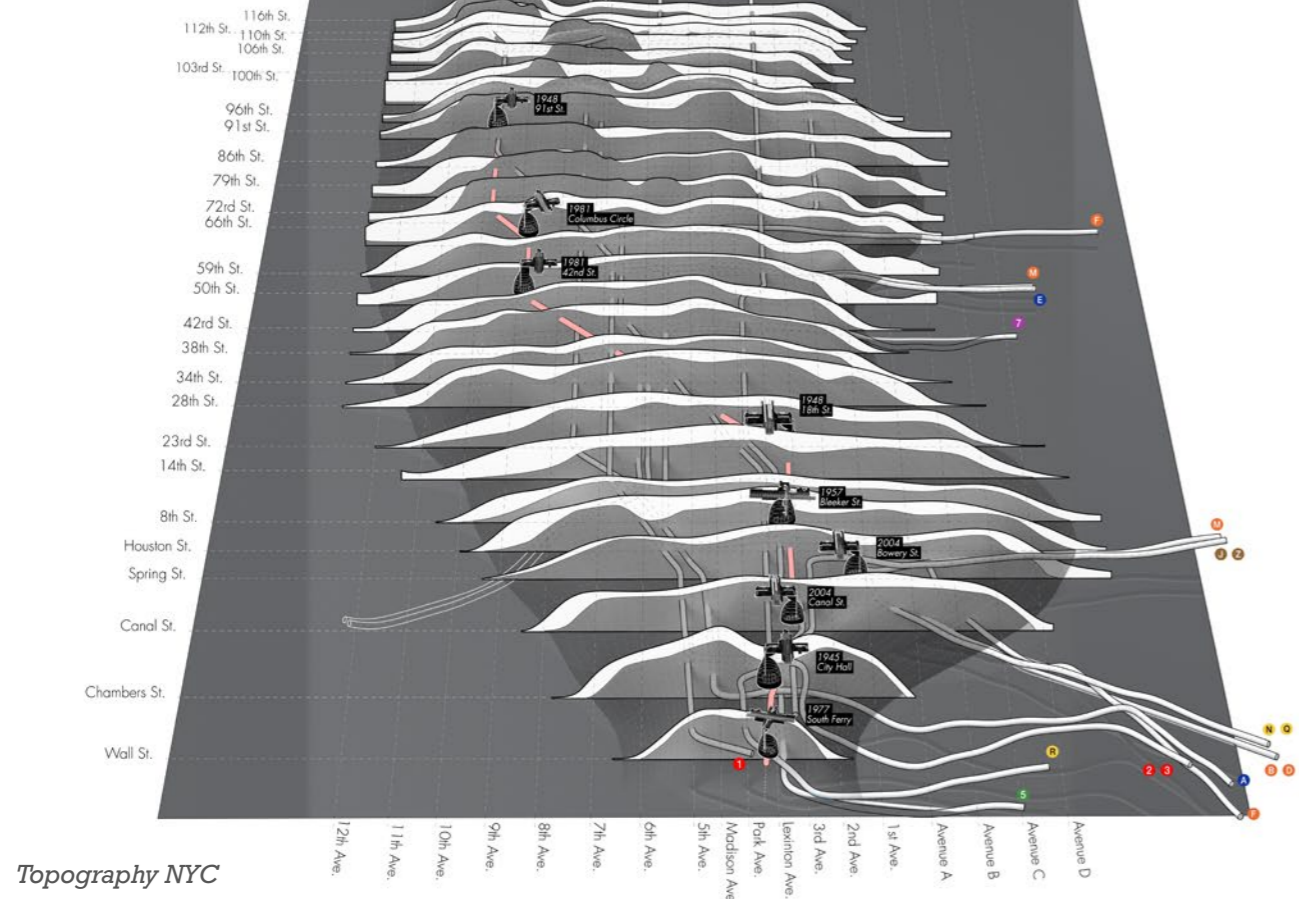
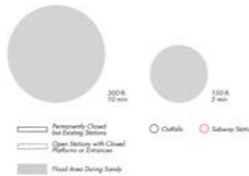


Elevation

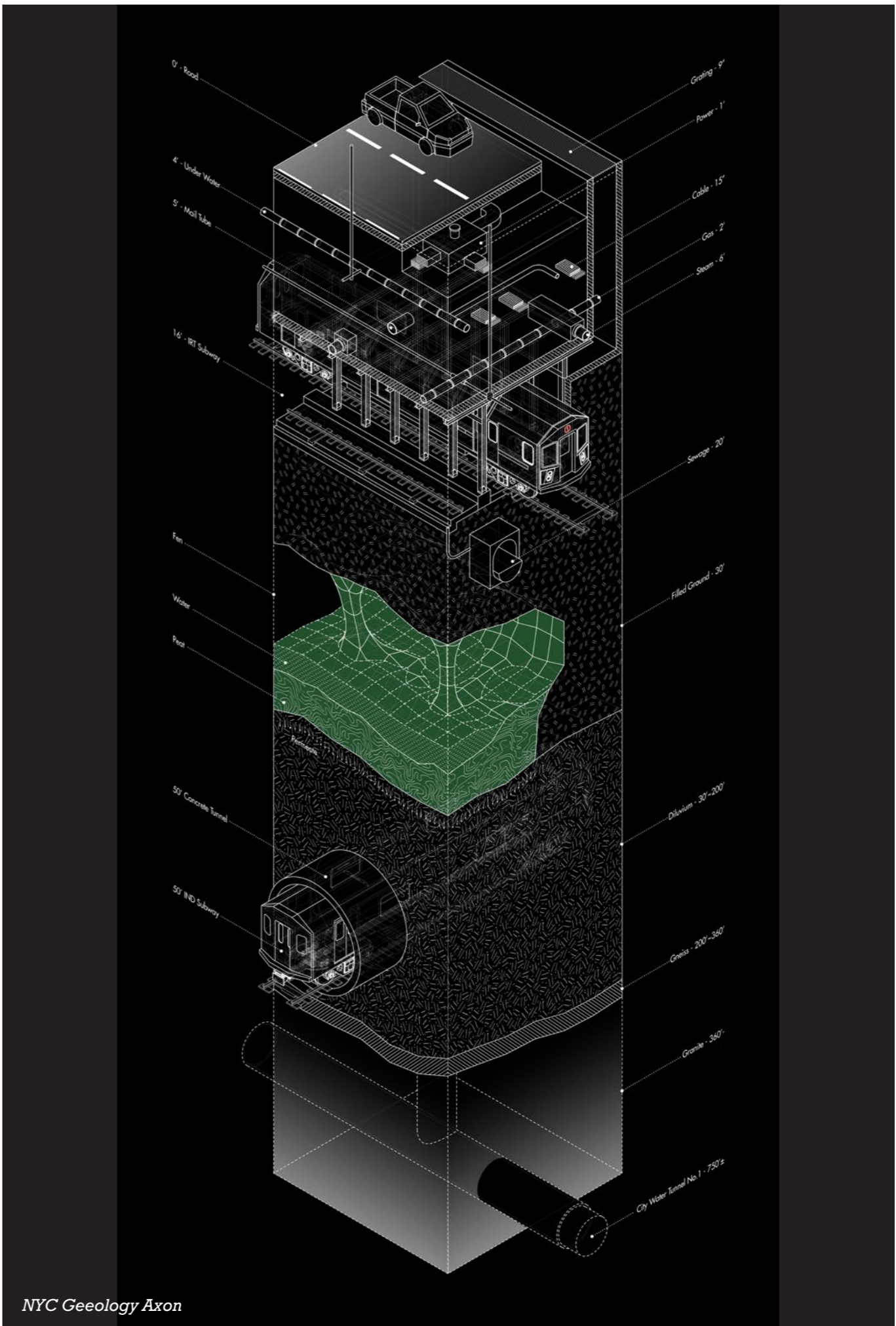


Parks

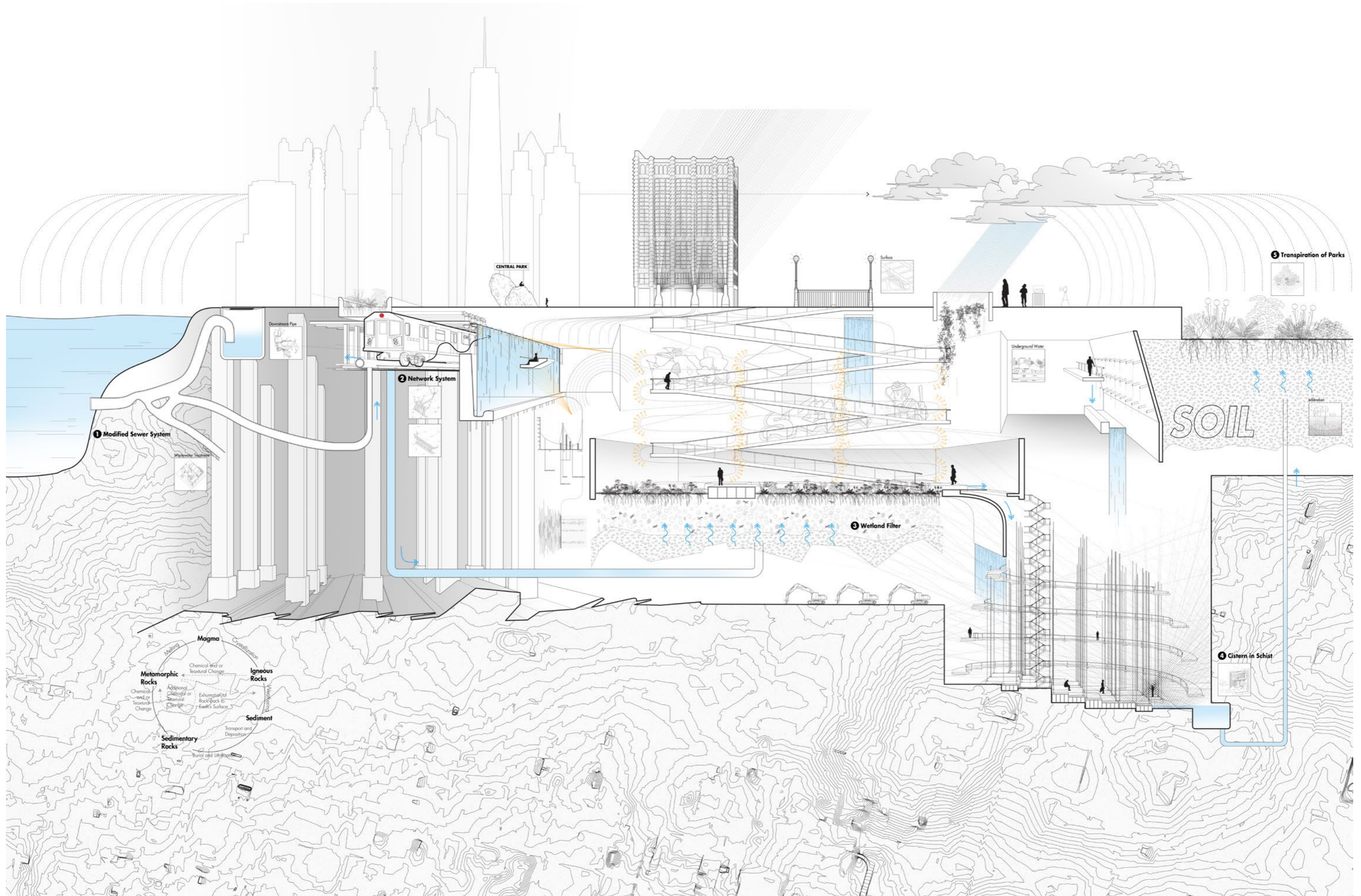
- Bowling Green
- Bryant Park
- Central Park
- City Hall Park
- De Wits Cloister Park
- Fort Tryon Park
- Fort Washington Park
- Harlem River Park
- Holcombe Rucker Park
- J. Hook Wright Park
- Madison Square Park
- Morningside Park
- Riverside Park
- Riverside Park South
- Seward Park
- St. Nicholas Park
- Stuyvesant Square
- The Battery
- The High Line
- Thomas Jefferson Park
- Tompkins Square Park
- Union Square Park
- Washington Square Park
- Rockin'Gayle Park



