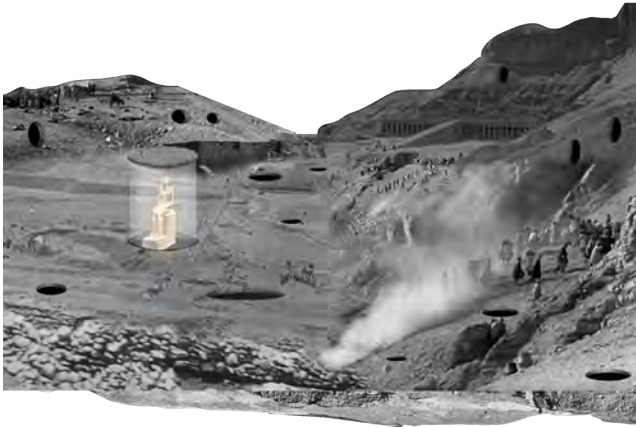


Chayanidh
Chantraprapawat



Master of Science
Advanced Architectural Design



class of 2023

work index

studio projects



After the Great
Loudreaing
Summer 2022

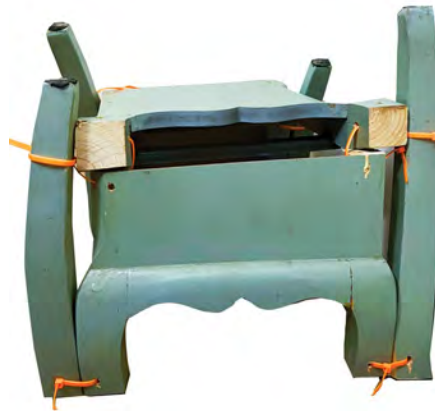


Post Post
Fall 2022

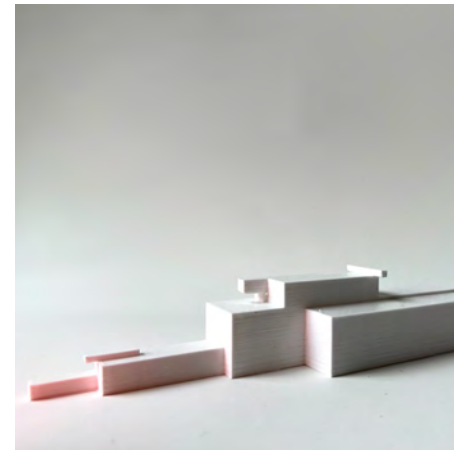


Not Elsewhere Now
Spring 2023

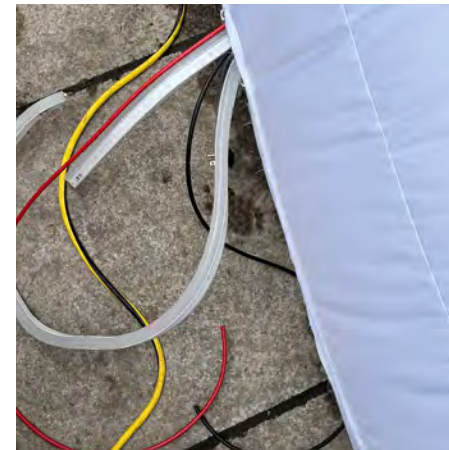
other projects



Make
Fall 2022



Arkhitakon,
canvas to space
Fall 2022



The Outside In
Project
Spring 2023



Virtual Disruption
Fall 2022

texts

Behind the Seeds:
Seed Cathedral, Kew
Gardens, and the
British Empire Seed
accumulation
Summer 2022

Enclosed Ecosystems:
Possibilities in the
Impossible and
Impossibilities in the
Possible
Summer 2022

Questioning the
Materiality of Care
Summer 2022

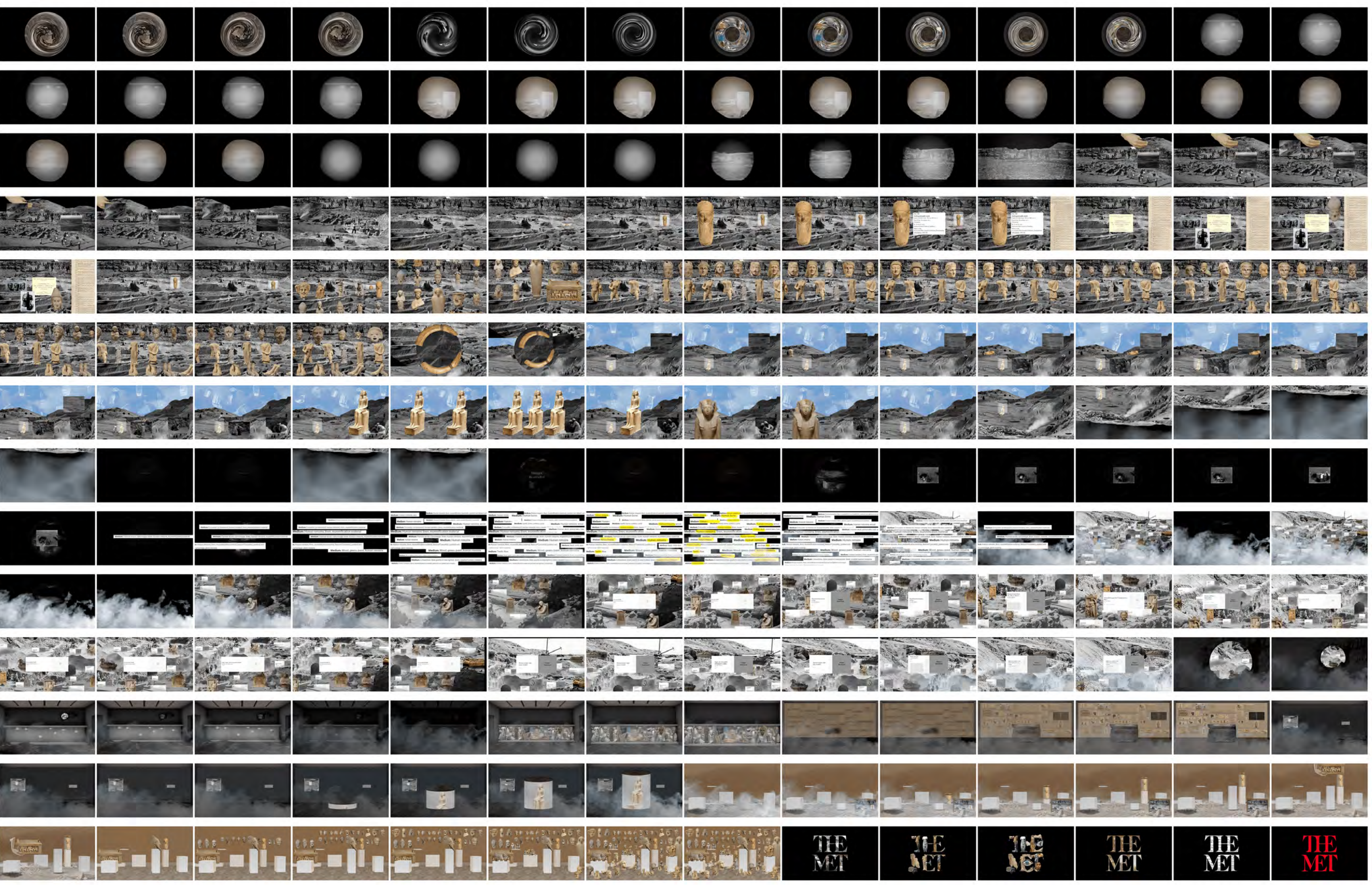
After the Great Loudreading: On post-colonial reconstructions, reparation, and reparations

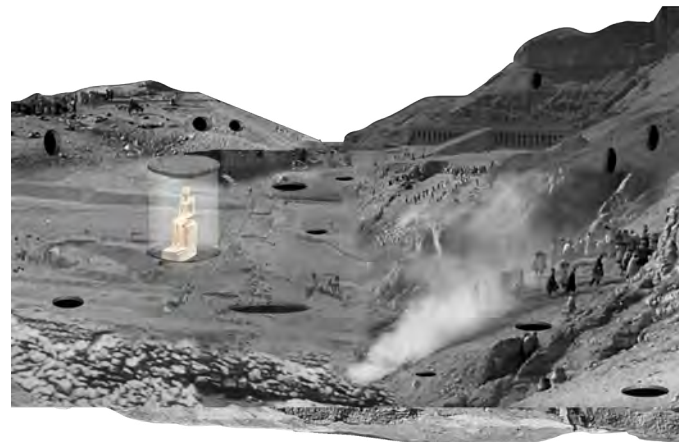
Summer 2022

Instructor: Cruz Garcia & Nathalie Frankowski

MS AAD Advanced Studio







Extraction

Since the 1900s The Metropolitan Museum of Art played a major role in the excavations of over 30 burial sites. In order to “observe”, “explore”, and “preserve” cultural artifacts from across the globe. Excavations and donations from “patrons” have contributed to the Met “owning” the largest collections of Egyptian Artifacts and one of the biggest collections of Cypriot Artifacts in the world.



Objects as Bodies

Through the Met’s excavations of tombs and burial sites, artifacts related to death cultures are uncovered and are now a part of the Met collection. A huge part of the collection is made up of objects that resemble human bodies, which were made from local materials ranging from ivory, ceramics, bronze and limestone. Human body sculptures are

closely related to death culture in the ways that they are created as offerings to the dead, as companions to the dead in the afterlife, to ward off evil or to represent people who passed away.



Fragments of the statue of Queen Hatshepsut

The Met obtained one of its most famous artifacts, “The Seated Statue of Queen Hatshepsut” through the excavation of the site of Queen Hatshepsut’s Mortuary Tomb located at Deir el-Bahri, Egypt. The statue, along with numerous artifacts resembling human bodies were found in the tomb and were then distributed throughout various parts of the world including to Berlin, the United States and Egypt. The Met now “owns” 250 artifacts related to Queen Hatshepsut along with the restored version of the “The Seating Statue of Queen Hatshepsut” through the exchange of other Egyptian artifacts with the Egyptian Museum in Berlin.



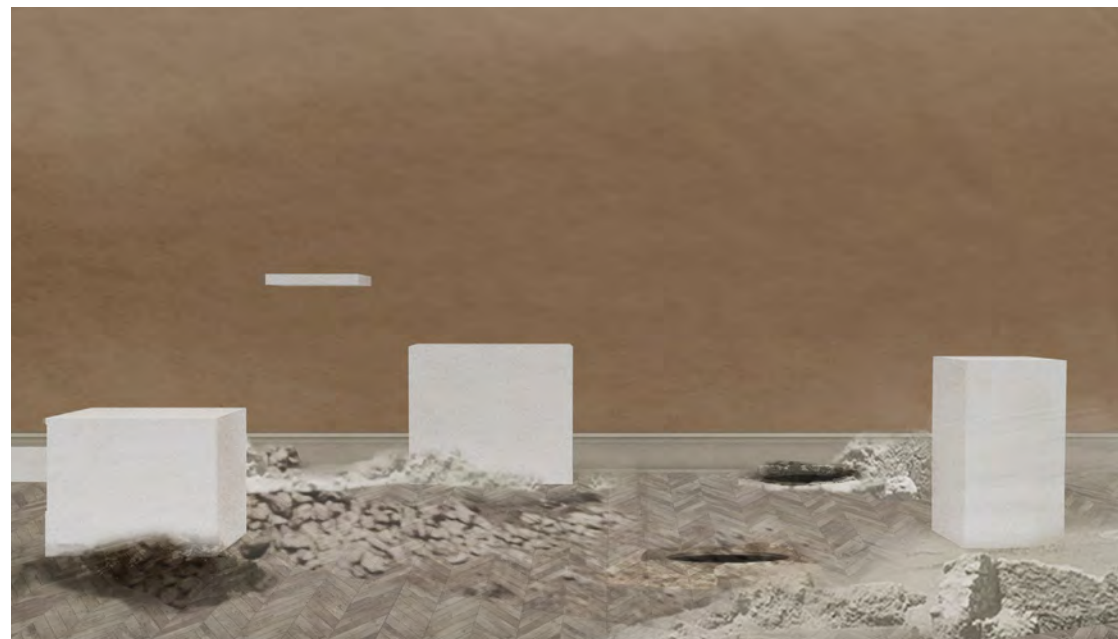
Heads and Bodies from the Cesnola Collection

The renowned Cesnola Collection of Cypriot Art, the world’s largest collection of artifacts from Cyprus, was sold to the Met by Luigi Palma di Cesnola in 1874–76. Cesnola later became the first director of the Met Museum. The Cypriot sculptures were obtained and “uncovered” throughout his time as an American Consul in Cyprus. The bodies of these Cyprus Sculptures would be disembodied and destroyed in fragments to suit Cesnola’s convenience of shipping them back to the United States. Cesnola would then carelessly assemble mismatched heads and bodies of the sculptures together for his Cyprus Collection Showcases.

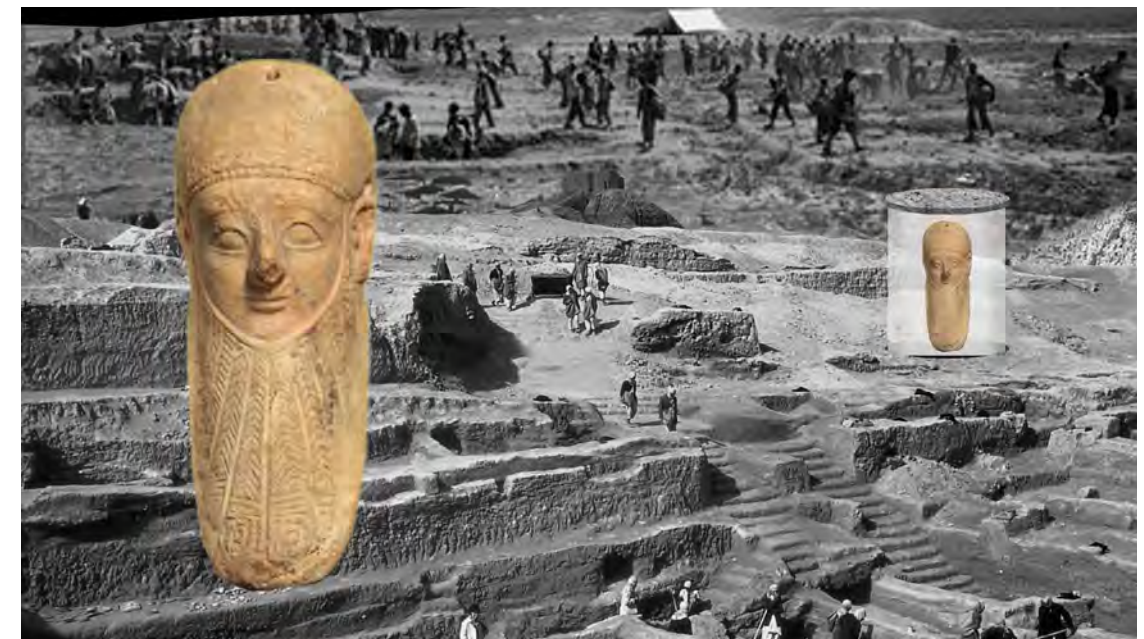




Re-imagining Gallery 113 of the Metropolitan Museum

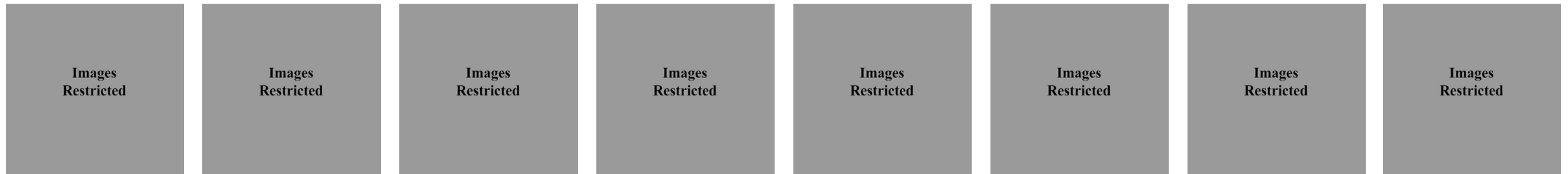


Re-imagining The Cesnola Room of the Metropolitan Museum





Medium: Painted wood, cartonnage, linen, human remains, mummification material
 Medium: Human remains
 Medium: Human remains
 Medium: Human remains, linen, mummification material, faience? (amulets), painted and
 Medium: Skull, cloth, wax
 Medium: Teeth, fiber
 Medium: Wood, gesso, paint, human remains
 Medium: Wood, gesso, paint, linen, maybe human remains
 Medium: Human remains, linen, mummificati
 Medium: Limestone, blue paste in inscription, linen, maybe human remains



Bodies as Objects?

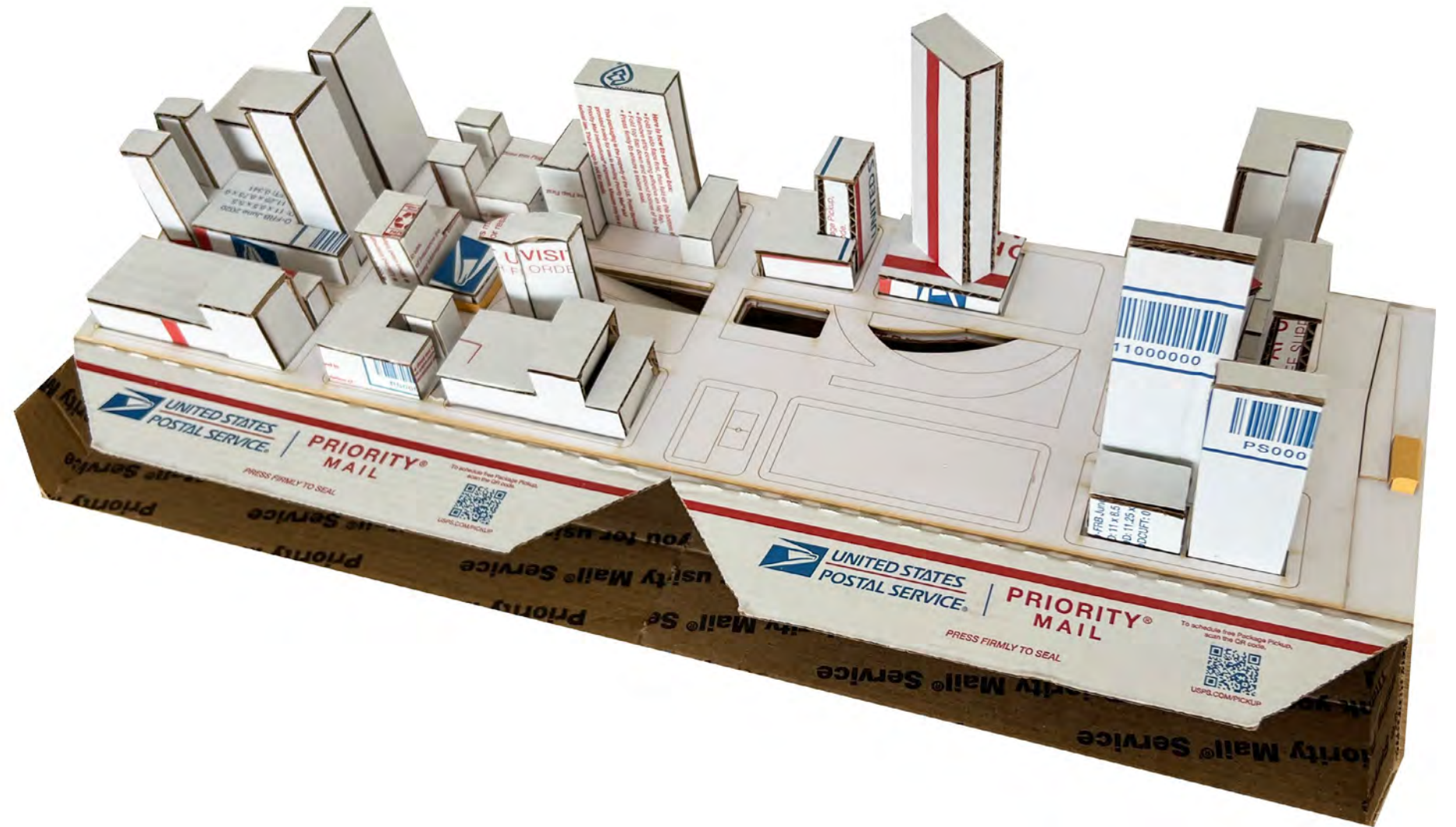
Human bodies found in the Met excavation in burial sites were extracted from the sites and shipped back to the United States. Human remains ranging from Skulls of Asmat people, to Skulls of people from Central Africa, to human teeth, to instruments made from bones of indigenous people, to mummified organ of what is assumed to be a liver, are all listed as a part of an “exotic art” collection “owned” by the Met. None of the bodies in the collection are of western people or people who identified as white. These human remains are listed and labeled in the same way as other objects at the Met.



