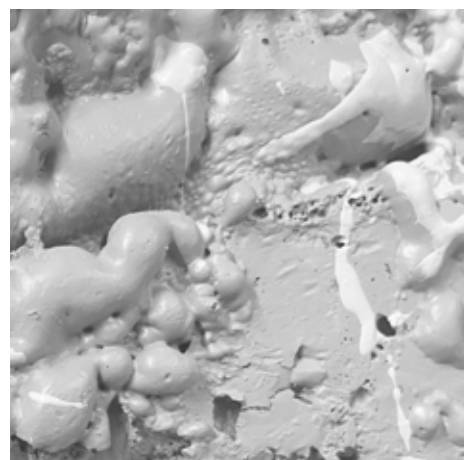
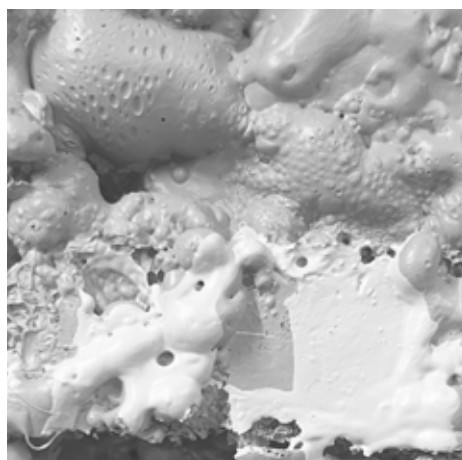
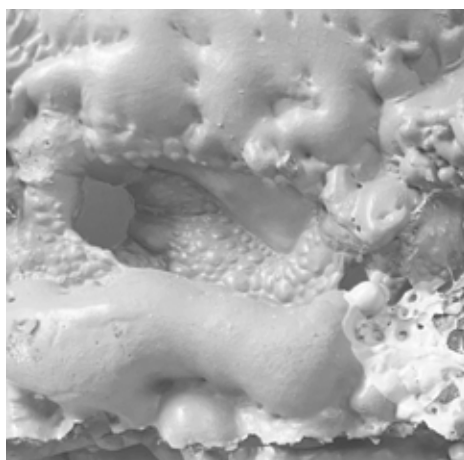


## Anne Freeman



Selected Works  
GSAPP M.Arch May 2023

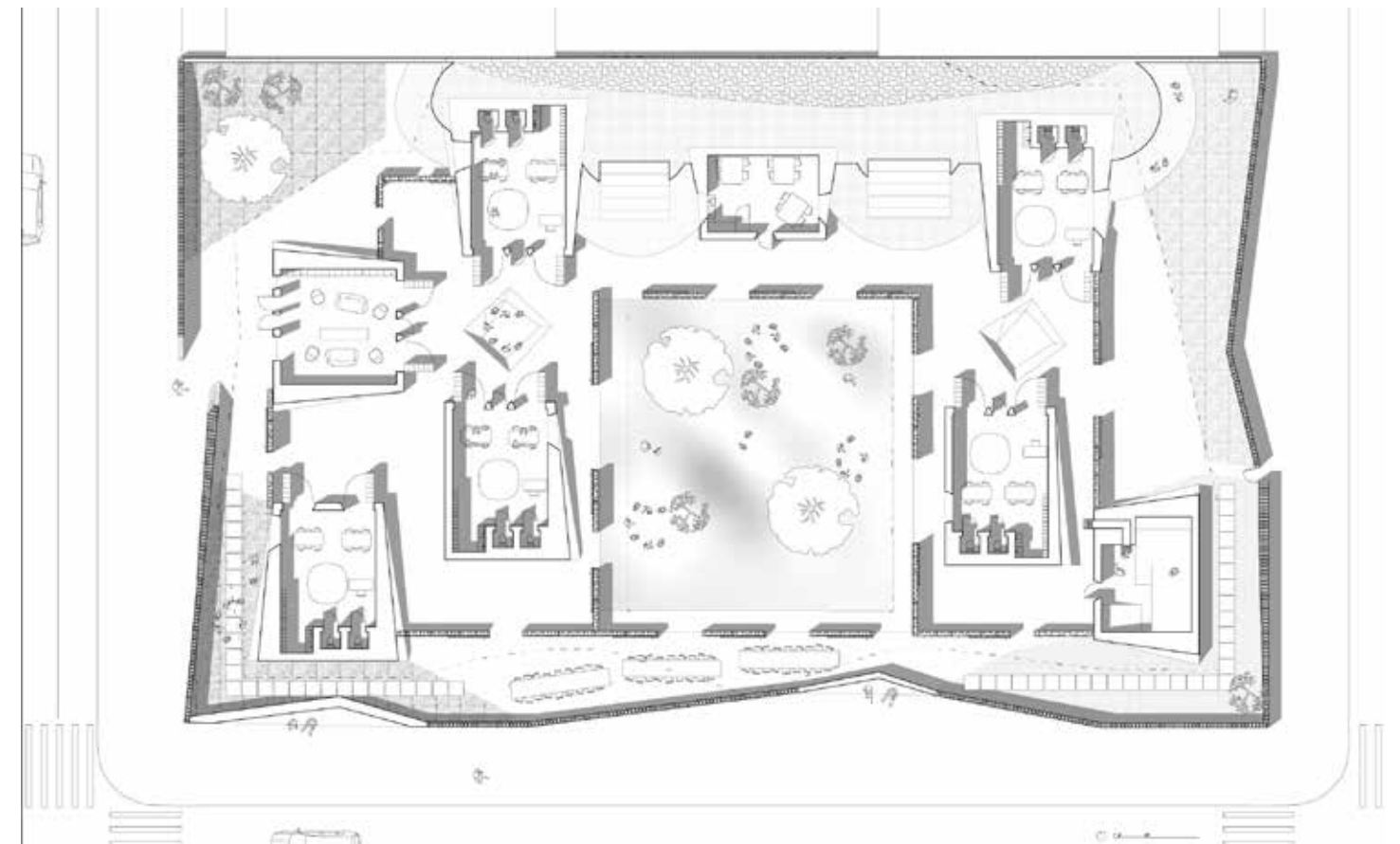
## Healthy Materials Preschool

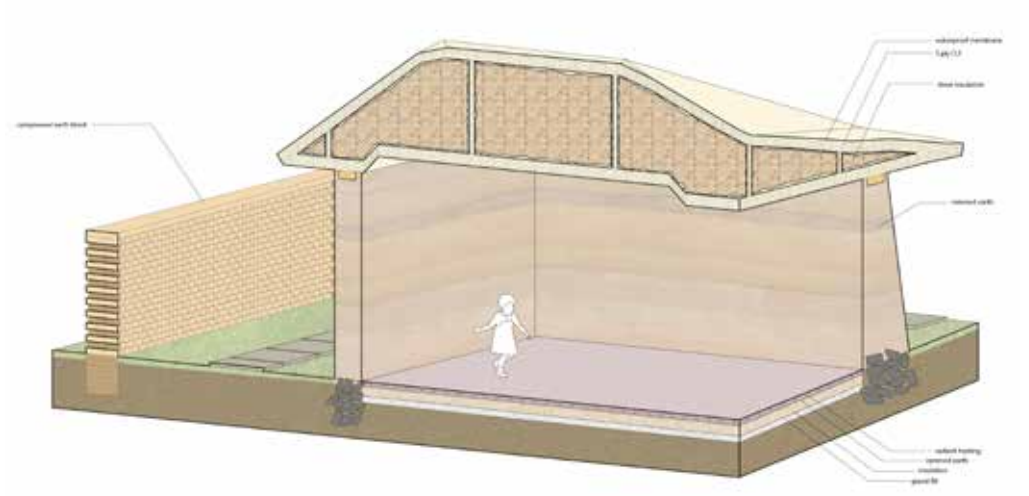
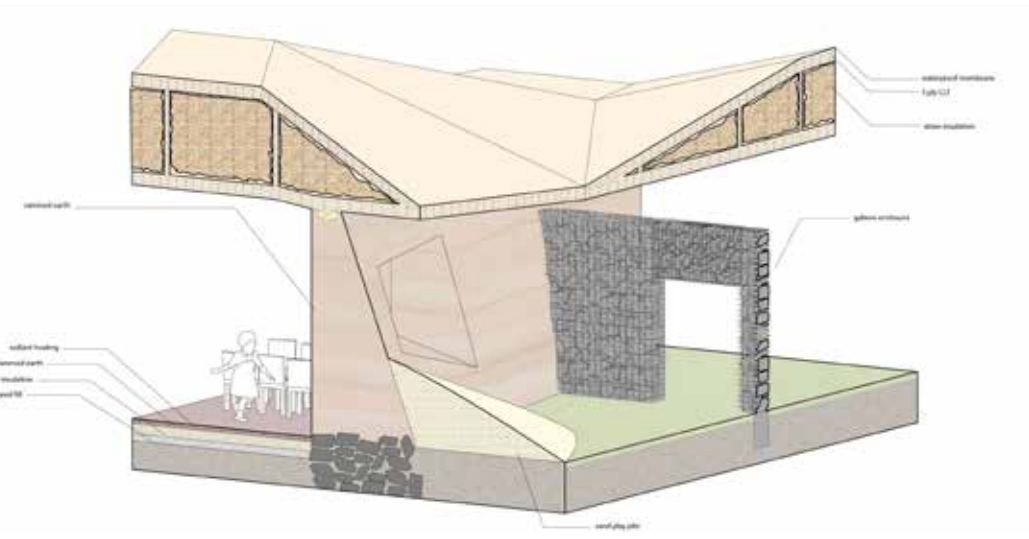
Professor: Marc Tsurumaki, LTL Architects  
ADV V Studio  
Fall 2022

Inspired by the newly researched connection between early exposure to healthy materials and long term health, this preschool in Brooklyn leverages the qualities of thickness and biogenic materials to create a safe and healthy space for its children. Sited among two story brownstone residences, this preschool takes its cues in material and massing from the surrounding environment in an attempt to ease the child's transition from home to school, as preschool is often a child's first institutional experience. The students engage with the outdoors every day in a variety

of spaces that range in thermal regulation and shelter. First, there is the central courtyard defined by a gabion boundary. The gabion walls continue throughout the project as permeable and porous boundaries between outdoor and sheltered outdoor areas. The classrooms are individual units that open up to each other and spill out into this widespread common space. This space is an occupiable boundary, where students circulate through the building and where classes can meet each other and be partially outside.