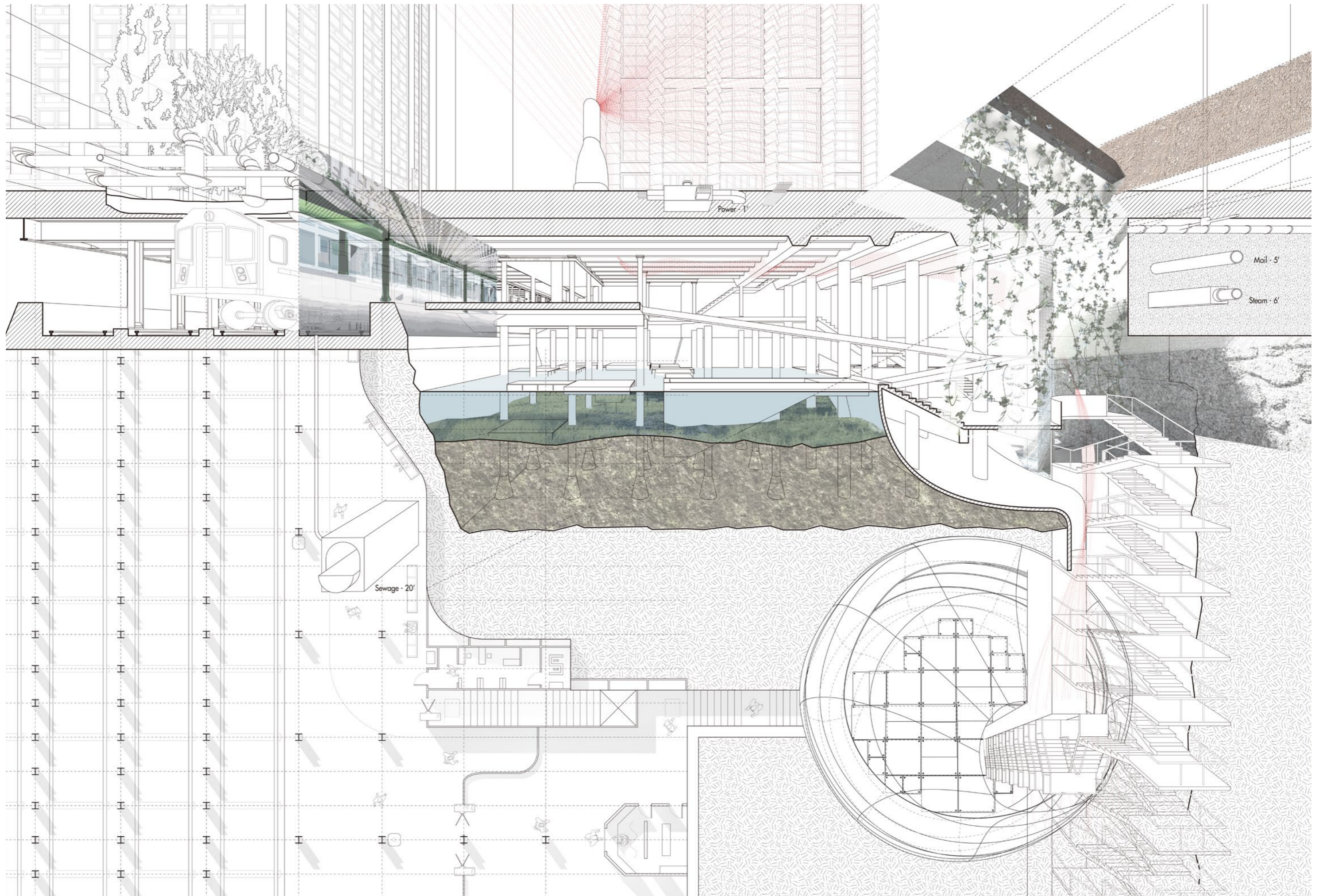
Topography NYC



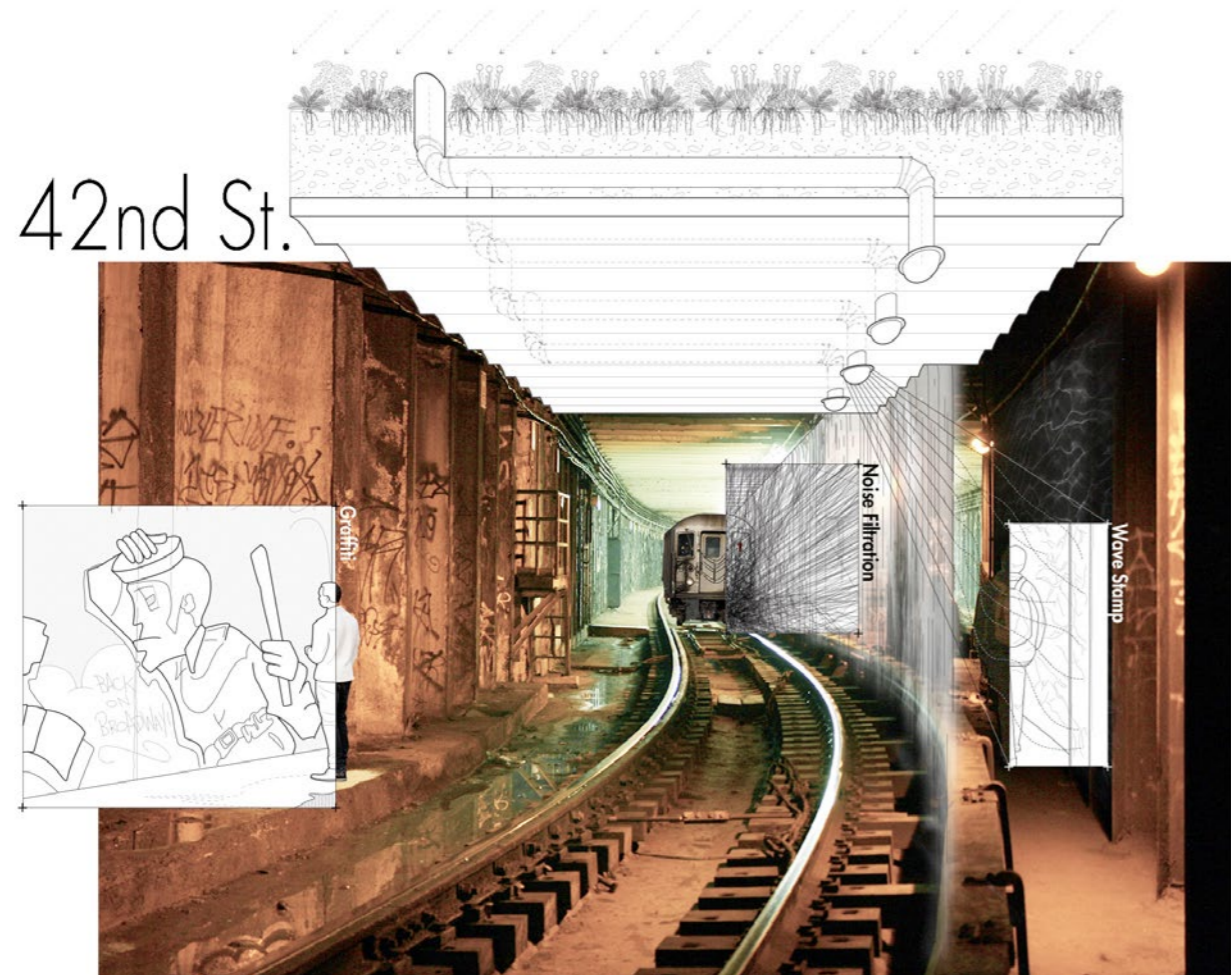
NYC Geology Axon



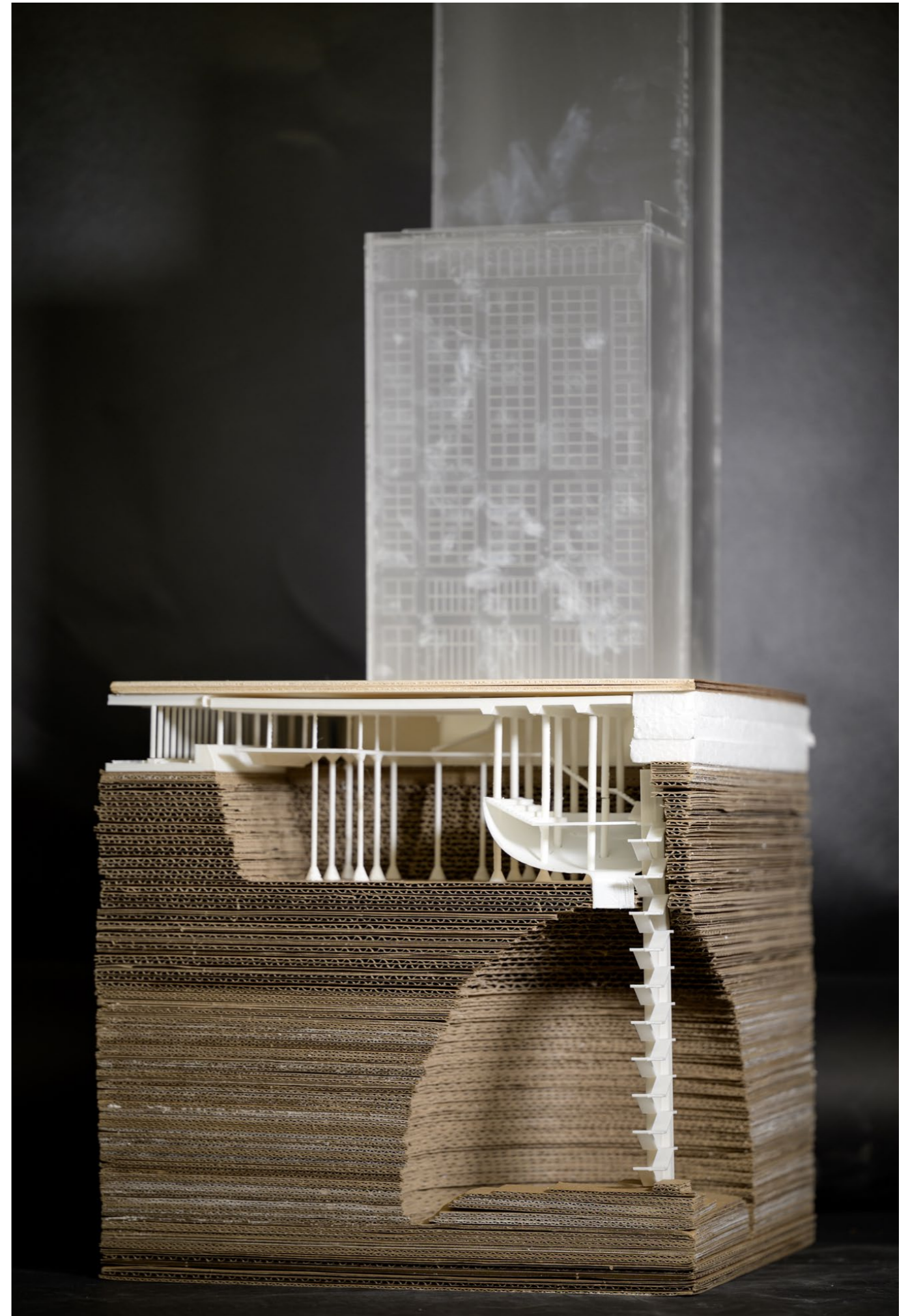
System Section



Spatial Section



Proposal Montage



Physical Model



04

ADVANCED CURTAIN WALL

GSAPP Fall 2022

ARCHA4634

Instructor: Daniel Vos

Individual Work

1. Building information

The owner of this building is ZTE Corporation. This building is located in the Nanshan District of Shenzhen, a subtropical region. On the other hand, Nanshan District is home to many well-known technology companies. In recent years these companies have been promoting their green determination in various ways. So ZTE decided to transform the façade of this old research center into a green plant wall.

2. Inspiration for the painting

Many random and vibrant curves constructed this painting. And the additional transparency of curves gives the painting a sense of space. As a façade design, I wanted the façade to have a different resolution. And like the painting, this façade is spatial. So, I chose to use free curvature steel pipe in a larger scale to imitate the form of the painting. In