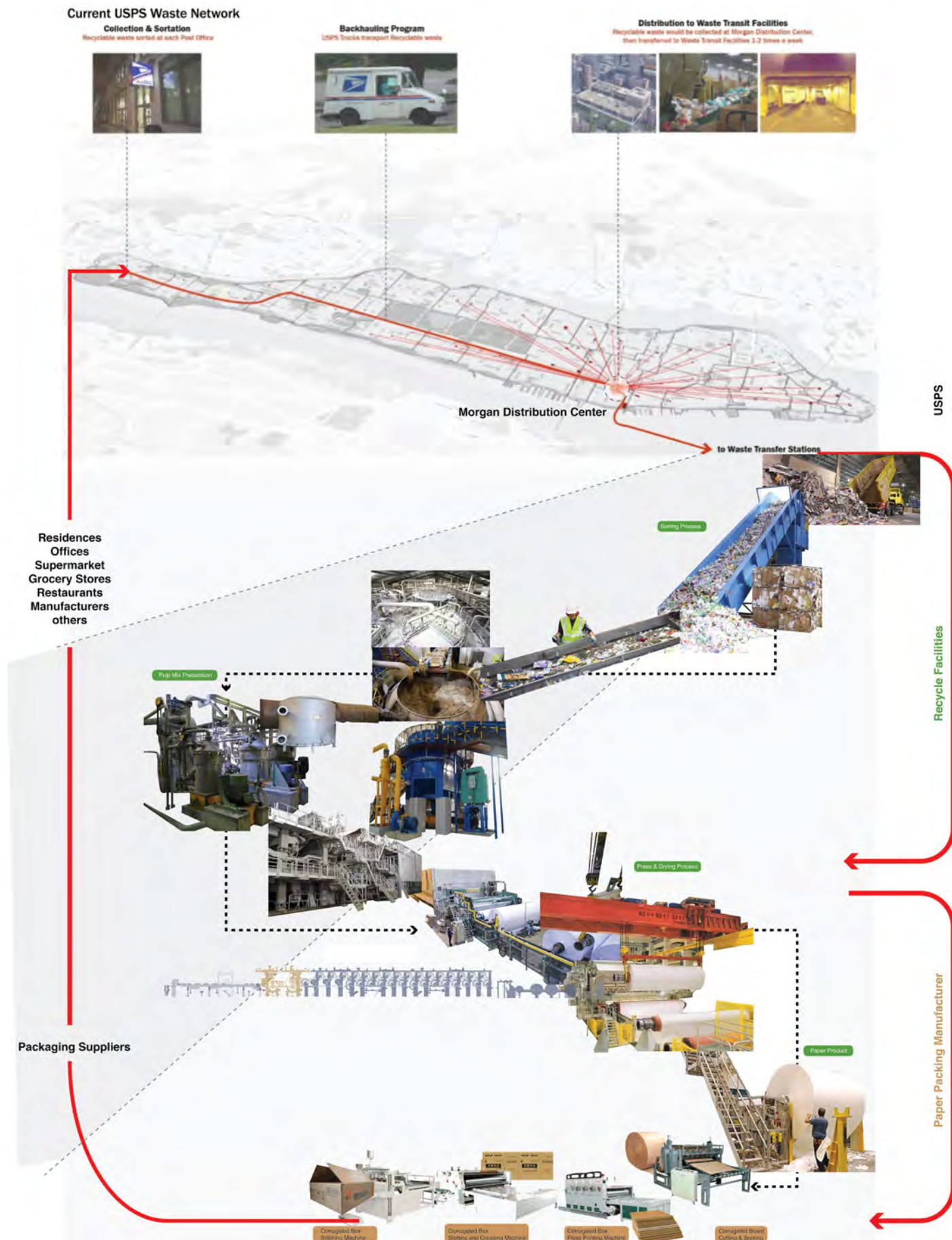


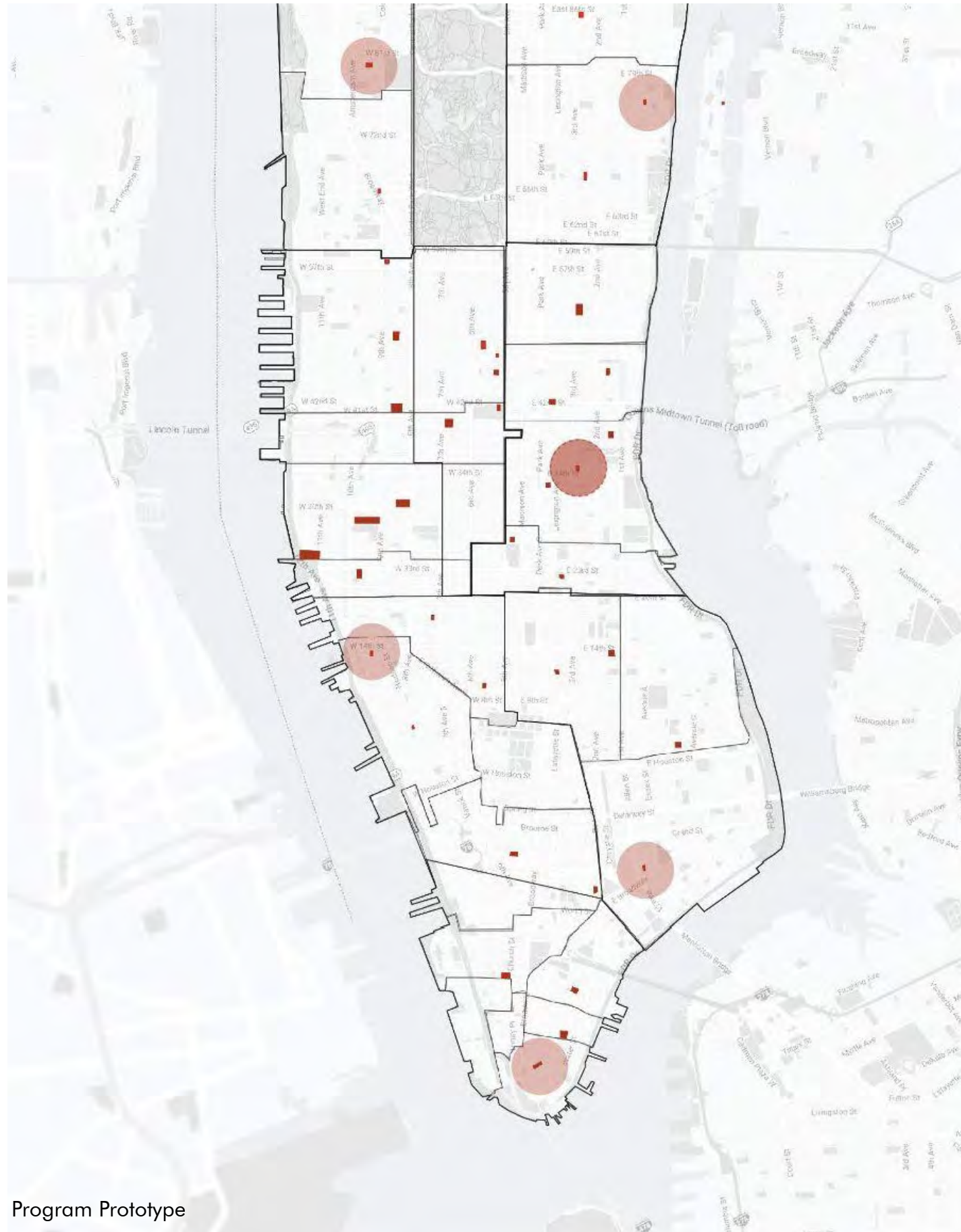
Post Post

Fall 2022
Instructor: Laurie Hawkinson
MS AAD Advanced Studio

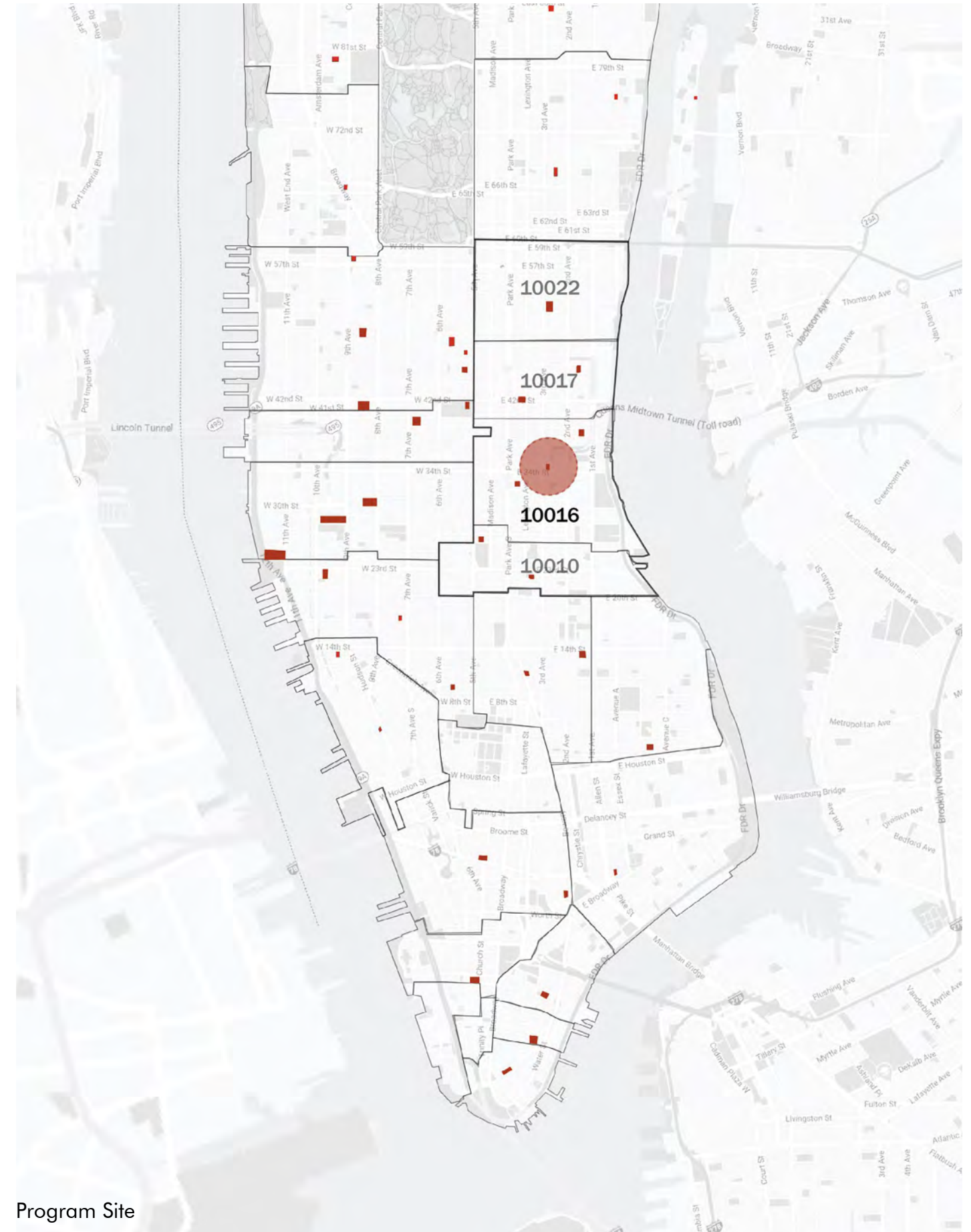






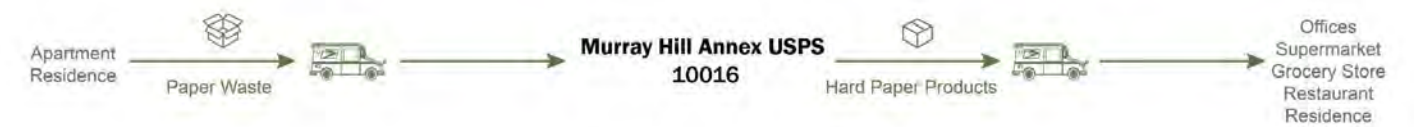
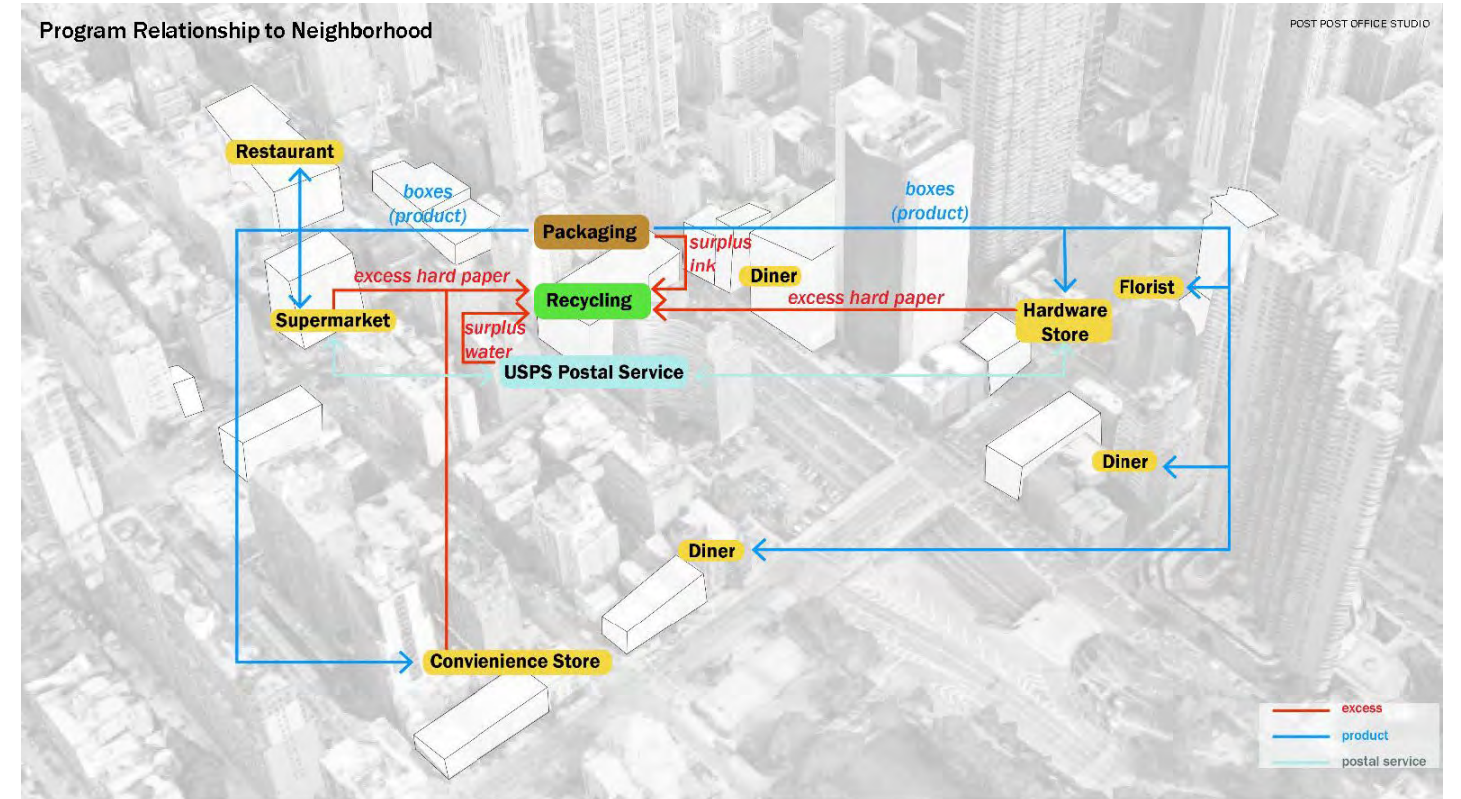
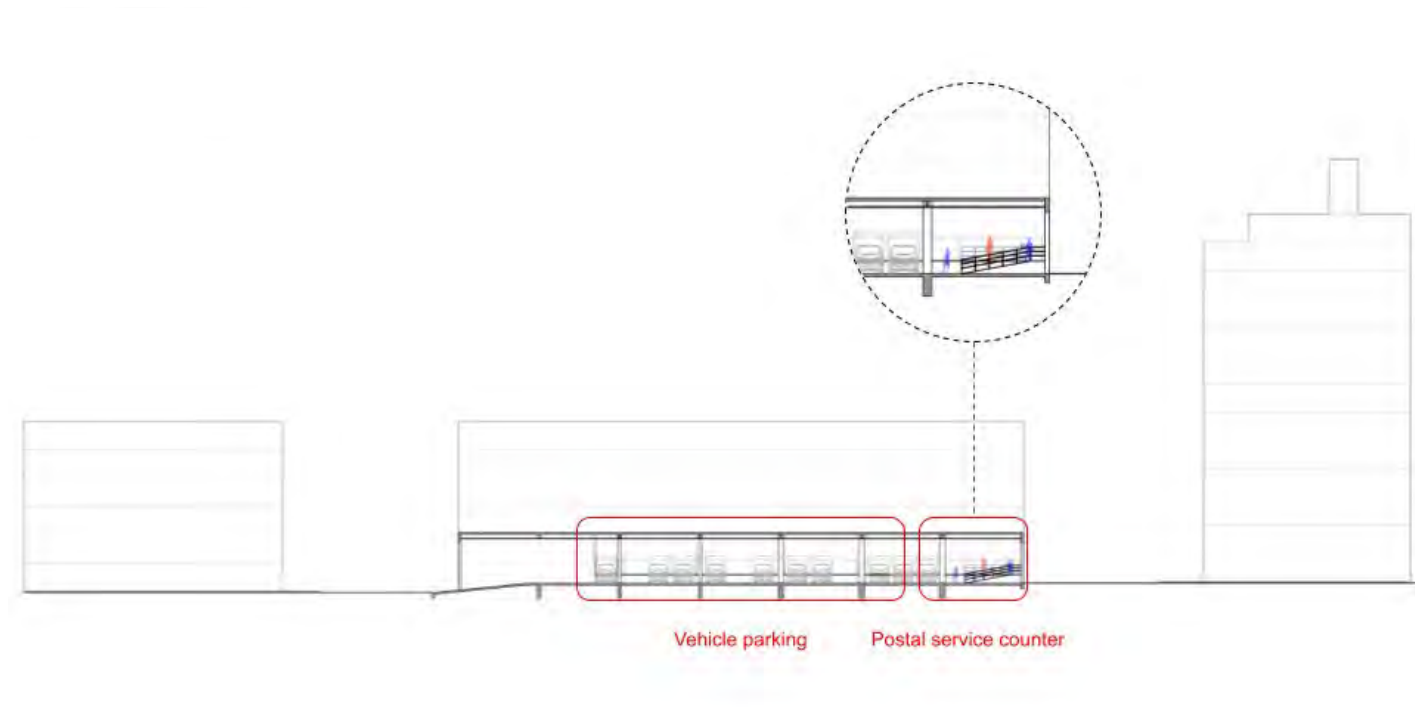


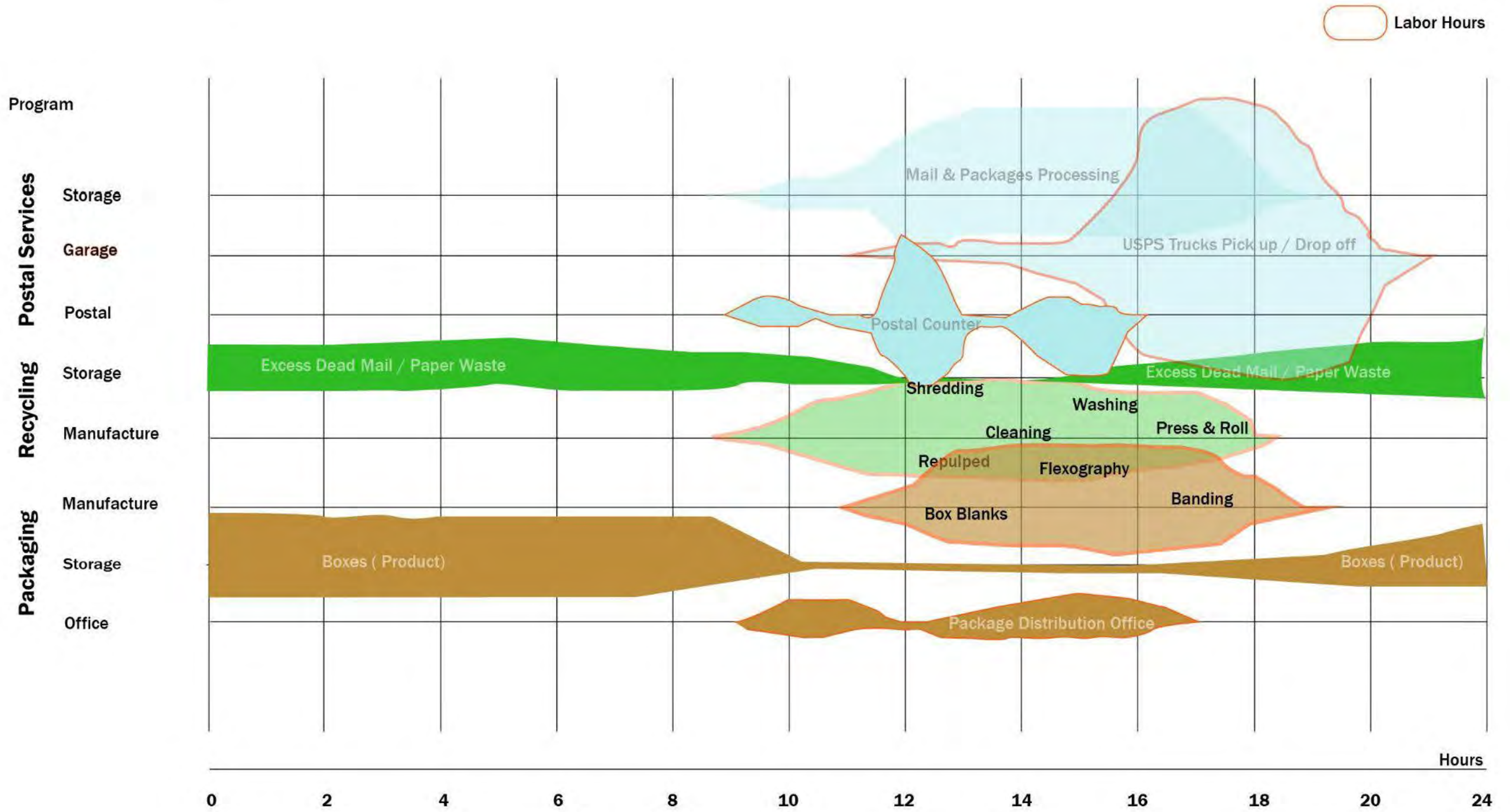
Program Prototype

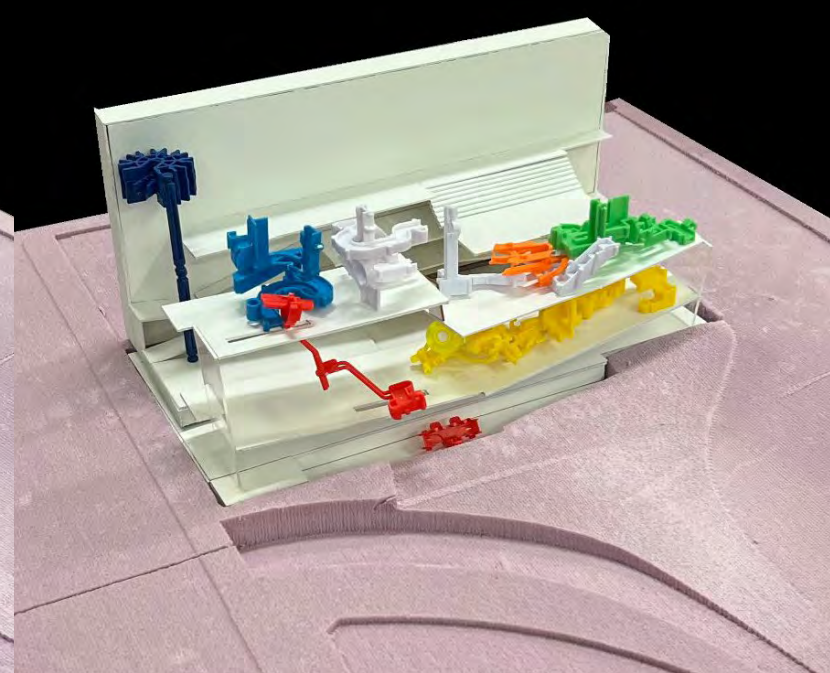
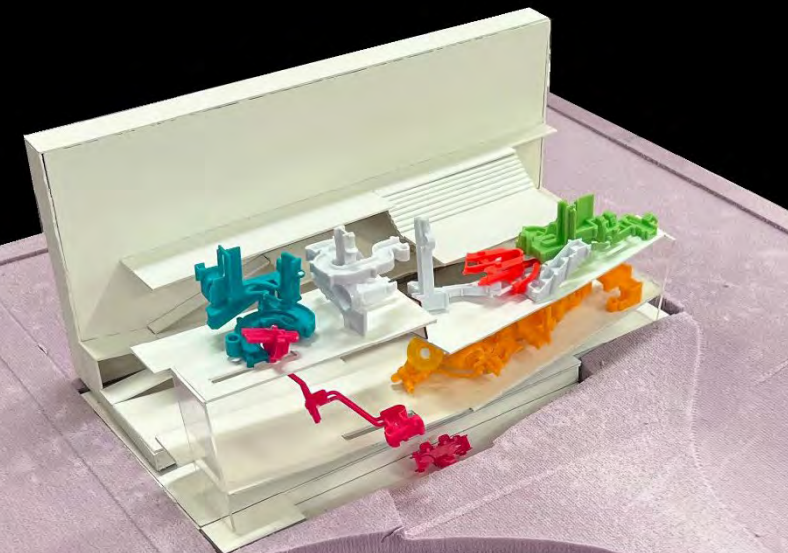
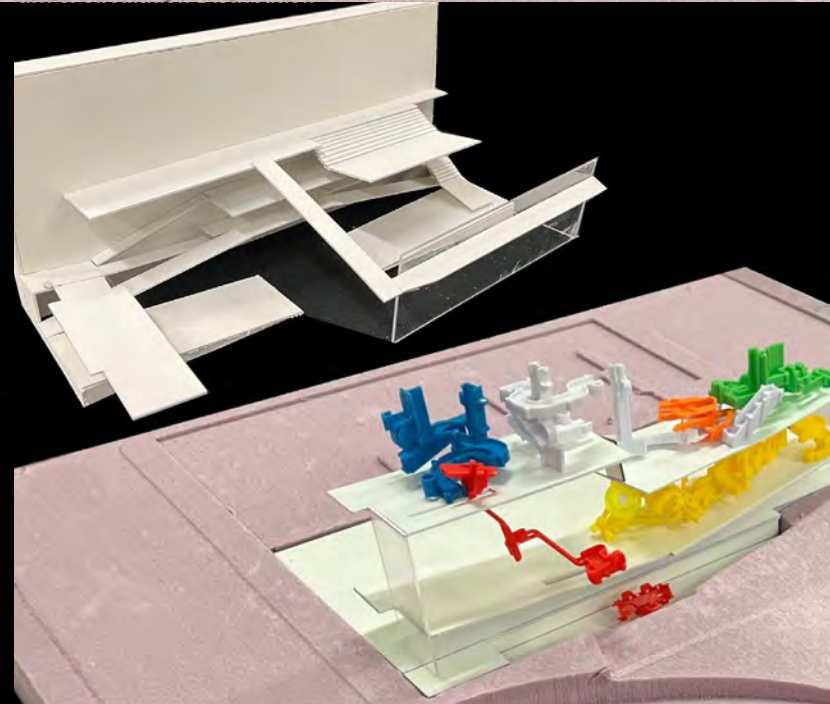
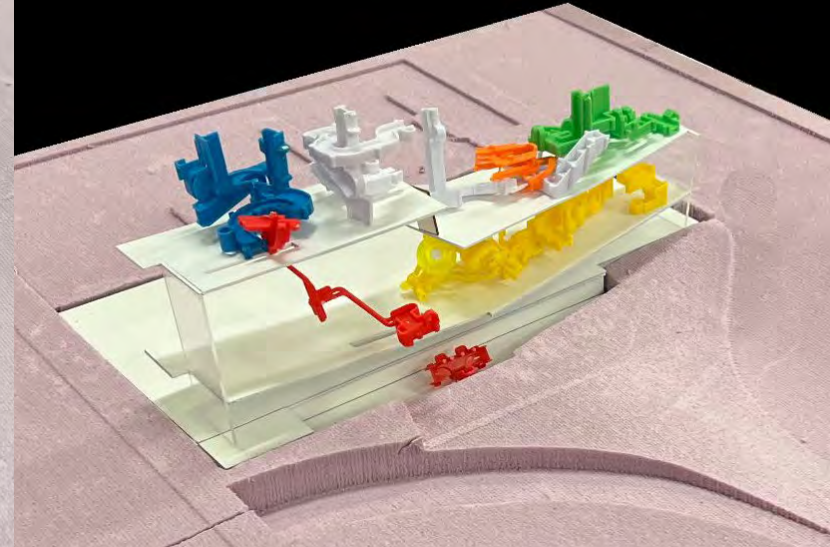
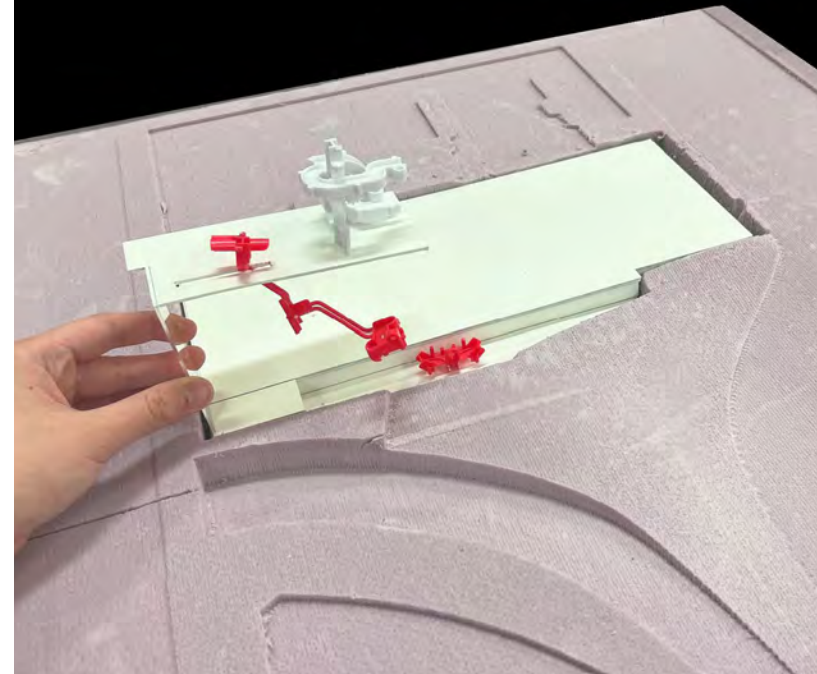