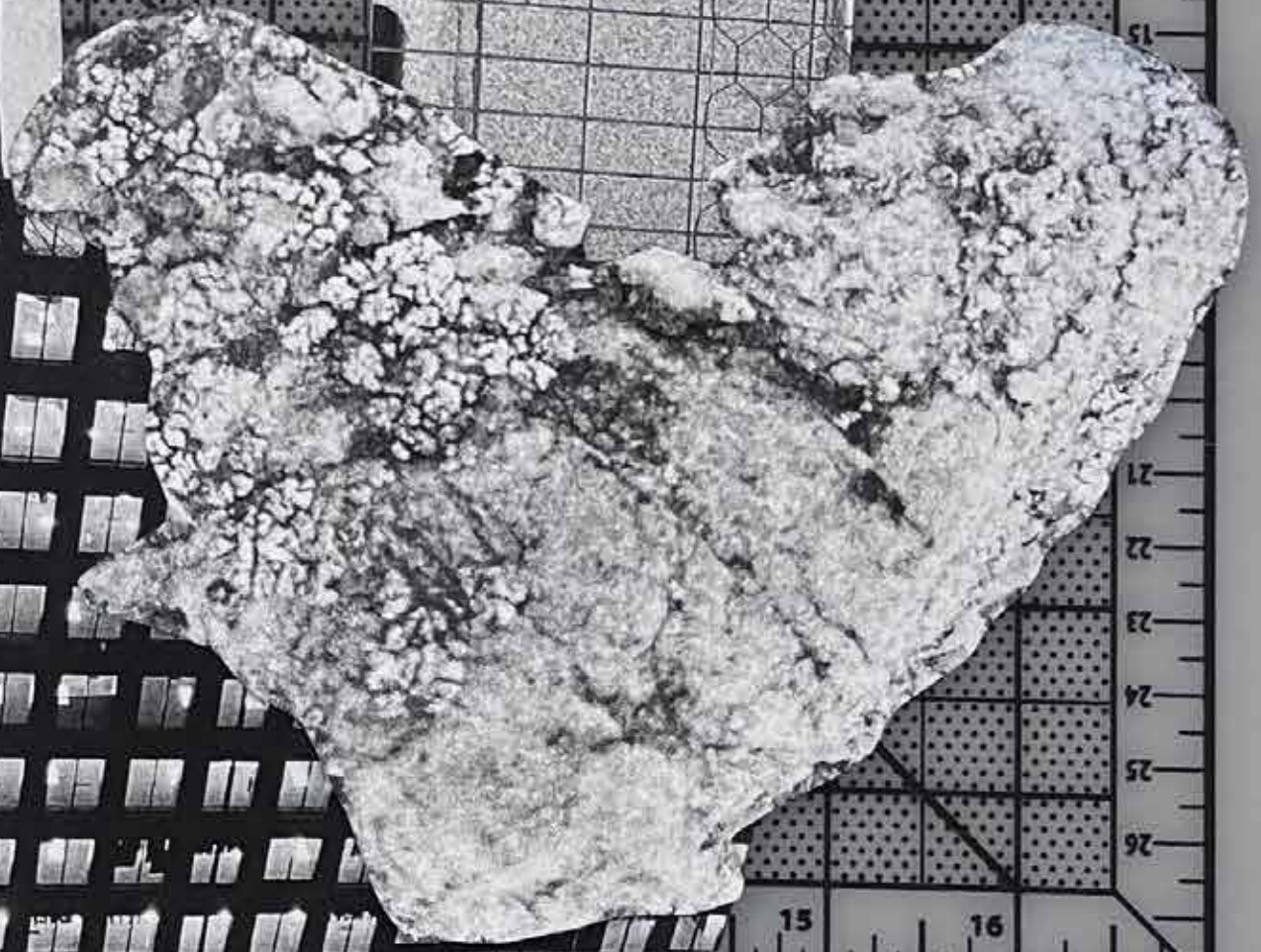
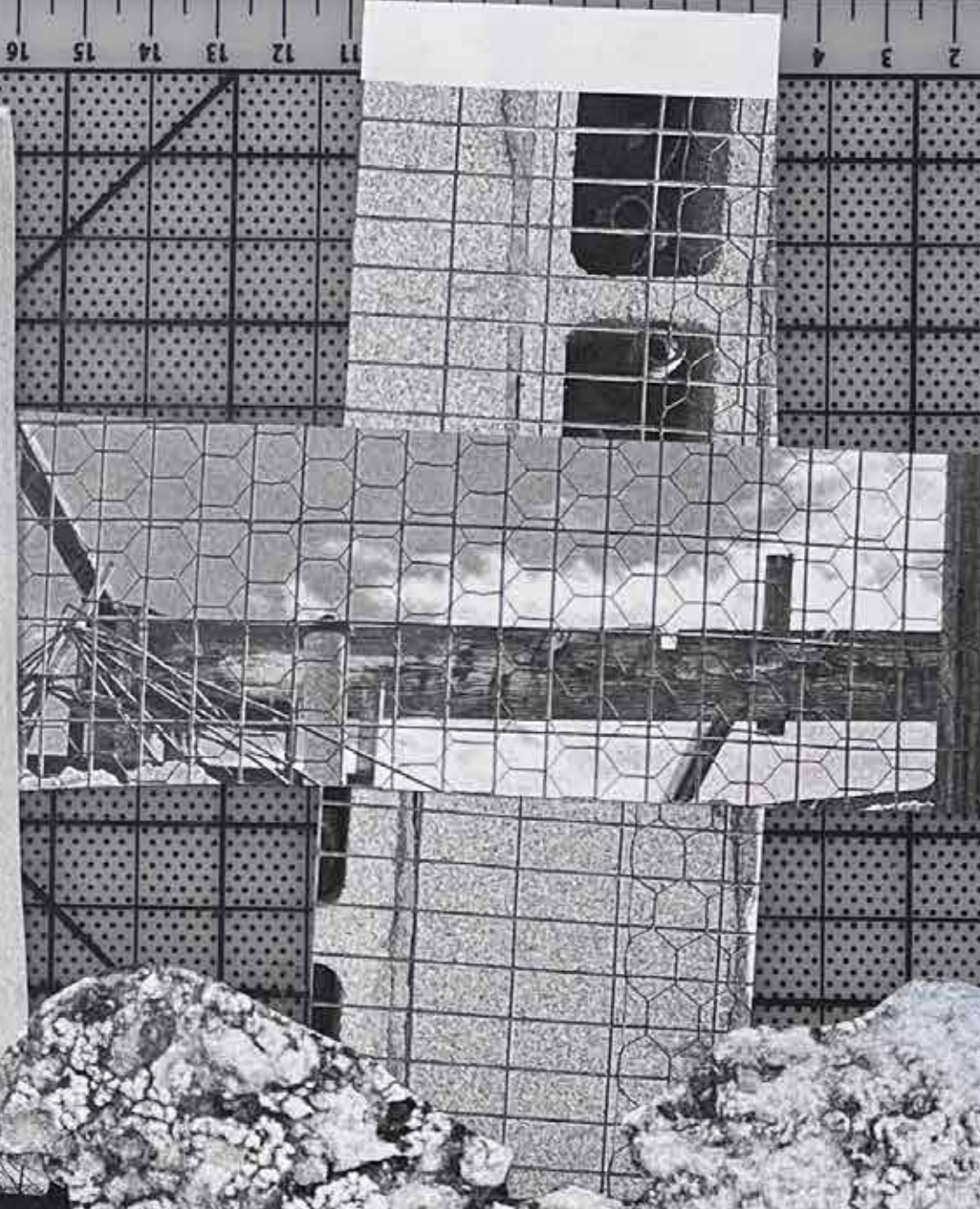
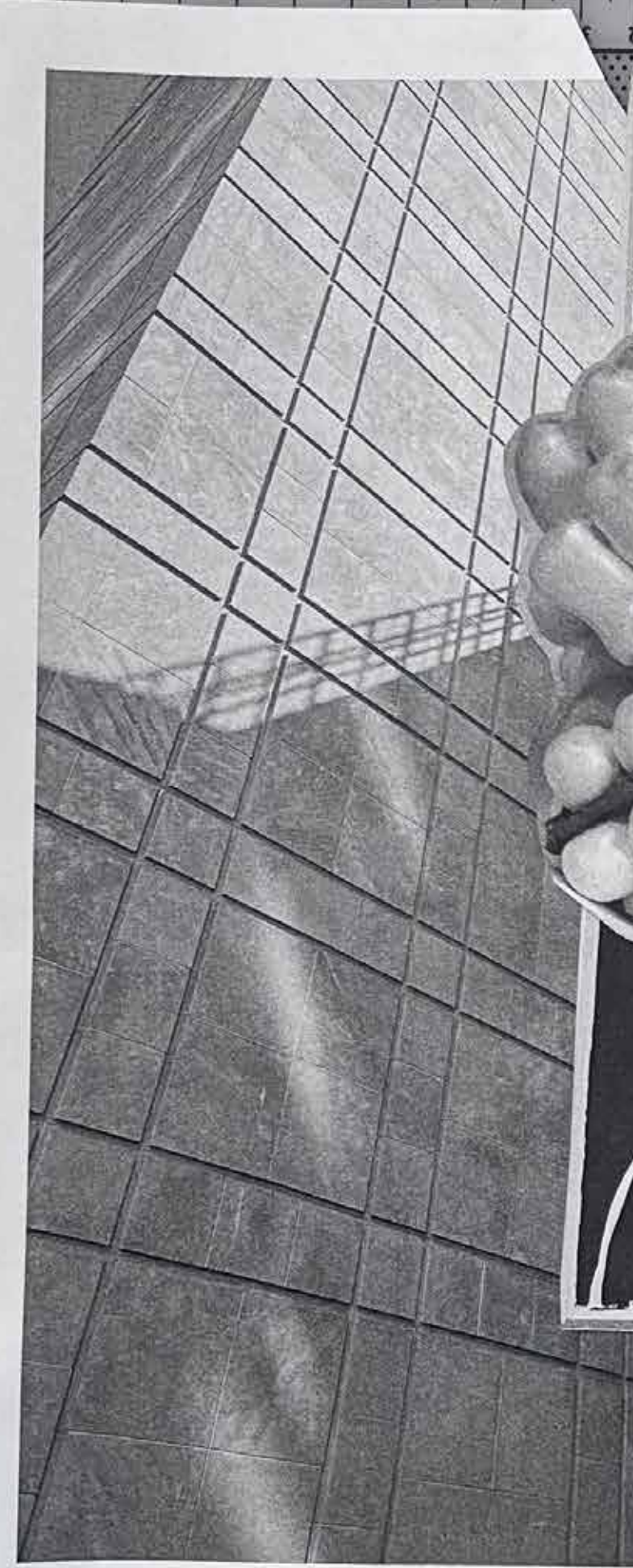
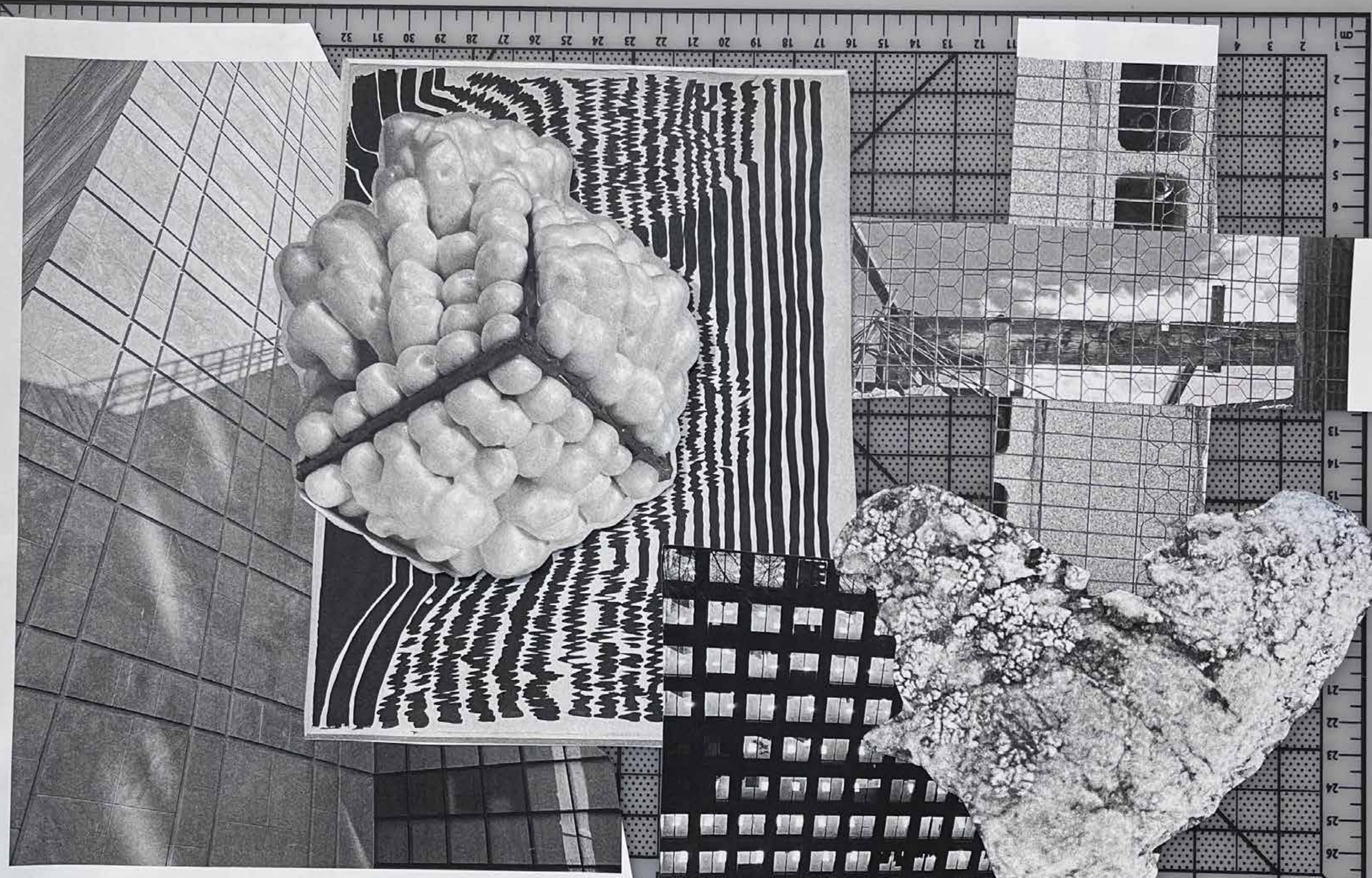
In addition to stone and earth as building materials, the indoor classrooms are defined by rammed earth walls. The classrooms taper in towards the common space, with more thermal insulation and mass to give a sense of carving out private spaces. The ground and roof are also tapered, much like the pile's natural angle of repose to expose children to a range of spatial encounters. These spaces are covered by a roof that lets light in via skylights and insulates the space by creating an air cavity combined with straw.











# Hudsonia Museum of Nature

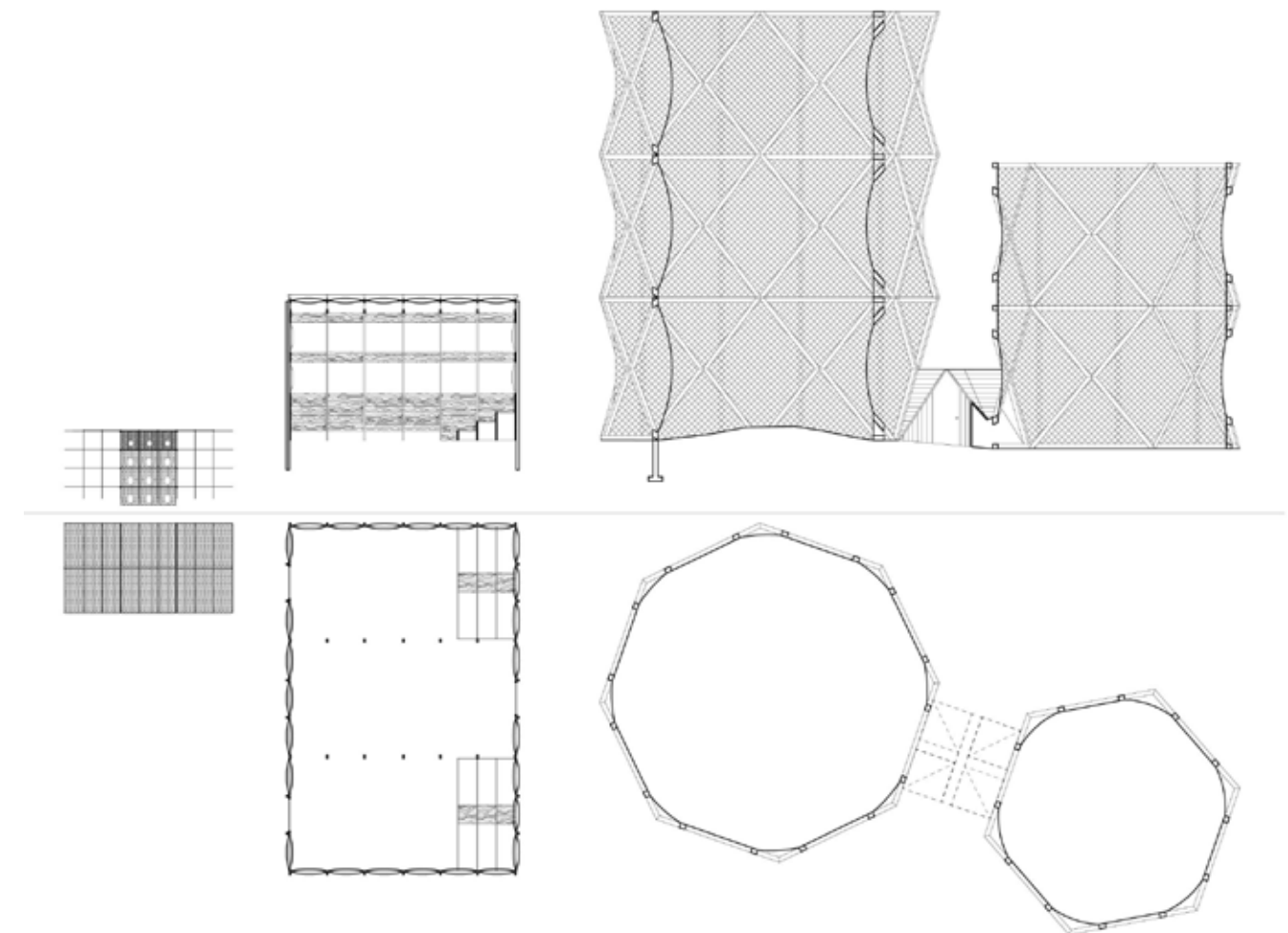
Professor: Robert Marino  
ADV IV Studio  
Spring 2022

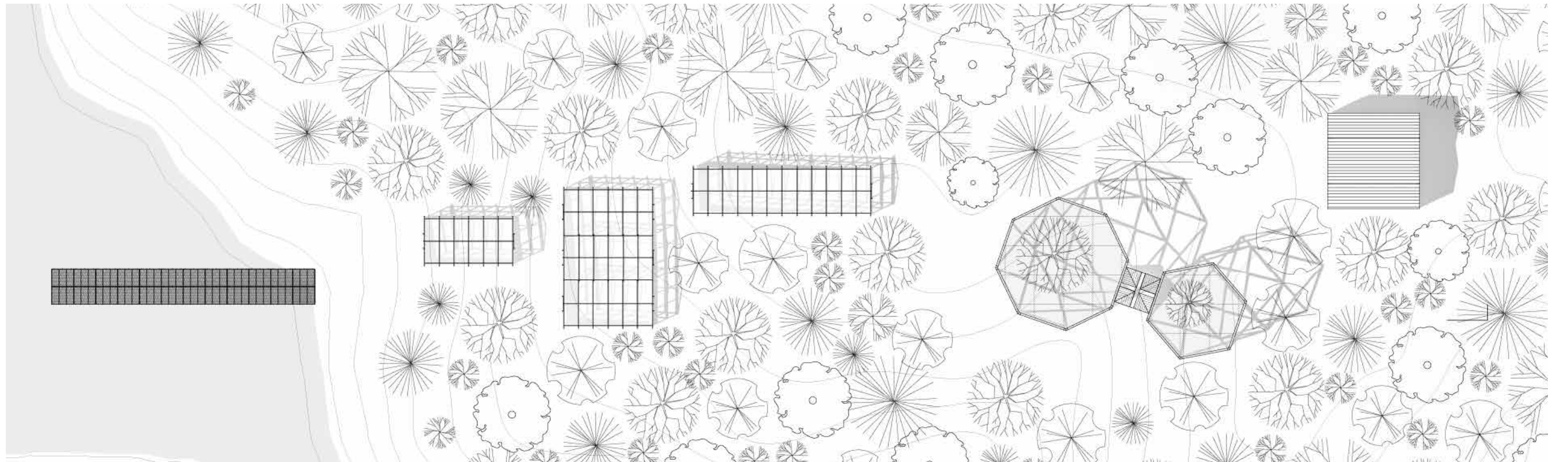
Is human architecture antithetical to nature? Why is it that when humans build homes they cause damage to the environment? Are there other creatures that exhibit the same behavior?