addition, the façade is planted with natural-growth vines. In this way, the green mass of the vine can give the steel pipe different transparency like the painting, when viewed from a distance. The lines of the vines themselves are also organic like the painting, when viewed from a short distance.

3. System Description

The work of this Section shall include, but is not limited to the following:

- a. Insulating glass units four-side structural silicone glazed onto unitized aluminum frames.
- b. Outrigger for connecting aluminum pipes, fixed by screws to the bracket, directly connected to the anchor by screws.
- c. Planter unit with drain two-side screw onto aluminum frames.
- d. Two-axis joints connect the outrigger and aluminum pipes.

4. List of special features of the facade

- a. The plants planted on the façade can shade the sun in summer.
- b. The height lift by the flower pot space can serve as a sill.
- c. System includes external hoses for watering and draining.

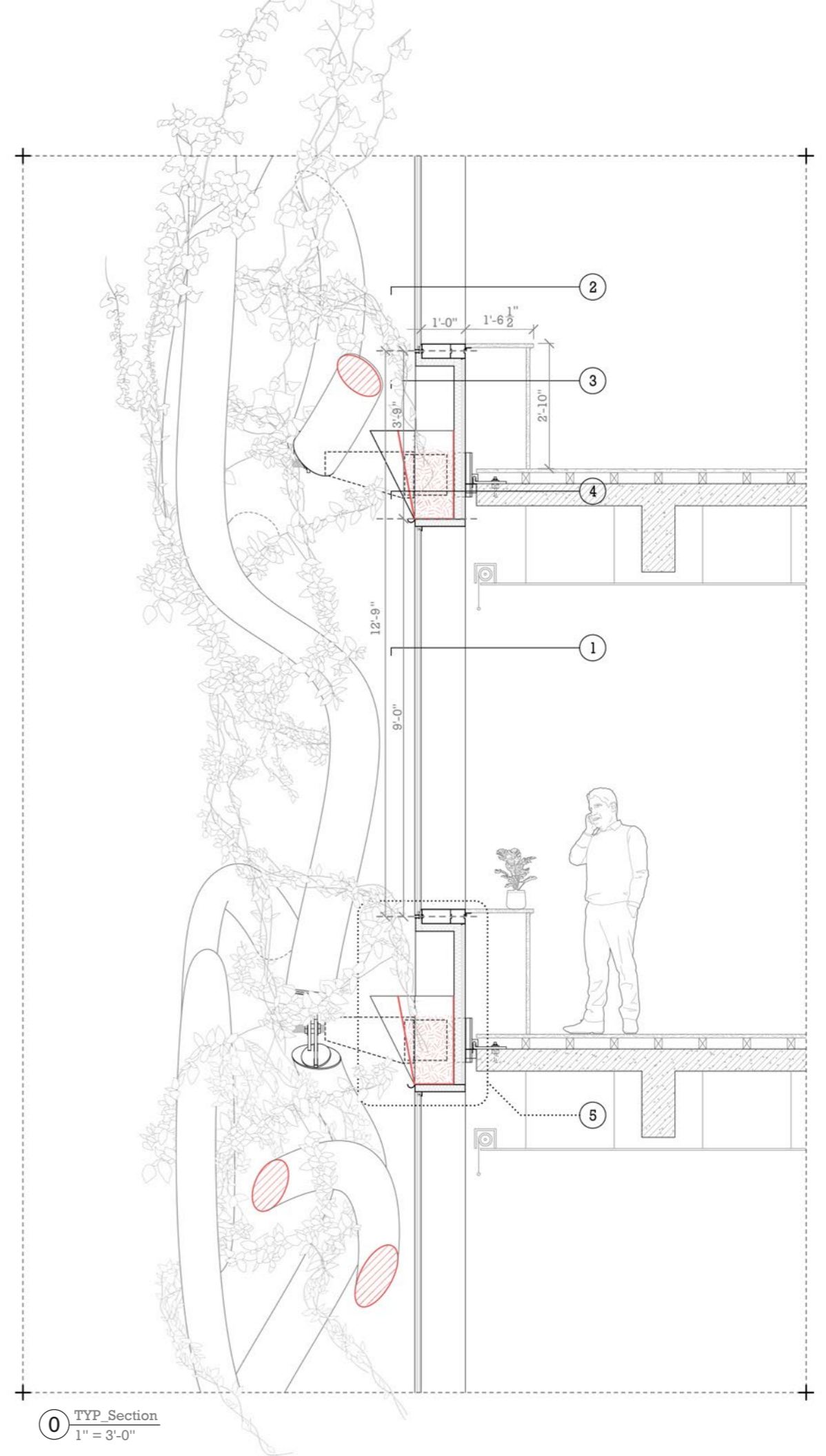
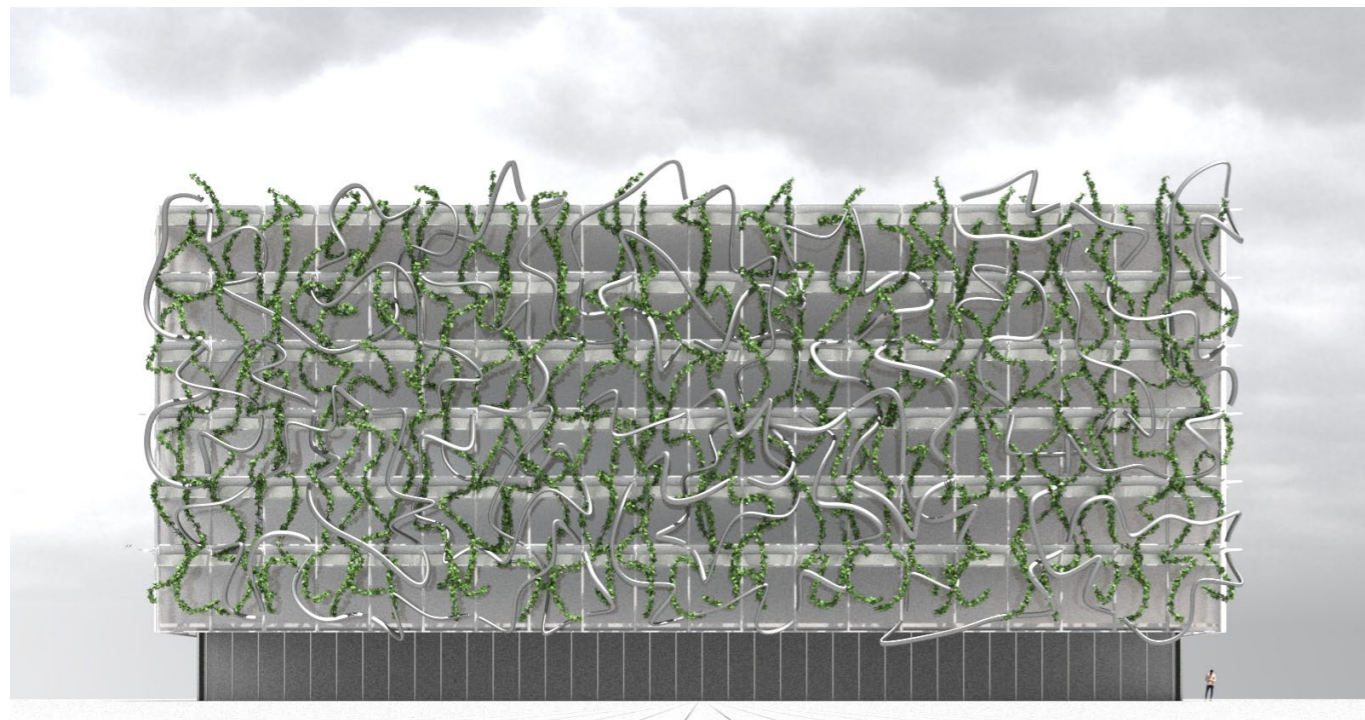
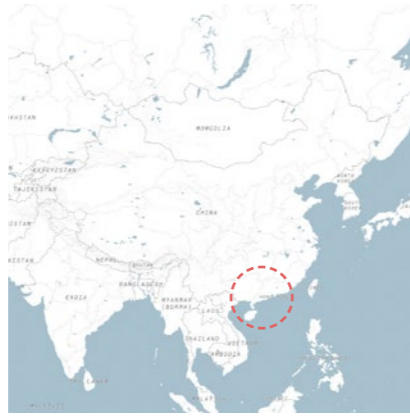
5. Definition of principal materials