Program Site

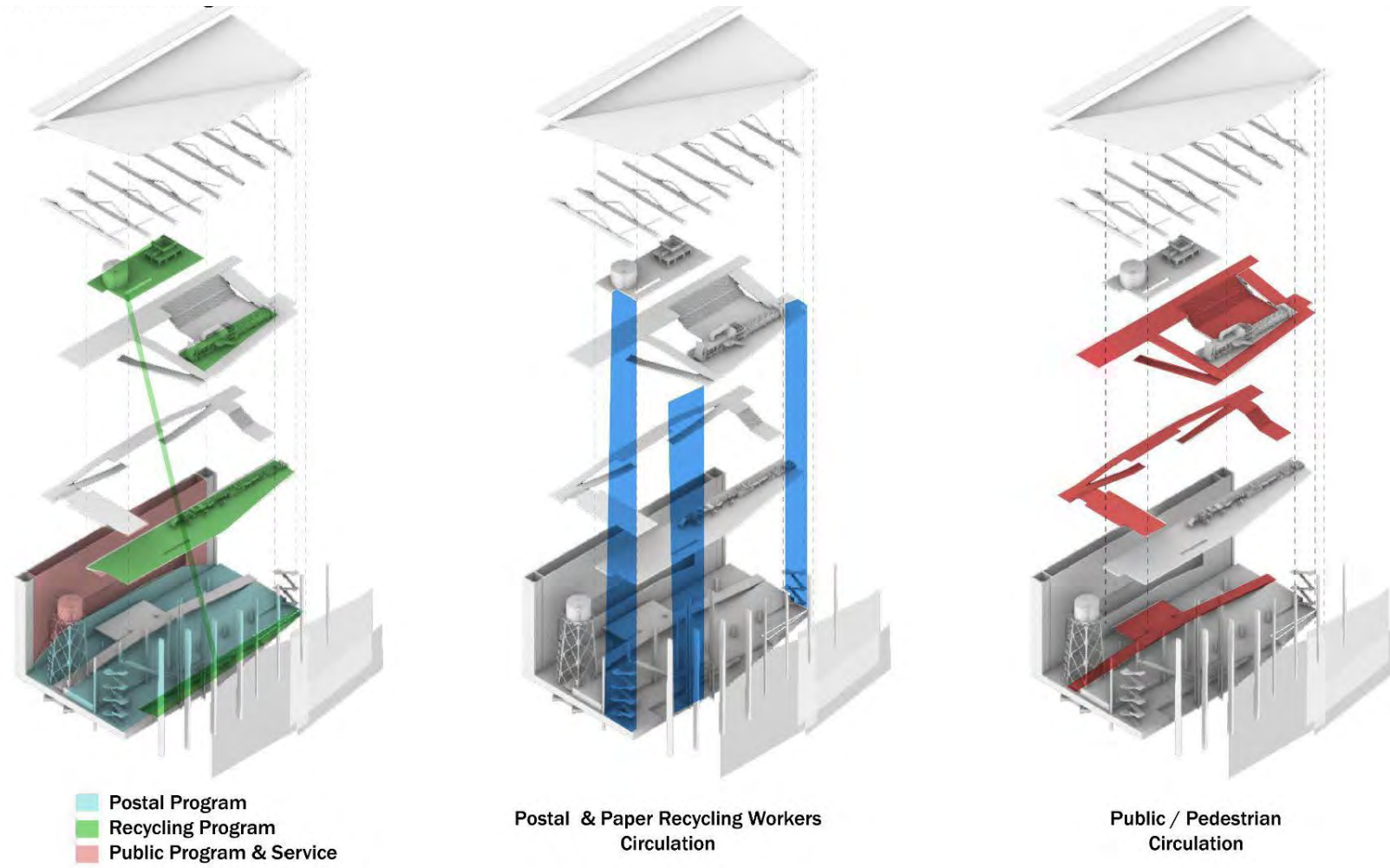
Existing Site



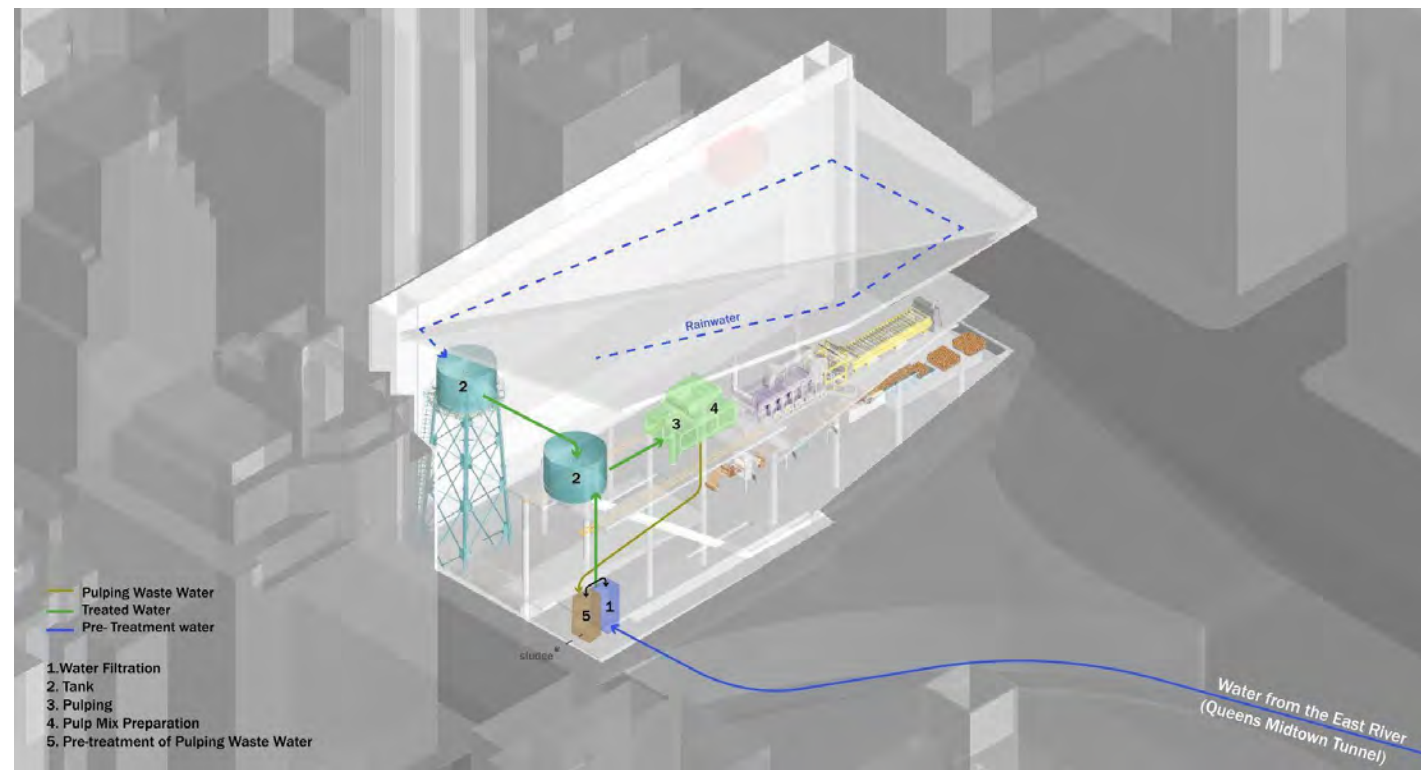




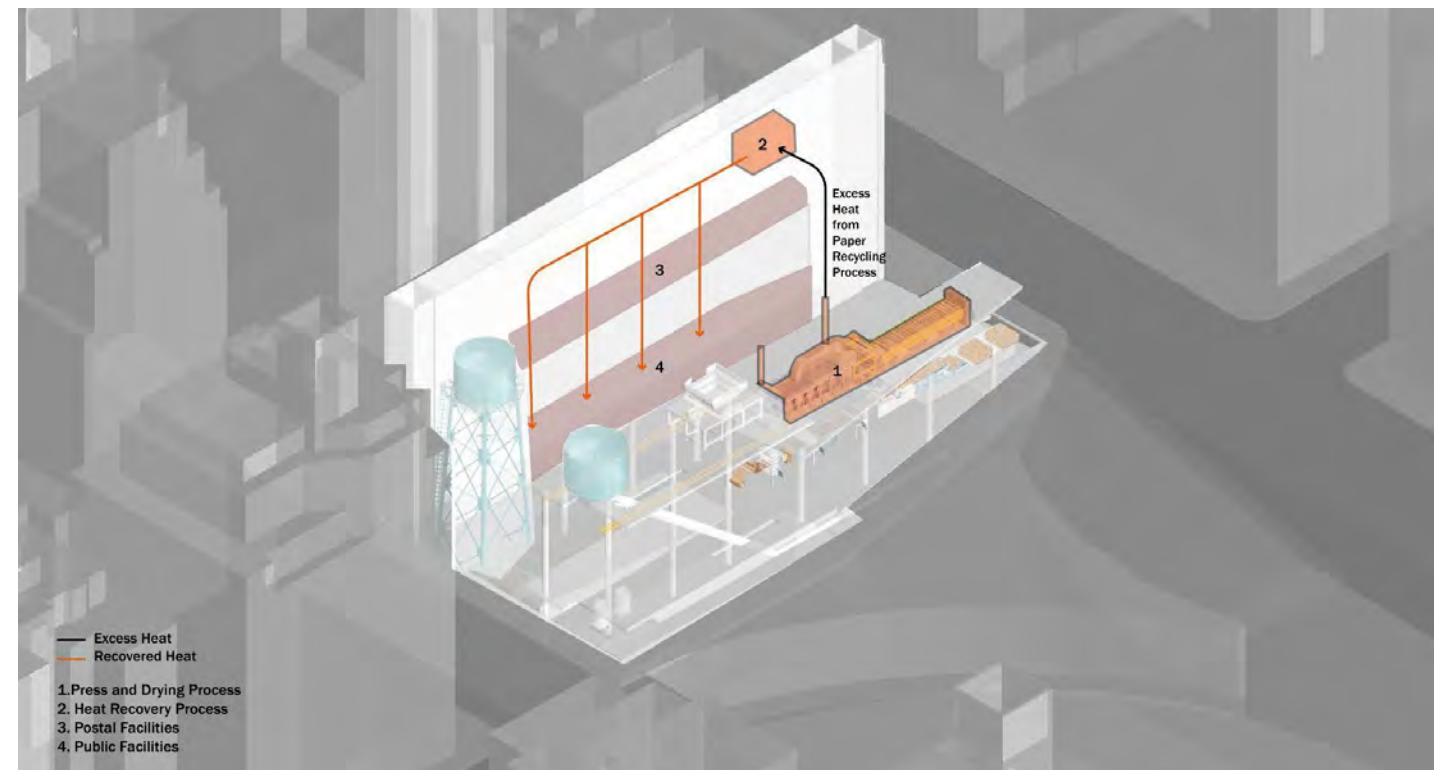
Program & Circulation Diagram



Water Recovery System



Heat Recovery System



Not Elsewhere Now

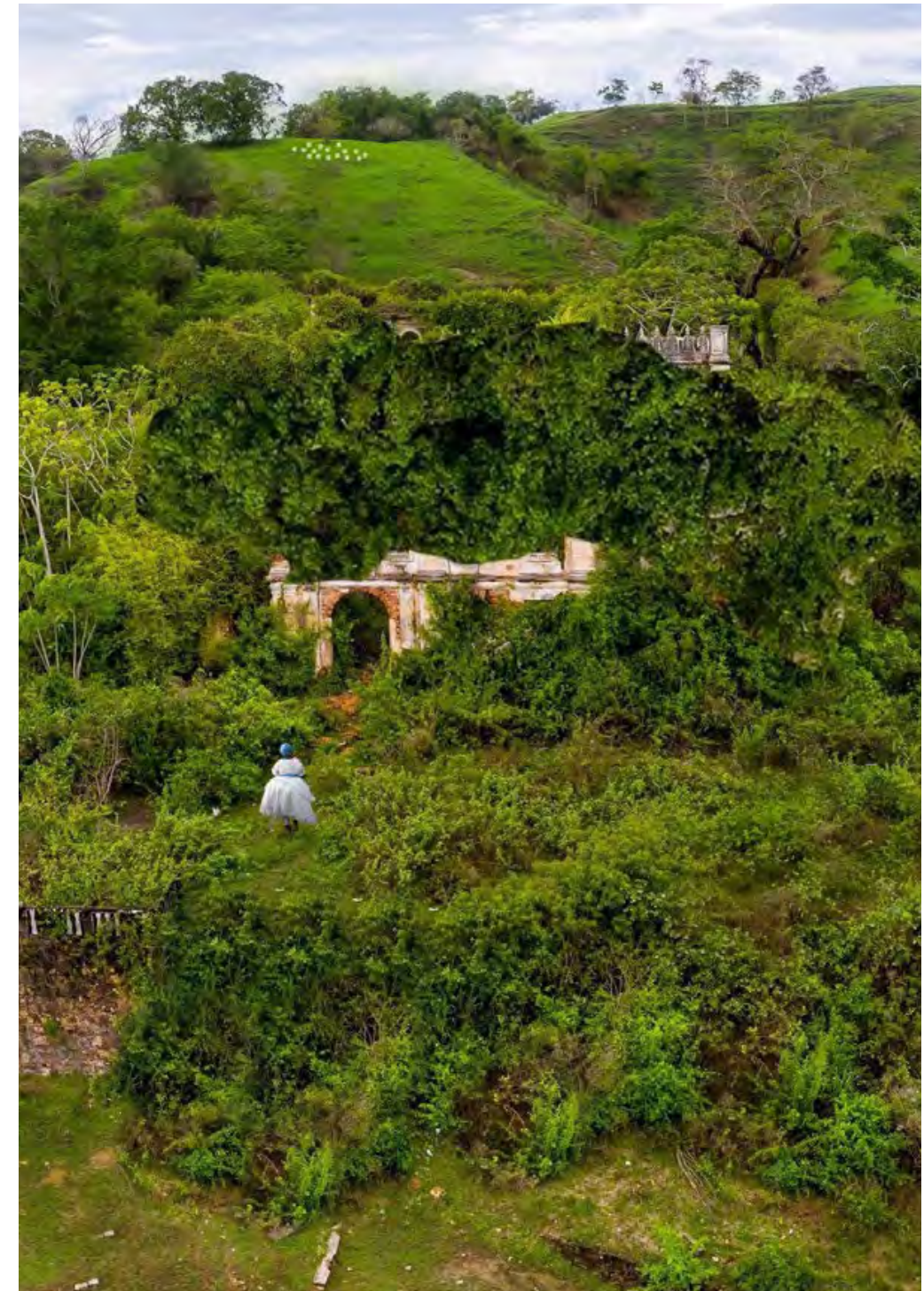
Choreographies of the Im/Possible

Spring 2023
Instructor: Mario Gooden
MS AAD Advanced Studio

Project Members:
Chayanidh Chantraprapawat
Jelvis Jiao

Portugal started to expand their colonial power in the 15th century and during the 16th century, they landed in Bahia and imported sugarcane, cotton, gold into Brazil, which consequently makes Brazil the leading producer of sugar. This also marks the beginning of the Transatlantic Slave Trade System, forcing the enslaved Africans as the cheap labor to serve the sugar industry and ultimately fulfill Portuguese political end. These enslaved Africans at the same time brought their cultural traditions to Bahia and later transmuted with the Brazilian culture.

The Portuguese expanded their power and brought the African slaves to the town São Francisco do Conde in 1559. In 1655 The town was ruled by the Benedictine monks. Sugar cane exportation had become an integral part of their income. In 1797, The Benedictine monks petitioned to build the São Bento Dos Lages Sugar-cane plantation in addition to their previously owned sugar mills. The São Bento de Sergipe do Conde sugar plantation was later converted into the Imperial Agriculture Institute of Bahia.



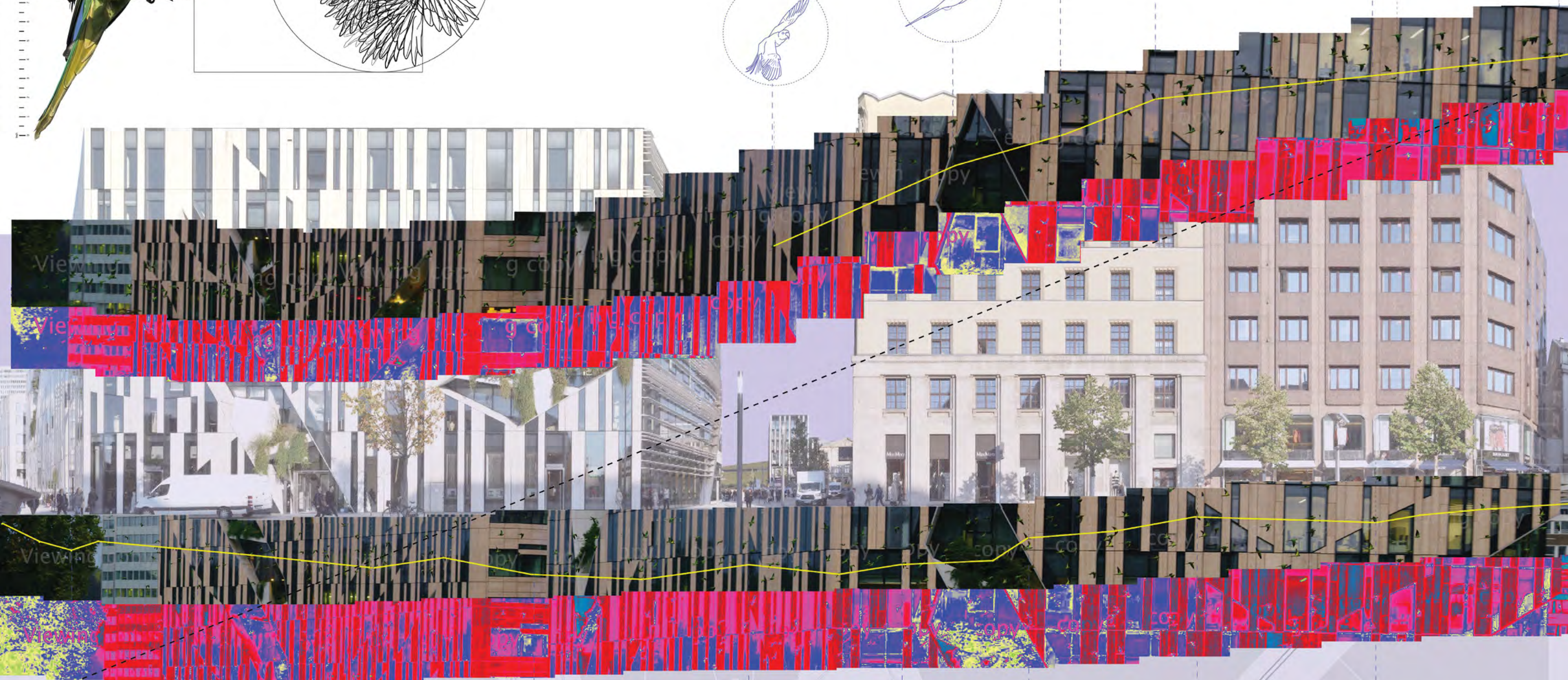
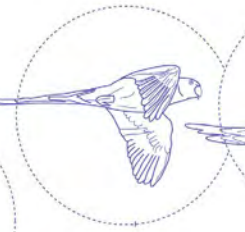
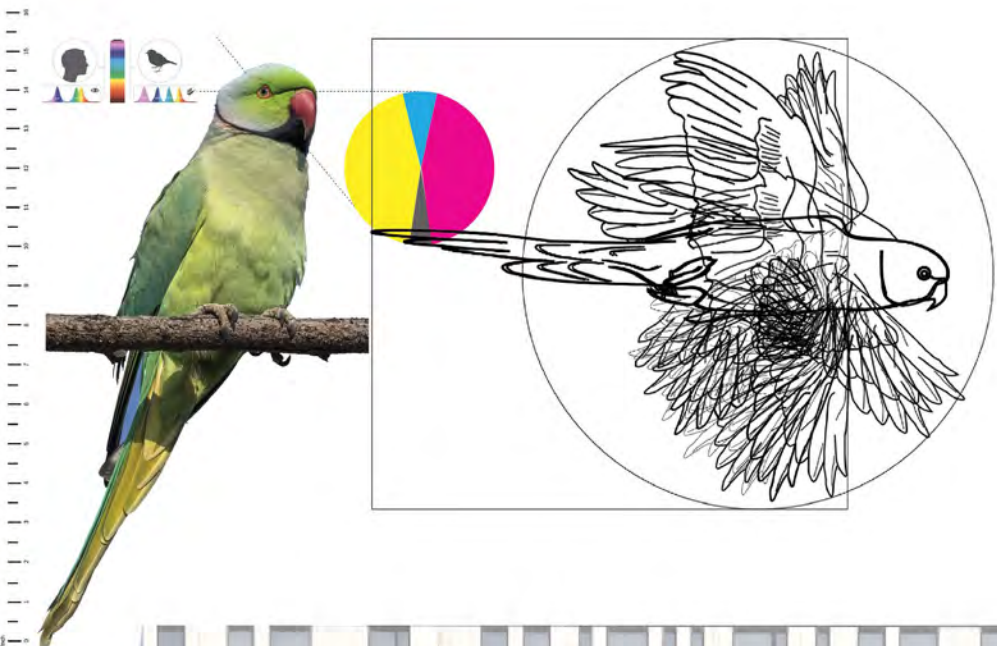
The Imperial School of Agriculture of Bahia was established in 1875 under the direction of Dom Pedro II. The site was primarily for sugarcane plantation and the primary goal and agenda of establishing this school is to “modernize” and promote “the poor agricultural productivity” and “technological backwardness”. The school was fully abandoned in 1958 and is currently a historical preservation site in the North-West of Salvador situated upon a small hill in a rural context with a great amount of vegetation. The major parts of the building have fallen and only two thirds of its facade remain.