In the South Tivoli Bay, on the fringes of Bard College's campus, the Hudsonia Institute studies and preserves the delicate ecosystem of the Hudson Bay wetlands. This museum aims to encapsulate nature itself in its three elements--land, sea and air--and not an abstraction, analysis or simulation of nature. The design stems from the idea that nature is best protected by minimal

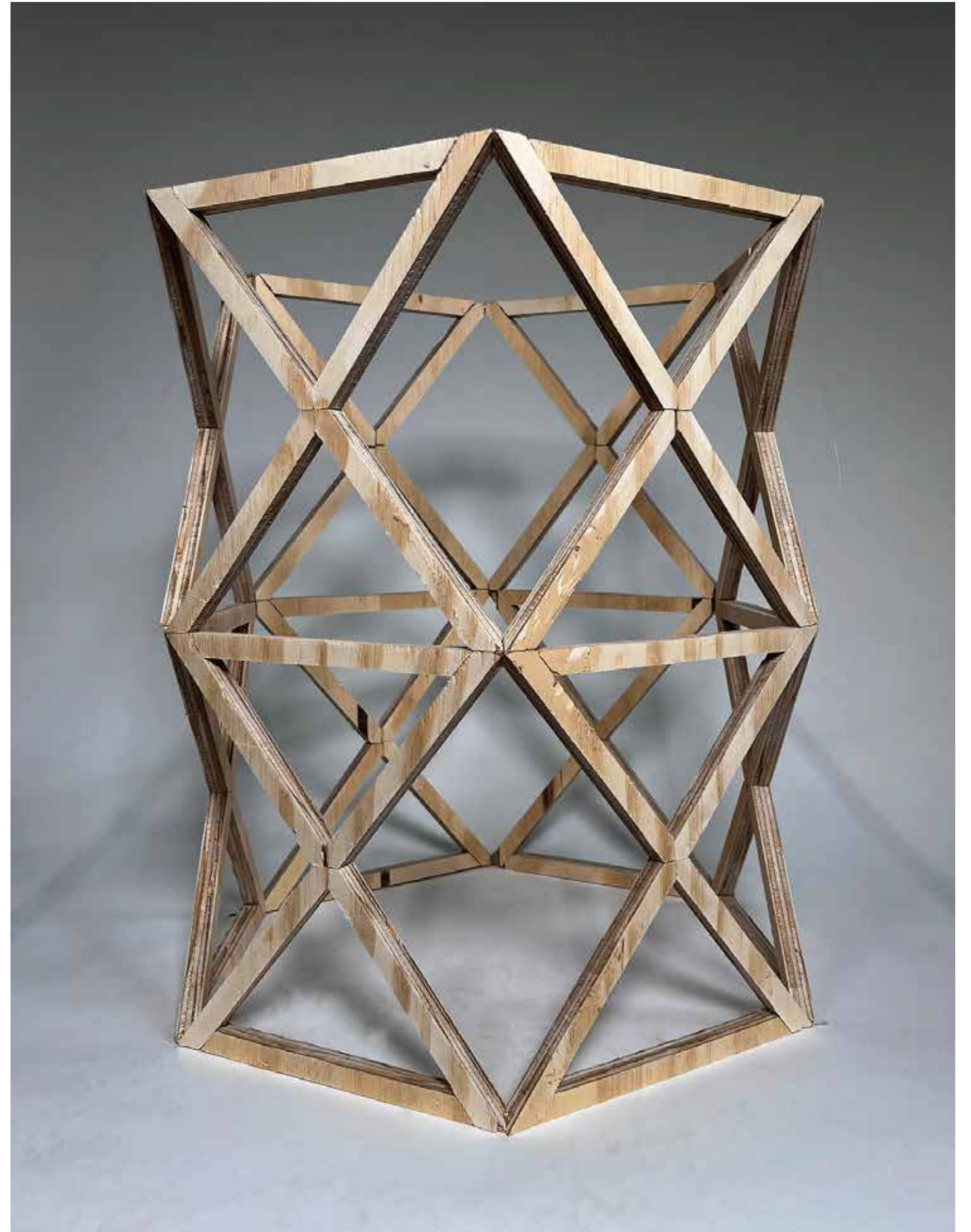
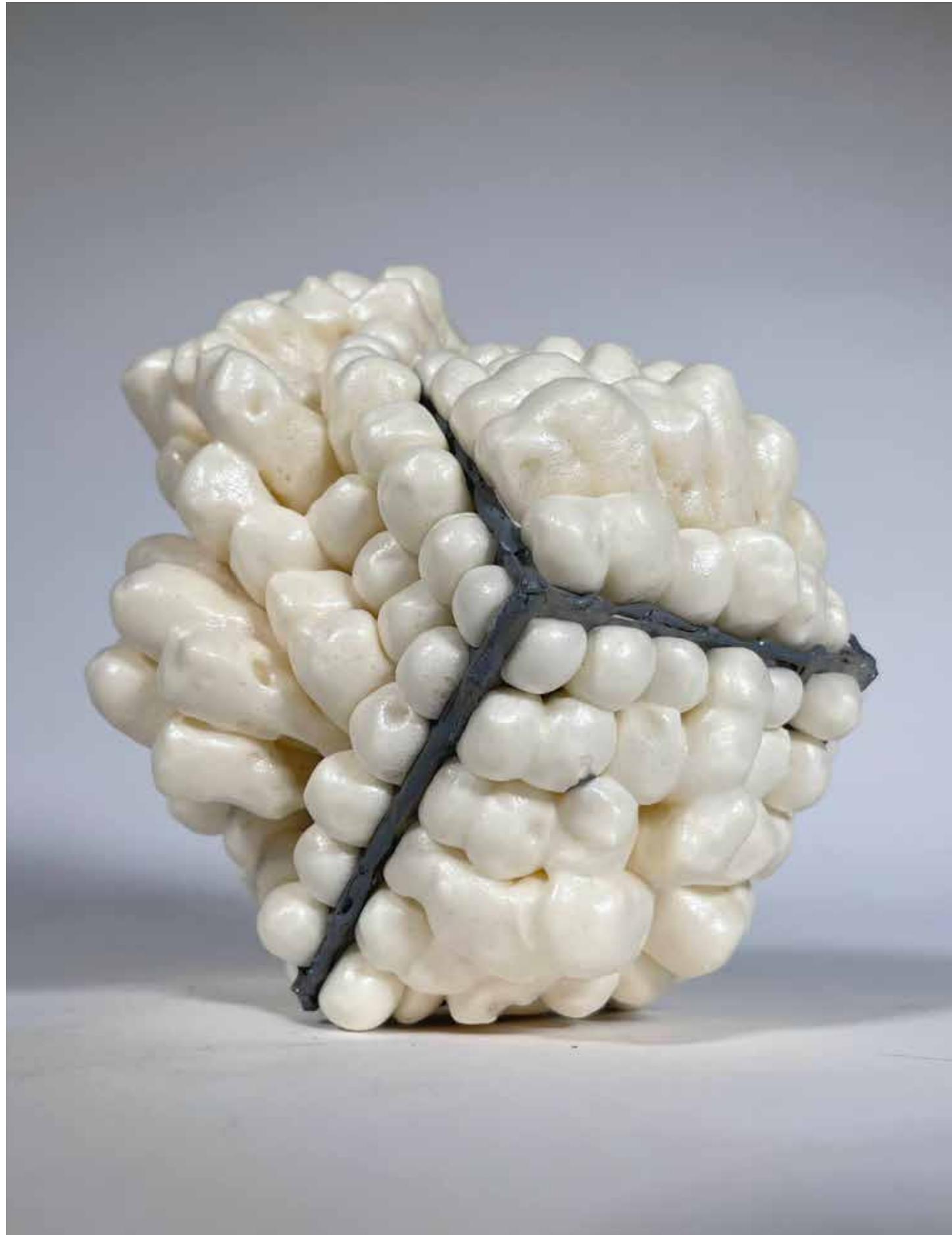
interference on our part. To this end, the museum consists of prefabricated modules that are assembled onsite in order to minimize disruption to the bay. A different geometry is used for each element--land, sea and air--but they all feature a geometric frame with a membrane wrapped around it to enclose the space. The land element took the form of a greenhouse with a wooden frame and ETFE pillows that burst out of the frame. The pillows enclose the greenhouse which can act as a nursery for native plant species. The air element is an aviary made of a glulam frame. Instead of the plastic pillows, this

element is differentiated with a tensile membrane that allows for air flow. Lastly, the water element was adapted from crab pots, which are essentially lightweight metal frames with a mesh enclosure and apertures of various sizes, so that fish and other creatures can be caught alive and then released. All together, this gentle intervention encapsulates a cross section of the site's existing nature without desecrating it so that nature can be preserved and put on display at the same time. The architecture is a framework for nature, designed with awareness that nature will overtake and always reclaim.

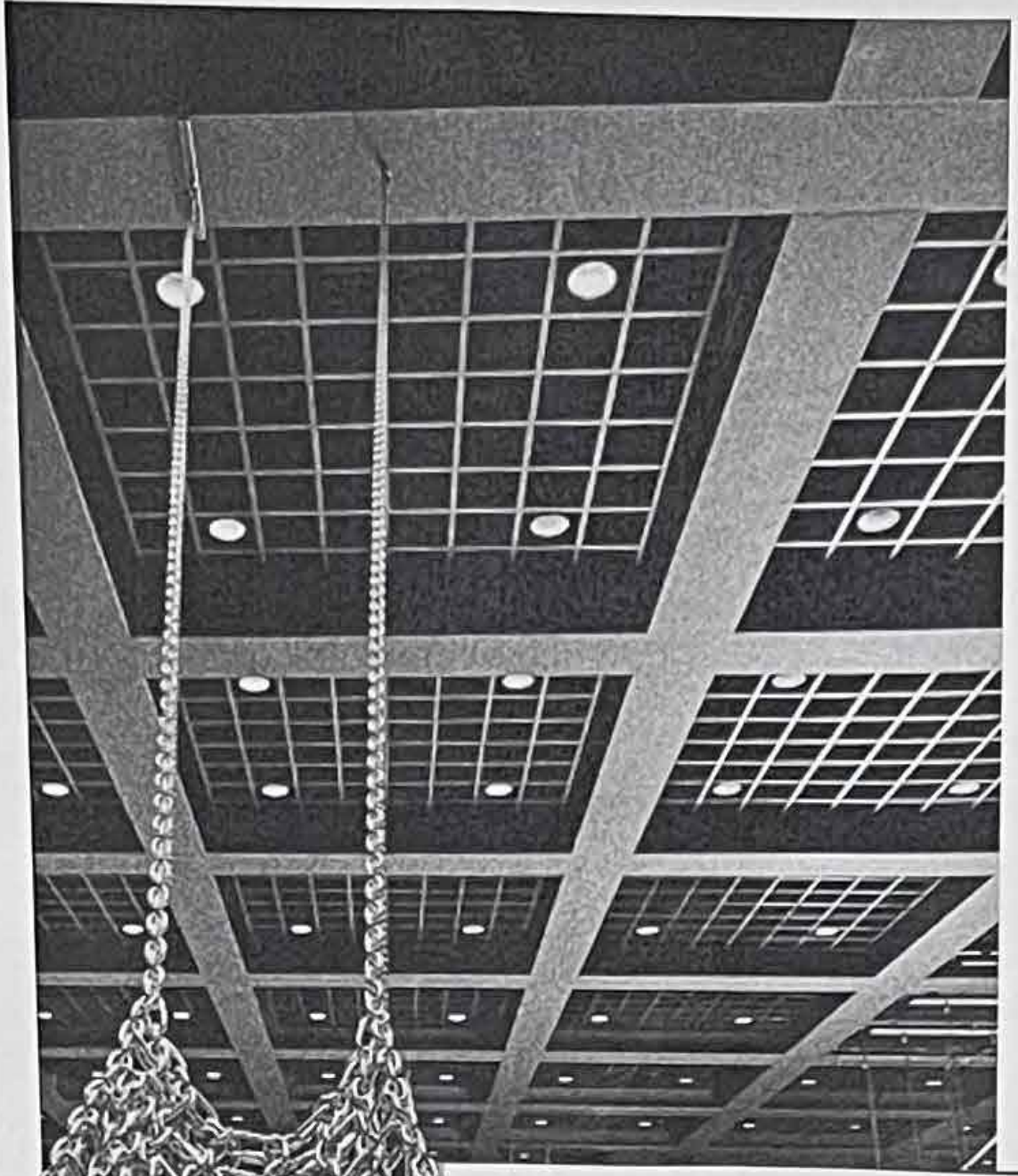
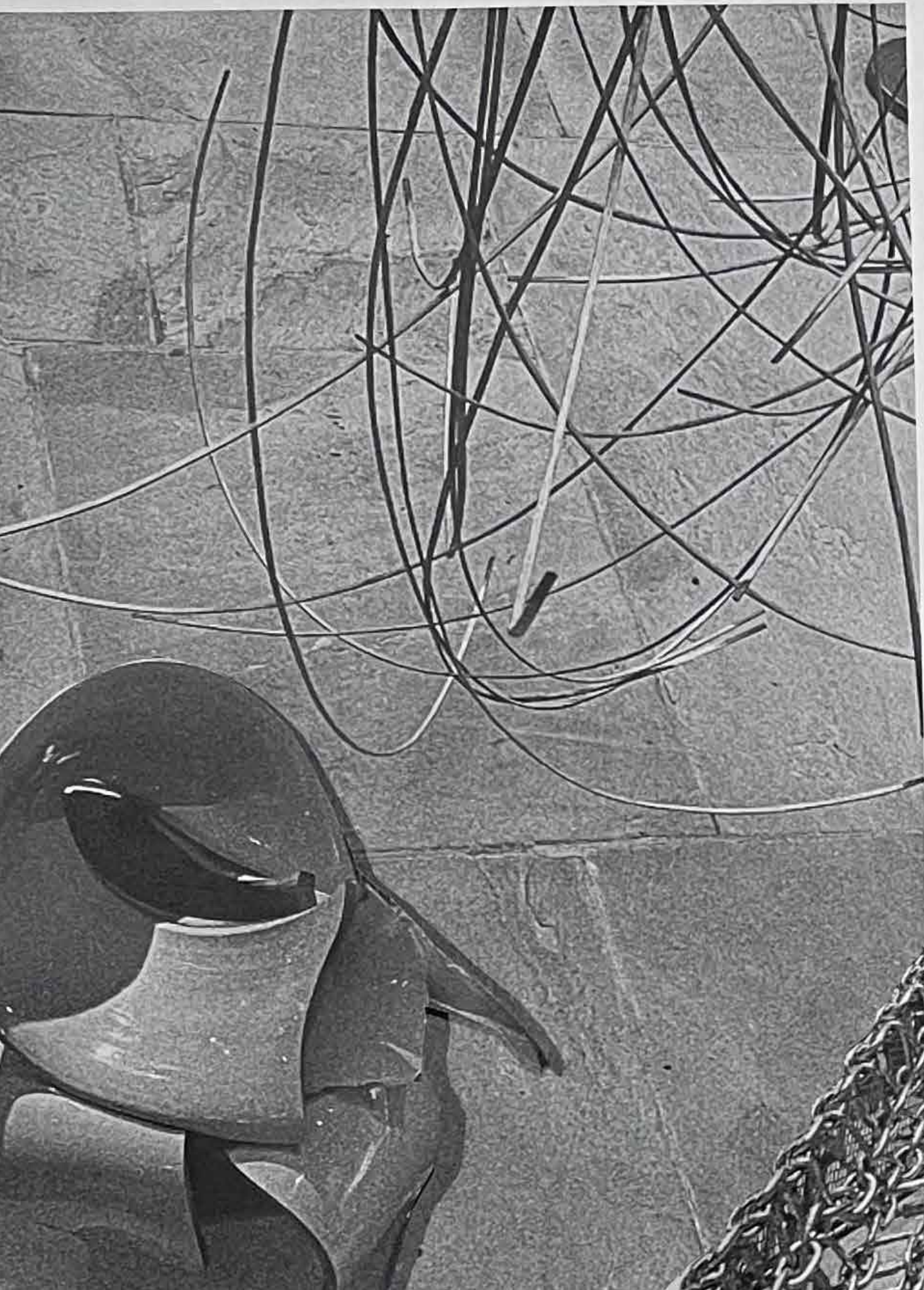