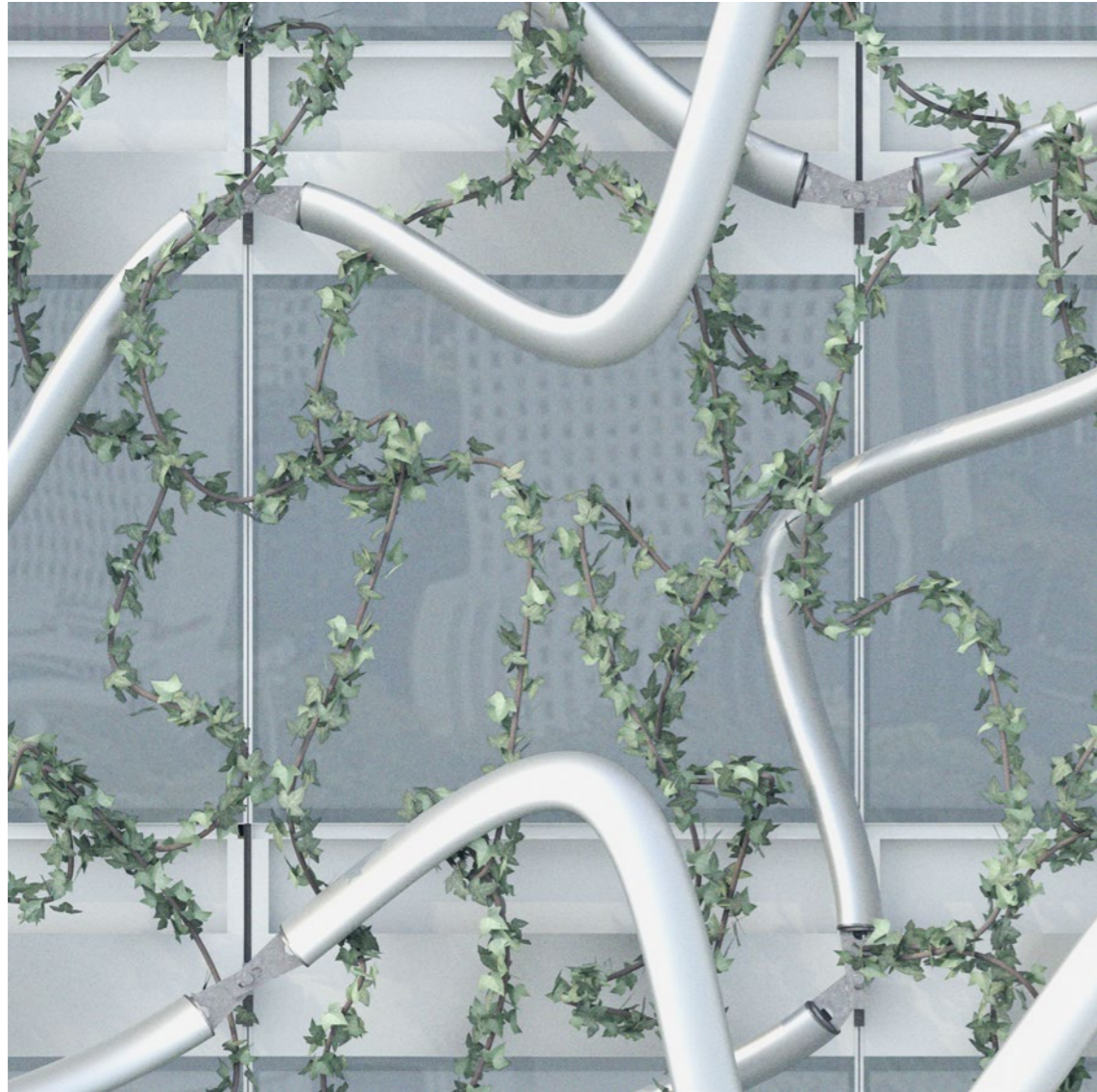
- a. All visible aluminum is silver anodized.
- b. All tear-strip gaskets are made of black sponge EPDM material.

ZTE Research & Development Building Upgrade

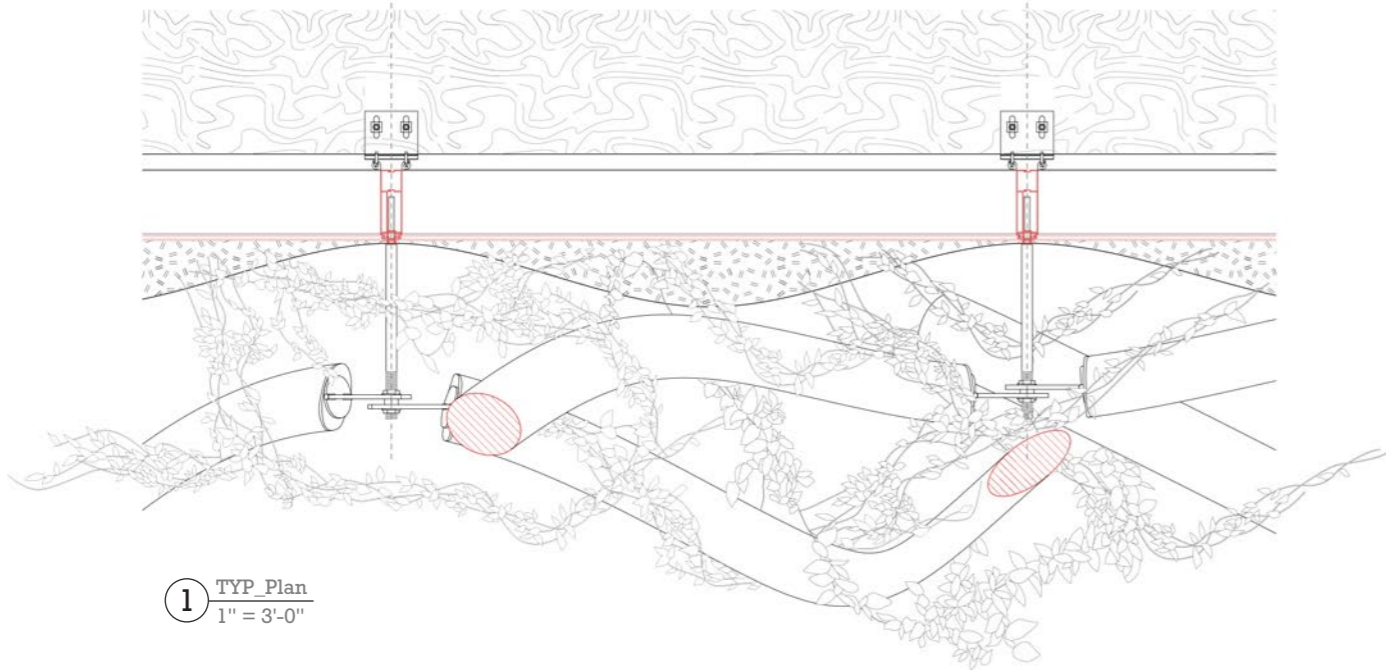
28 Gaoxin Ave 4 S, Nanshan, Shenzhen, Guangdong Province, China

22°32'12.6"N 113°56'48.7"E

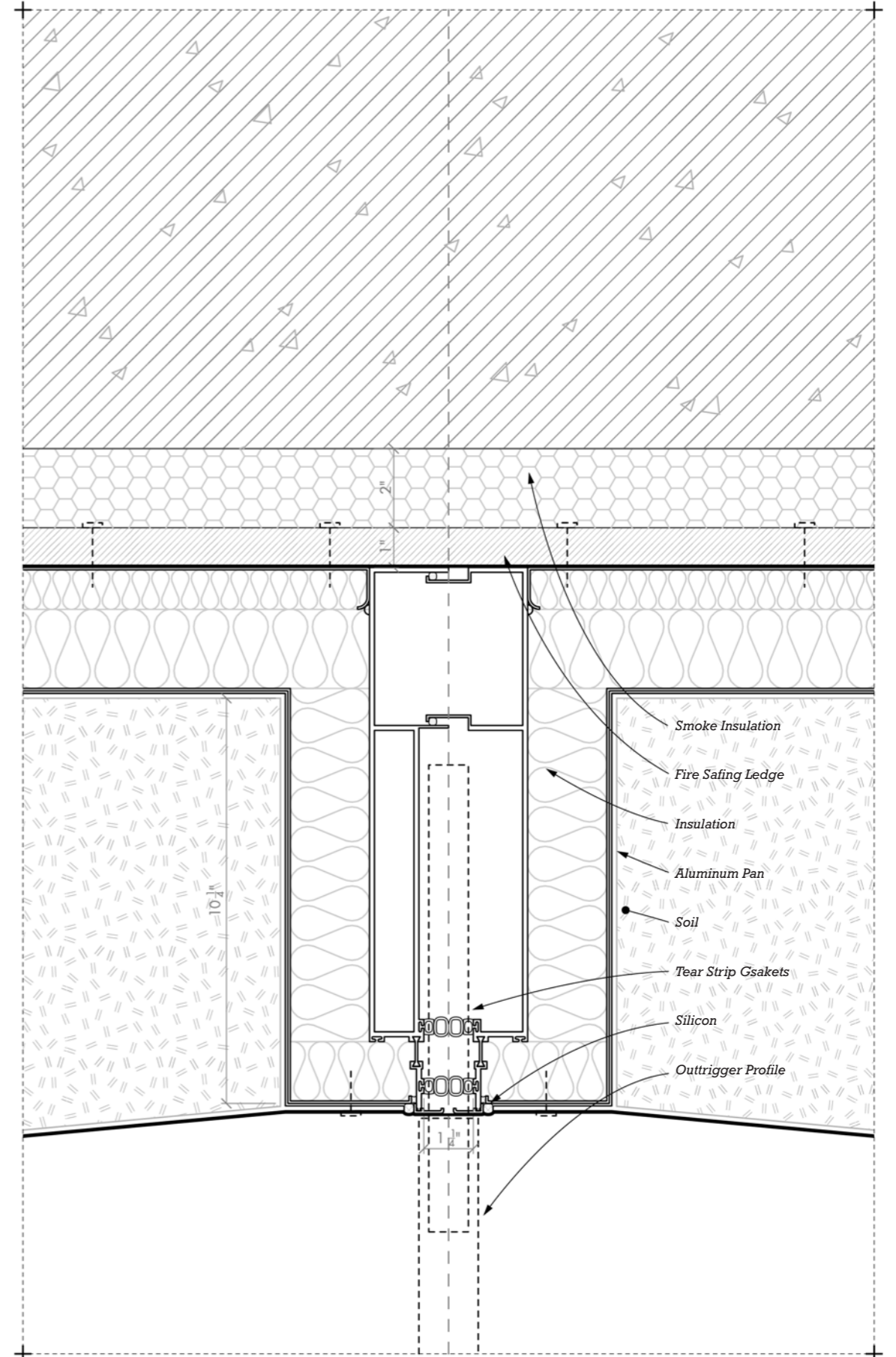




10'-0"