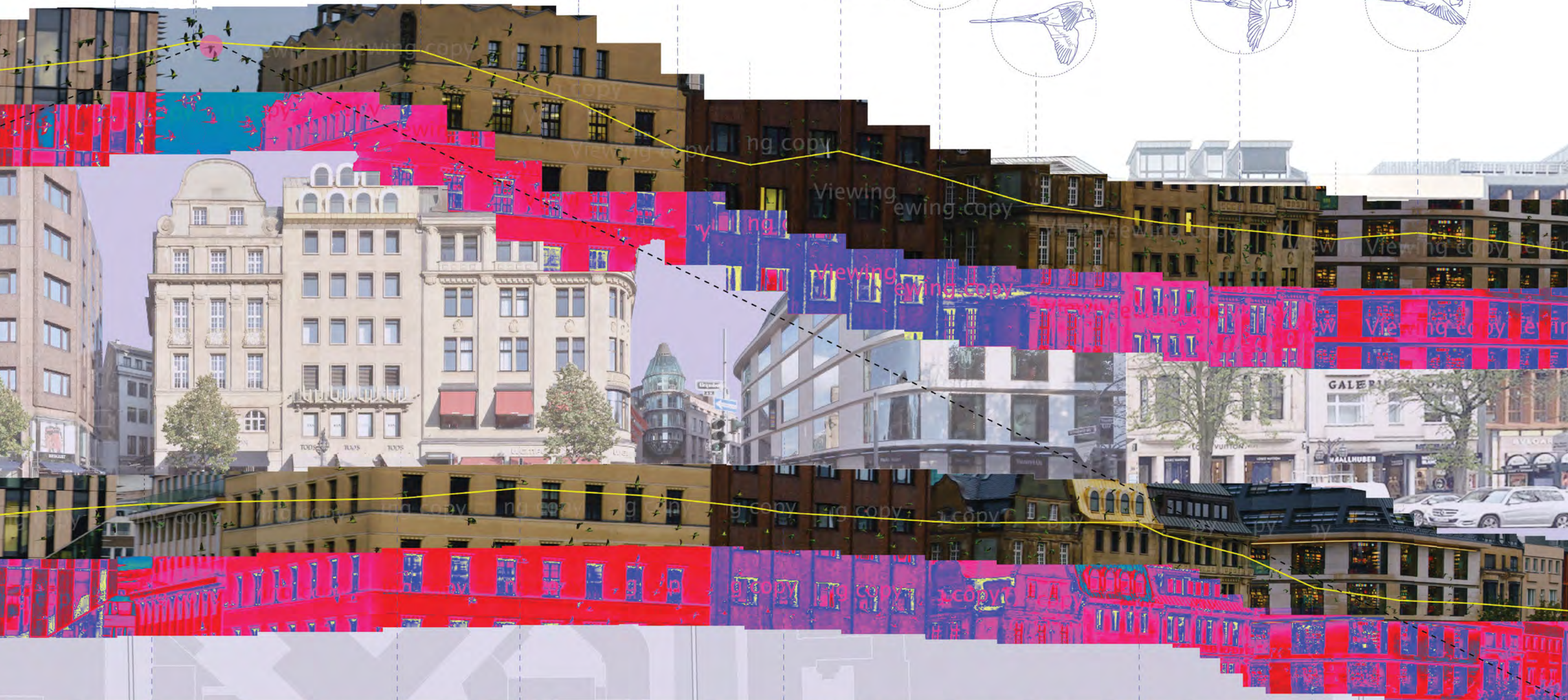
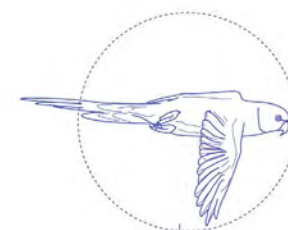
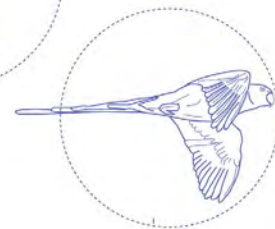
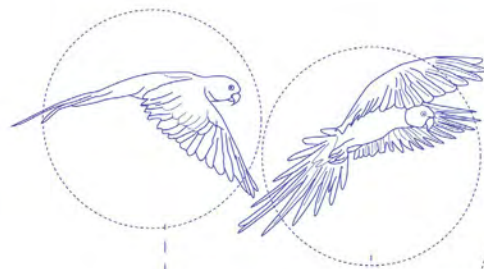
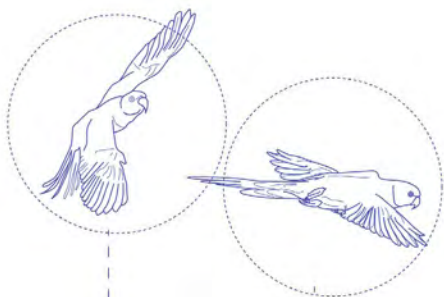
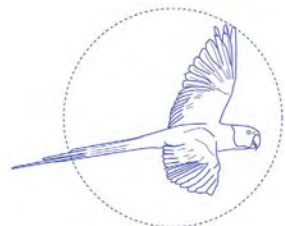
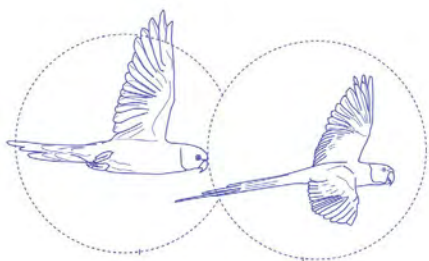
The site, which was a former sugar plantation and The Imperial Agricultural School of Bahia, contributes to the colonial system as a place that transmitted and manifested colonial mindset and ideas. Despite the colonial ideas imposed within the context of the plantation and the school, The Enslaved and emancipated Afro Brazilian in Bahia had transmuted the culture and cultivated spatial practices of Brazilian resistance through their beliefs and knowledge. Those spatial practices of resistance were Afro Brazilian Religions, the development of art forms like samba and Afro Brazilian music, and Afro Brazilian food and cuisine. We are proposing Architecture as a living archive to celebrate the resistance of colonial culture and reveal the hidden historic context of the site. The Living archive proposes the idea of cultural preservation in addition to the heritage site that was being preserved as an artifact.

The transmutation of those “counter colonial” ideas were not displayed or told within the space. Only the facade of the school, which is the symbol of the colonial system, remains. The remaining architecture acts as a mask that has hidden and suppressed the relationship between the history of Afro Brazilian resistance and the colonial history of the school. Therefore, our Interventions are making spaces for these spatial practices by bringing them to the site. We wanted to create a space for these stories and knowledge to be told alongside the colonial history of the school.

Transmutation
Analysis of "Formation" (2022) by Cyprien Gaillard









Portuguese Arrive marks the start of the Colonization in Brazil



Sugarcane Plantation

By the mid-16th century Brazil had become the world's leading producer of sugar. The importation of these commodities helped to fuel the growth of the Portuguese economy and enrich the Portuguese monarchy and aristocracy.



Slaves were packed into ships and transported across the Atlantic under terrible conditions, with many dying from disease, starvation, and abuse during the voyage.

Once they arrived in Brazil, enslaved Africans were sold at slave markets and put to work on sugar plantations and in other industries.



African slaves were brought to the town São Francisco do Conde



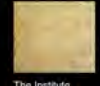
The town São Francisco do Conde was ruled by the Benedictine monks.



The Benedictine monks petitioned to build the São Bento Dos Lagos Sugarcane plantation in addition to their previously owned sugar mills.



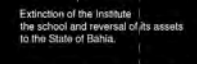
Through Imperial Decree No. 2,500-A, D. Pedro II created the Imperial Bahian Institute of Agriculture, inaugurated in a solemn session presided over by the emperor, at the Imperial Palace of the capital of Bahia.



The Institute creates a commission in charge of proposing the project to create the Agricultural School of Bahia.



Founded with the primary goal to modernize and promote the poor agricultural productivity and technological backwardness.



Extinction of the Institute the school and reversal of its assets to the State of Bahia.



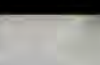
The administration of the Agricultural Institute of Bahia passes to the Federal Government, which transforms it into the Theoretical Practical Middle School of Agriculture.



The Federal Government extinguishes the school.



1930s "Modernization" in Brazil.



Decree No. 10,821 recreates the institution as the Bahia Agronomic School and determines its internalization.



The School is transferred to the new Bahia Agricultural School in the city of Cruz das Almas-BA.



Creation of the Higher Agricultural Teaching Memorial of Bahia and the donation of the headquarters mark the beginning of the process of organizing the remaining heritage of the former Agricultural School of Bahia.



Present

Cultural Transmutation and Resistance

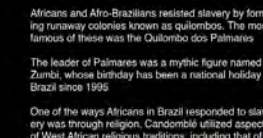
Cuisine



Dance & Music



Religion

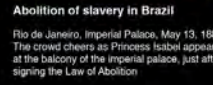


Portugal

Brazil

Africa

Transatlantic Slave Trade System
Enslaved Labor was a key factor in the success of the Brazilian Sugar Factory

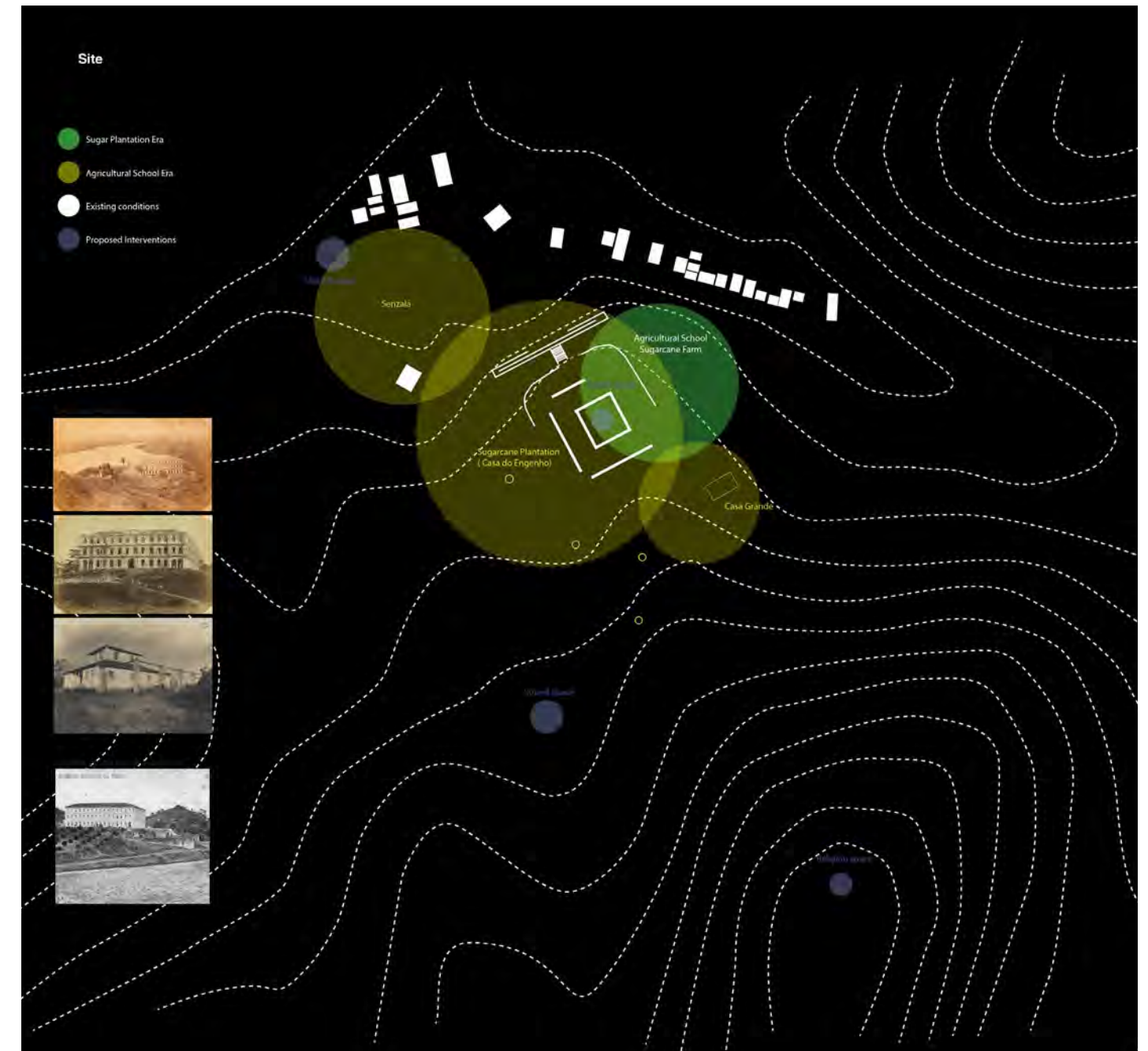




Town of São Francisco do Conde

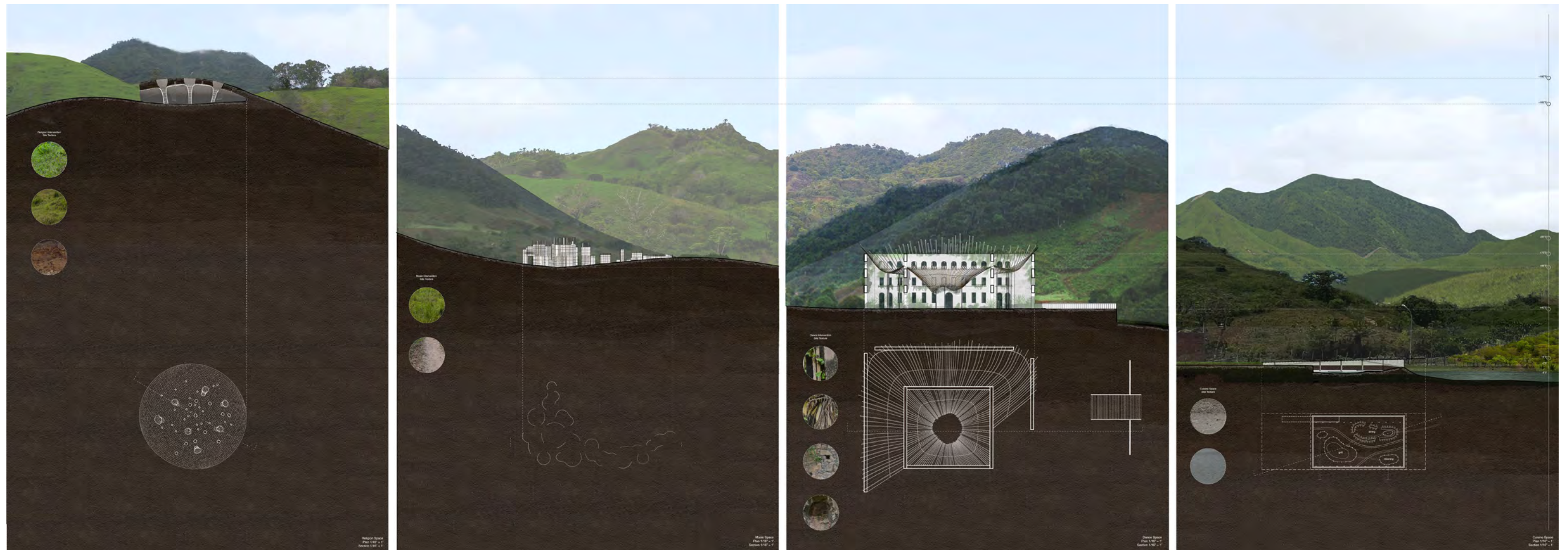


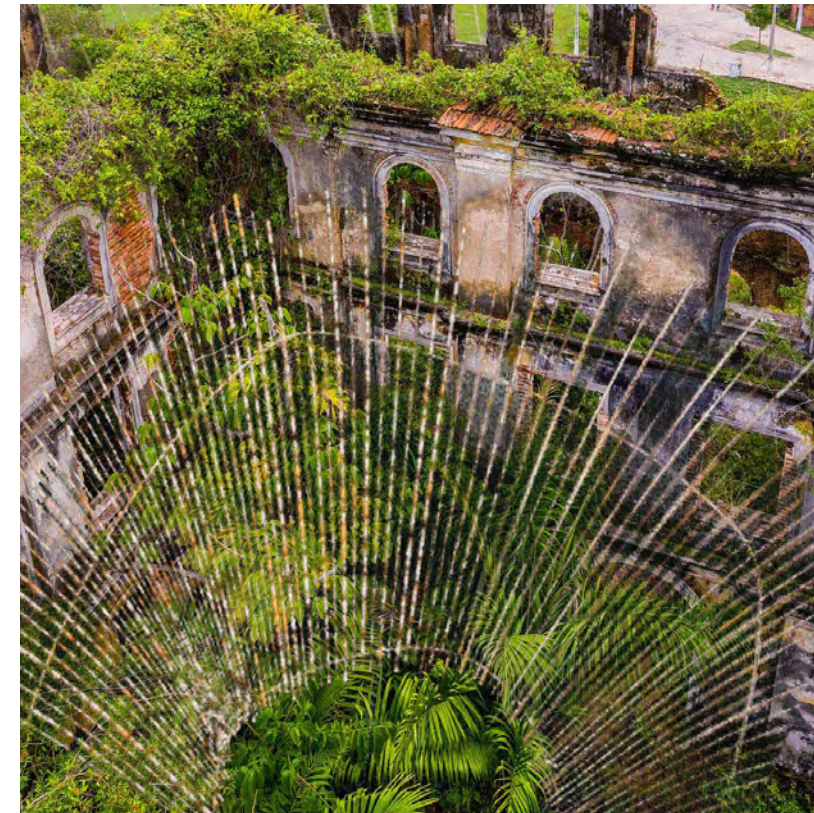
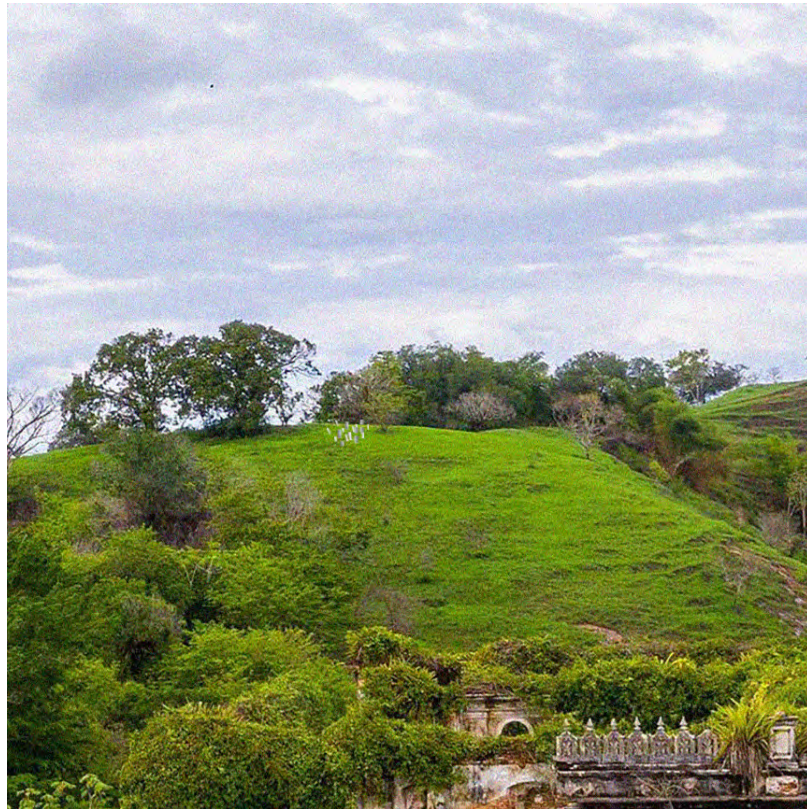
Site usage in different eras