## Open Air Home

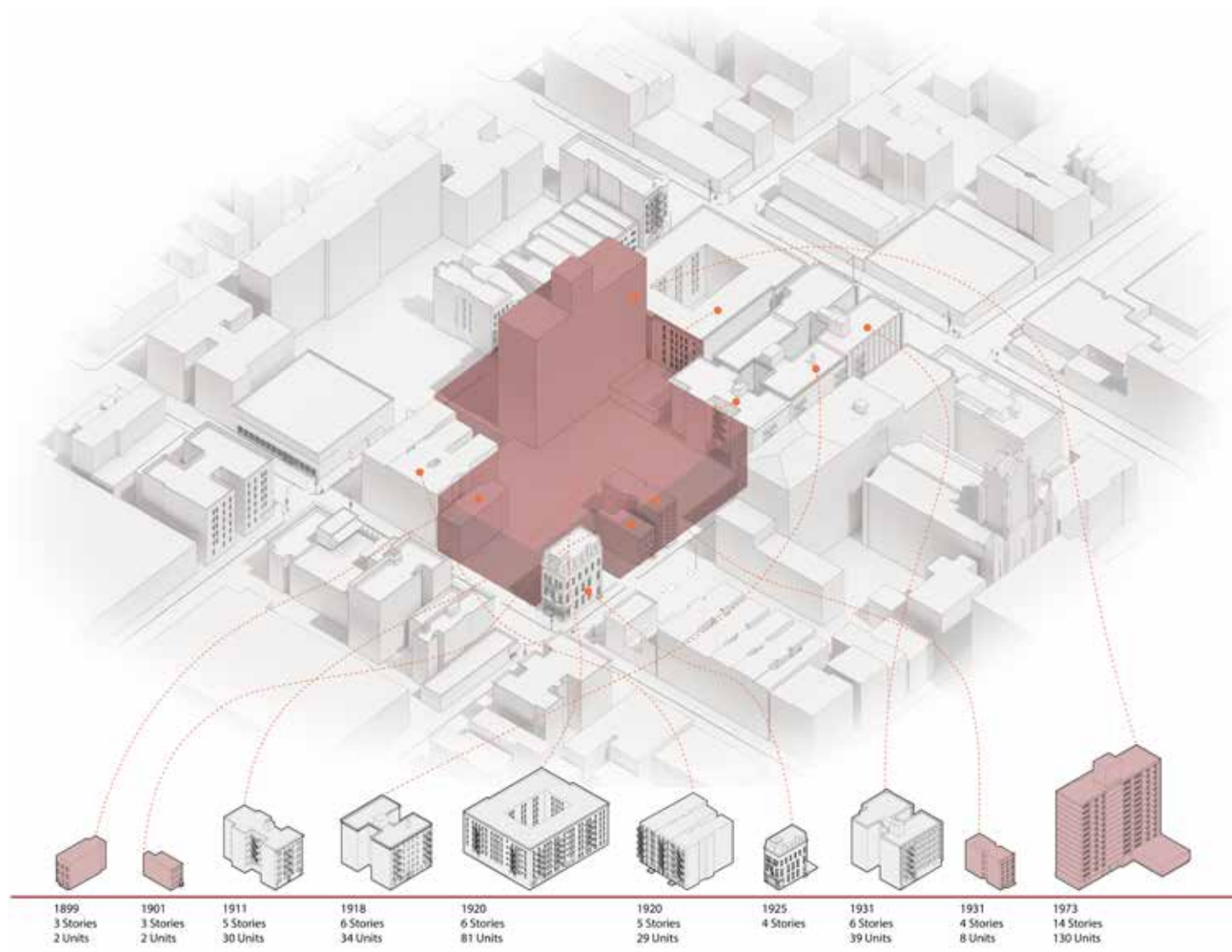
Professor: Eric Bunge, nArchitects  
Partner: Shuyang Huang, M.Arch 2023  
Core III Studio  
Fall 2021

The typical household size in the Bronx is 2.76 persons per household, higher than NYC's average of 2.42. These three buildings are designed to accommodate a range of ages and family sizes, including families with children as well as senior citizens. Inspired by the surrounding neighborhood of tenement houses from the early 1900s, the formal language of

the three residential buildings draws from architectural elements already on the site: air shafts, alleys and courtyards. These elements are updated and developed to introduce light and air into the buildings. Wood fins decorate the exterior to act as a permeable enclosure and to cast varied shadows throughout the day. The project also draws material inspiration

from the red brick on site, which is replicated in the facade of all three buildings. The buildings also differ in height in order to maximize daylight in every unit and to create an artificial topography for the rooftop greenspace that complements the slope of the site below.



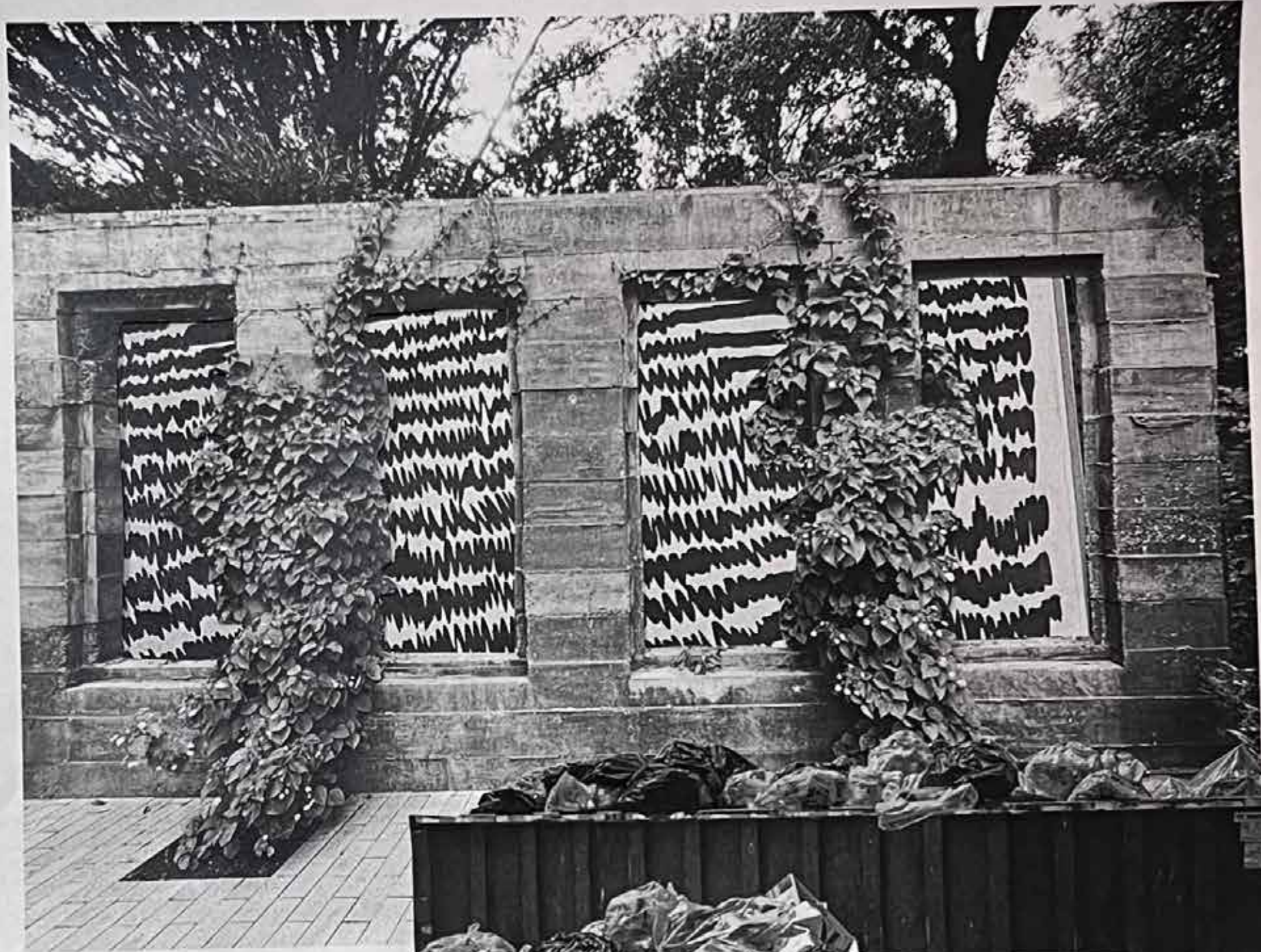
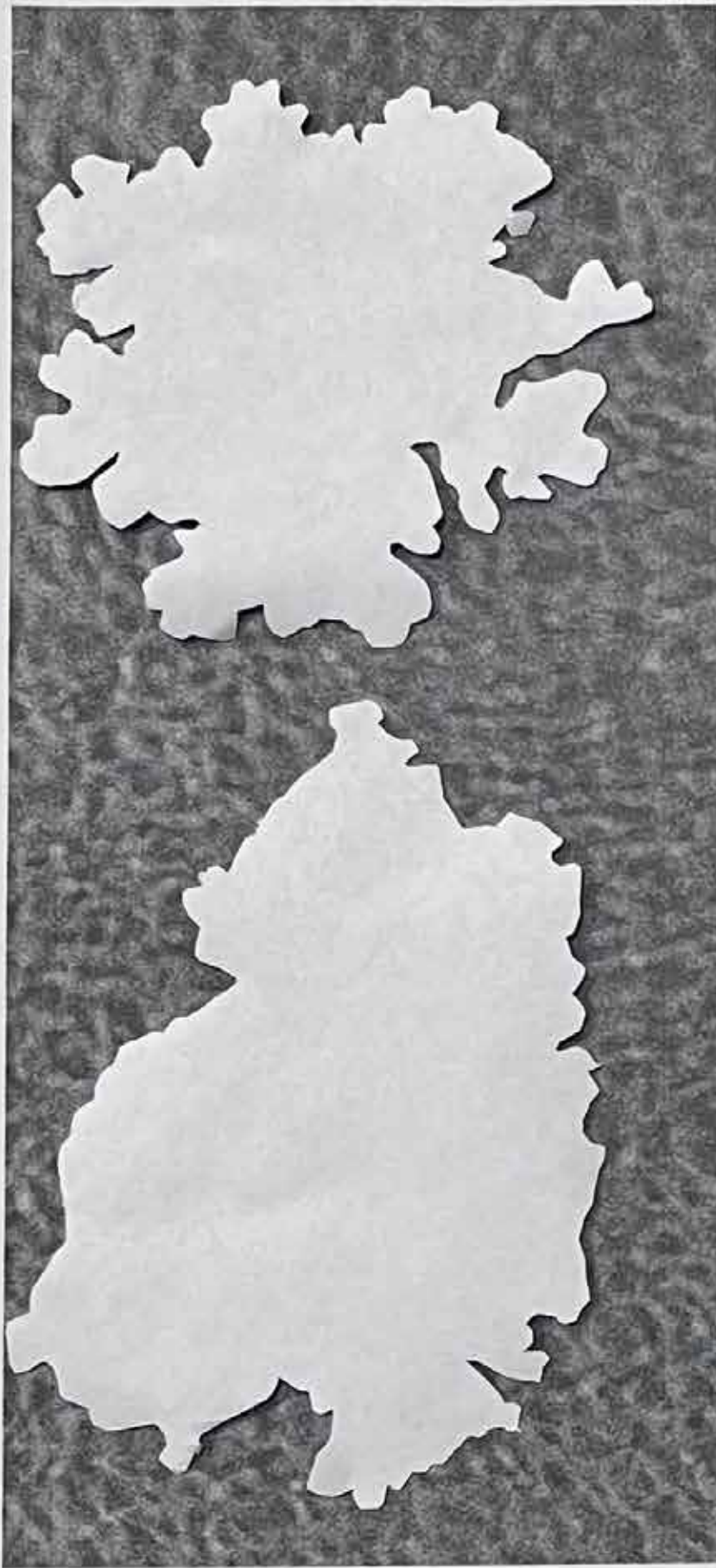












## waste / land play / ground

Professor: Joshua Uhl  
Core I Studio  
Fall 2020

Broadway is in many ways a dividing line between the east and west sides of Inwood, revealing a rift between income levels, school zoning and access to greenspace. This project aims to create a greenspace on the east side of Broadway that grows organically from the industrial character of the neighborhood and reinvests interest and use into the site. Located between the subway and the waterfront, there are three existing sanitation buildings that collect on average 19.5 tons of waste from NYC every day. Waste processing is often a visual and environmental detriment to its surroundings. What do we do with our waste? How do we define waste? These

questions prompted deeper research into the history of waste management in NYC and invited speculation on what our relationship to human byproducts may be in the near future. This intervention repurposes the existing structures to process compost, thereby allowing for a system that exposes the public to more creative ways to manage waste. The two most inland buildings are dedicated to piling and sorting artificial waste from compost. The structure nearest to the water becomes a host for dozens of thick cardboard tubes where the compost-soil takes on a new life as substrate for natural growth. The smokestacks that previously

incinerated the garbage brought to these buildings now provide scaffolding for further natural growth. SAs visitors walk through the site, they witness each stage of the compost cycle: collection, processing, and reuse. Already in a partial state of disuse, the existing architecture on site is slowly being overtaken by vines and other foliage. This intervention is fundamentally humanmade, but it aims to contribute to and accelerate the landscape's reclamation of the site. By introducing the chemical transformations built into composting and biodegradation, the architecture has its own destruction built into its design.