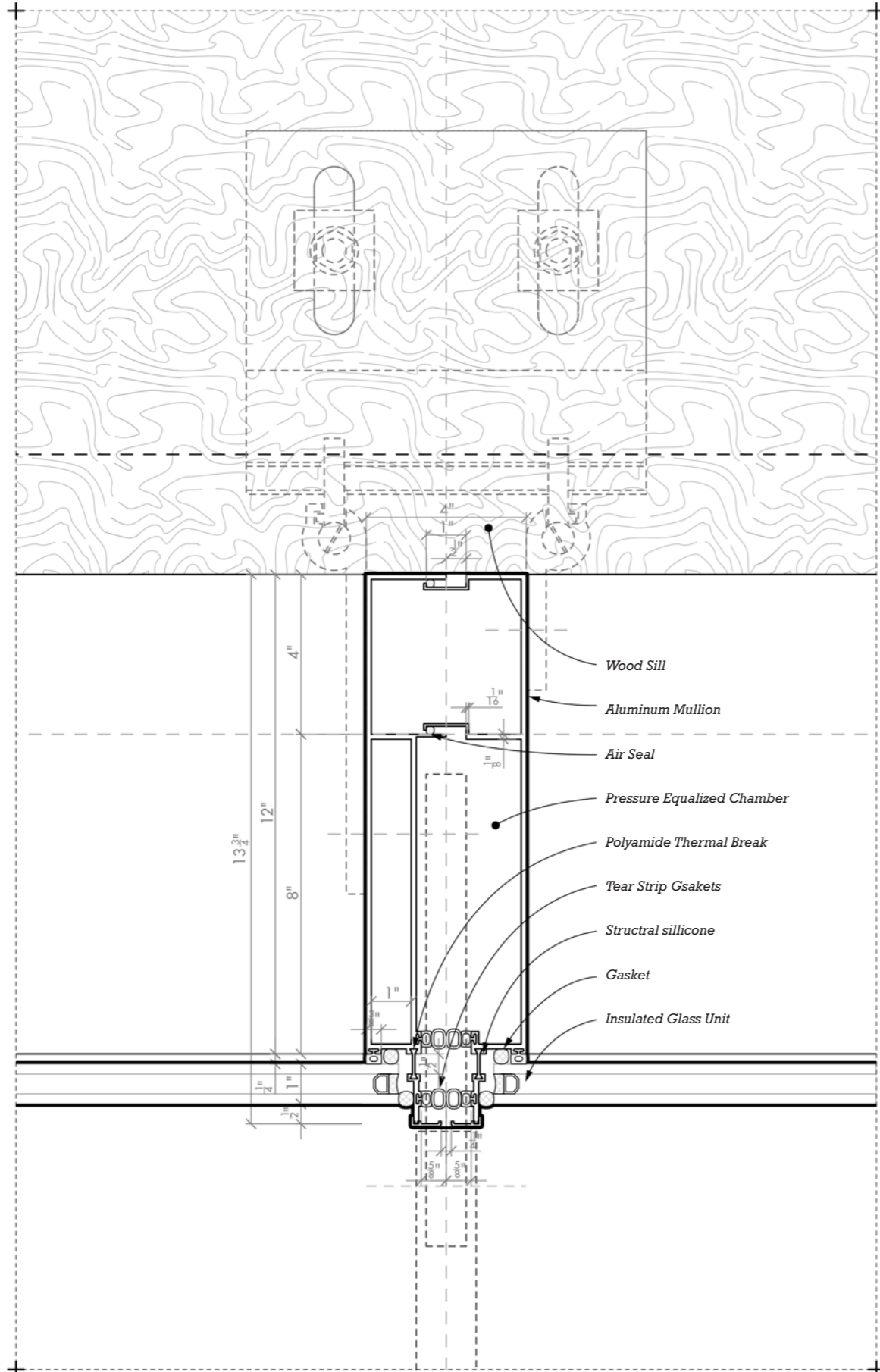


1 TYP_Plan
1" = 3'-0"



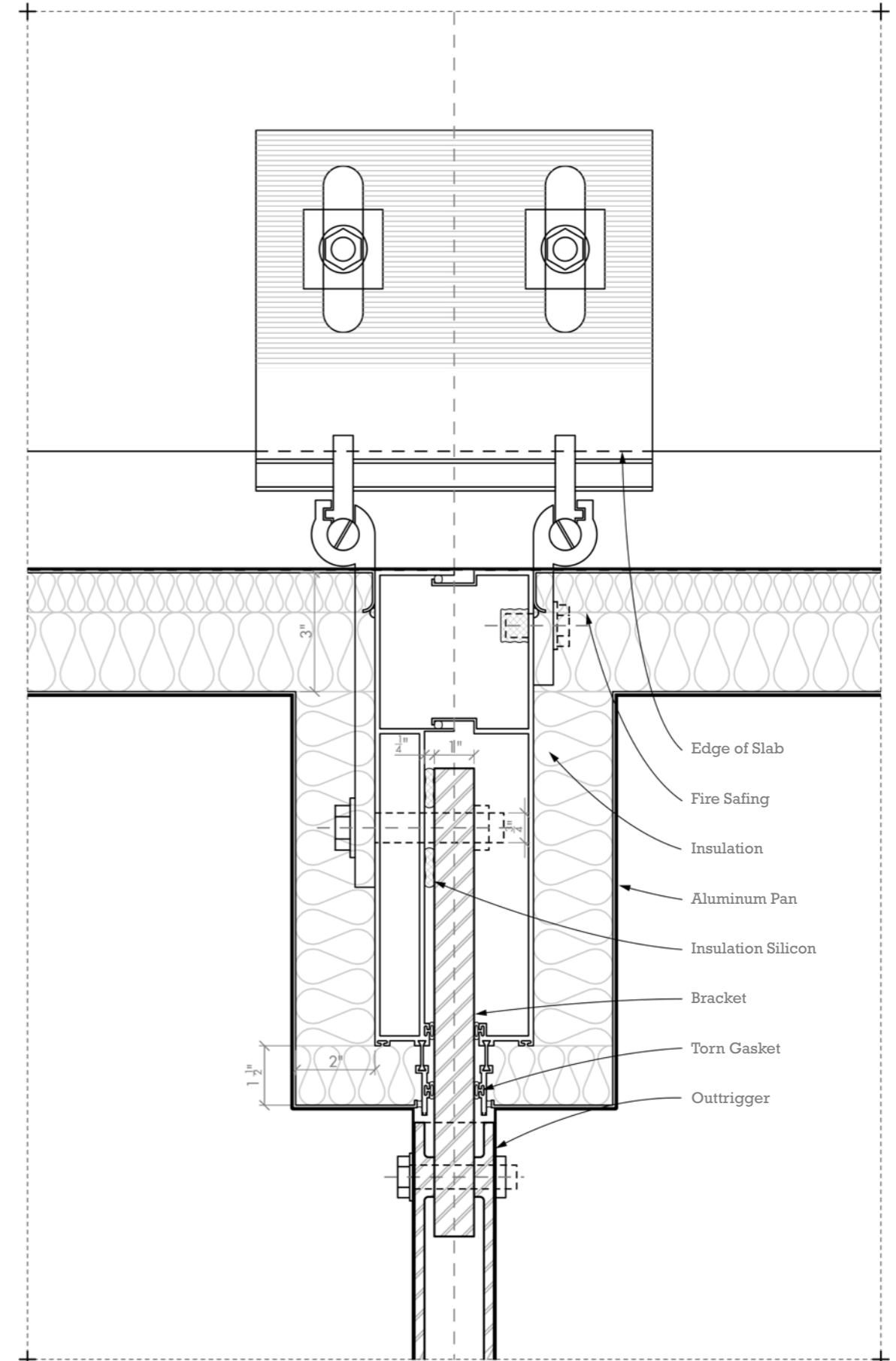
2 Plan A
3" = 1'-0"

Print in A4 size



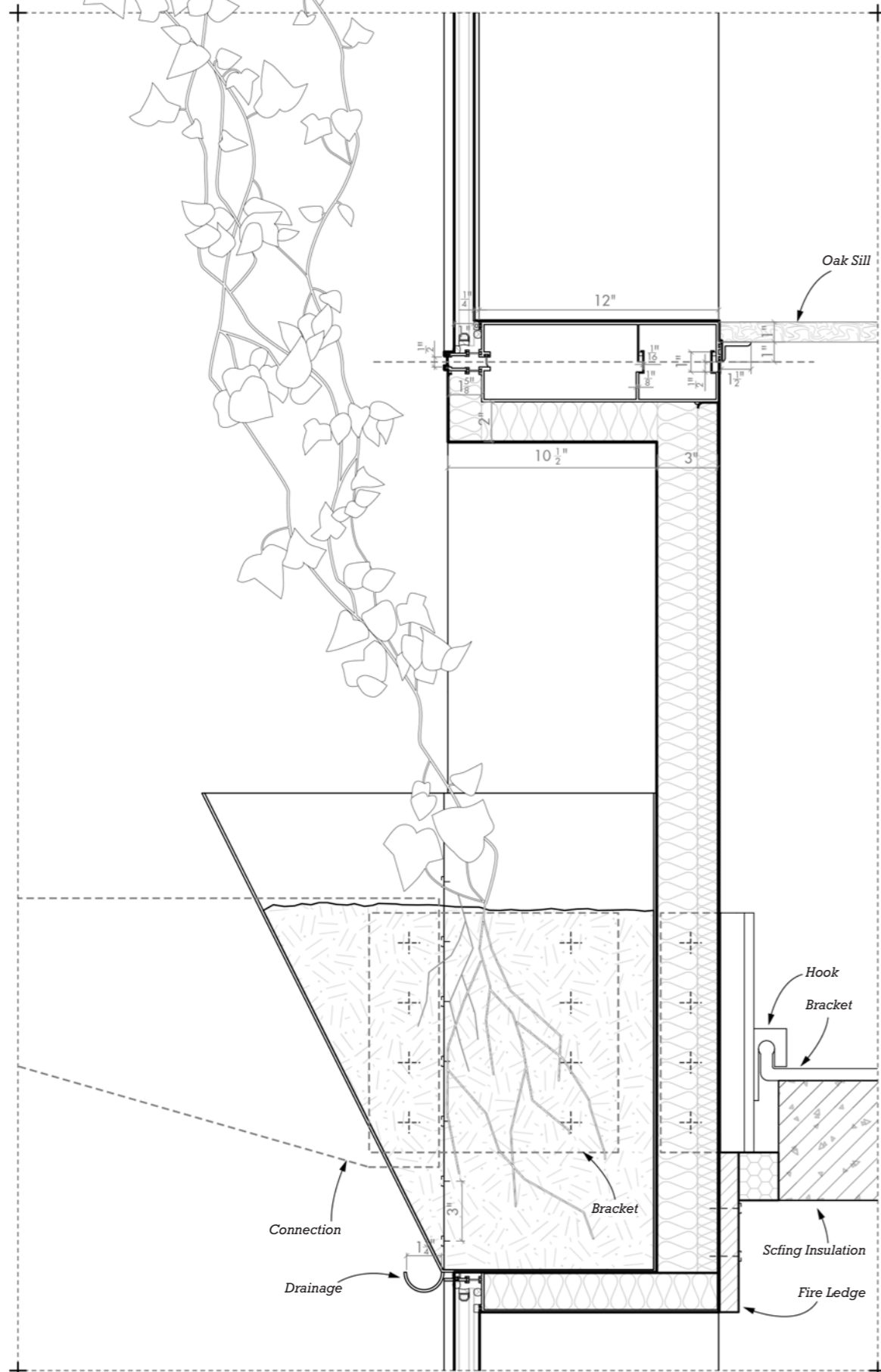
3 Plan B
3" = 1'-0"