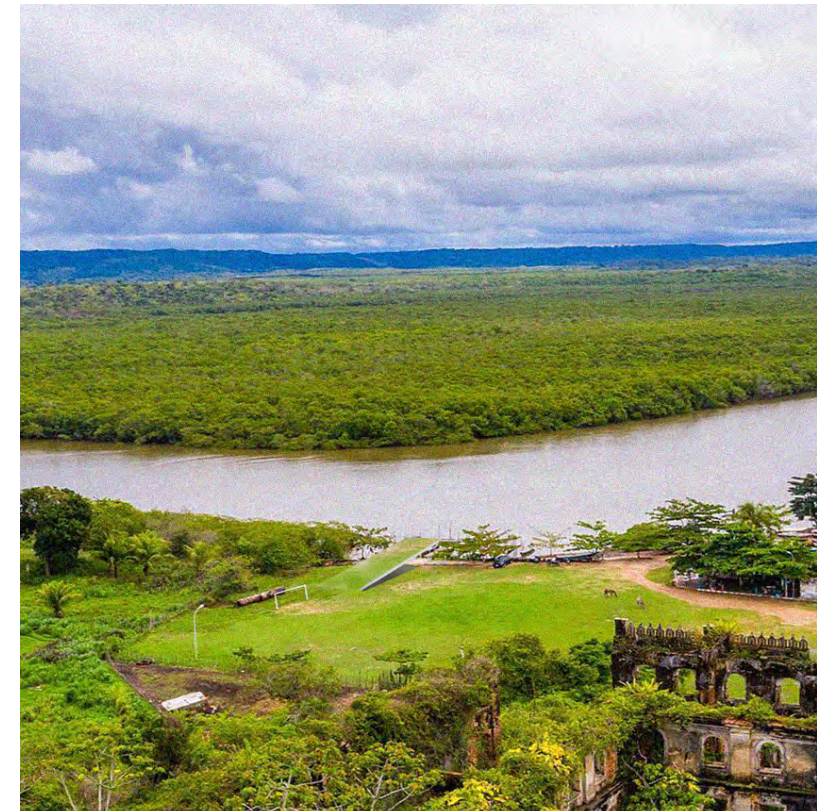




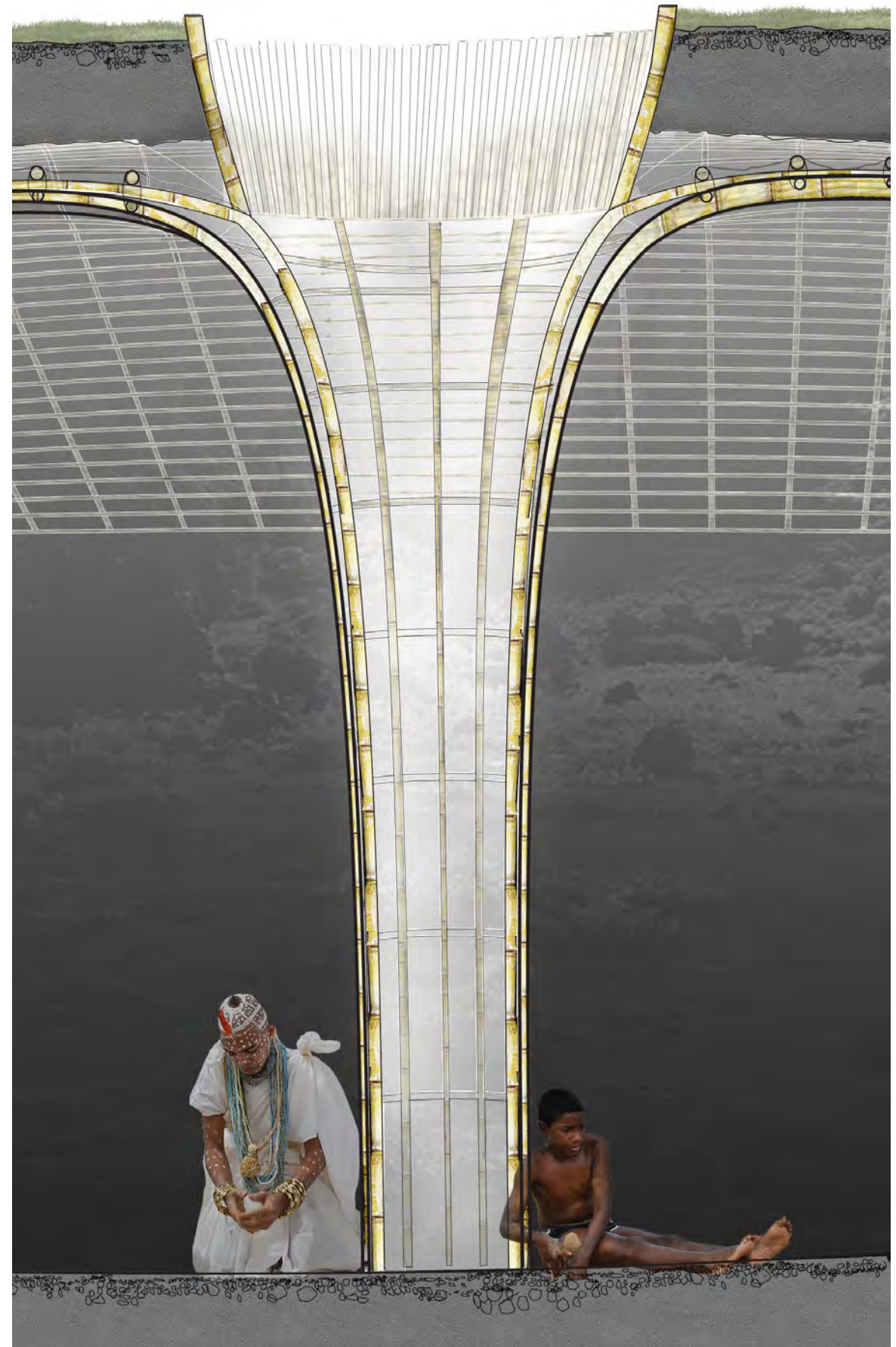
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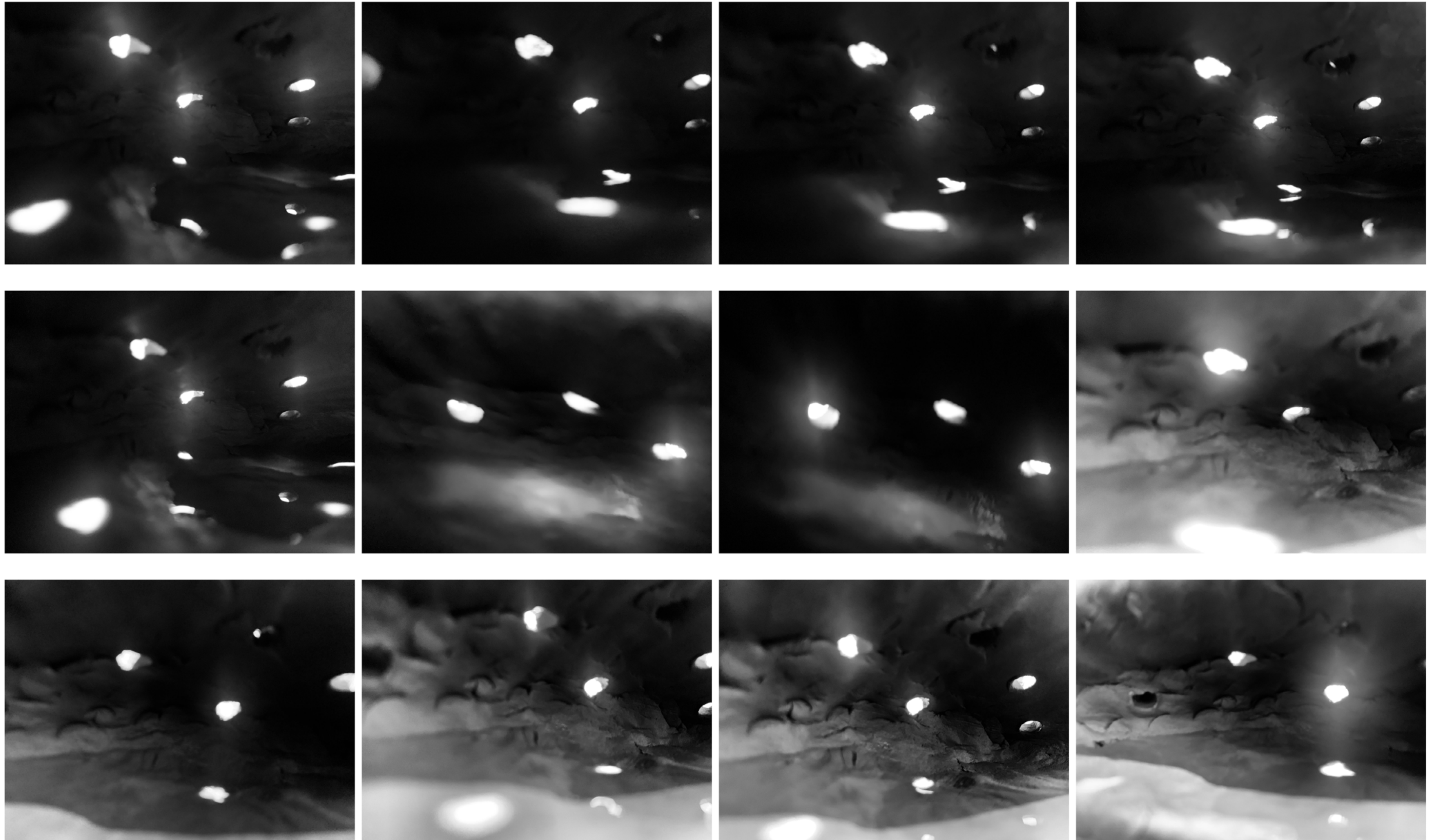














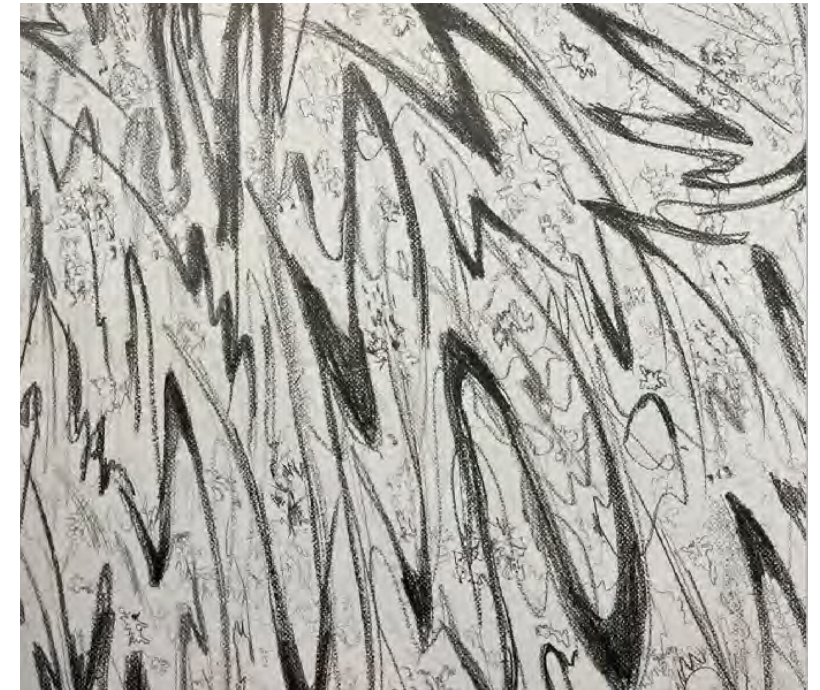




Alien Drawing: Story of Earth

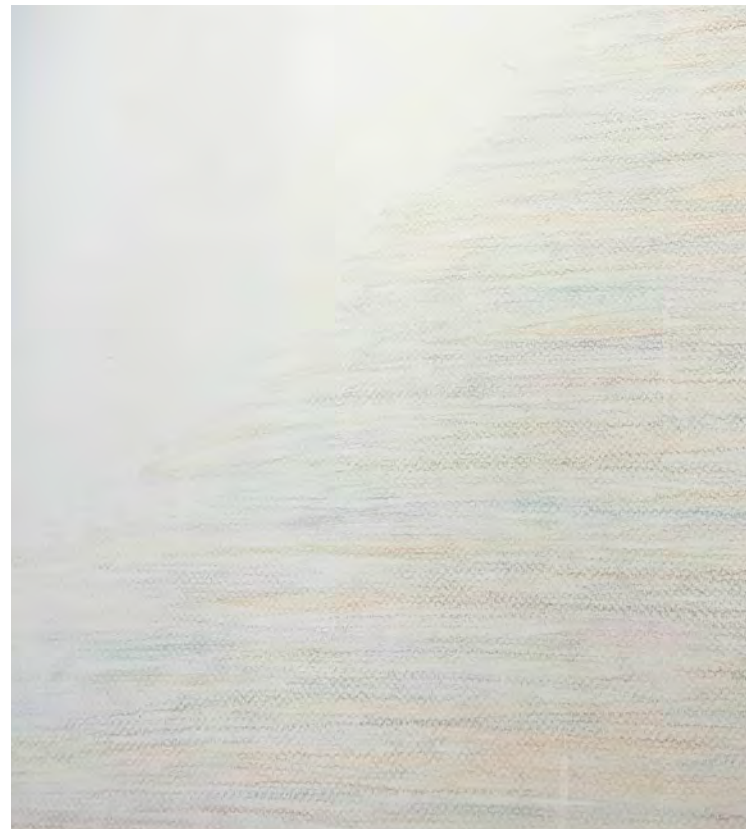


Alien Drawing: Story of Water



Alien Drawing: Story of Air

Performance Drawing



Make

Fall 2022

Instructor: Ada Tolla, Giuseppe Lignano

The project focuses on looking at materials beyond their discarded status, by reflecting on its potential, and reframing its visual and cultural significance through hands-on engagement with leftover things as an exploration of my own questions, concerns, inquiries and identities.

Based on repetition and routine.

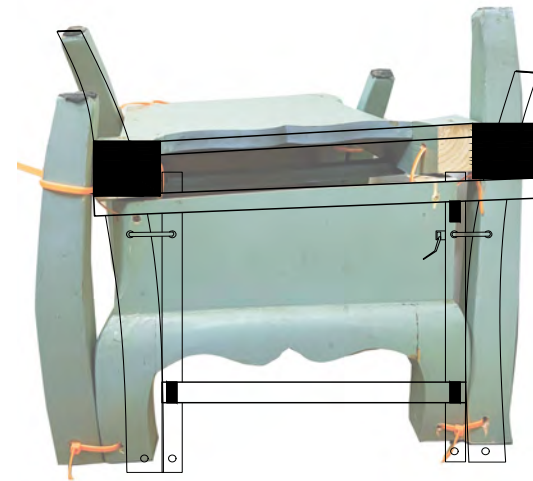
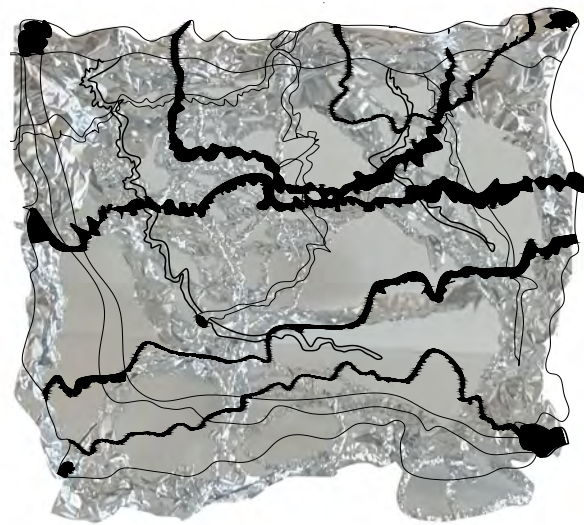
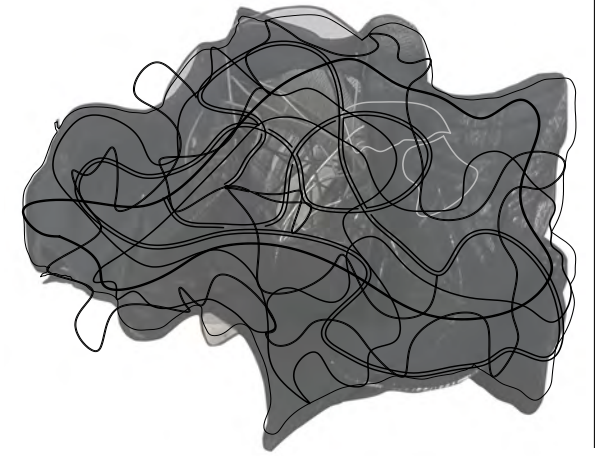
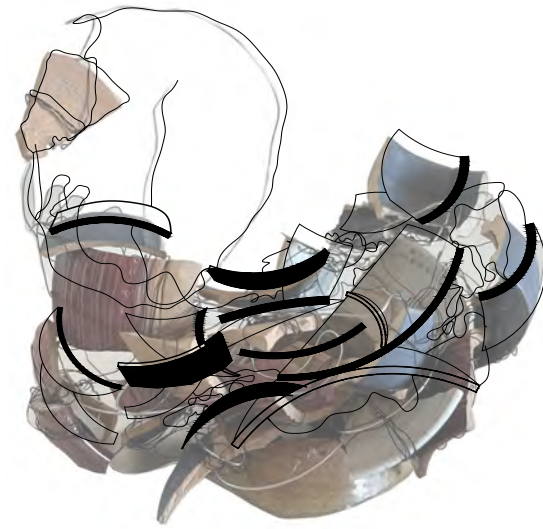
Creating, making, and destroying things over and over

Volume by volume

in a 12"x12"x12" constrain

The project leads to the uncoveries about our personal selves through the act of "making" and transforming





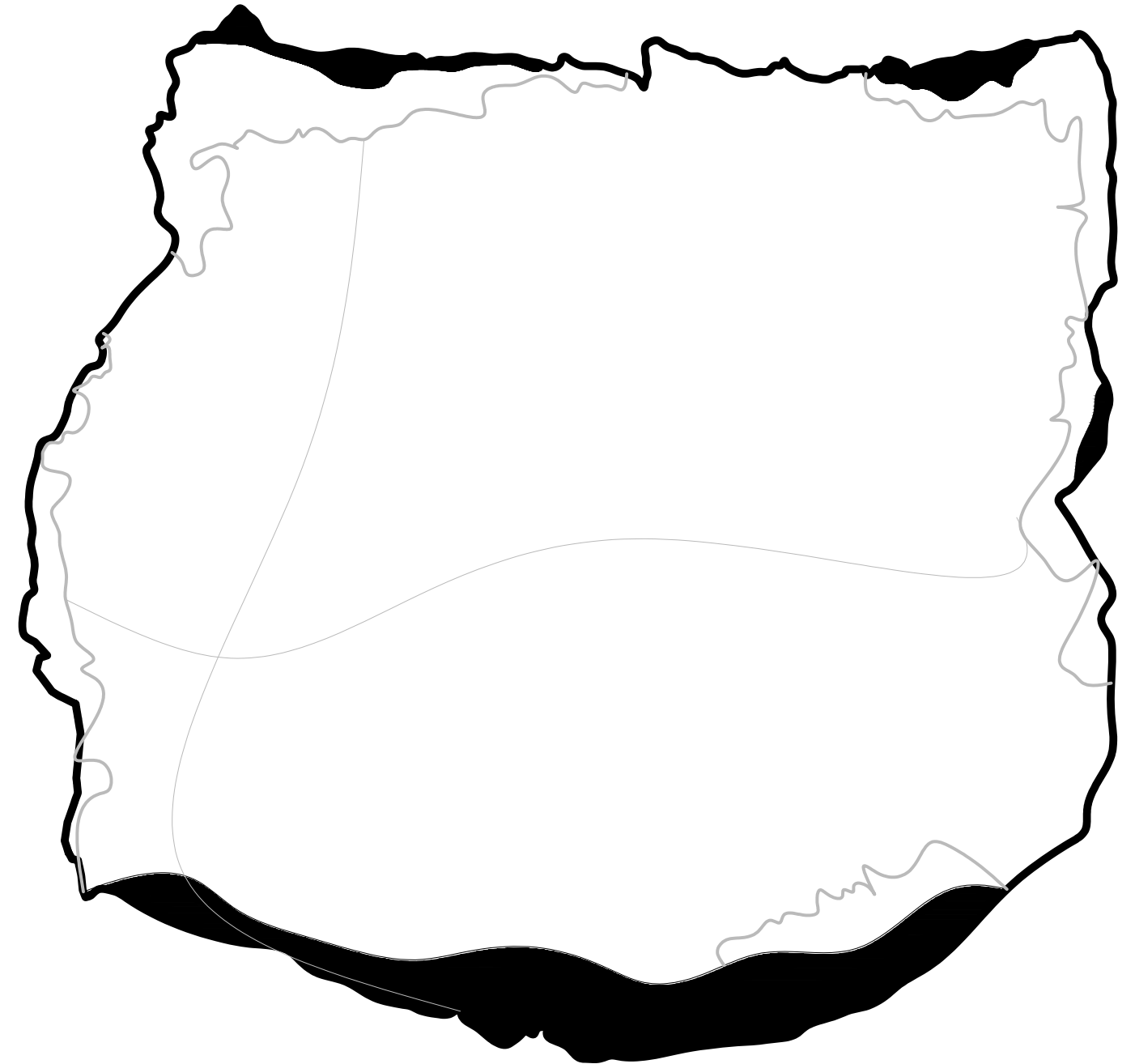
Plastic
week 1-2

Metal
week 3-4

Concrete
week 5-6

Wood
week 7-8

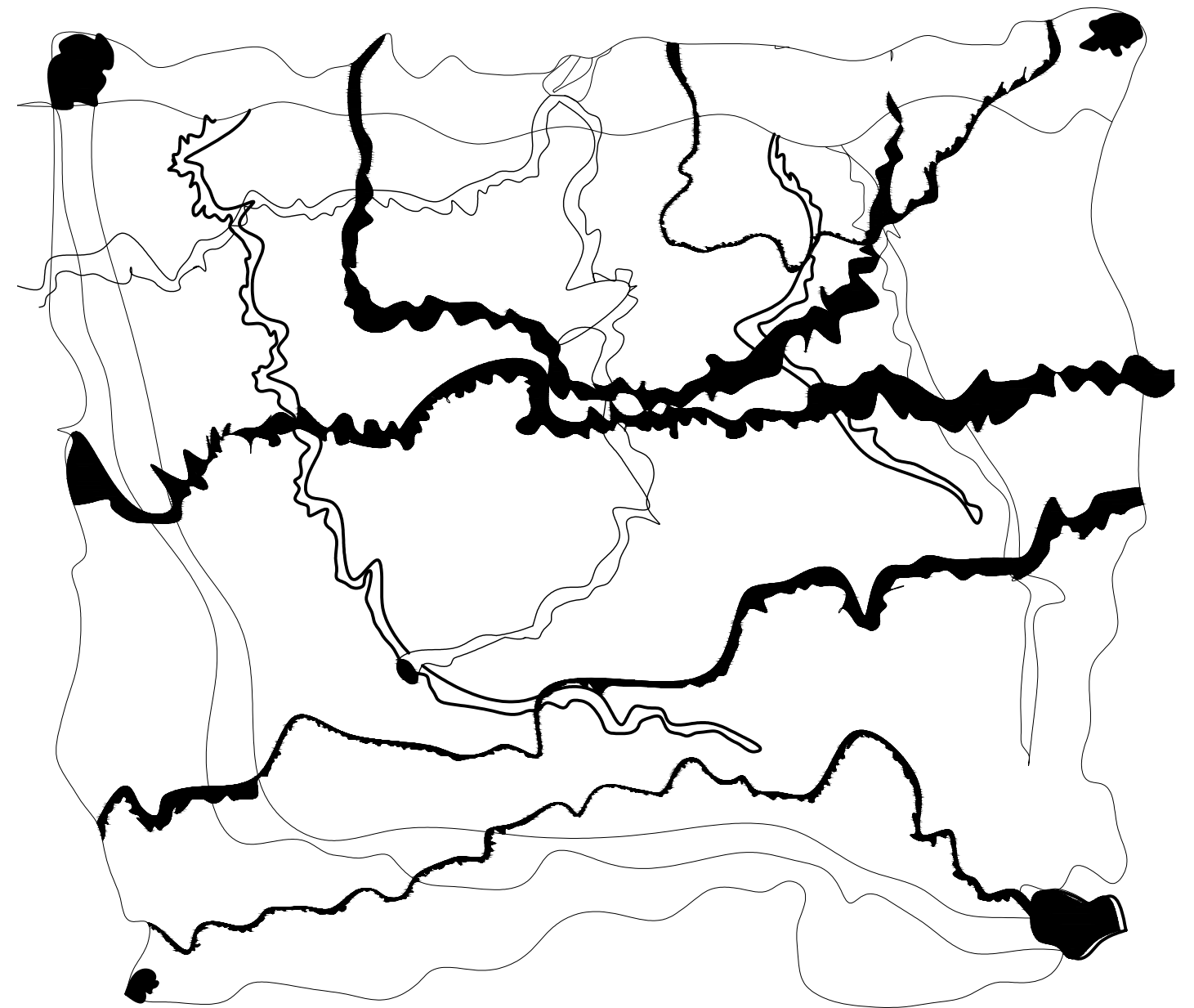
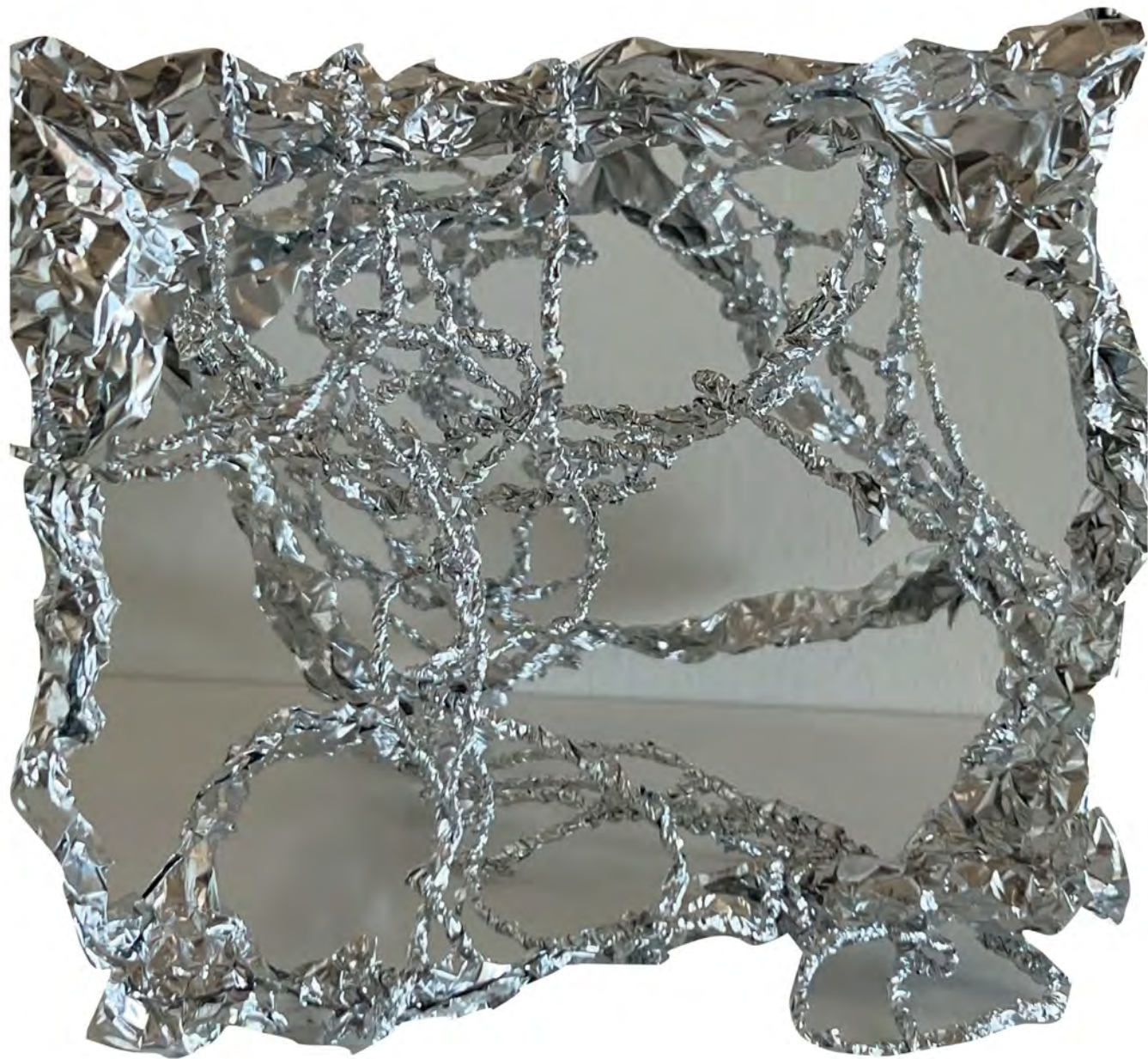
Fabric
week 9-10



Plastic

I remember watching my aunt sealing plastic bags containing traditional Thai sweets back in 2012 for Songkran day (Thai New Year). The memory inspired me to experiment with heat on plastic.