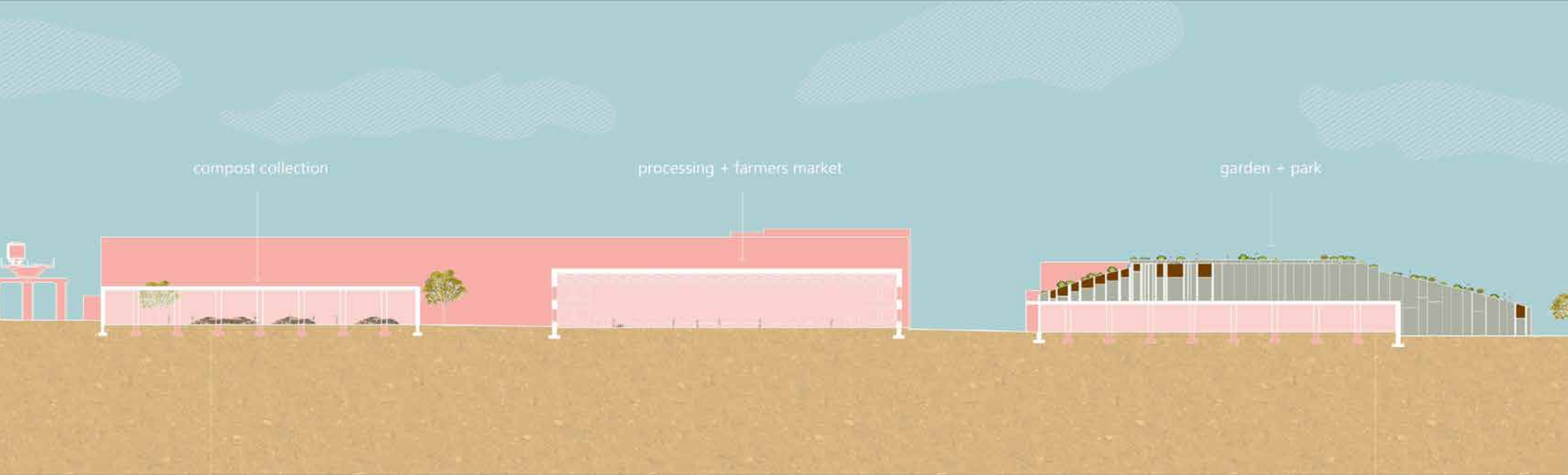




compost collection

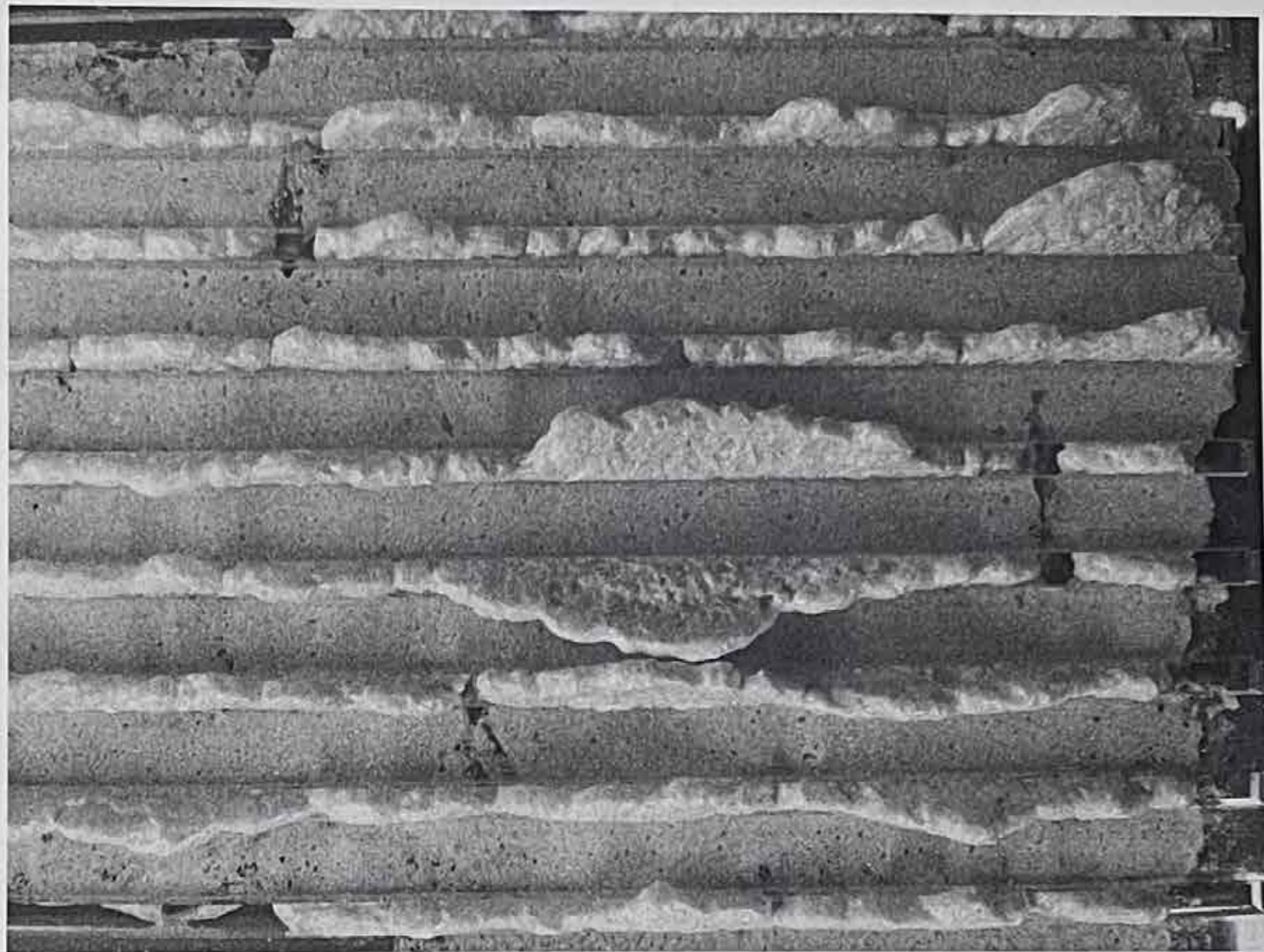
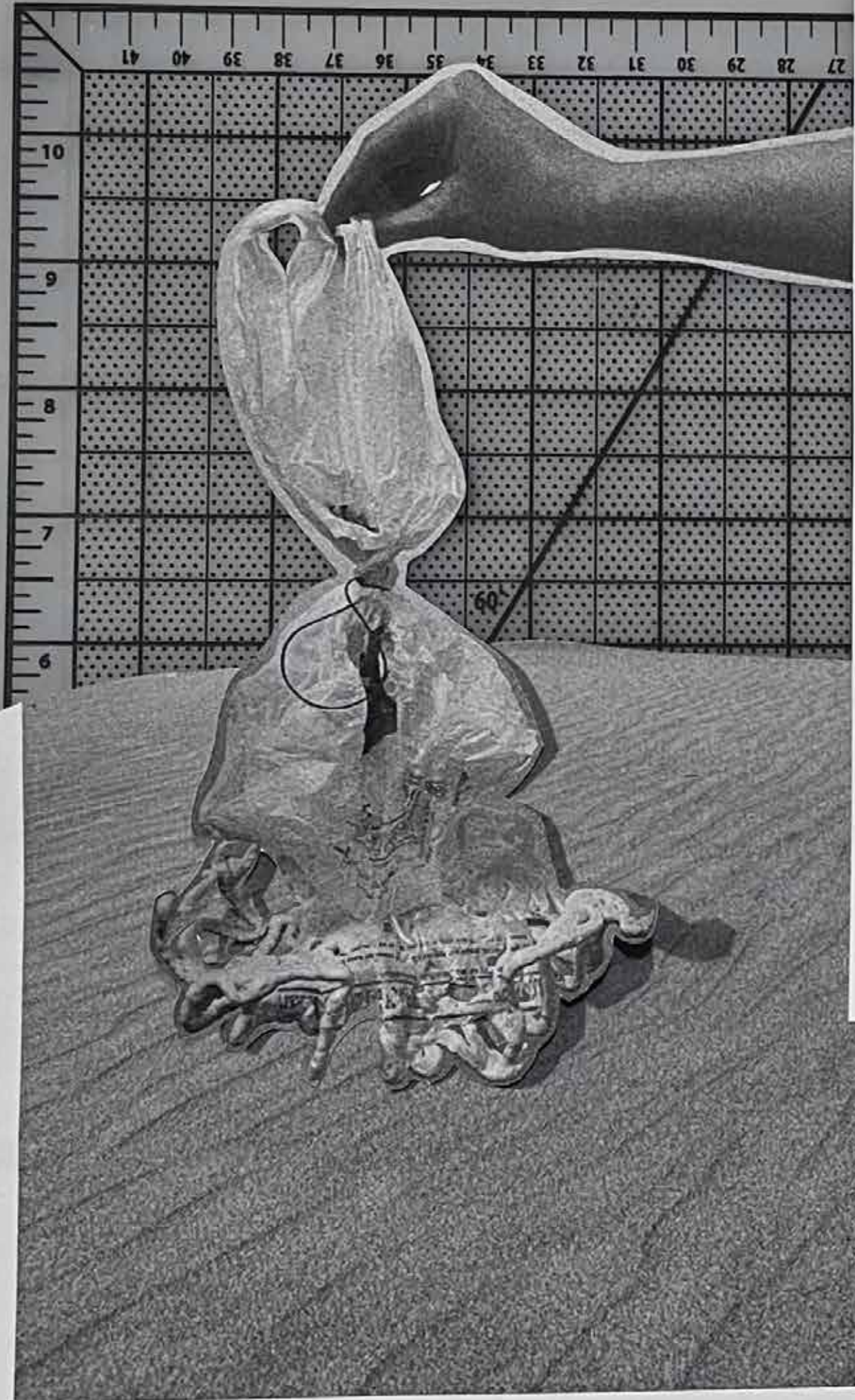
processing + farmers market

garden + park









## Sedimentary School

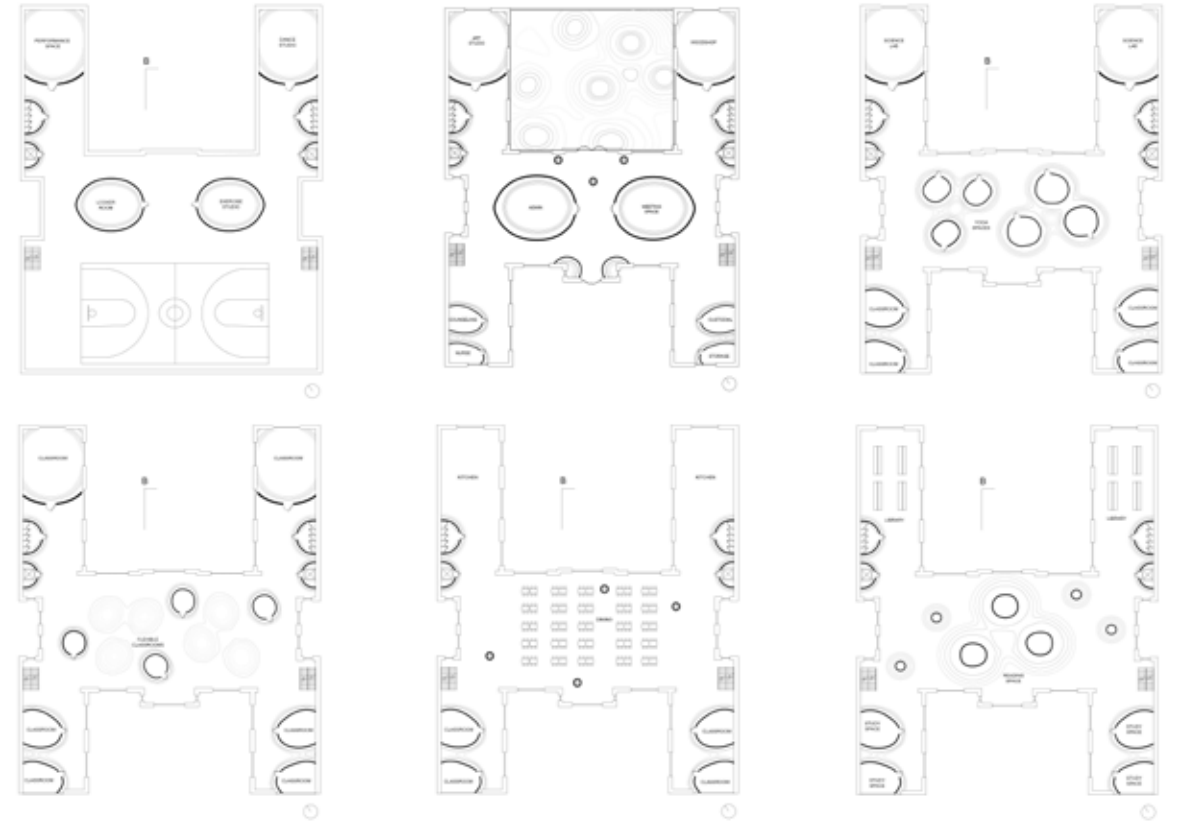
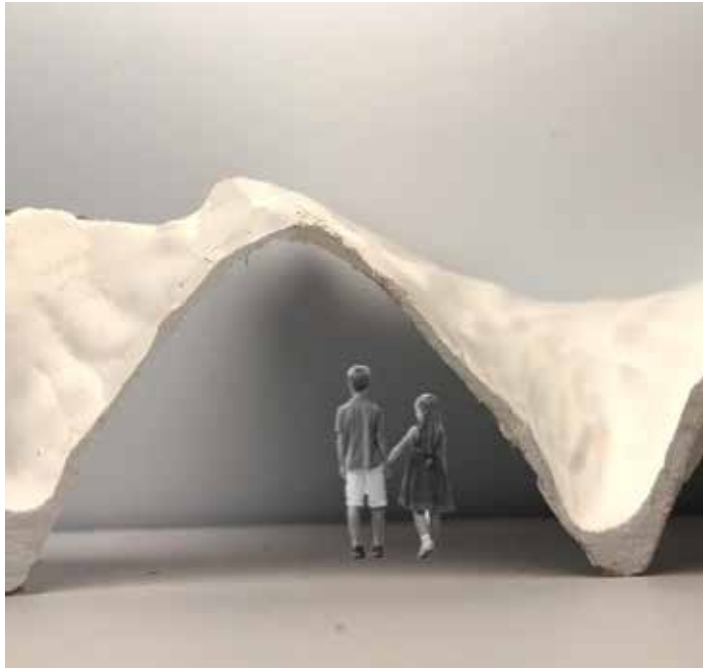
Professor: Miku Dixit  
Core II Studio  
Spring 2021

Located in Manhattan's East Village, PS64 is a historic building with a long past as a school and a community center. Currently the iconic H-plan building is currently unused and in a state of disrepair. The derelict structure is subject to an ever changing ratio of human intervention that maintains the site and natural forces that will reduce it to rubble. At every stage of its life, the building is a product of aggregate influences acting on its structure, appearance and use. Using a pile of soil as an analogy, the various shapes that come about in the pile are the product of the local forces that

made them. This cause-effect relationship inspired a system of thinshell vaults that use earth as formwork and recycled rubble as building material. The shells penetrate PS64 as it stands today to support the remaining structure and to create a variety of spatial conditions, ranging from secluded cave-like cloisters, to undulating, lofty atria. Based on the physics phenomenon "the angle of repose," this architecture presents a dialogue between hyperefficient catenary curves and piles of mass determined by gravity. This interplay of extremes mirrors another dialectic that pervades the site: the life and death

of architecture in a physical world. By making these forces manifest in the building, this school exposes young children in grades K-8 to a range of spatial conditions with no clear distinction between one space and another. Learning takes place at every scale, from secluded caves which fit only a few people to a vast, sweeping communal basin embedded in the ground for the entire student population to convene as one.