Print in A4 size



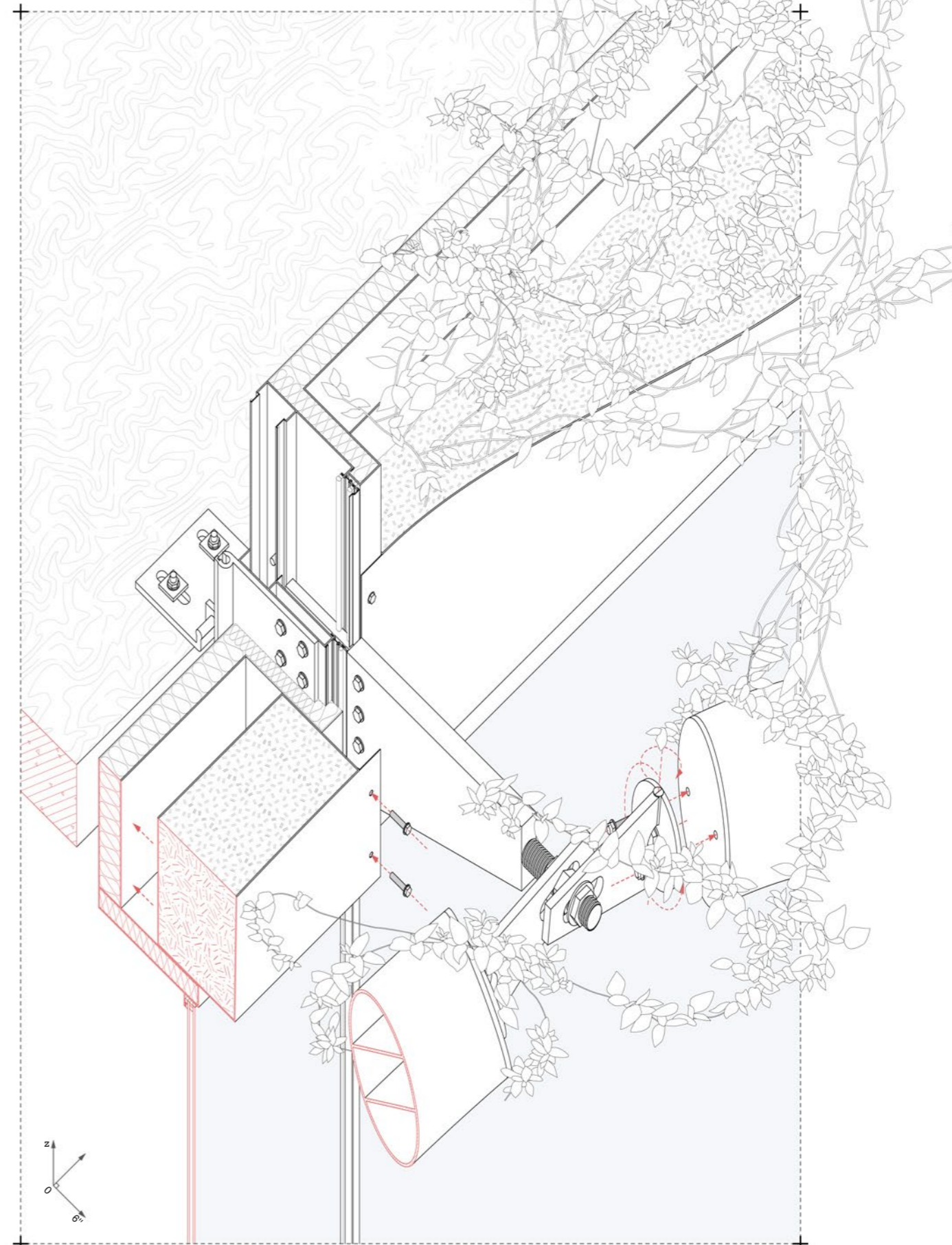
4 Plan C
3" = 1'-0"

Print in A4 size



5 Section
2" = 1'-0"

Print in A4 size



6 Joint
Axonometric

05

MISCELLANEOUS

Superradical, Superarchitecture, Superstudio

GSAPP Fall 2022

ARCHA4469

Instructor: Mark Wigley

The Best of Youth, 2003: On November 4, 1966, the constant rain that had begun at the end of the decade finally broke out in Florence. With the release of the upstream dams, the floods inundated the city center within a few hours, flooding the Florentine Library, located on the river. As the oil tanks of the boilers used for central heating in the city ruptured, large quantities of motor oil and sediment mixed with the water into a black tide, leaving a large number of artifacts damaged the next day, even after the flood waters receded (a third of the collection of the Biblioteca Nazionale di Firenze was damaged, including prints, maps, posters, newspapers and original copies of precious manuscripts by Dante and Machiavelli). Many young volunteers volunteered to work on the maintenance of the city.

However, there is such a group of people, they choose to silently watch all this, and do not rush to action, seems to have some considerations...

O. Superarchitettura

In 1966, Archizoom and Superstudio organized the Superarchitettura exhibition in the Jolly 2 gallery in the small town of Pistoia, featuring many pop-infused, oddly shaped furniture objects. The exhibition is an overcoming of centuries of consistent art vision, with ironic furniture designs on display. The "Mies chair" (Figure 1), borrowed from the modernist architect Mies van der Rohe, is more of a replica of his Barcelona chair. However, it is clear that this evolved version of the chair, made of chrome-plated steel, rubber and cowhide, is not fit for human use but a product of the extreme absurdity of industrialized products. "Dream bed" (Figure 2) has a strong pop flavor, and it is obvious that no home can tolerate the existence of such an object. It is through such a kitschy design that the concept of functionalism and the space of the modern movement is significantly undermined. But I think we should pay more attention to its wavy shape, which shows that the human body does not exist in a single posture. But mass industrial production has apparently gone in the opposite direction, with people tending more and more towards homogeneity.

The name Superstudio is also derived from this exhibition -- what is Superarchitettura? Studio member Adolfo Natalini explains, "*Superarchitettura is the architecture of superproduction, superconsumption, superinduction to consume, the supermarket, the superman, super gas.*" This raucous and abstract prologue, accompanied by playful sculptural lights and brightly colored seating, was a direct rejection of the modernist dependence of form on function. Of course, this was also related to the economic environment of Italy at the time, which was boosted by the U.S. Marshall Plan in the aftermath of World War II, with as much as \$1.2 billion being sent from the U.S. to Italy in just four years, from 1947 to 1951, and then the Korean War, which gave a strong impetus to the Italian economy, with its industrial production thus bursting into a powerful potential that seemed to be releasing energy in every cell An even greater stroke of luck was the creation of the European Common Market in 1957, whose reduced tariffs and market access provisions undoubtedly gave a strong impetus to the Italian economy on the run. In the post-war period, from the 1950s to the end of the 1960s, Italy enjoyed 20 years of high economic growth, so much so that history and the mass media gave birth to the term "Italian economic miracle".

However, in the 1970s, the Italian economy began to weaken due to the rampant terrorist groups such as the Red Brigades and the

sharp increase in the price of oil and energy products, and after the rapid cooling of the economy, the enthusiasm for consumption did not cool down. Significantly, post-war Italy ended badly as various reforms were started but still needed to be finished. Marxism, however, emerged from the 1950s onward as a boom. (It was very different from Marxism in some other developed capitalist countries in Western Europe, which emphasized the humanitarian spirit of Marxism, its links with Hegelian philosophy, and its structural methodology. It is also very different from the Marxist emphasis on dialectical materialism and its system in the socialist countries represented by the Soviet Union. Postwar Italian Marxism was characterized by a theoretical focus on historical materialism, its methodology, and its integration with the realities of the Italian situation.) During the period 1962-1963, several new political journals appeared. More and more people realized that rereading Marx and returning to the revolutionary, combative character of his politics might be the only way to confront the realities of capitalist society. This was also true at a time when a critical mood toward capitalist society pervaded universities throughout Europe, with most holding radical leftist views. In 1968, Manfredo Tafuri, the renowned Italian architectural historian and theorist, published *Teoria e storia dell'architettura*, which brought him lasting fame. And in the same year, a spiritual revolution that changed the trajectory of European thought first broke out in France. In Venice, Italy, the far-left student movement intervened and took control of school institutions, and architecture departments made up a large part of the list of universities participating in the student movement, with architecture students in Turin, Milan, and Florence all participating, all seeing it as a struggle between themselves and the capitalist system. Coupled with the general dissatisfaction of Italian students with the current university system at the time, many radical architectural groups arose that were in extreme rebellion against the social order, against the alienation of capital. They investigated the meaning and many manifestations of architecture.

The two protagonists of this exhibition, Archizoom and Superstudio, are two representative groups of this radical design movement. After the exhibition, the two groups went in different directions, with Superstudio proposing an architecture that could incorporate a dream ideal, which was symbolic and could be poetically integrated into the environment. Archizoom, however, went in another direction, attempting to criticize the icy drawbacks of modernist developments. Therefore, although the protagonist of this post is Superstudio, I want to introduce some of Archizoom's design philosophy as some contrast or analogy. It is clear from both groups' works that there is a sense of social responsibility arising from a concrete analysis of the Italian social reality with Marxist thought at its core. In terms of values, they have a clear understanding of the dilemmas architecture faces in the coming consumer age and a strong focus on the relationship between theoretical and design issues of architecture and contemporary social and cultural realities. In the face of all the serious problems brought about by modern technology, they also feel the phenomenon of people being swallowed up by technology. People are in a situation where they are content or powerless to change, where not only "God is dead," but also people are going to die. However, both as sensitive intellectuals, Superstudio believes that there is a methodology that can guide society to self-reflection and lead it to a healthy development. Their work is filled with the exploration of the language of architecture. This explains why Superstudio's works always have some religious symbols. Archizoom, however, has chosen the so-called "critical utopia" scenario, expressing through a series of allegorical ironies the confusion and anxiety of sensitive European intellectuals about contemporary culture and society in order to awaken people to a clearer understanding of the reality of life.

1. A Journey into the Realm of Reason, 1968

The end of World War II in Italy, with its domestic political parties and complex struggles, brought about urban planning that was also a mass of failed scraps of paper. Although the Italian economy grew after the war, it did not bring liberal architectural ideas because many faculty members still supported the Fascist regime. The laissez-faire economic policy imposed by the post-war reconstruction had the undesirable effect of uncontrolled architecture and many illegal constructions, and architecture became part of the political struggle. As a result, most architects saw their profession as having some clear political significance.

This is where the radical architectural organizations of the 1960s in Italy and Europe differed most from the reformers in the United States: In Italy, architecture was used as a tool for political and ideological critique, while they believed that designing architecture was not just about building houses or constructing useful things, but was an act of free expression of people's will to reclaim the cultural rights that had been denied to them by the capitalist division of labor in society. So from the beginning, instead of designing and building houses according to the essential work of an architect, they used a lot of drawings and collages of paper schemes to implement a critical manipulation of social and material reality. The American architectural discipline of the same period had already changed from the social and productive architecture of pre-war Europe to academic and critical architecture, where academic experiments mostly reduced to nothing all ideologies, all dreams of social functions, all remnants of utopia in architecture. Although both seem to retreat from the "realm of reality" to the "world of symbols," the former does not introduce any other world than the present one but tries to represent the current world on another higher level of awareness. While the latter, as Tafuri put it, is "architecture in the boudoir," that is, for the sake of the development of the discipline, emphasizing the autonomy of architecture.