I experimented with two main methods of heating on various types of plastic I found, by heating with fire and heating through a machine. With fire, the plastic could be melted, molded and reshaped. With the machine (in this case I used the bottom of a heated pan to substitute an iron), the plastic turns into a flat solid object. The volume was created by melting the heated plastics together.



Metal

This volume happened through the exploration of the concept of "Decay." The state or process of rotting or decomposition and the act of putting something together after a destruction. I made a "cube" volume composed of aluminium foil. The material which displays all the physical circumstances that it went through. This quality of this material captures the concept of decay, since it is a materia that looks hard but has the ability to shift and transform with every delicate touch from the environment.



For this second metal volume, I created another volume identical to the first, then started destroying the inside of the volume and kept the frames. After seeing all the crumbled and destroyed pieces, I decided to crumble the material even more, which eventually turned into the method of twisting. I tried to put the extracted pieces back into the volume, then I made another volume composed of 6 12"x12" foil sheets, and put them inside this volume.



Concrete

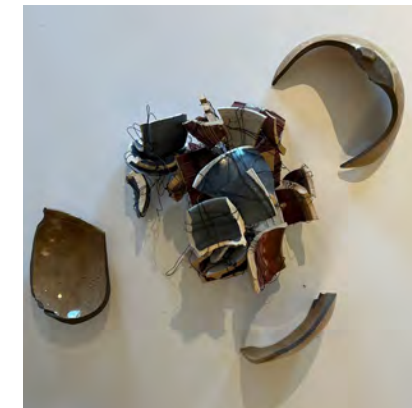
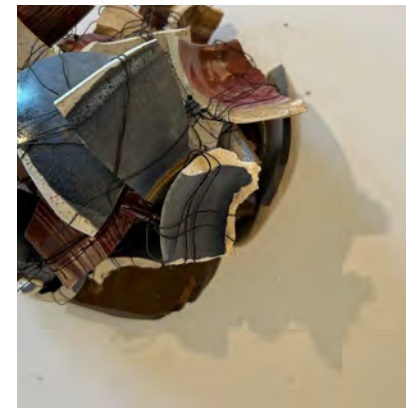
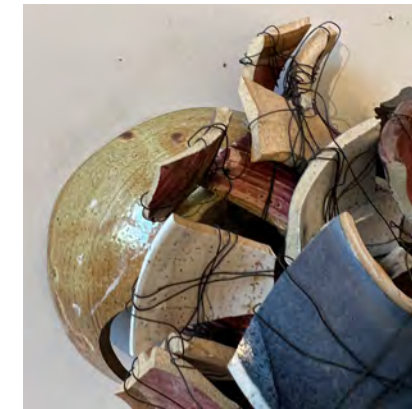
Earthy Materials. I was reminded of my childhood walking around the temples in Thailand, seeing ceramics bring used as a building material. I got these ceramics from a local pottery on the Upper West Side. They were about to throw them away. The pieces were already chipped and broken. I decided to further broke them into pieces.

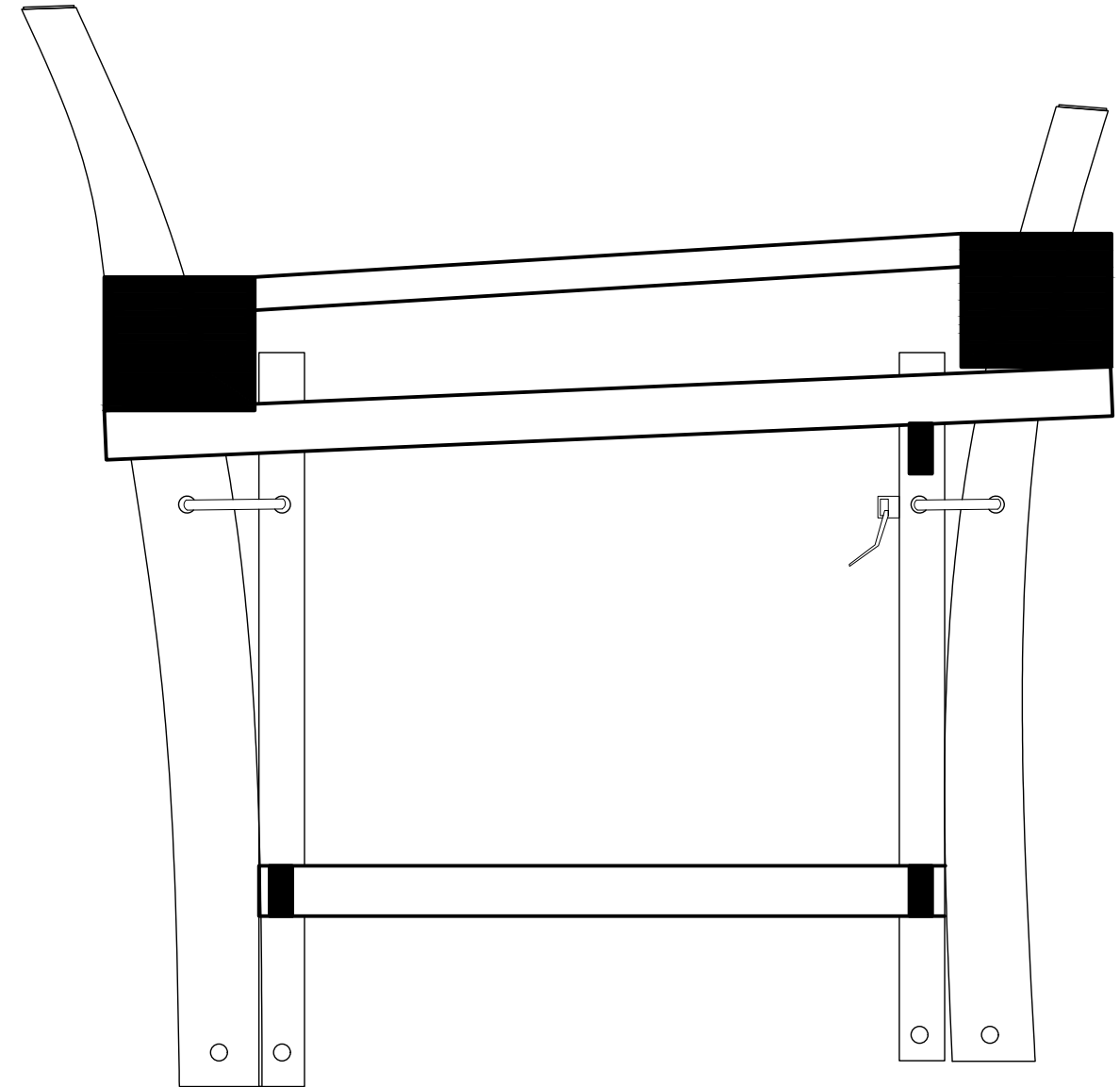
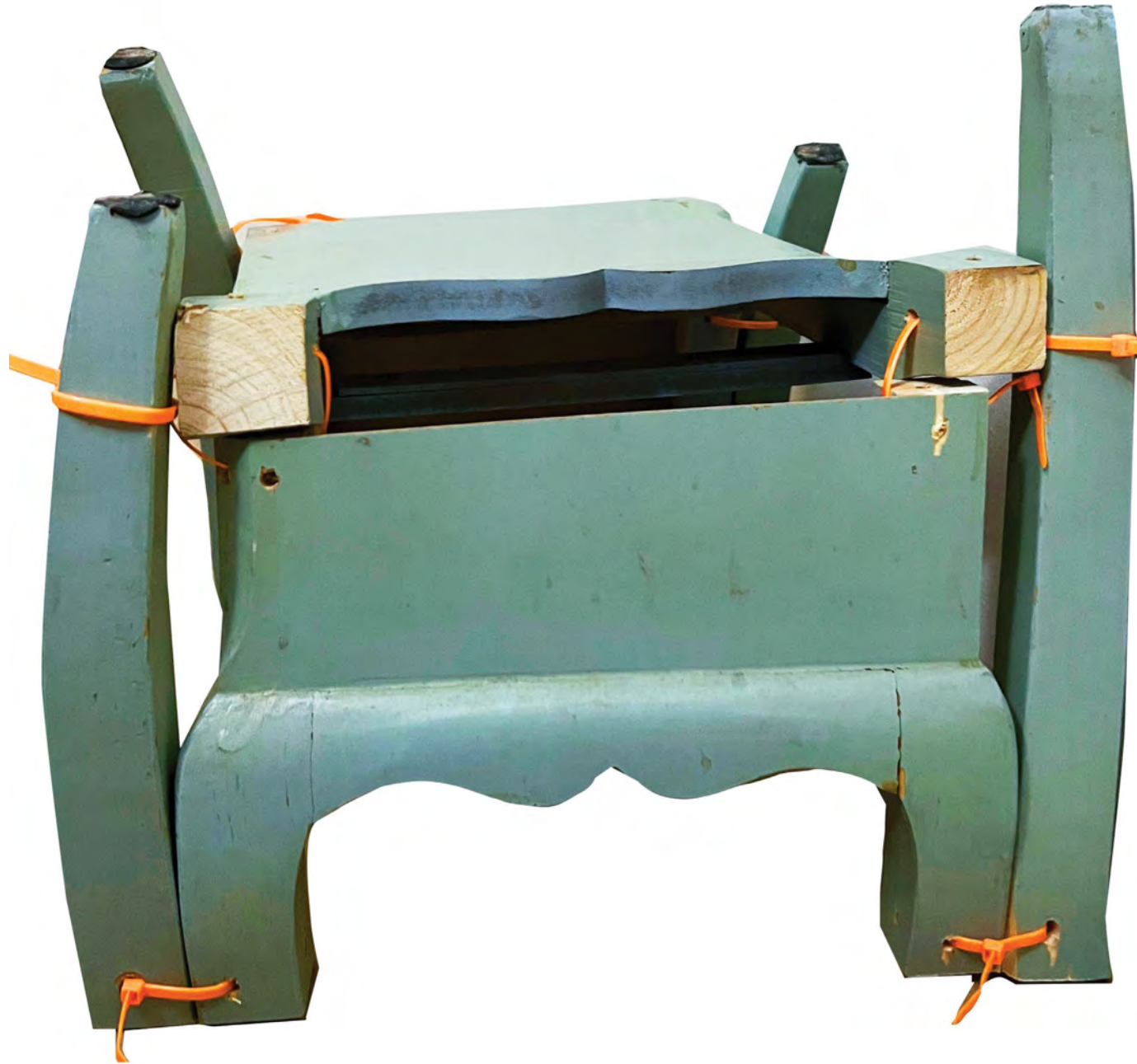
I hammered the first object once.

I hammered the second object twice

I hammered the third object three times.

Then, I recomposed the materials back together. They can be pulled out as one string.

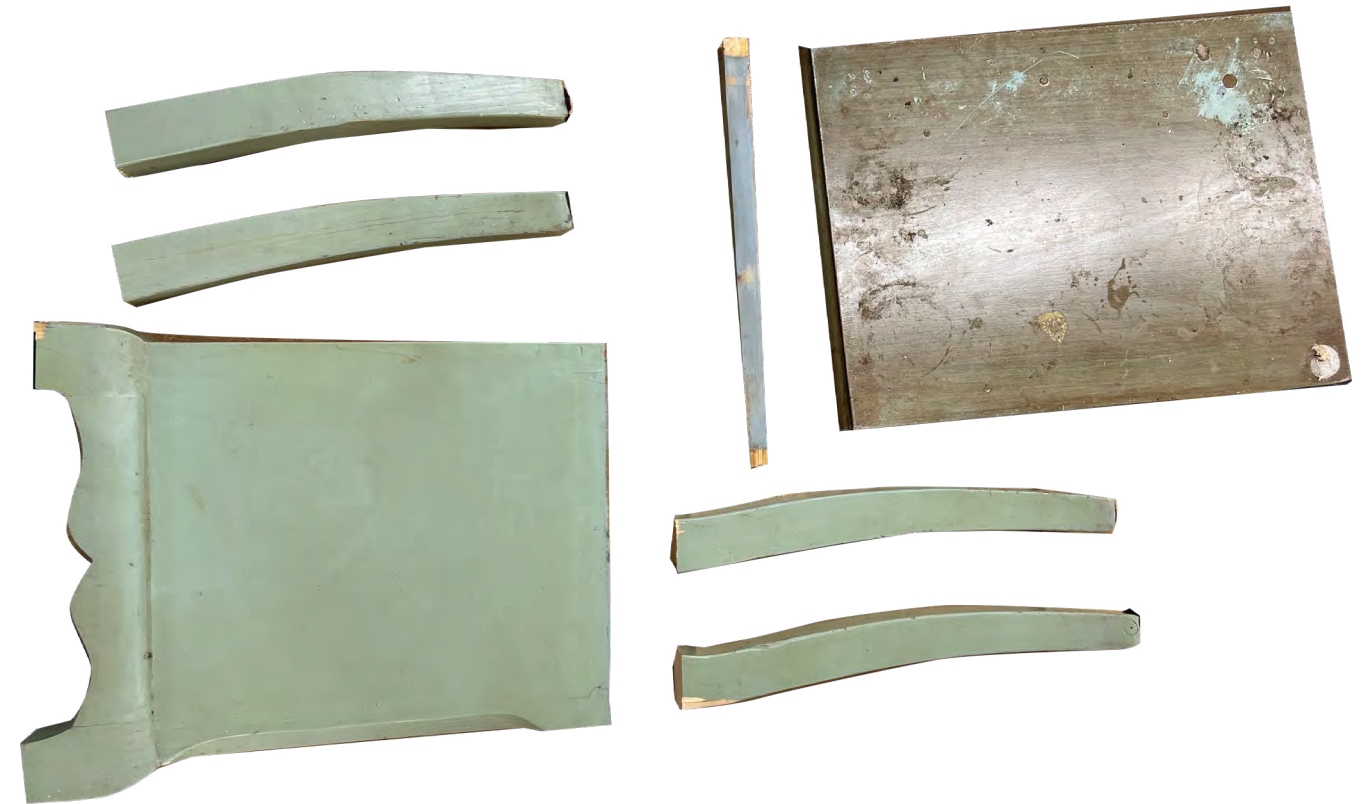


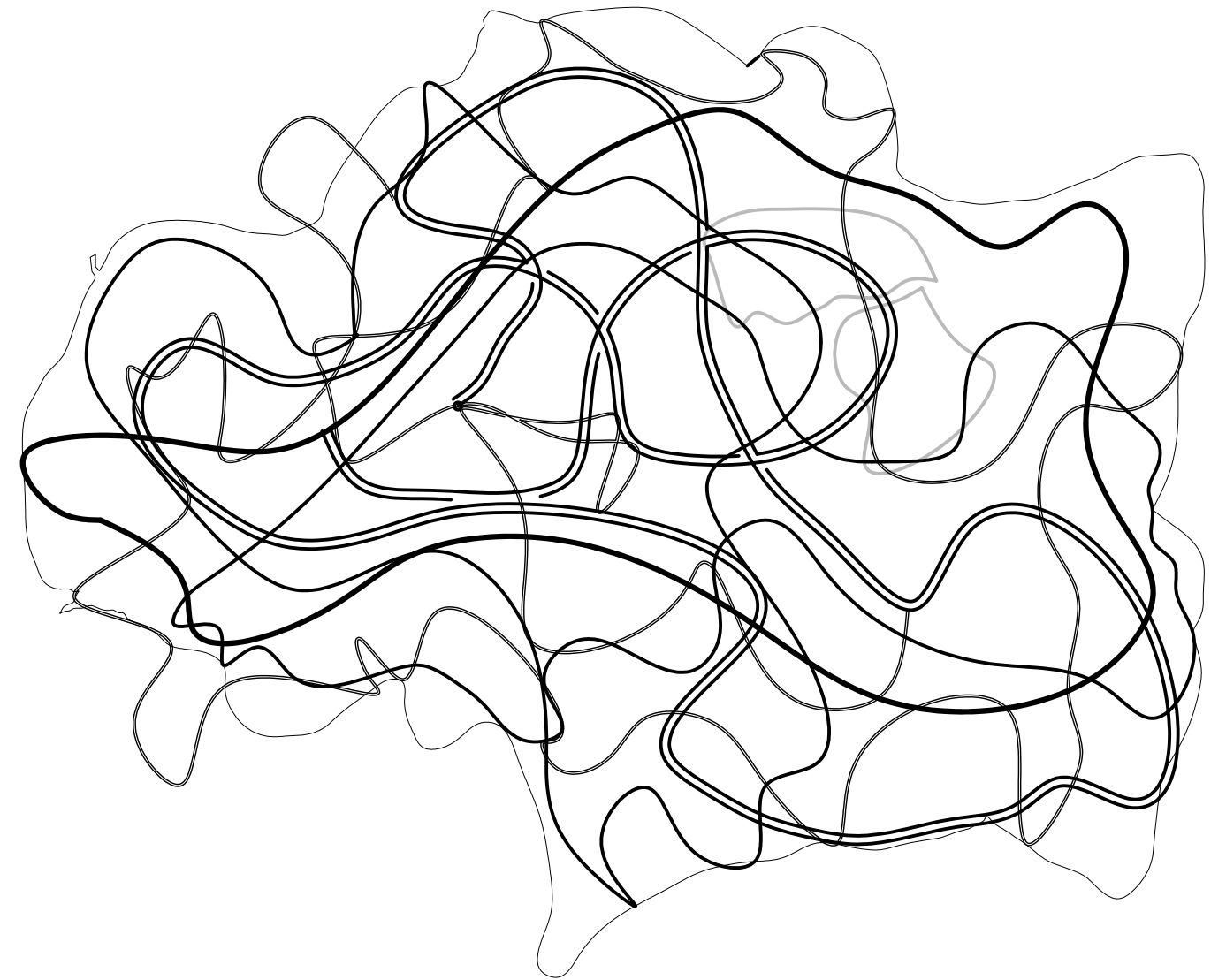
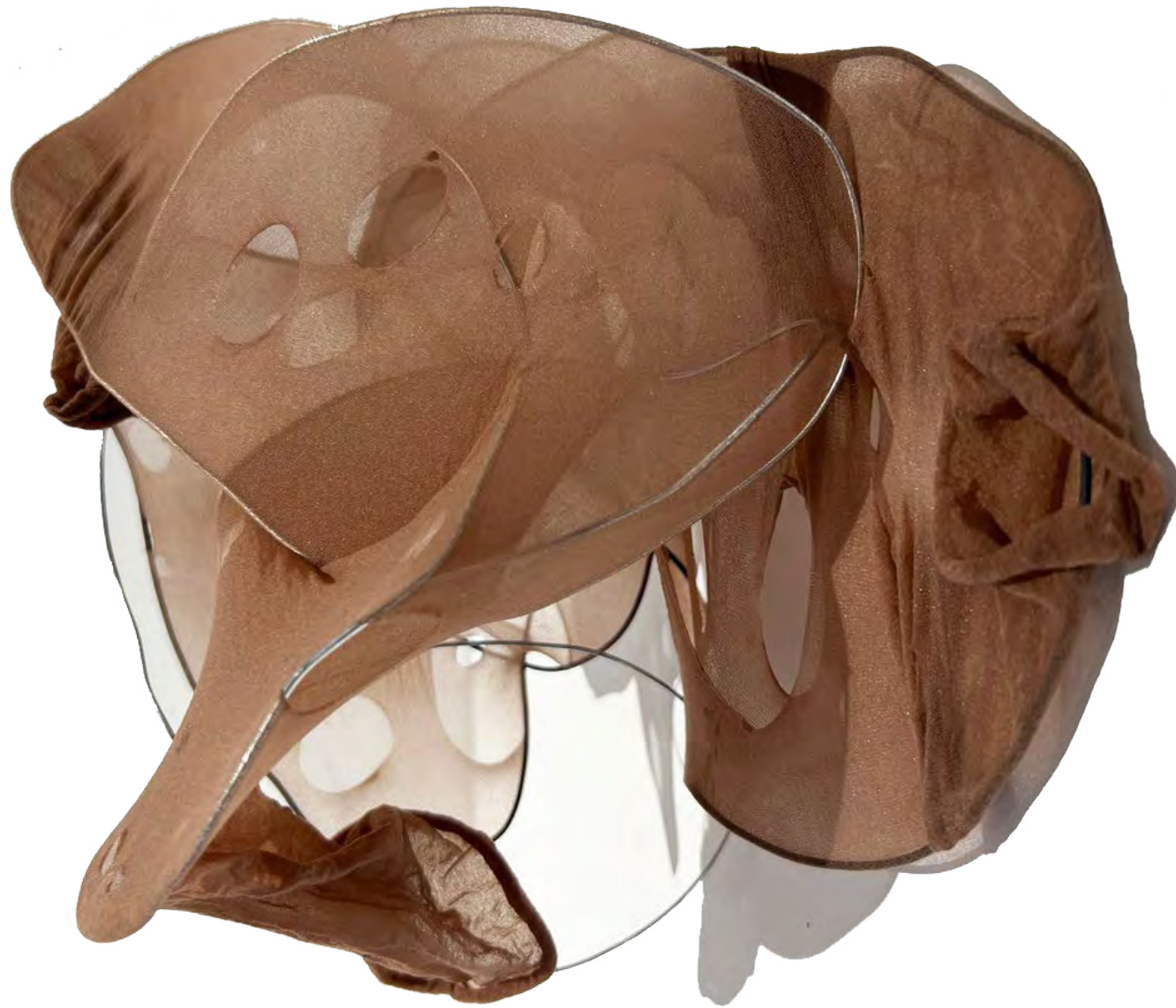


Wood

As I was walking down the street back from studio in September, I found a broken blue side table left on the curb. I immediately knew that I wanted to experiment with this piece of furniture.

The furniture was already broken. Pieces of wood were Dangling in various places. I decided to break it apart even further then I tried to assemble the compositions together throughout the first week. The pieces kept coming apart so I decided to experiment with the piece by drilling holes all around the disassembled pieces I tried using materials such as metal wires, ropes and threads but I ended up picking the cable wires because of the contrast of the colors of the wires and the wood.





Fabric

I tried to rip the tights from the inside. By inserting wires into each leg of the sheer tights, I started to rip the tights by pulling and twisting the wires outwards.

For this session I wanted to test out the limit of the tights so I decided to use only one leg and my aim is to stretch it out to a 12x12x12 volume. I bought a semi sheer black tights for this session, so that it would go from solid to transparent as the tights kept ripping. I started by shoving a bundled up 2 meters long wire into the tights, then I started pulling. However, the semi sheer tights are stronger than I had thought, so I kept cutting out 1 meter wires and shoving it inside. I ended up using a total of 5 meters of wire.