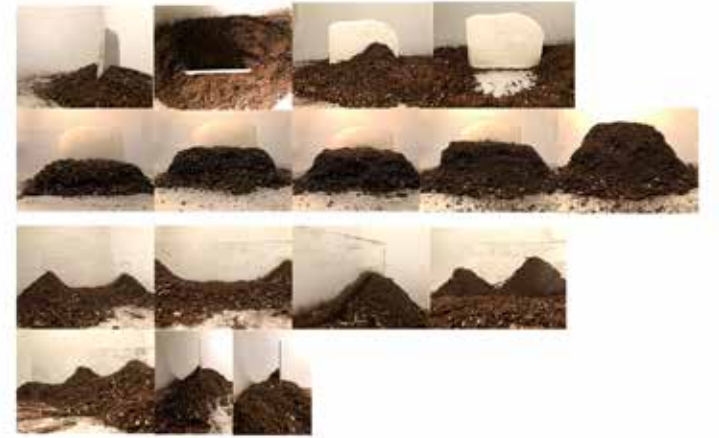




floor



wall



column



arch

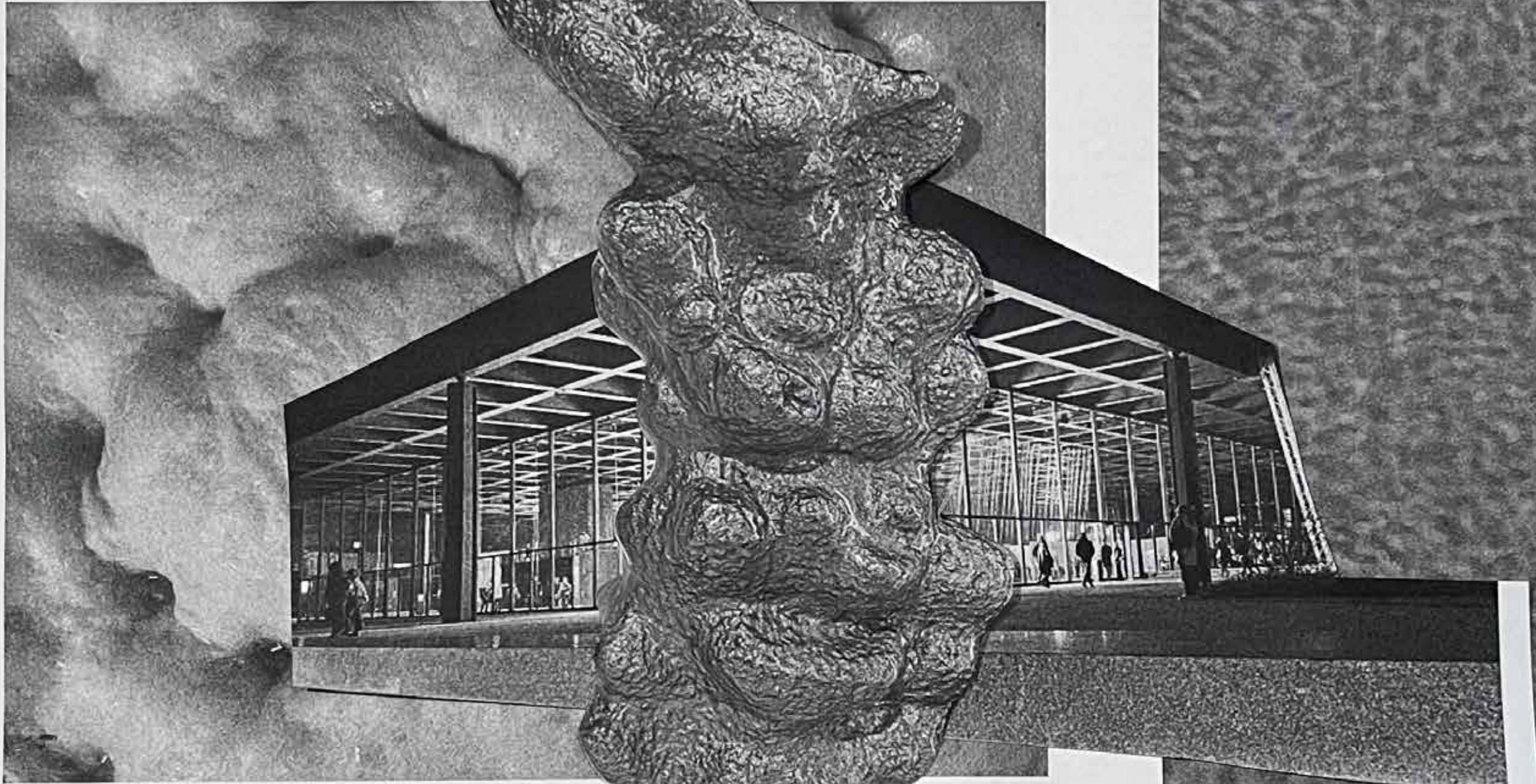
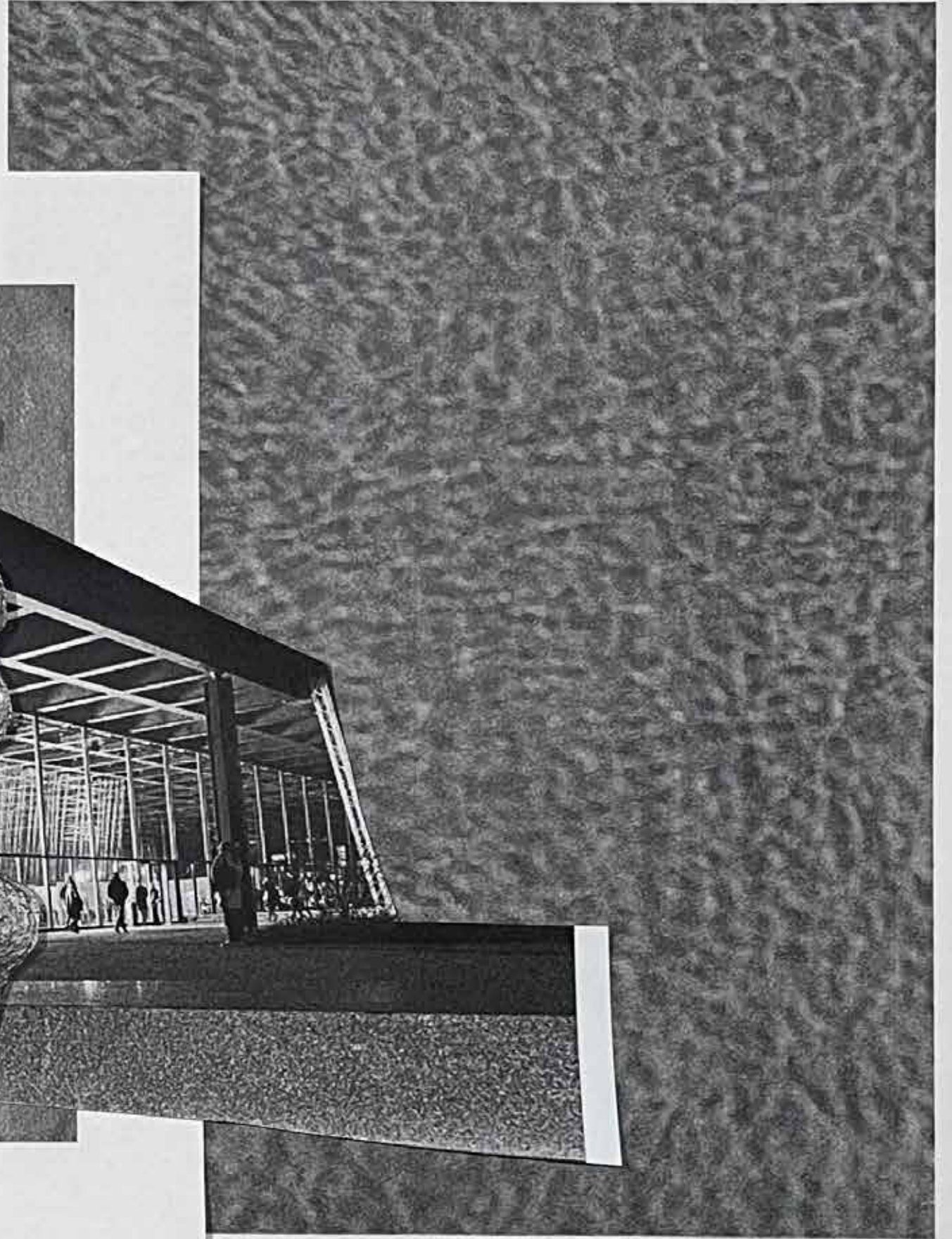
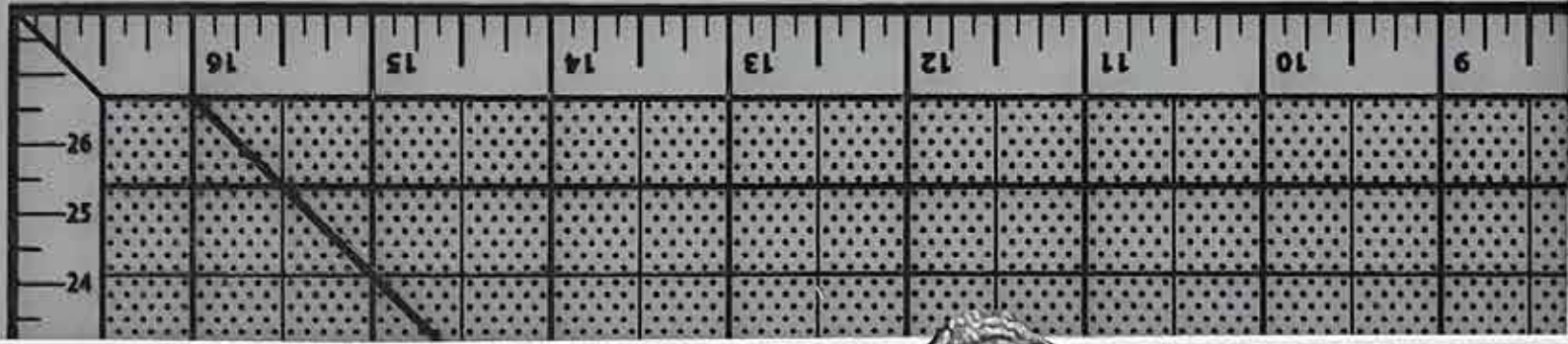


architecture  
+  
natural substance









## In Their Own Ways

Professors: Ada Tolla & Giuseppe Lignano, LOT-EK  
ADV VI Studio  
Spring 2023

"The MAKERGRAPH studio centers on thinking-by-making; on craft and digital craft; and on material practice.... The studio adapts a thesis-like sensibility into a committed sequence of highly structured, iterative, cumulative assignments. In parallel and mutual influence with those assignments, you create a visual, material, and verbal archive of your own preoccupations and reflections from your life experiences within and beyond the design world. This requires radical authenticity and creative courage."

- Ada Tolla and

Giuseppe Lignano

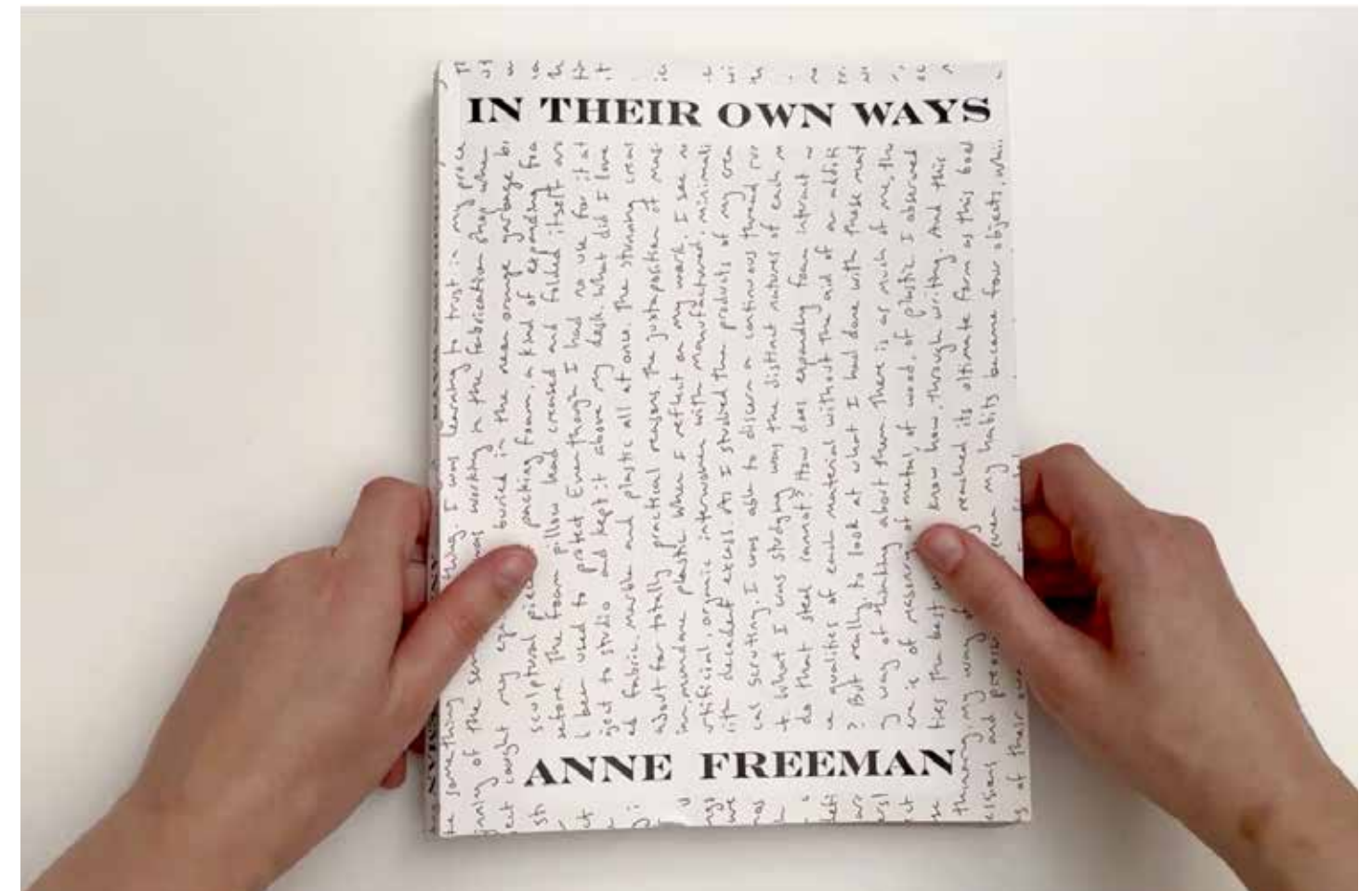
My experiments in thinking-by-making started with a prescription: each week I must use the assigned material to make an object that measures 18"x18"x18". First masonry, then

metal, wood and plastic. Using found objects, these weekly bursts of creativity formed the basis of weekly reflections and musings. The second half of the semester was spent refining each of the four objects and crafting the final deliverable, a 160-page book.

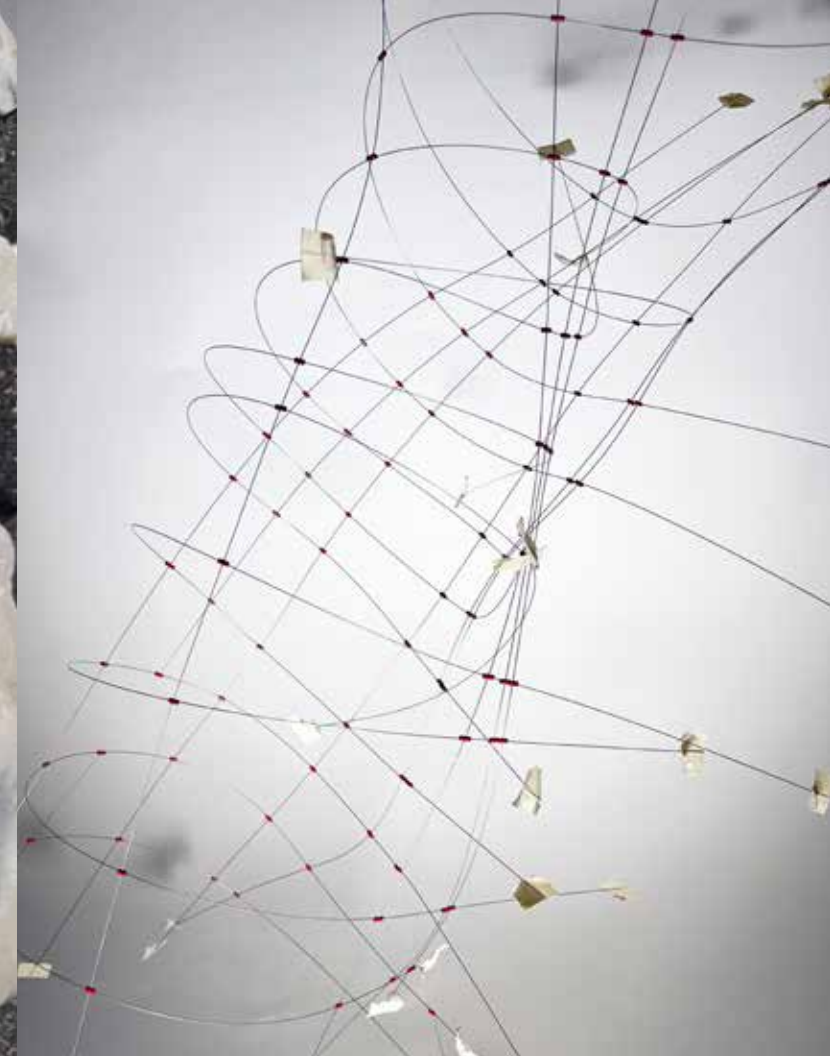
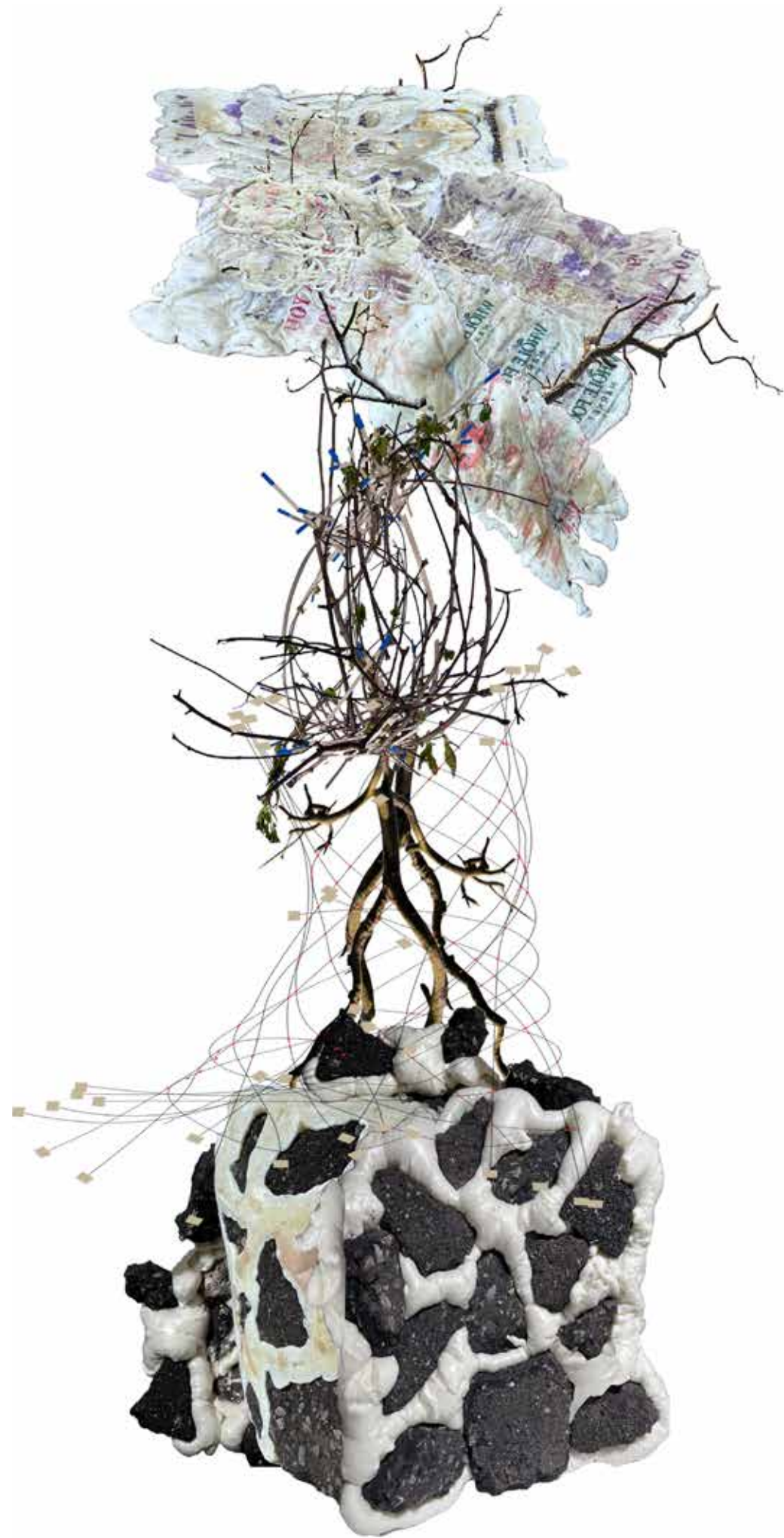
As I reflected on each week of making, I was astonished at how time consuming the process was, from sourcing materials to experimenting again and again. At the beginning of each week I had no materials and no ideas, and in less than seven days I found myself with an unanticipated treasure of my own making. My obsessions and preoccupations, even my habits became four objects, which took on lives of their own.