During this turbulent period, two twenty-something architecture students living in Florence, Cristiano Toraldo di Francia and Adolfo Natalini, decided to undertake the critical task of designing a new way of living on Earth for the citizens of the world. Influenced by the possibilities presented in science fiction and their own desire to propose solutions to the problems of their time, they have sought to reinvent their identity as architects. Their approach has been to create an "anti-design" culture to comment on politics, capitalism and urbanization. And to convey the idea that everyone should be given a little functional space to escape the constraints of time, space and materiality.

Although studying and growing up in the historic city of Florence, the studio eschews tradition. In the work "Rescue of Italian historic centers (Italia Vostra), Florence, 1972", Florence was hit by a rare flood. Still, the figures are not involved in rescuing the church of Santa Maria del Fiore but rather take a silent and watchful attitude (Figure 3). The studio argues that the city that was a part of the floods in Florence was not a part of the relief effort. The studio believes that the city was born as a house of man, but became his prison and the final sepulcher. Only by destroying it completely can we break away from the narrow cell and move into the vast nature. So the cathedral, with only the dome and the top of the bell tower exposed in flood, is a metaphor for traditional architecture facing an existential crisis.

Between 1965 and 1968, the studio began an exploration of a specific architectural language in an attempt to find a pure architectural language and prototype of the team's own. In a series of works entitled *A Journey into the Realm of Reason*, 1968 (Figure 4), consisting of 26 black and white line drawings of axonometric or perspective views, a narrative approach is used to tell the story of the search for the pure cube and the various basic architectural forms formed by the cube. The studio was convinced at this time that architecture was a means to change the world, and the pure cube was the most refined rational element to which the studio referred, as this abstract, neutral, and highly compatible Platonic figure seemed to fit a variety of areas and scales (Figure 5). This, of course, was not only related to the new rationalism prevalent in Italy at the time but also served as a guide for the studio's subsequent actions - to create a still and peaceful artificial nature through a Cartesian coordinate system of expression.

2. The Continuous Monument, 1969

In the beginning, the studio was more interested in finding a purely geometric formal symbol and using it to create architecture. In the Villa series, for example, the studio wanted to create a calm life with a homogeneous square grid. Whether or not such a Roman bath-like atmosphere could be achieved, it was undeniable that the use of pure geometric symbols to create a form of monumentality was always expressed.

Thus, in the exhibition *Trigon* in Graz in 1969, the studio presented its most exceptional work for the first time: *Monumento Continuo*, a narrative story of 80 images divided into three parts. The first part,

consisting of forty paintings, is a narrative about the creation of the "Cube" and its universality. (Figure 6).

This section is interspersed with some of the content of the previous *A Journey into the Realm of Reason*, but the studio presents its own view on the epistemology of the world in relation to proportion and religion. "Man is not the center of things, he is merely one of the vertices of the infinite polygon that unites the cosmos, the world, and reason." Such as Leonardo da Vinci's theory in *De Architectura*, which links the human body to the order of things. This is clearly contrary to the general conceit of humankind at that time due to the rapid progress of technology.

For the creation of the cube, the studio quoted the story of the origin of the world from the Old Testament, which is described as follows: "In the beginning, God created the heavens and the earth, and the earth was without form and void." The "Cube" was mysteriously created out of chaos and represented a materialized human consciousness - a naked purity and dynamism. The studio, of course, provides the prototype for the later forms of "Continuity", abstracted from the Roman aqueducts, the Great Wall of China, and the modern highway.

In the second part, the studio shows the logic of the creation of *The Continuous Monument*. After the basic "Cube", a montage of four sequences narrates how these monumental and perforated monuments were suddenly created in a desert where civilization had disappeared and slowly formed as if by divine power. It is believed that these monuments can reshape the landscape and remeasure the scale of the earth for all to see.

In the movie *2001: Space Odyssey*, a piece of sophisticated black material (hereinafter referred to as the black stone) will lead that stage of humans to a more advanced form every time it appears. (Figure 7)

In the first act of the dawn of humankind, the ancestors of humankind are living a life without food, but after the creation of the black stone, an ape suddenly learns to use tools in the aimless search for bones - picking up a thick animal bone and begins to smash everything around him, and in the subsequent defense of the water source kills the other side with tools. Thus, the evolution began.

Super Studio, in the "Continuous Monument", also took the event of a pure cube generation as the beginning of intelligence and then began to measure the whole earth.

In the final section, the studio presents a large number of brilliant collages in which the monuments are inserted into and in dialogue with the natural landscape (Figure 8). In these scenes, the continuous and homogeneous monument intervenes in nature with a calmness that does not contradict the environment in which it intervenes, but accompanies it silently. It can be both on par with the modern artificial highway and abstract to respond to nature. Of course, it also has the power to reconfigure the city. These huge geometric volumes simultaneously disregard the internal spatial composition and abandon the functional organization, leaving only a monumental property.

The Continuous Monument is the studio's most successful and ultimate experiment with rational archetypes. Here, the "Monuments" consist of basic cubic elements that pass through the city, the countryside and nature like nobody's business, trying to fit in with the surrounding environment in various forms. These monuments, which cast aside function, return architecture to a primitive and final state. This state neither refers to the past nor foretells the future, and lies between urban silence and the ultimate consumer society. It emerges from nothingness and goes to the end of reason, transcending all scales with an ethereal divinity, using the same unadorned architectural language as a metaphor for a complete condition shaped by the technology and culture of the "empire" and poetic confinement of the man of the future.

Again, the recurrence of the Black Stone in the film *2001: A Space Odyssey*, is in some sense, a symbol of technological rationality. The Black Stone (rationality) was created so that people could learn to use tools and develop them to improve and create their own living environment. However, the best product of human rationality, the

Hal 9000 (a supercomputer in the ship), rebelled and tried to kill the crew.

Kubrick may believe that humans were activated by the light of enlightenment brought by the Black Stone (the 18th century Enlightenment) and with the advantage of reason, evolved and dominated the Earth over other species. However, the highly developed material civilization developed by relying on reason will lead to the spiritual alienation of individual human beings. The social system constructed by strict scientific reason will also lead to institutionalized consequences, which will eventually lead to the spiritual death of human beings. Or the death of civilization caused by the tools that once created it. (Figure 9)

Superstudio must also have been exposed to this epoch-making film, but more importantly, they may have all felt this fear of the constant development of technology and, thus, its creation.

3. The Twelve Ideal City, 1971

In 1971, the British architecture magazine AD published the studio's The Twelve Ideal Cities: Twelve Cautionary Tales for Christmas. It is a textual and pictorial creation that describes 12 ideal cities that symbolize "the supreme achievement of the blood, sweat and tears of 2000 years of human civilization". Because this work was not widely circulated and the text was obscure, it was not as influential as The Continuous Monuments. But each of these twelve anti-utopians "city models" is strongly critical, with some deliberately designed negative utopias showing the possibilities and limitations of architecture as a critical tool of modern society through reductio ad absurdum and accomplishing the ultimate mastery of the human subject.

Among the twelve cities, 2000 Tons City is classified as the first city (Figure 10), a continuous architecture of cubic units stacked together across the hills and forests. Here people have eliminated death and class and gained immortality, but what they have lost is a spirit of freedom: if one tries to rebel against this unprecedented ideal state, the 2,000-ton ceiling will descend until it comes into contact with the ground, crushing the dissidents into meat cakes, thus making way for the perfect newborn citizens.

And in the Fifth City (Figure 11), teardrop-like transparent sarcophagi float out of the glass city. The poetic appearance hides the motionless inhabitants inside the sarcophagus: everyone is sleeping in it, various instruments and pipes ensure that people do not age, and only the mind can control the movement of the sarcophagus - how claustrophobic and frightening it is.

The last city is called The Book City (Figure 12). The city consists of a series of parallel buildings 10 meters high and 30 meters wide, separated by 3 meters. Inside each building, there is a 10-meter-wide corridor, 9 meters high, and outside the street are grass and trees. In this city, there is no light, and people move around by night vision. The left wall of the interior corridor has a moral code written on it, and the right wall defines the activities that the inhabitants can perform. This is a future Twelve Bronze Tables, a city chained to all its inhabitants, revealing the dark side of the enlightenment of mankind by instrumental reason, which ultimately must be nothing but the domination and enslavement of humanity by instrumental reason.

In short, the studio uses an ironic and playful approach to describe the future of city life, where all the inhabitants can satisfy all their needs all the time through advanced technology and even gain immortality, but they must follow the rules of the system like slaves, or else they will be abandoned. People invariably become victims of a fixed, top-down social order - people create the architecture (tools) but are ultimately controlled by the architecture (tools).

4. The Departing Utopia

Although the studio's extraordinary creativity and foresight in exploring the future destiny and ultimate goal of humanity has not escaped the erosion of all pioneering groups over time. In 1978 Superstudio's The wife of Lot and La coscienza di Zeno, both of which were exhibited at the 38th Venice Biennale (Figure 13). These two works can also be seen as a summary of the group's thinking.

In The Wife of Lot, five small architectural models of salt sculptures

are combined in an installation. On a table made of galvanized metal, they display five small salt sculptures placed in the same zinc basin and a metal shelf made of zinc that slides back and forth, on which an inverted pyramid-shaped water container is installed. The salt sculptures reveal the inner objects after melting, showing their transformation over time.

The salt sculptures are a pyramid, a theater in the round, a church, a palace, and Corbusier's new Palais de la Spirituelle, and the last salt sculpture dissolves to reveal a bronze sheet with the following inscription:

The unique architecture will be our life

And when all the salt sculptures were melted and flowed down the pipe into the square vessel below, there was a final copper piece immersed in the vessel, which read:

The architecture is time like the salt is water

THE WIFE OF LOT

The 12-year-old Superstudio, which once believed that architecture could change everything, was officially disbanded soon after. These young people, who once loved human life and were full of worries, were once rebellious, but after experiencing the wear and tear of time, like salt and pepper, they could not escape the end of being consumed by society.

5. Epilogue

The time comes to 2020 an era where we have slowly begun to see architects exploring symbolic and representational aspects without the pressure of project releases, project profits, or thinking about what it really means to be an architect. It is clear that the lifelong work of the Superstudio has had a huge impact on the imaginative expression of prominent architects such as Rem Koolhaas, Bjarke Ingalls and Steven Holl, and that exploratory architecture returns periodically. These new designs, in their own way, pay homage to the Superstudio and emphasize the importance of contemporary discourse. What was once merely a seminal moment in the design thinking of groups of architects has proven to be more than isolated radicalism.