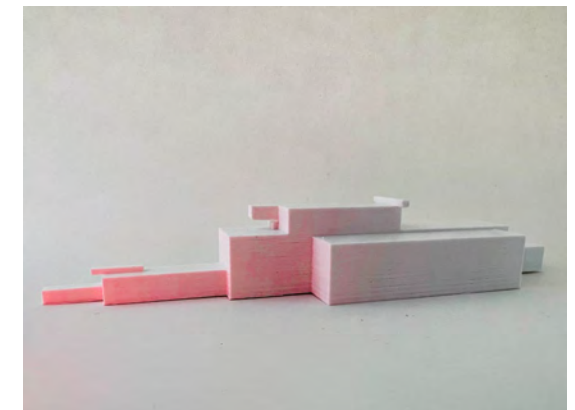
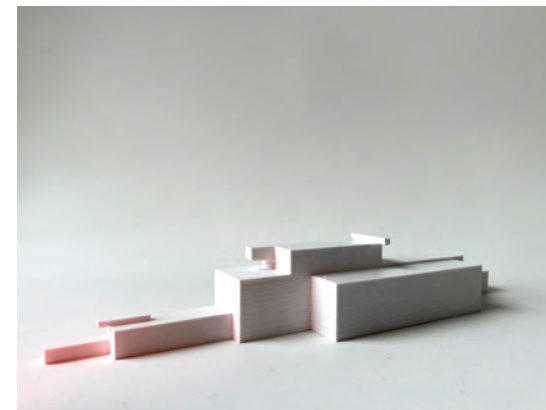
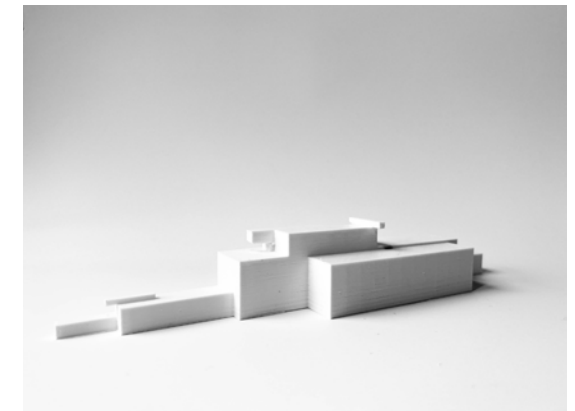
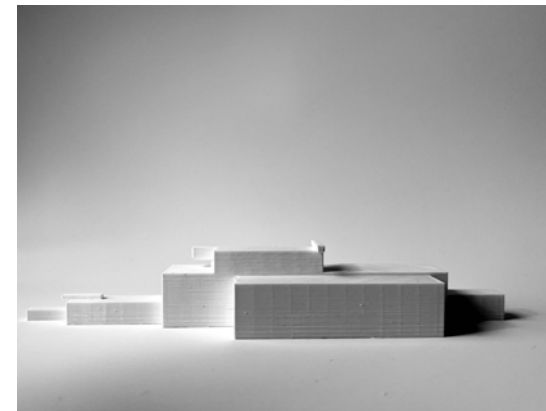
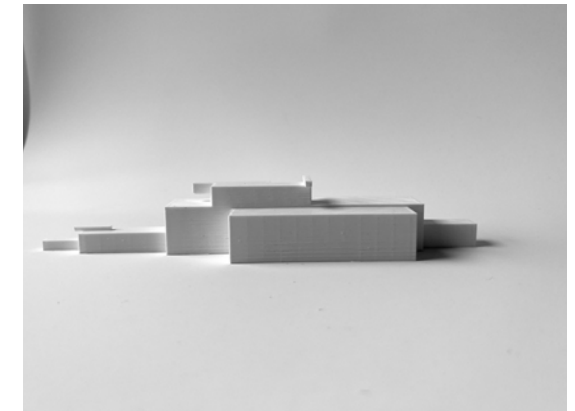
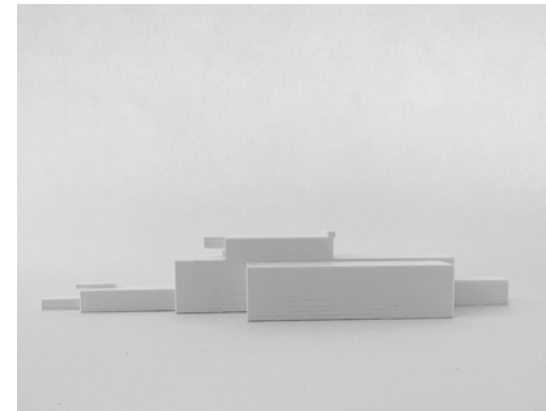
Arkhitekton, canvas to space

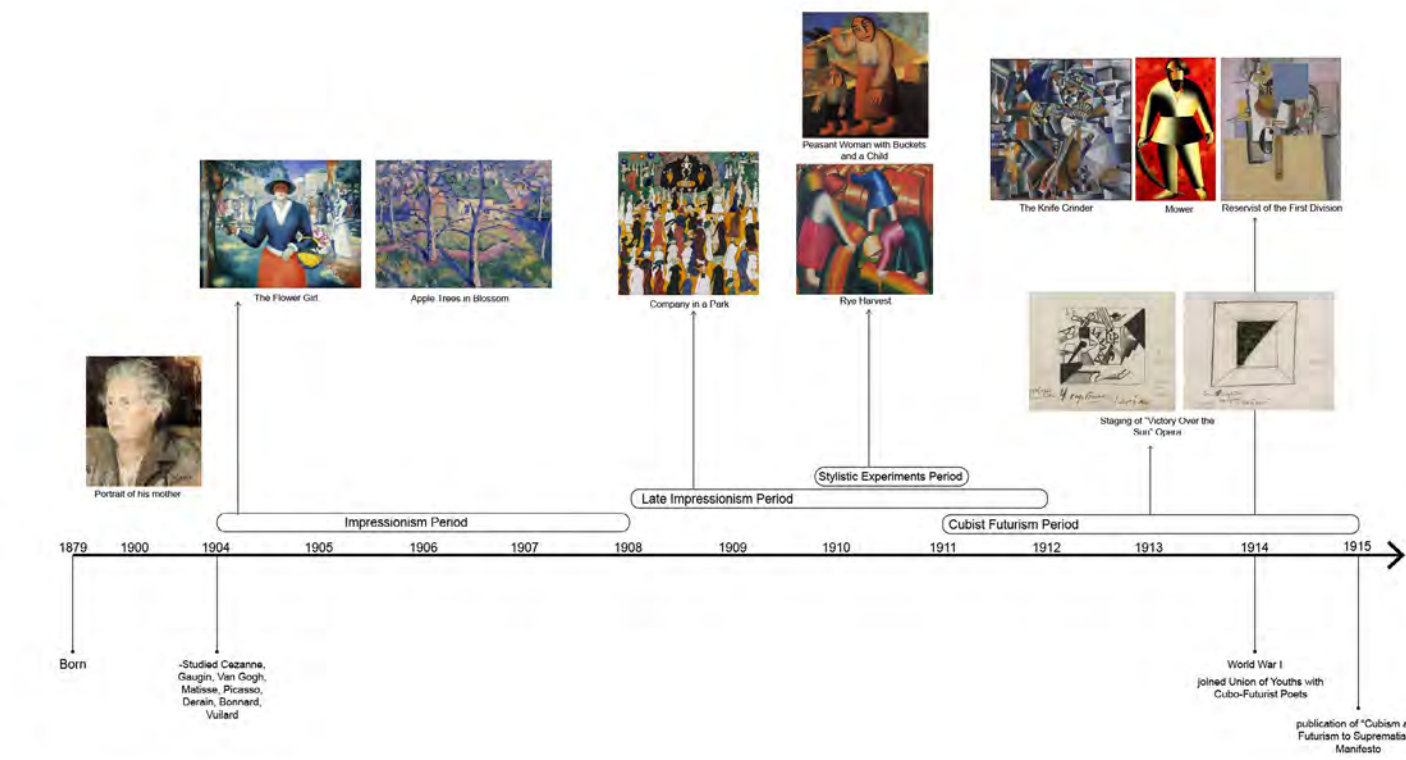
Fall 2022

Instructor: Steven Holl, Dimitra Tsachrelia
Seminar Elective

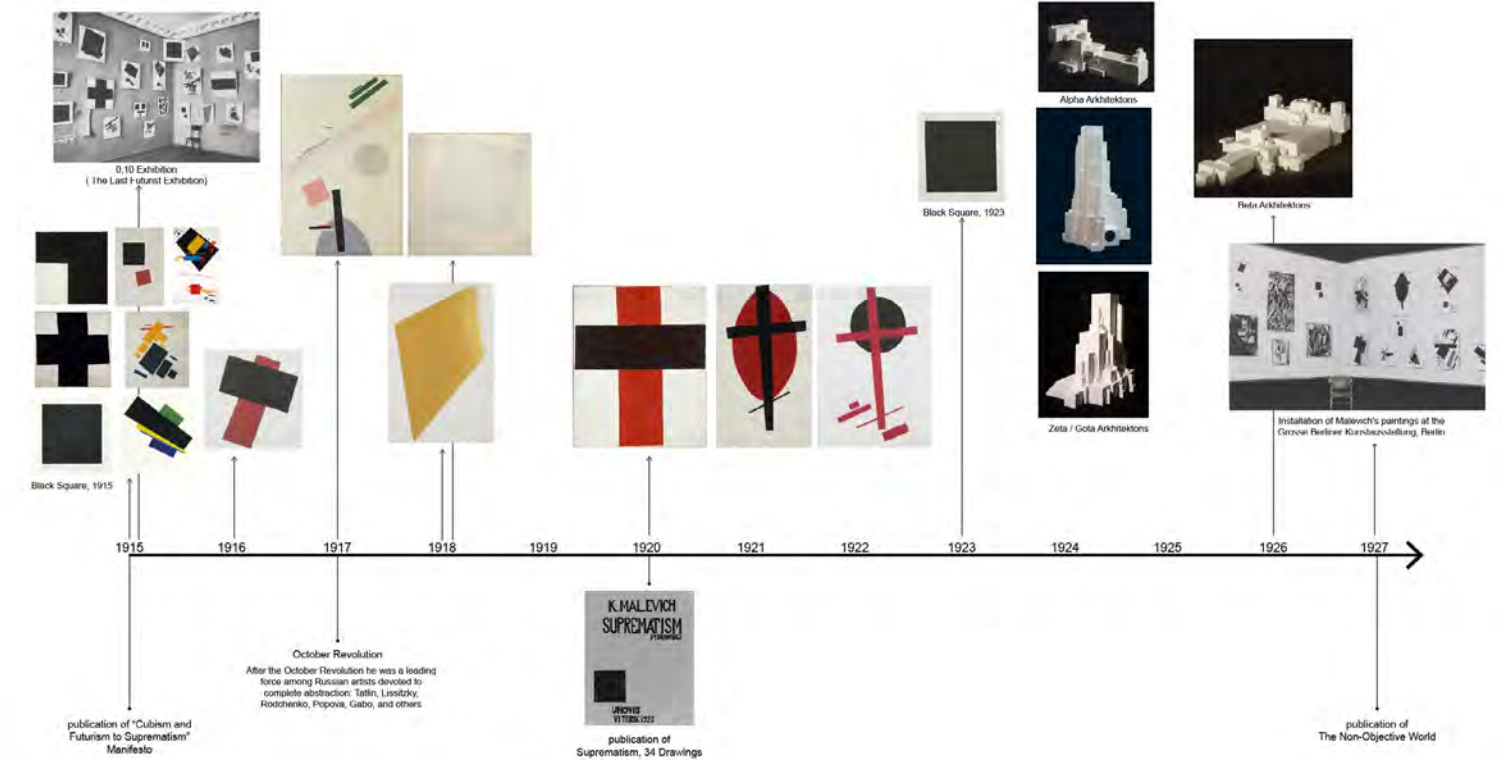
The project analyses the relation between
Suprematist paintings and Arkitektons made
by the Russian artist Kazimir Malevich over the
period of 1915 to 1924.

Through the idea of the “dynamic” The
transition of the Suprematist Principle elements
from the canvas to space has manifested itself
in Malevich’s painting to his arkhitektons





Source: Malevich, Impressionism and revolution in Russian Art 1915-1920. "From Cubism and Futurism to Suprematism", Series of Malevich Essays on Art



Source: Malevich, Impressionism and revolution in Russian Art 1915-1920. "From Cubism and Futurism to Suprematism", Series of Malevich Essays on Art

Original State



Shift of Plane



Shift of Plane +
Added Light Source



Malevich's
Expression of Movement

Re-interpretation of Malevich's
Suprematist Painting

Re-interpretation of Malevich's
Arkhitektion



Original State

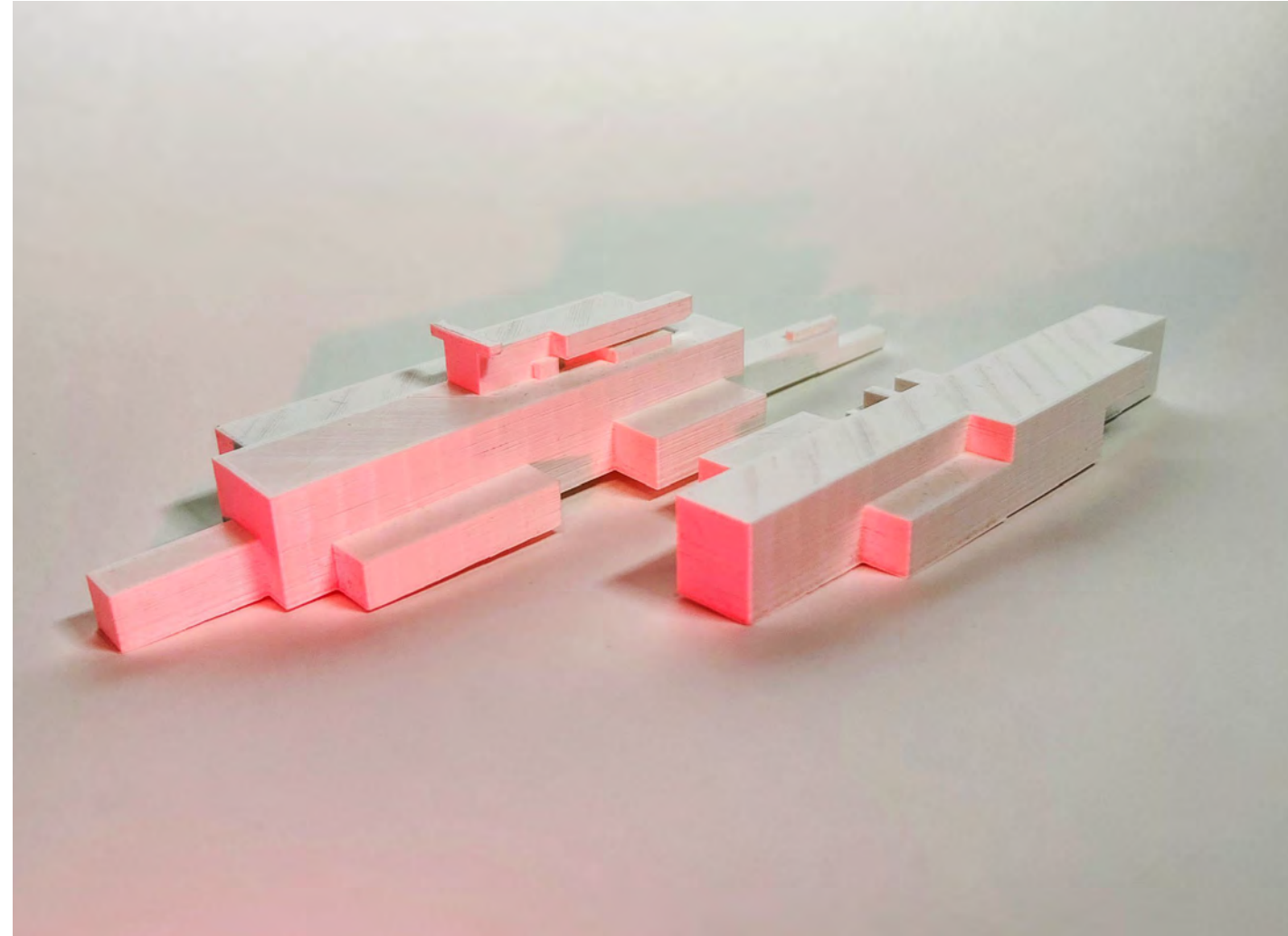


Shift of Plane



Shift of Plane +
Added Light Source

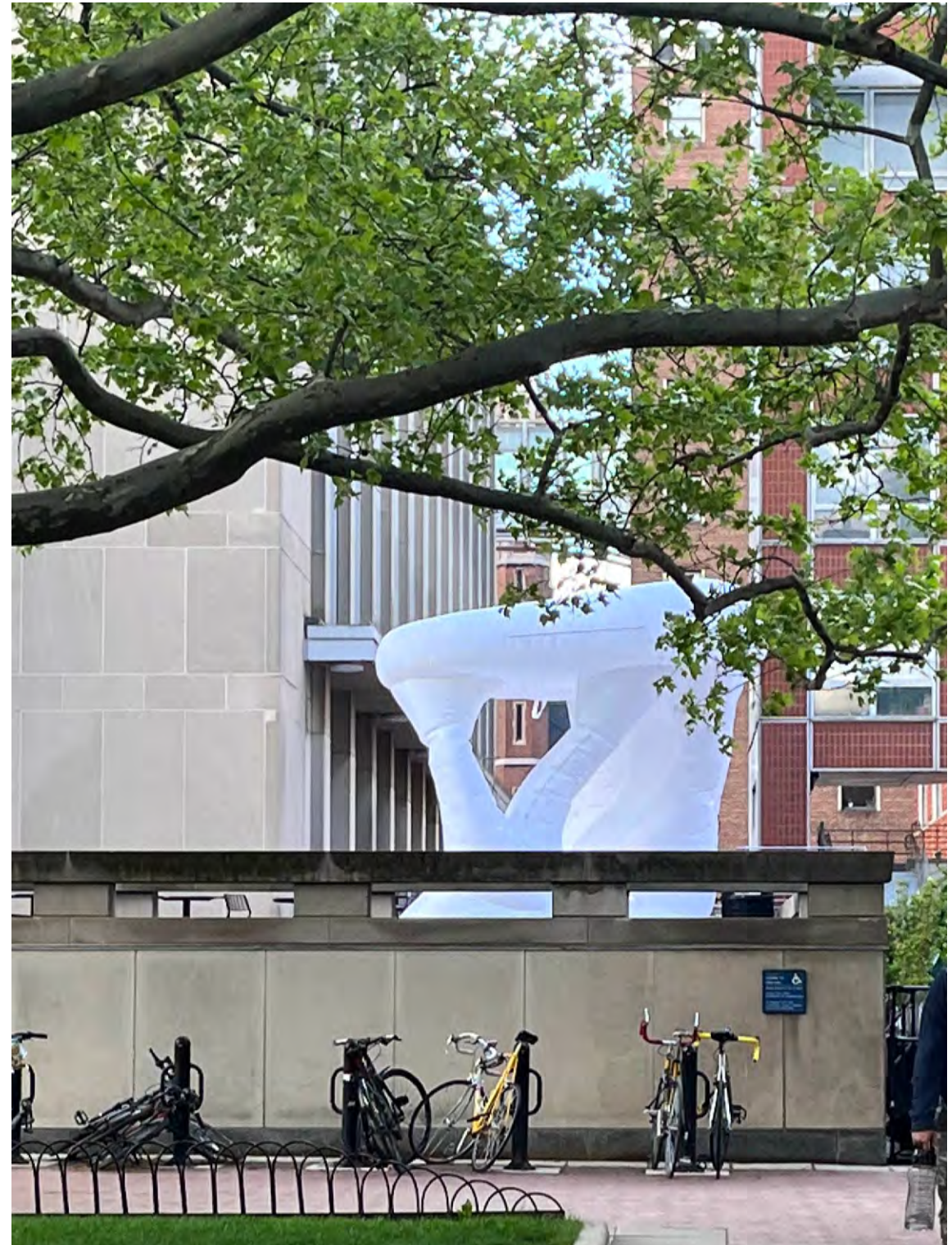
Re-interpretation of Malevich's Arkhitekton through Photography