Each week I sensed growing confidence in my ability to make

something out of nothing. I was learning to trust in my process. What really is my role as the creator? I did not make the materials; I found them. I have no influence over the laws of physics that shaped these objects. Do I even have control over my own creative intuitions? Once I assembled my four objects together I noticed so many moments of confluence and resonance. The more I look at it the more resemblances I see. Is it coincidence? Randomness? My subconscious? Everything seems to be part of the same creative process, slipping in and out of intentionality and consciousness. This is true of the objects individually and the stacked piece as a whole.







When I reflect on the objects I made in the MAKERGRAPH studio, I see tension between extremes. There are moments of efficiency and lightness, and other moments of redundancy and abundance sometimes held together in literal tension. These four objects were made in bursts of intense and intuitive creativity, but when I step back to examine them, I see an amazing confluence of themes and interests that have been with me for years.

The first piece, an assembly of shells made of stones and spray foam, reveals my long held fascination with form finding and unexpected shapes.

The metal grid on top of it is at once precise and expressive, each delicate wire ending with tape, like little white flags shooting out in all directions.

The wooden object is my most excessive. A bird's nest of both raw and processed wood, it appears to grow out of the stone and form the backbone of the piece as a whole.

Finally, the spray foam that has been a fascination of mine long before this studio reappears in another guise as a canopy that nestles among the branches of the wood object.

Stacked on top of each other, these pieces stand six feet and three inches tall, a good deal higher than my five foot seven. When I face my creation I am surprised to recognize myself in it. My obsessions, my sensibilities, my deepest creative

impulses have all found their way into the object before me. I tried to understand what I had made by writing about it. From the beginning, week by week, I traced the lineage of my work as it became an externalized version of myself that took on a life of its own.

#### MASONRY, IN ITS OWN WAY

Over a collective three hours, I found a variety of stones in Morningside Park, some with jagged edges, others smooth and rounded. I decided to use expanding foam to join these distinct objects. The foam fills any crevice, thereby resolving the incompatibility of the stones' contrasting and organic edges. At first I loved the irony of joining stone, an organic and nontoxic material, with one of the most artificial and surreal substances I could find. I created a flexible sling in which I placed the stones and allowed gravity to determine the form of the stones as a composite object. The foam that I sprayed in between the stones holds the pieces together and captures the curvature exactly.

#### METAL, IN ITS OWN WAY

At the start of our second week, just before I left my apartment to look for scrap metal, I remembered that I have a closet full of leftover model materials that I have accumulated over the past two years. In the closet I found 27 steel wires, packaged in 6 red plastic tubes. Wanting to use every part of the material that I had, I spent two hours segmenting the plastic packaging into 114 connecting nodes and puncturing them with

a pin so that each node could hold two wires perpendicular to each other. I ended up with a flexible mesh that is surprisingly strong and resilient. When I set out to make an object with metal, I expected it to be heavy and cold. I surprised myself by finding a form of metal that can be woven like fabric into a lightweight, spacious and playful object.

#### WOOD, IN ITS OWN WAY

Like my metal object, this piece originates from the process of weaving an irregular grid. Also like my metal object, the material comes from the same stash of model supplies that I've been hoarding in my closet for two years. The wooden sticks are from a model all M.Arch students built for the second technology sequence, which was a skeleton of columns and beams attached at the joints by pins. This is why, two years ago, I put blue tape on the ends of the wood -to keep it from splitting when I pushed the needle through.

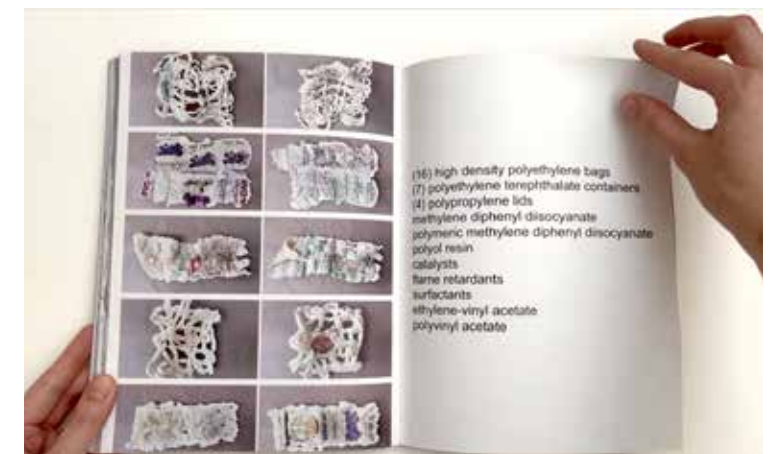
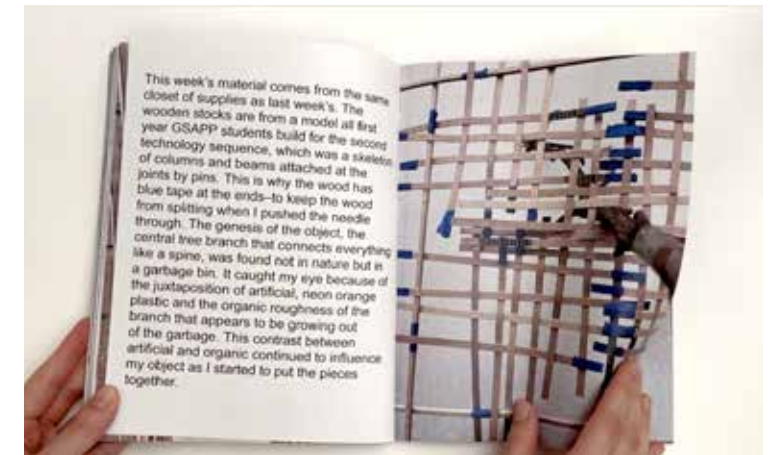
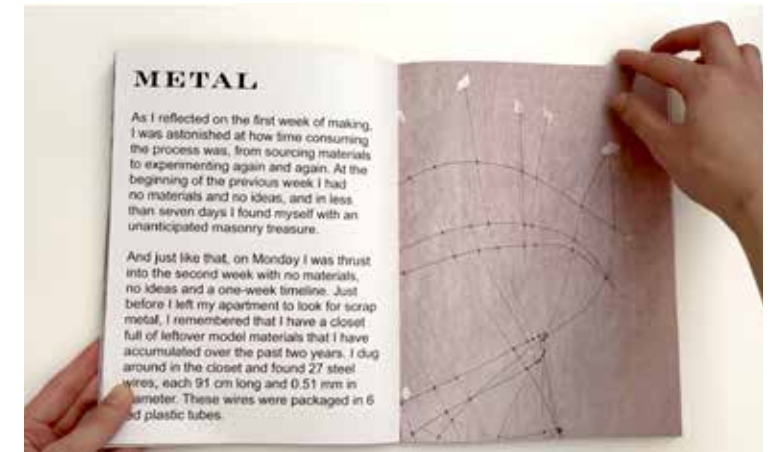
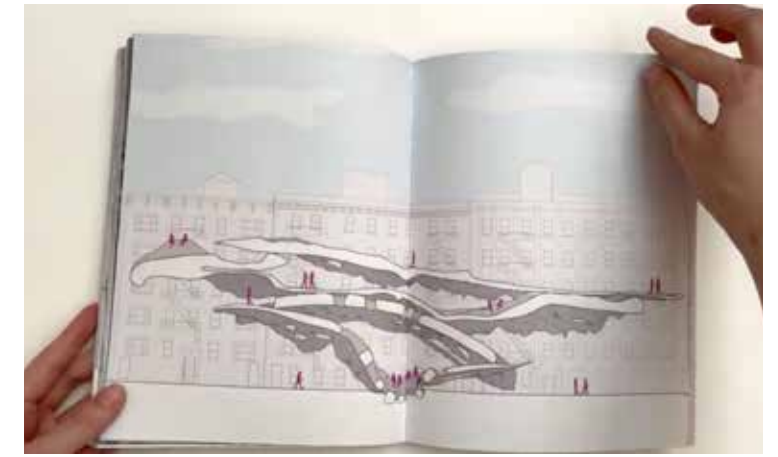
#### PLASTIC, IN ITS OWN WAY

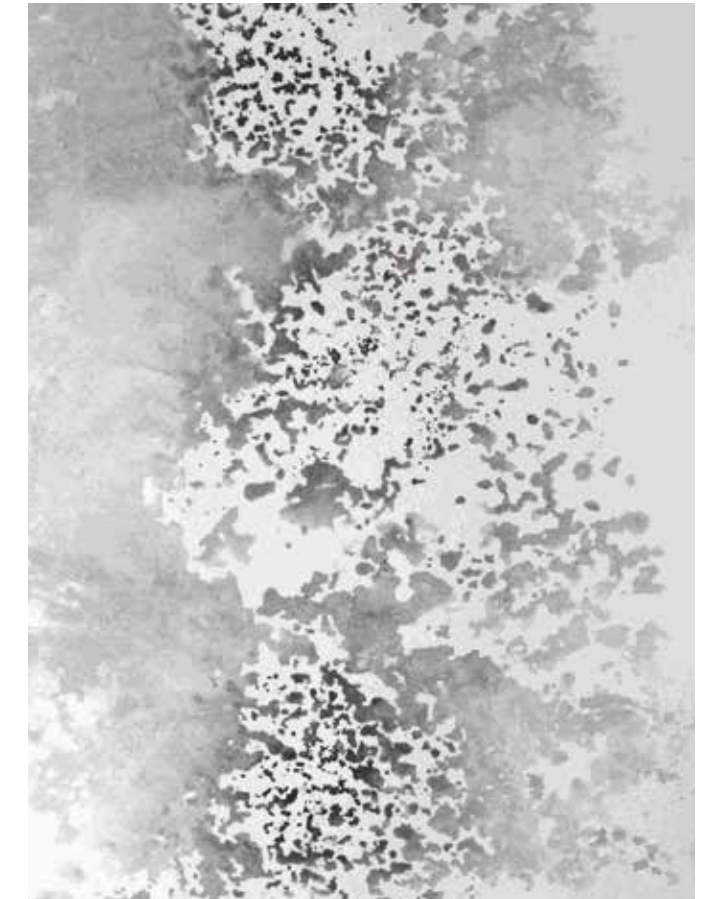
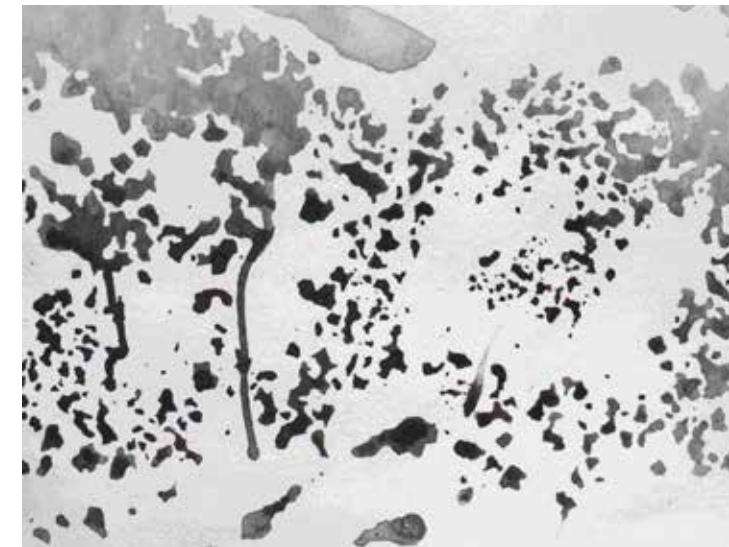
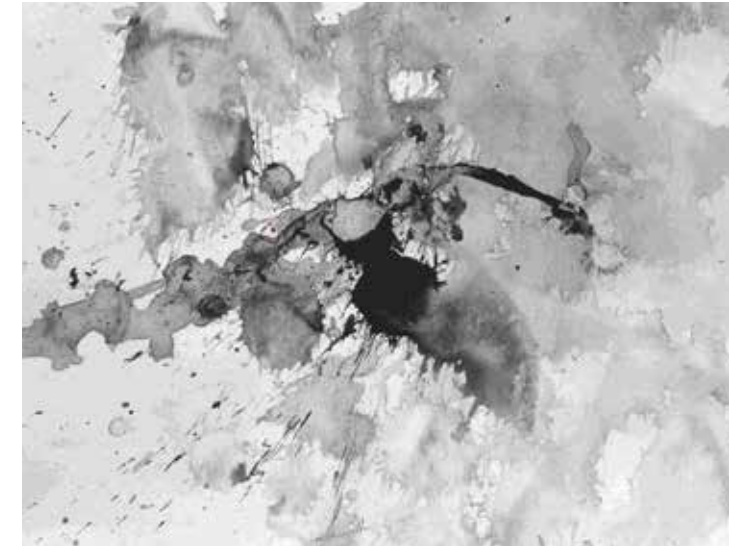
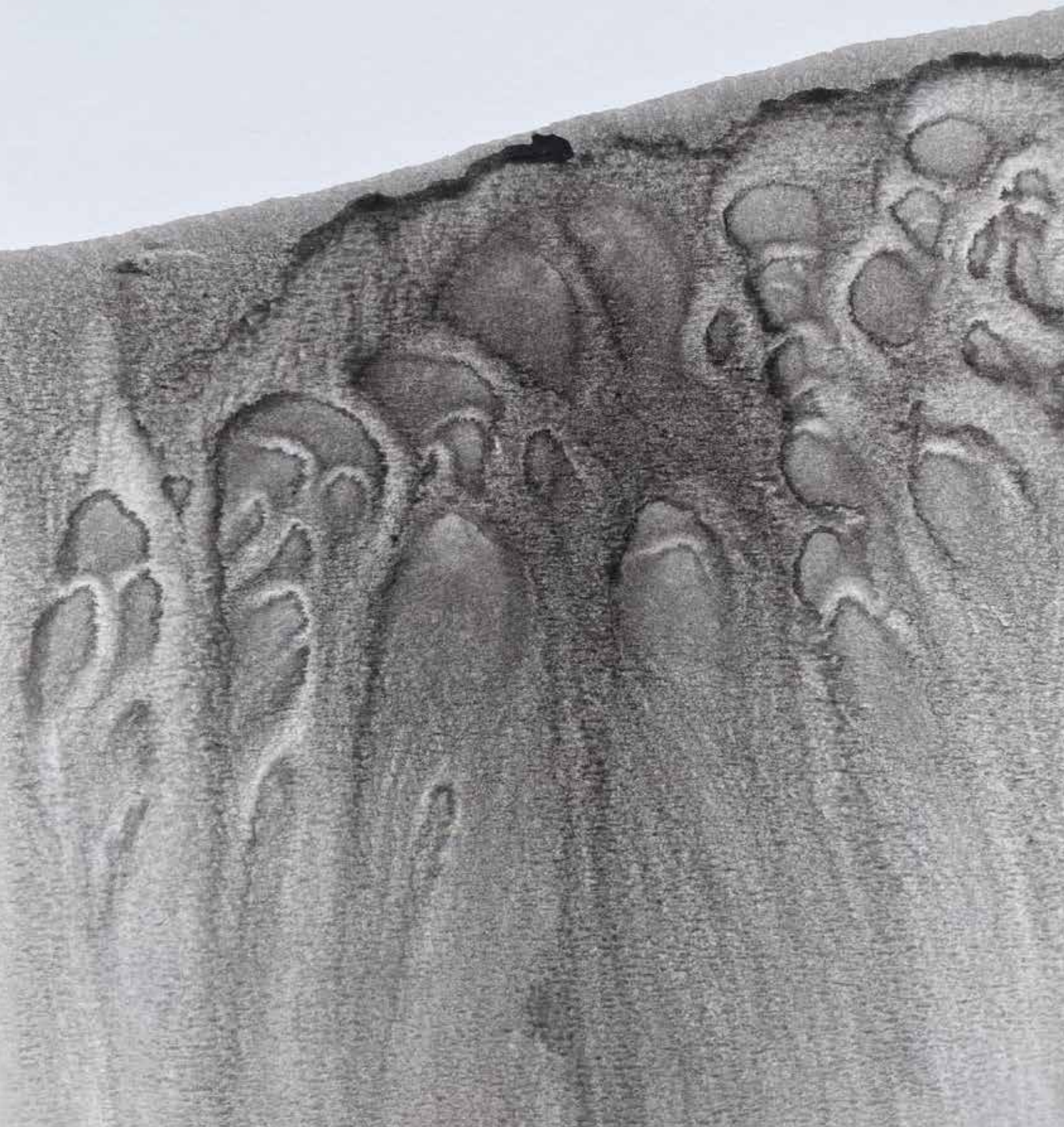
Using a combination of rigid and flexible plastic, I made a layered formwork in which I cast thin sheets of spray foam. When I first did this, I accidentally discovered that spray foam absorbs ink. Images and writing from plastic bags have transferred onto the spray foam, creating a collage of the messages and connotations embedded in our daily use of plastic. In its undetermined form, plastic is impressionable and almost defined by its lack of