Superstudio's architecture/design work may seem playful on the surface, but behind its work is a profound reflection on the city and society, with many similarities to Architecture Window's No-Stop City, a reflection and blueprint for future social possibilities in the context of the consumer age. In contrast, however, Architectural Windows expresses an endless space of claustrophobia, while the studio reflects a silent optimistic utopia. Super-scale, over-consumption, grid-like endless planes, are people free or imprisoned? Relative to primitive man, we are freer, we make space shorter and time faster, and technology organizes us while simplifying our behavior and surrounding us, reconstructing an environment where function and efficiency are the criteria. In Greek mythology, Icarus, the son of Daedalus, was burned to death because of his excessive pursuit of the sun, so this society of over-consumption may not bring about human diversity but eventually lead people into the abyss of homogenization. It was a society of finality that was dehumanized, where people were detached from the origin of life, subordinated to the demands of the machine, and mired in the quagmire of consumerism.

Superstudio has influenced many architects since then as one of the most influential avant-garde architecture groups in the world in the 1960s and 1970s. There is a similarity between the narrative montage in Tschumi's The Manhattan Manuscript and the script of the essay in The Continuous Monument. It is not necessary to specify that the mega-architecture of Koolhaas's "Exodus" proposal (Figure 14) is clearly influenced by the Superstudio and the architectural window and that the distribution of activities inside is strongly related to the studio's The Twelve Ideal Cities. Of course, the formal language of architecture is secondary to the studio's strong sense of social responsibility and its reshaping of the architectural value system, leaving us with a permanent anti-architectural utopian kingdom.



Figure 1: "Mies" chair



Figure 2: Dream bed



Figure 3: Rescue of Italian historic centers (Italia Vostra), Florence, 1972

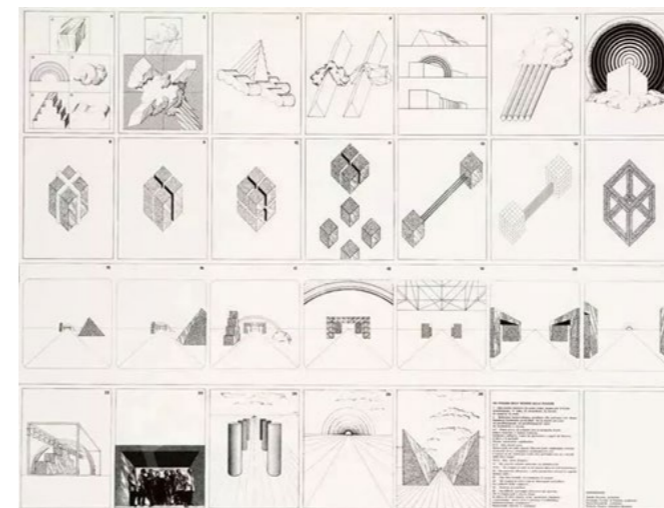


Figure 4: A Journey into the Realm of Reason, 1968

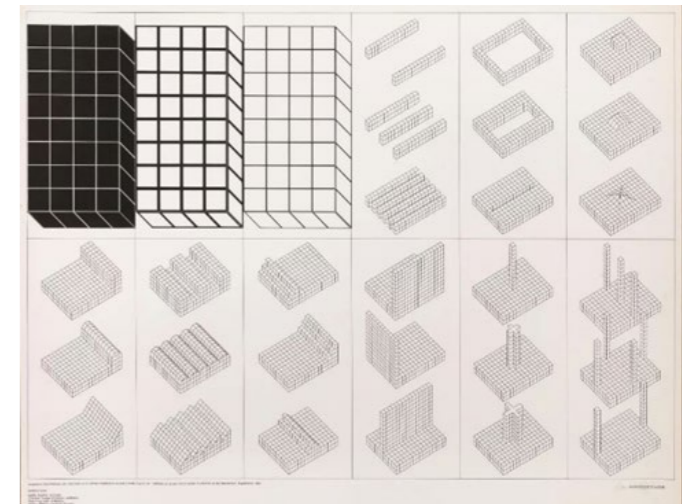


Figure 5: From the pure cube, different spaces or forms are derived, leaving behind space and function to obtain absolute architecture. Histograms of Architecture, 1969

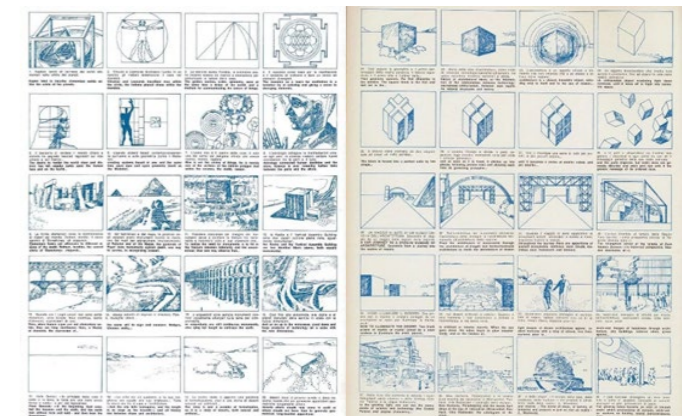


Figure 6: The Continuous Monument: Split-screen script

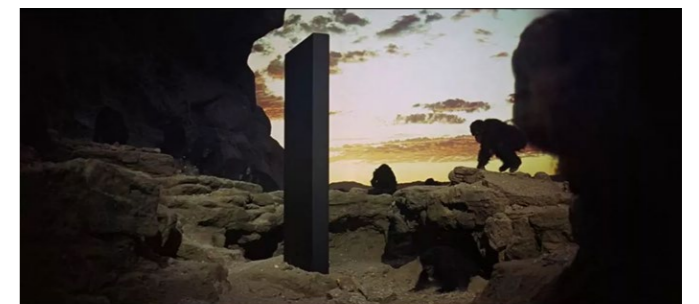


Figure 7: Black Stone, 2001: Space Odyssey



Figure 8: People can cross the desert-covered area above the canyon and gather in the alpine lakes. The Continuous monuments: Alpine lakeside

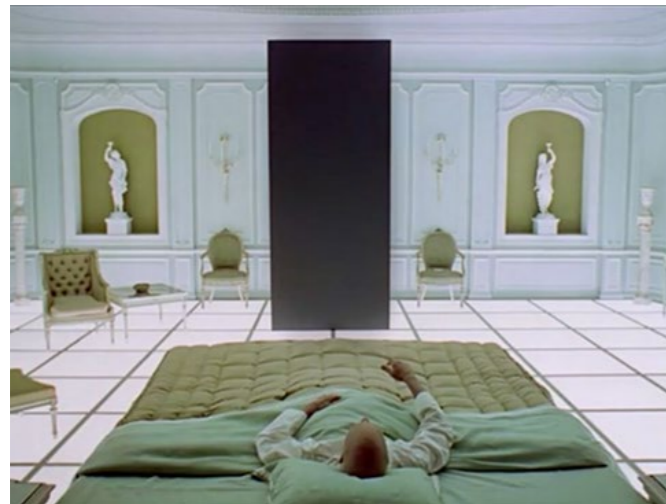


Figure 9

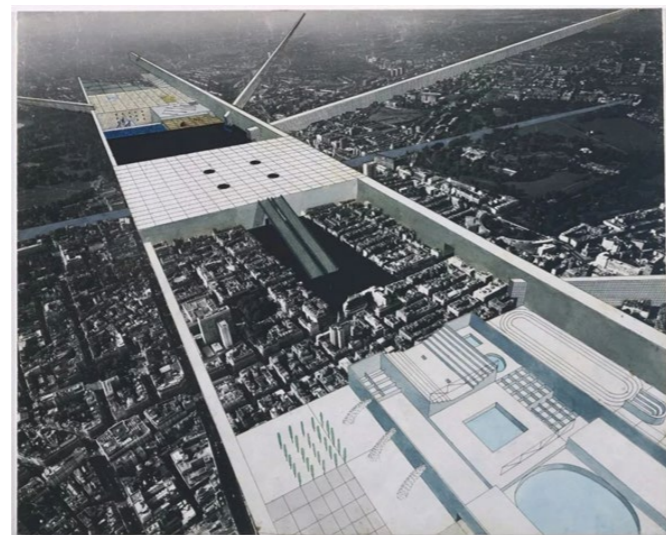


Figure 14: Exodus, or the voluntary prisoners of architecture, 1972

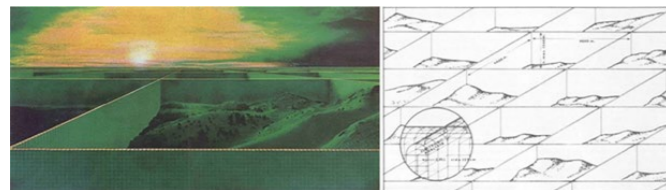


Figure 10:

The city is on a hill and consists of a continuous cube with a side length of 4800 meters
2000 Tons City

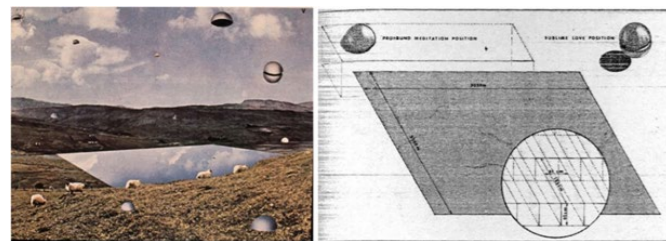


Figure 11:

The city is a dazzling sheet of crystal between woods and green hills. On approaching it,
one realizes that it consists of 10,044,900 crystalline sarcophagus covers
The City of Hemispheres

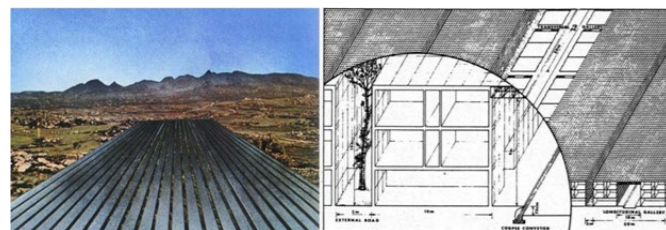


Figure 12:

The city consists of a series of parallel buildings of 10 meters, with a 10-meter tunnel
inside each building
City of Books



Figure 13: The Wife of Lot, 1978

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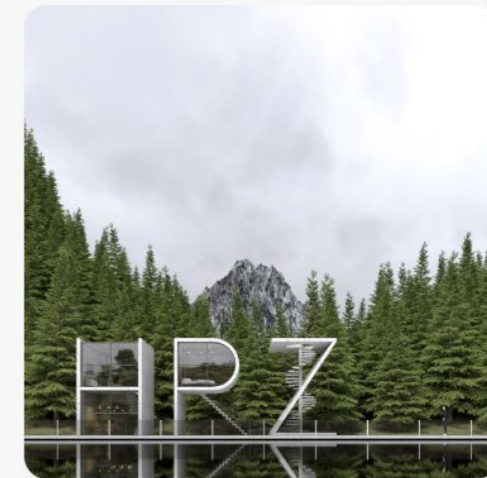
CODING FOR SPATIAL PRACTICES

GSAPP Spring 2023

ARCHA4988

Instructor: Celeste Layne

Ruizhan Huang



Coding For Spatial Practices

Exercise

- Exercise 01
- Exercise 02
- Exercise 03
- Exercise 04
- Exercise 05
- Exercise 06
- Exercise 07
- Exercise 08

Project

- Project 01
- Project 02

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<The End>