Goo Cloud Pavillion

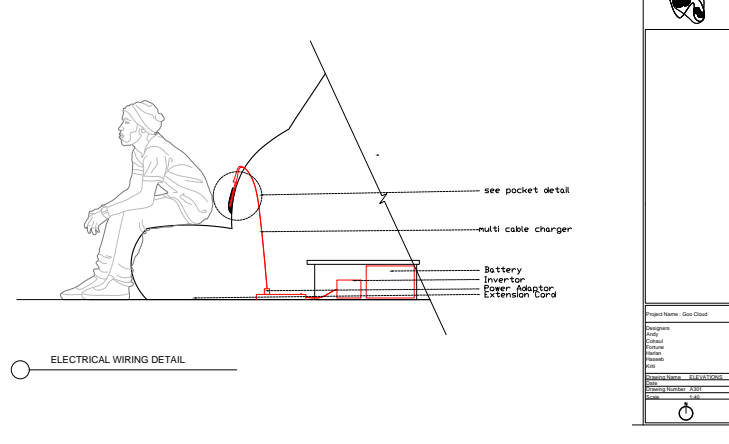
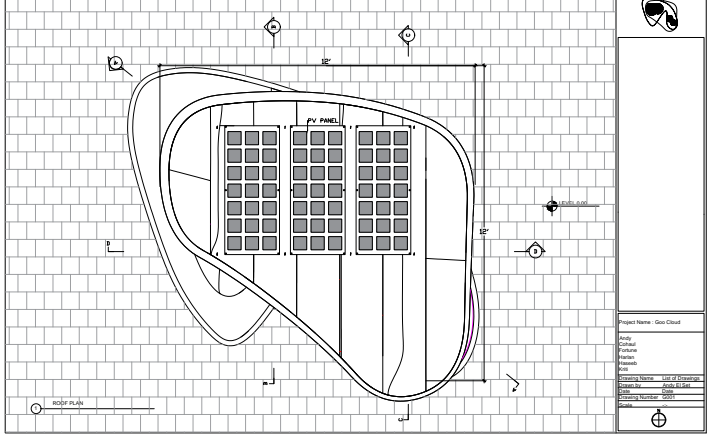
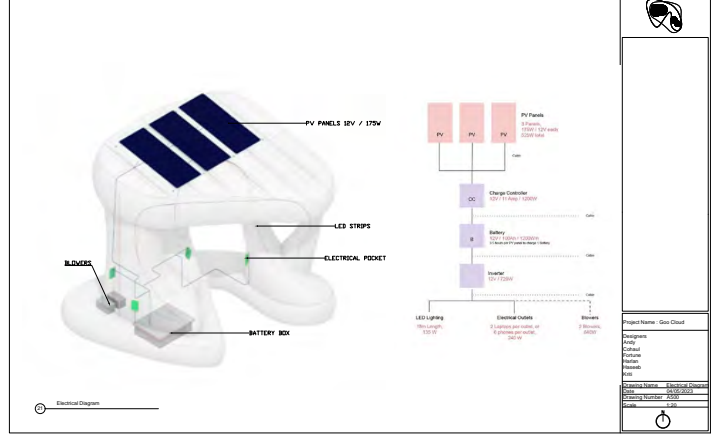
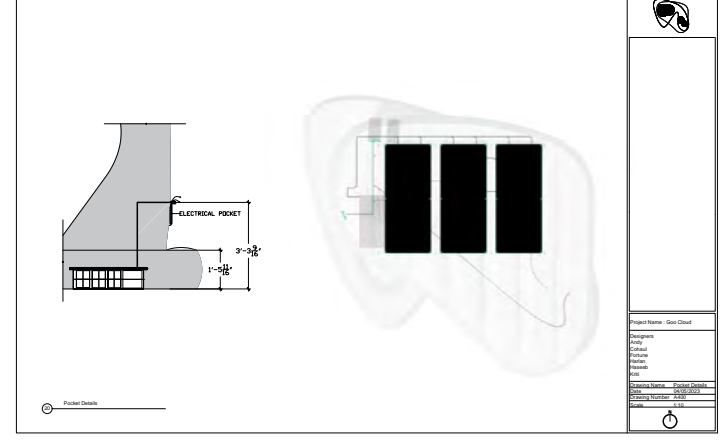
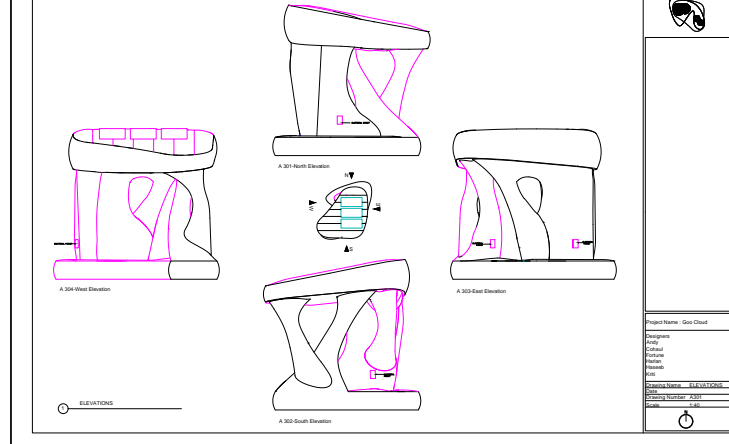
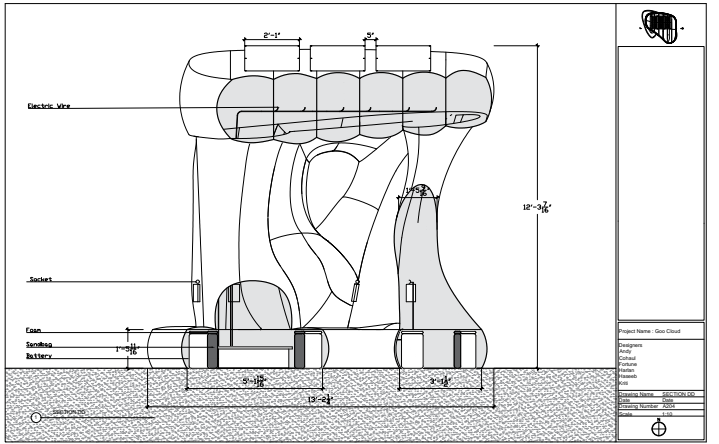
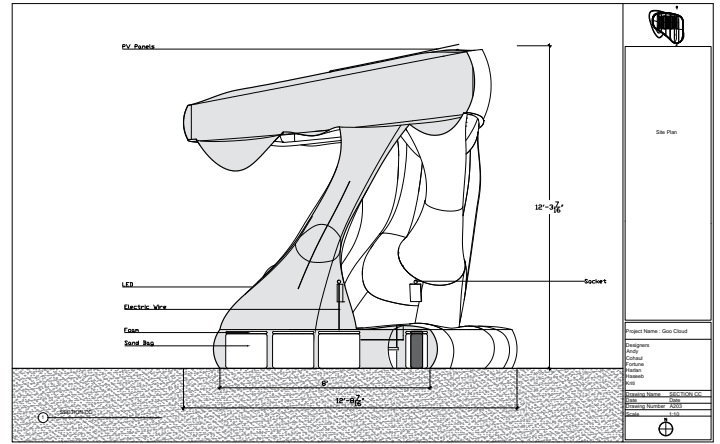
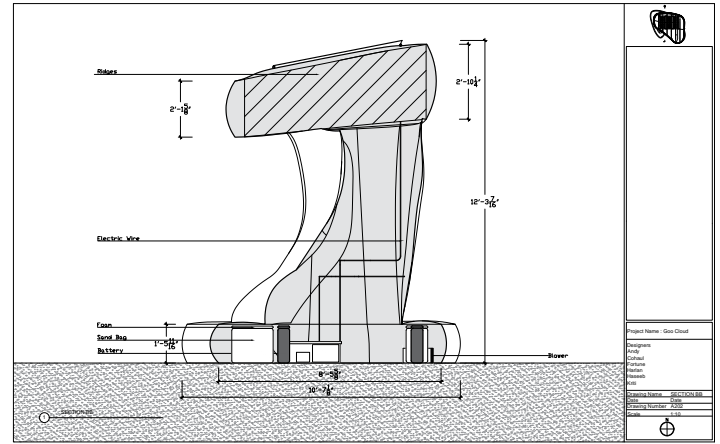
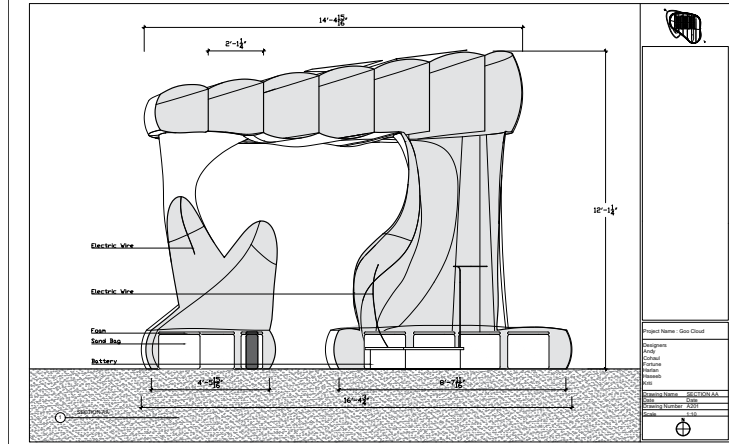
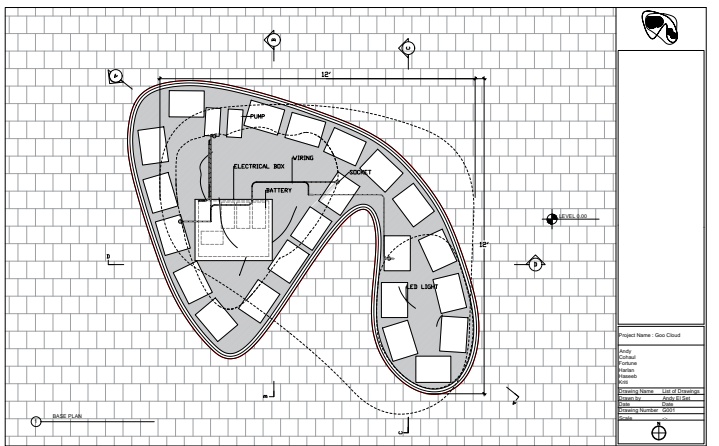
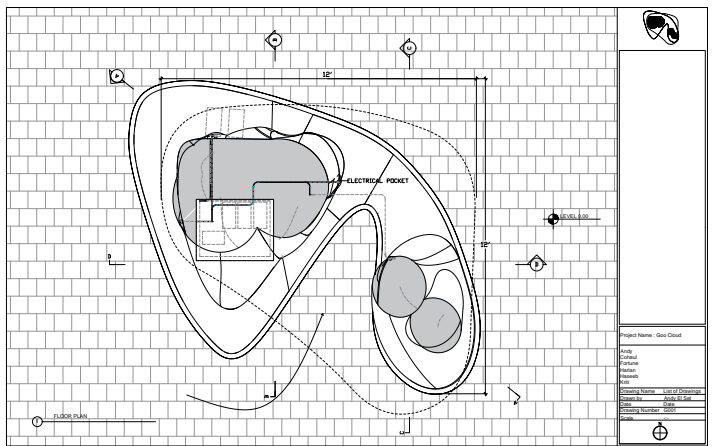
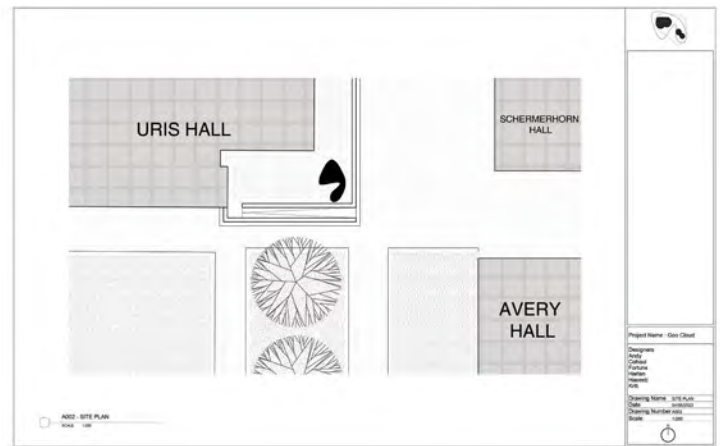
Spring 2023
Instructor: Laurie Hawkinson, Galia Solomonoff
MS AAD Advanced Studio

Team Members:
Andy El SEt
Chayanidh Chantraprapawat
Cohaul Chen
Haolan Luo
Kriti Suresh Shivagunde
Syed Haseeb Amjad





LIST OF DRAWINGS	EQUIPMENT LIST	SCHEDULE
<p>GENERAL</p> <p>01 - LIST OF DRAWINGS</p> <p>02 - SITE PLAN</p> <p>03 - CONCEPT PLAN</p> <p>04 - ARCHITECTURAL</p> <p>05 - CONCEPT PLAN</p> <p>06 - ELECTRICAL</p> <p>07 - ELECTRICAL</p> <p>08 - ELECTRICAL</p> <p>09 - ELECTRICAL</p> <p>10 - ELECTRICAL</p> <p>11 - ELECTRICAL</p> <p>12 - ELECTRICAL</p> <p>13 - ELECTRICAL</p> <p>14 - ELECTRICAL</p> <p>15 - ELECTRICAL</p> <p>16 - ELECTRICAL</p> <p>17 - ELECTRICAL</p> <p>18 - ELECTRICAL</p> <p>19 - ELECTRICAL</p> <p>20 - ELECTRICAL</p> <p>21 - ELECTRICAL</p> <p>22 - ELECTRICAL</p> <p>23 - ELECTRICAL</p> <p>24 - ELECTRICAL</p> <p>25 - ELECTRICAL</p> <p>26 - ELECTRICAL</p> <p>27 - ELECTRICAL</p> <p>28 - ELECTRICAL</p> <p>29 - ELECTRICAL</p> <p>30 - ELECTRICAL</p> <p>31 - ELECTRICAL</p> <p>32 - ELECTRICAL</p> <p>33 - ELECTRICAL</p> <p>34 - ELECTRICAL</p> <p>35 - ELECTRICAL</p> <p>36 - ELECTRICAL</p> <p>37 - ELECTRICAL</p> <p>38 - ELECTRICAL</p> <p>39 - ELECTRICAL</p> <p>40 - ELECTRICAL</p> <p>41 - ELECTRICAL</p> <p>42 - ELECTRICAL</p> <p>43 - ELECTRICAL</p> <p>44 - ELECTRICAL</p> <p>45 - ELECTRICAL</p> <p>46 - ELECTRICAL</p> <p>47 - ELECTRICAL</p> <p>48 - ELECTRICAL</p> <p>49 - ELECTRICAL</p> <p>50 - ELECTRICAL</p>	<p>01 - EQUIPMENT LIST</p> <p>02 - EQUIPMENT LIST</p> <p>03 - EQUIPMENT LIST</p> <p>04 - EQUIPMENT LIST</p> <p>05 - EQUIPMENT LIST</p> <p>06 - EQUIPMENT LIST</p> <p>07 - EQUIPMENT LIST</p> <p>08 - EQUIPMENT LIST</p> <p>09 - EQUIPMENT LIST</p> <p>10 - EQUIPMENT LIST</p> <p>11 - EQUIPMENT LIST</p> <p>12 - EQUIPMENT LIST</p> <p>13 - EQUIPMENT LIST</p> <p>14 - EQUIPMENT LIST</p> <p>15 - EQUIPMENT LIST</p> <p>16 - EQUIPMENT LIST</p> <p>17 - EQUIPMENT LIST</p> <p>18 - EQUIPMENT LIST</p> <p>19 - EQUIPMENT LIST</p> <p>20 - EQUIPMENT LIST</p> <p>21 - EQUIPMENT LIST</p> <p>22 - EQUIPMENT LIST</p> <p>23 - EQUIPMENT LIST</p> <p>24 - EQUIPMENT LIST</p> <p>25 - EQUIPMENT LIST</p> <p>26 - EQUIPMENT LIST</p> <p>27 - EQUIPMENT LIST</p> <p>28 - EQUIPMENT LIST</p> <p>29 - EQUIPMENT LIST</p> <p>30 - EQUIPMENT LIST</p> <p>31 - EQUIPMENT LIST</p> <p>32 - EQUIPMENT LIST</p> <p>33 - EQUIPMENT LIST</p> <p>34 - EQUIPMENT LIST</p> <p>35 - EQUIPMENT LIST</p> <p>36 - EQUIPMENT LIST</p> <p>37 - EQUIPMENT LIST</p> <p>38 - EQUIPMENT LIST</p> <p>39 - EQUIPMENT LIST</p> <p>40 - EQUIPMENT LIST</p> <p>41 - EQUIPMENT LIST</p> <p>42 - EQUIPMENT LIST</p> <p>43 - EQUIPMENT LIST</p> <p>44 - EQUIPMENT LIST</p> <p>45 - EQUIPMENT LIST</p> <p>46 - EQUIPMENT LIST</p> <p>47 - EQUIPMENT LIST</p> <p>48 - EQUIPMENT LIST</p> <p>49 - EQUIPMENT LIST</p> <p>50 - EQUIPMENT LIST</p>	<p>01 - SCHEDULE</p> <p>02 - SCHEDULE</p> <p>03 - SCHEDULE</p> <p>04 - SCHEDULE</p> <p>05 - SCHEDULE</p> <p>06 - SCHEDULE</p> <p>07 - SCHEDULE</p> <p>08 - SCHEDULE</p> <p>09 - SCHEDULE</p> <p>10 - SCHEDULE</p> <p>11 - SCHEDULE</p> <p>12 - SCHEDULE</p> <p>13 - SCHEDULE</p> <p>14 - SCHEDULE</p> <p>15 - SCHEDULE</p> <p>16 - SCHEDULE</p> <p>17 - SCHEDULE</p> <p>18 - SCHEDULE</p> <p>19 - SCHEDULE</p> <p>20 - SCHEDULE</p> <p>21 - SCHEDULE</p> <p>22 - SCHEDULE</p> <p>23 - SCHEDULE</p> <p>24 - SCHEDULE</p> <p>25 - SCHEDULE</p> <p>26 - SCHEDULE</p> <p>27 - SCHEDULE</p> <p>28 - SCHEDULE</p> <p>29 - SCHEDULE</p> <p>30 - SCHEDULE</p> <p>31 - SCHEDULE</p> <p>32 - SCHEDULE</p> <p>33 - SCHEDULE</p> <p>34 - SCHEDULE</p> <p>35 - SCHEDULE</p> <p>36 - SCHEDULE</p> <p>37 - SCHEDULE</p> <p>38 - SCHEDULE</p> <p>39 - SCHEDULE</p> <p>40 - SCHEDULE</p> <p>41 - SCHEDULE</p> <p>42 - SCHEDULE</p> <p>43 - SCHEDULE</p> <p>44 - SCHEDULE</p> <p>45 - SCHEDULE</p> <p>46 - SCHEDULE</p> <p>47 - SCHEDULE</p> <p>48 - SCHEDULE</p> <p>49 - SCHEDULE</p> <p>50 - SCHEDULE</p>



Virtual Disruption

Fall 2022

Instructor: Marlon Davis

Virtual Disruption

The work is a navigation of waste found in different neighborhoods in Manhattan through 3D Scanning Technology. Those neighborhoods include the Upper West Side, Harlem, Chelsea, Murray Hill and Chinatown. By navigating Manhattan waste through the investigation of 3D scanning technologies, I started to notice how "waste" represents the way inhabitants (including human and other species) live in that particular district. The ecologies and the social activities that are happening in that particular neighborhood are told through the waste that were scattered on the curbside and on streets, for instance, there are a lot of cardboard boxes, packaging and paper waste in Chinatown. On the other hand, there are a more food waste packages in the Murray Hill Area. Apart from representing the lifestyles of the people, I do believe the types and amount of waste could represent issues such as racial inequality. As waste represents the amount of consumption, the declination of waste collection or the surge of the amount of waste could also be an indication of accessibility. This raises the question on whether people in certain neighborhoods have the right to access basic living facilities, such as food. This also leads to the question of whether these people have the decision to protect themselves? who are the ones who are making these decisions from them?



Behind the Seeds: Seed Cathedral, Kew Gardens, and the British Empire Seed accumulation

The world's fair has continuously attracted visitors from around the world with the latest innovations and pavilions ever since its first debut in London in 1851. A world fair pavilion is meant to showcase each representative countries' advancement and cultures. At the 2010 world's fair in Shanghai, the United Kingdom chose to showcase their history of pioneering urban parks and gardens in a structure called the Seed Cathedral. Inspired by the collective work of the Kew Gardens in London, the British designer, Thomas Heatherwick, created a building that represents nature through the use of kinetic transparent optical strands that could move along with the wind. Together, the materials create an effect that makes the Seed Cathedral appear soft and plant-like from the outside. From the inside, visitors would feel like they are embraced by the daylight that was transmitted through these transparent optical hairs. Each strand would hold a type of seed that was accumulated through the Kew Royal Botanic Gardens' Millennium Seed Bank Project. Even though the display of seeds in the pavilion were crystal clear and transparent, the stories behind those seeds remained kept in the dark, behind the cabinets at Kew Gardens in London.

Kew Gardens's Millennium Seed Bank Partnership is one of the largest seed collections in the world, collecting seeds from a quarter of all the world's plants. The seed collection was first established at Kew in the nineteenth century through the classificatory technology of the Herbarium. The seeds would come in from the colonies to London and went out from London to colonies. This is one of the ways that the British Empire attempted to "improve" the colonized countries by introducing new crops to colonized land. The seeds that were obtained from the colonies were then used to study plants and plant production systems. This shows that the Kew Herbarium played a crucial part as an instrument in wielding the power of the British Empire across the globe by maximizing the extraction of vegetal resources from the colonies, which results in its ever growing collection.

As Kew Gardens's gigantic collection of seeds were displayed throughout the Seed Cathedral, seeds collected from the British Empire Colonies were labeled under the UK Pavilion and exhibited among local seeds from the British Empire. The distinguishing between the origins of these seeds are not visible as the rods seem to be composed together as one to create the unified "grand" plant-like form of the United Kingdom's Seed Cathedral. The identical appearance of the fiber-optics in the interior of the pavilion seem to further conceal the diverse origination of the seeds. The Seeds' colonial history remained invisible inside thousands of transparent tubes. Through the power of obtaining seeds from colonies, and by arranging and classifying these seeds in the collection, the Kew has managed to create a link between the seeds through the colonization of their origins, while reinforcing power dynamics over these Botanical Information.

Summer 2022
Instructor: Maur Dessauvage
MS AAD Transclararities

¹ Metropolis Magazine, Q&A: Thomas Heatherwick on his Seed Cathedral in Shang-hai

Enclosed Ecosystems: Possibilities in the Impossible and Impossible in the Possible

Most people believe that impossibility lies in the things we can't control or design. Specifically, in the case of a utopian dream of creating a closed environment. The idea of an enclosed ecosystem has been exhibited throughout history, from Buckminster Fuller's Dome to The Simpsons. An enclosed ecosystem is assumed to be impossible to control due to the levels of precision and the unpredictability of various scales of organisms habiting inside the system. However, through the case study of the BIOS-3 Experiment this paper argues that the impossibility in controlling these closed environments is not in the unpredictability or the ability to control the living organisms, but rather in the rigidity of the structure of its built environment.

BIOS-3 was an experiment designed in 1972 as a part of the Soviet Space Program to study closed ecosystems and to demonstrate the feasibility of sustaining human life. The system was designed for various scales of living organisms to co-exist, from the macro to the micro scale. Humans who inhabit within the system would be responsible for taking care of the plants in the systems. Plants would be grown in compartments called "Phytotron". (Figure 1) The Phytotron compartments were used to grow variety of plants including wheat, chufa, and vegetable crops in order to provide sufficient nutrients, air-regeneration and air purification for the humans. Maintaining the conditions of these plants also relates to the growth of another important actant in this enclosed ecosystem which is the micro-organisms such as microflora such as bacteria, fungi, actinomyces and yeasts. Microbial communities will increase in response to the plant's weakening conditions. Moreover, researchers have discovered these bacteria circulating back to the humans on their skin, which indicates that human existence in the system could have been endangered. Therefore, BIOS-3 is an enclosed ecosystem where all organisms will exhibit progress to co-exist and adapt to one another.

While the organisms inside the system have the ability to grow and adapt, the rigidity of the engineered structure has proven to be the weak point in this experiment as it does not adapt to the organisms inside. When it comes to the designing and controlling the experimentation of BIOS-3, the stakes are higher as the tension between the USSR and the USA grew tense during the Cold War. The smallest mishap from the flaws of the design or from the uncontrollable nature of the organisms within the enclosed experiment would mean being one step behind in the on-going Space Race. It is important to note that the structure was not design by an architect but rather by physicist and biologist Boris G. Kovrov. The sealed welded stainless-steel structure which houses the experiment was actualized underground at the Department of Biophysics in the Institute of Physics in Serbia. However, the balance between the adaptation of scales and rigid structure seems to be impossible.

As BIOS-3 is not able to reproduce because of its rigid conditions, is it still ideal to attempt to make possible the idea of ownership and gaining complete control of our ecosystems? Has the attempt to control the enclosed ecosystem allowed humans to be more in tune with nature?

¹SOURCE

Questioning the Materiality of Care

A large sculpture of a data portrait containing breast milk in small tubes ¹ is prominently displayed from the window of the Cuchifritos Gallery + Project Space on Norfolk Street, where “The Ecologies of Care” exhibition was held. As I entered the gallery space, the faint sounds of a pumping machine from the project “Untitled (Feeding through Space and Time)” were the first thing I heard, while the tubes filled with breast milk being pumped out that were laid out on the floor of the exhibition space instantly caught my eye. By using various materials such as breastmilk, formulas, diapers, breast pumps, toys, tracking apps and screen times ², artist Ani Liu questions body politics and gender upon reflecting the material culture of infant and childcare during the artist’s postpartum period. The arrangements and the specificity of the various materials in the exhibition poses the question of how these materials potentially create “an ecology” of “care.” How does the artist determine the materials to present specific data from their research? What is the desired effect of using a specific material (breastmilk) to represent a specific data on childcare? What are the relations of the materials used in the exhibition to one another? Is there a relationship between materiality and bodies?

Liu uses materiality as a form of research and expression to confront and encompass data of her experience of motherhood. Material culture is also used by the artist to express her concerns of body politics. The work titled “Untitled (Labor of Love)”¹ has incorporated breast milk, an embodied product from a human body, and displayed them in clear acrylic tubes in relation to the data of Liu’s baby feedings and diaper changes. While the wall text in the exhibition presents the same data visualization as the work on display, Liu states that she intended to express the relation of the subject matter with “care” by using domestic materials such as breast milk. In this case, the use of material allows the audience to get a deeper understanding of the subject and to physically display and question the treatment of domestic labor. Liu urges the audience to recognize the hidden labor work in raising a baby. The work also calls into action, by expressing and questioning the burden of reproductive labor, which leads to the question if it is ethical for humans to take part in the “reproduction” of bodies as paid or unpaid labor? What are the rights and consequences for the person who is carrying out those reproductive labors?

Through the particular use of breastmilk as one of the main materials in the exhibition, the question of the audience of the exhibition also arises, of who is meant to see this exhibition. Is the exhibition meant to convey a message for the parents of a child? Is the message for humans who have experienced reproductive labor? Can the artworks create a sense and a network of collective-ness in childcare for those who have experienced it? Or should the work be shown to authorities who have the power to question, confront and challenge the way we treat reproductive bodies?

Body politics were further questioned through the ways that materials were used in “Untitled (Feeding Through Space and Time).” Machines and a disembodied human product were displayed as an indi-

¹ Ani Lui, Untitled (Labor of Love)

Materials: Breastmilk, diaper hydrogel, diaper cotton, glass, mirrored acrylic, spandex fiber

A data portrait recording every feed and diaper change for the first 30 days after giving birth

² Cuchifritos Gallery + Project Space, “Ecologies of Care” Exhibition Text

cation of human bodies. The limit of boundaries between humans and machines were challenged through the use of the breast pump machine. As humans extract the disembodied product that is breast milk, the breast pump machine must be attached to the bodies in order to produce the milk. The machine has become an extension of the bodies. This calls into question the body politics of viewing the bodies as a machine. Is reproductive technology ethical? Is it inhumane to extract breast milk from humans to sell them as products? What would define the borders of humans and machines? Is there a limit to the ways materials or substances are “disembodied” or extracted from the bodies? Or on the contrary, how far can we push the relationship between materiality, humans and machines?

Another project in the gallery, “The Surrogacy (bodies are not factories)”, which depicts a human fetus in a pig’s uterus, pushed the conversation between Bodies, the materiality of machines and technologies further. This particular work of Liu questioned the ethics of surrogacy and the human bodies relationship to technologies in terms of reproduction labor. The work also raises the question of who is included in this “Ecologies” of care. As human bodies were merged with non-human bodies, where does the boundary of human reproduction lie? What are the defining factors in determining humans and non-human bodies? Is body colonization a part of the “nature” of this Ecology?

The artworks and research shown in Liu’s “Ecologies of Care” have raised the question and explore how materiality can be closely related to human bodies, by reflecting upon the material culture of infant and childcare. Through materials such as breast milk, the relationship between human bodies and non-human bodies were challenged. Breast milk also amplifies the connections between the human bodies and their reproductions through care, and questions if reproductions without “care” is ethical. The extraction of a disembodied product of humans has confronted the idea of bodies as a machine, and on the contrary, the idea of machines as bodies. Furthermore, Ani Liu’s discussions have provoked the imagination of the future of domestic labor, reproduction labor of human and nonhuman bodies, and the relation to material culture and machines. How can we identify or draw the limits of the merging of these technologies in relation to body productions? Should we limit where the boundaries of body reproduction lie as possibilities of bodies and technologies merging have become more closely related? Will the future of reproductive technologies further contribute or challenge social norms in terms of bodily productions and reproductive labor? What is the future of human reproductions? Can technology and machines create ecologies of “care” without humans?

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