qualities. Once I gave it qualities, by means of plastic bags and containers that had been formed by someone else, it took on a range of textures, colors, finishes and forms.

When I face my creation, I see natural alongside artificial, organic interwoven with manufactured, minimalist precision answered with decadent excess. As I studied the products of my creativity with almost clinical scrutiny, I was able to discern a continuous thread running throughout each component. What I was studying was the distinct natures of each material. What can wood do that steel cannot? How does expanding foam interact with stone? Can I define the inherent qualities of each material without the aid of an additional structure or armature?

But really, to look at what I had done with these materials was to understand my way of thinking about them. There is as much of me, the maker, in my object as there is of masonry, of metal, of wood, of plastic. I observed and processed these qualities the best way I know how, through writing. And this is how my way of thinking, my way of making, reached its ultimate form as this manuscript. My obsessions and preoccupations, even my habits became four objects, which took on lives of their own. In turn, I reflected on and wrote about the objects, and my writing became an object itself—a book, which comes to life in its own way.





One of the most prominent features of Riverside Park in NYC is the Hudson River. However, if one knows where to look, water can be found in many forms all throughout the park. As part of my work for Intro to Architecture at GSAPP, I collected data about water in the park by making

diagrams of water sources and taking ink prints of various wet surfaces, such as sprinkler runoff, droplets from nearby air conditioning units and freshly watered flowers. The shapes I discovered in the ink prints inspired a large scale installation of carefully shaped slabs of

stone that would recreate the ink patterns by guiding water down a slope whenever it rains. The stones are an extruded form of the negative space in the ink prints, scaled up to be comfortable sitting and resting spots for users of the park.



# Vital Brookdale Case Study: Healthier Or Not?

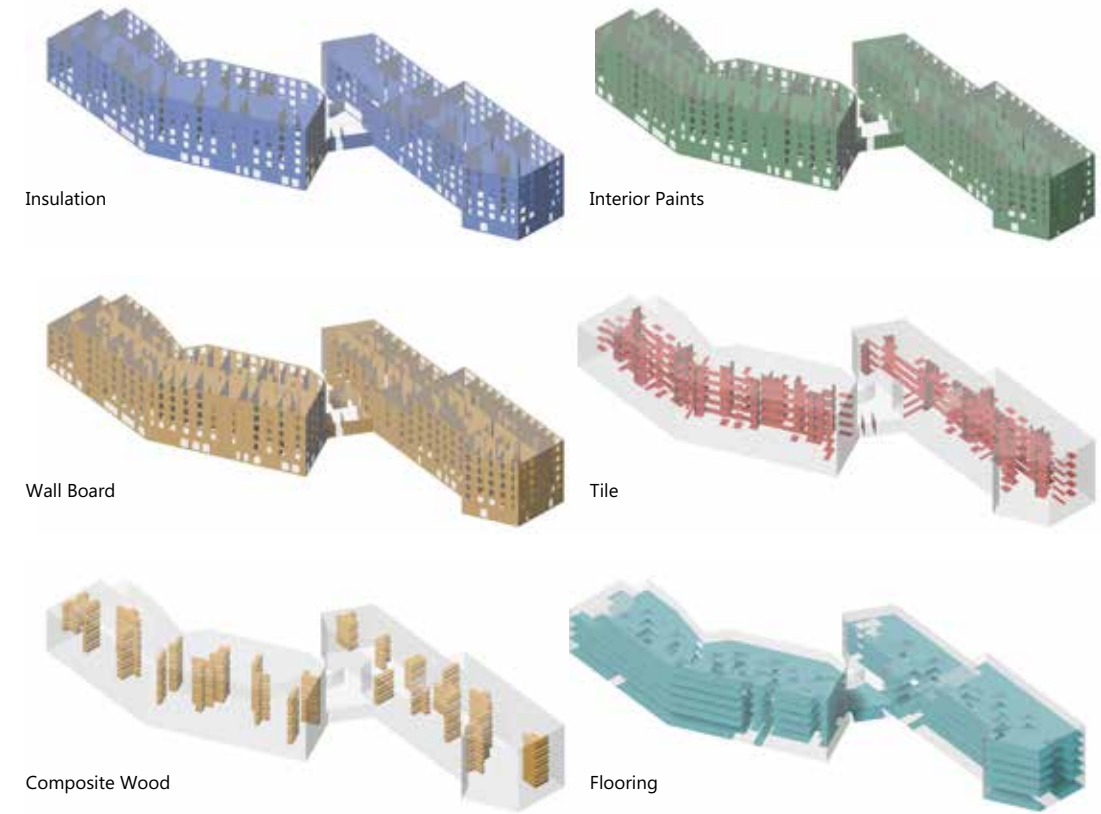
Designed by Dattner Architects, Vital Brookdale is the first completed project in New York State's Vital Brooklyn Initiative to improve low-income residents' health, wellness, and housing. Located in Brownsville, Brooklyn, the 185,000 SF building comprises 160 residential units and a variety of public programs such as job training, a food bank and medical clinics.

As part of a class exercise designed to simulate material specification, I rigorously researched and evaluated products on the market to specify healthier building materials for residential, medical and commercial spaces throughout the building.





Image from Dattner Architects

# Healthier Building Materials



			
	Benjamin Moore UltraSpec 500	Benjamin Moore Aura	Graphenstone Mineral Paint
	Benjamin Moore's Ultra Spec 500 line is a water-based, Zero VOC interior acrylic paint. Application requires a primer.	Benjamin Moore's Aura line is a Zero VOC interior acrylic paint. It comes in a wide range of colors and sheen options range from matte, eggshell, satin, and semi gloss.	Graphenstone paints are lime and graphene based. Graphene gives the paint extreme strength, durability, and washability.
HUMAN HEALTH	★★★★☆ Select colors are Cradle to Cradle Silver certified. While this paint is APE-free according to HomeFree, there is concern that acrylic paints introduce microplastics into the environment.	★★★★☆ This paint is APE-free according to HomeFree, but there is concern that acrylic paints introduce microplastics into the environment.	★★★★★ Ingredients are lime, water, calcium carbonate and 1-5% non toxic additives. White is the only color with Cradle to Cradle Gold certification.
INDOOR CLIMATE	★★★★★ Zero VOCs	★★★★★ Zero VOCs	★★★★★ Zero VOCs. Additionally, the lime in the paint actively improves indoor air quality by absorbing toxins and CO2.
ENVIRONMENT - ENERGY	★★★★☆ Paint is generally not an energy intensive product.	★★★★☆ Paint is generally not an energy intensive product.	★★★★★ Extraction of lime and graphene is not particularly demanding in energy.
ENVIRONMENT - CARBON	★★★★☆	★★★★☆	★★★★★ This paint is produced in Spain, which may result in longer lead times and carbon emissions during transport.
AFFORDIBILITY	★★★★☆ \$0.08 per SF, \$0.16 with primer	★★★★☆ \$0.25 per SF	★★★★☆ \$0.35 per SF
DISASSEMBLY/ RECYCLING	★★★★☆ Not recyclable. If needed, painted walls can be wiped down with a damp cloth.	★★★★☆ Not recyclable. If needed, can be wiped down with a damp cloth.	★★★★★ Not recyclable. Disposal of this product does not introduce toxic compounds into the environment.

			
	USG Sheetrock UltraLight Mold Tough	Gold Bond BRAND Fire Shield	Trusscore Wall&Ceiling Board
	USG Sheetrock UltraLight Mold Tough Gypsum Board is made of a moisture-resistant gypsum core encased in 100% recycled moisture-resistant paper. Suitable for use in bathrooms.	Gold Bond BRAND Fire-Shield Gypsum Board panels consist of a fire-resistant gypsum core encased in 100% recycled paper.	Trusscore Wall&Ceiling Board is a water and mold resistant PVC panel, used mostly in cellars, bathrooms and storage areas.
HUMAN HEALTH	★★★★☆ If installed with protection, particulate matter (toxic or not) can be prevented. Health of accessory products should be considered.	★★★★★ If installed with protection, particulate matter (toxic or not) can be prevented. Health of accessory products should be considered.	★★☆☆☆ PVC contains endocrine disrupting phthalates. Therefore use of this product is not recommended. Production of PVC is also toxic to factory workers.
INDOOR CLIMATE	★★★★☆ Zero VOCs or added formaldehyde in this product.	★★★★★ Zero VOCs or added formaldehyde in this product.	★★★★☆ No VOCs or added formaldehyde.
ENVIRONMENT - ENERGY	★★★★☆ The production of gypsum boards is a relatively carbon and energy intensive process.	★★★★☆ The production of gypsum boards is a relatively carbon and energy intensive process.	★★☆☆☆ PVC manufacturing is very energy intensive.
ENVIRONMENT - CARBON	★★☆☆☆	★★★★☆	★★☆☆☆ Production of PVC generates a number of chemical pollutants, including dioxins, vinyl chloride, and heavy metals.
AFFORDIBILITY	★★★★★ \$1.83 per SF	★★★★☆ \$2.08 per SF	★★☆☆☆ \$3.77 per SF
DISASSEMBLY/ RECYCLING	★★★★☆ We recommend further research into manufacturers with take-back/recycling programs. Gypsum can be recycled if kept isolated from other debris collections.	★★★★★ We recommend further research into manufacturers with take-back/recycling programs. Gypsum can be recycled if kept isolated from other debris collections.	★★☆☆☆ As a thermoset plastic, PVC cannot be recycled.

# Animated Broccoli Websites

# Coding For Spatial Practices

```
1 * {
2   box-sizing: border-box;
3   margin: 0;
4   /* padding: 0; */
5 }
6
7 html,
8 body {
9   width: 100%;
10  font-family: sans-serif;
11  font-size: 16px;
12  background-color: #f0f0f0;
13 }
14
15 .fixed {
16   display: flex;
17   position: absolute;
18   z-index: 10;
19   top: 0;
20 }
21
22 .filters,
23 .sort {
24   padding: 5px;
25   width: 100%;
26 }
27
28 .list {
29   margin: 10px;
30   display: flex;
31   flex-direction: row;
32   padding: 0 10px;
33 }
34
35 .filter-button {
36   font-family: sans-serif;
37   text-decoration: none;
38   letter-spacing: 0.5em;
39   color: #000000;
40   background-color: #f0f0f0;
41   width: 180px;
42   height: 40px;
43   text-align: center;
44   border: 1px solid black;
45 }
46
```

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta http-equiv="X-UA-Compatible" content="IE=edge">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <title>100 Chairs</title>
8   <link href="https://fonts.googleapis.com/css2?family=Josefin+Slab:wght@200;600&display=swap" rel="stylesheet">
9   <link href="https://fonts.googleapis.com/css2?family=Zilla+Slab&display=swap" rel="stylesheet">
10  <link href="style.css" rel="stylesheet">
11
12  <body>
13    <div class="filters">
14      <button class="filter-button active" data-filter="Italy">Italy</button>
15      <button class="filter-button active" data-filter="Germany">Germany</button>
16      <button class="filter-button active" data-filter="USA">USA</button>
17      <button class="filter-button active" data-filter="England">England</button>
18      <button class="filter-button active" data-filter="Austria">Austria</button>
19      <button class="filter-button active" data-filter="Finland">Finland</button>
20      <button class="filter-button active" data-filter="Denmark">Denmark</button>
21      <button class="filter-button active" data-filter="wood">wood</button>
22      <button class="filter-button active" data-filter="metal">metal</button>
23      <button class="filter-button active" data-filter="glass">glass</button>
24      <button class="filter-button active" data-filter="plastic">plastic</button>
25      <button class="filter-button active" data-filter="fabric">fabric</button>
26    </div>
27    <div class="sort">
28      <button class="filter-button active" data-filter="ascending">By Year (Asc)</button>
29      <button class="filter-button active" data-filter="descending">By Year (De)</button>
30    </div>
31    <div class="list">
32      <h3>CHAIRS</h3>
33      <br>
34      <ul></ul>
35    </div>
36  </body>
37 </html>
38
39 <script language="javascript" src="script.js"></script>
```

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta http-equiv="X-UA-Compatible" content="IE=edge">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <title>Poem</title>
8   <link rel="stylesheet" href="style.css">
9
10  <body>
11    <div class="text">
12      <p>sometimes in
13      its sphere of
14      sky lilac and
15      wrinkled, the
16      moon melts
17      like a fragment
18      of angry candy</p>
19    </div>
20    <div class="refresh">
21      <button class="refresh-button">refresh</button>
22    </div>
23    <div class="original-poem">
24      <p>original poem</p>
25    </div>
26  </body>
27 </html>
```

“Magnificent”



## 1:1 Fabrication & Detailing

How can one “misuse” a material?  
Guided by our shared obsession with unconventional methods of fabrication, Laura and I experimented with the many uses of spray foam. Lightweight and surprisingly structural, spray foam is designed to fill any crevice and cure into a watertight solid. We investigated the qualities of this plastic material and experienced the kind of discovery that can only happen through physical exploration. We found that spray foam can take on a variety of finishes depending on curing conditions: at times it can be glossy, wet and bubbly; elsewhere it is matte and opaque. Our assignment was to build a six foot tall totem that consisted of a wall typology of our own

design and a skin. We wanted to make an object that was repulsive to look at and touch, disgusting yet alluring in its garishness. We began by making our own stock material: scrap chunks of purple foam reconstituted with spray foam into thick slabs. The slabs grew into a vertical stack supported by irregular and improbable columns made from foam themselves. The result is an artificial monstrosity that nearly resembles organic growth such as fungi and slime mold. The finishing touch is a tensile skin of neon orange nylon, an homage to the veiled nuns and adorned goddesses of Renaissance art. The object took on a second and final form when we sectioned it with a chainsaw and reassembled the cut pieces to reveal the inner substance.



