The following is a collection of selected works completed at Columbia GSAPP.

The work as a collective begins an investigation into the movement of land, people and time.

Movement is not only defined by a physical journey, but a temporal one.

Each project reflects on a greater understanding that our built world must respond to ongoing dialogues between community needs and environmental requirements. BOOK.pdf

Portfolio 2024 Lucy Baird | M.Arch

Portfolio 2024

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H B.Arts, University of Toronto, 2021 John. H Daniels Faculty of Architecture Landscape and Design

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# BOOK.pdf

Lucy Baird

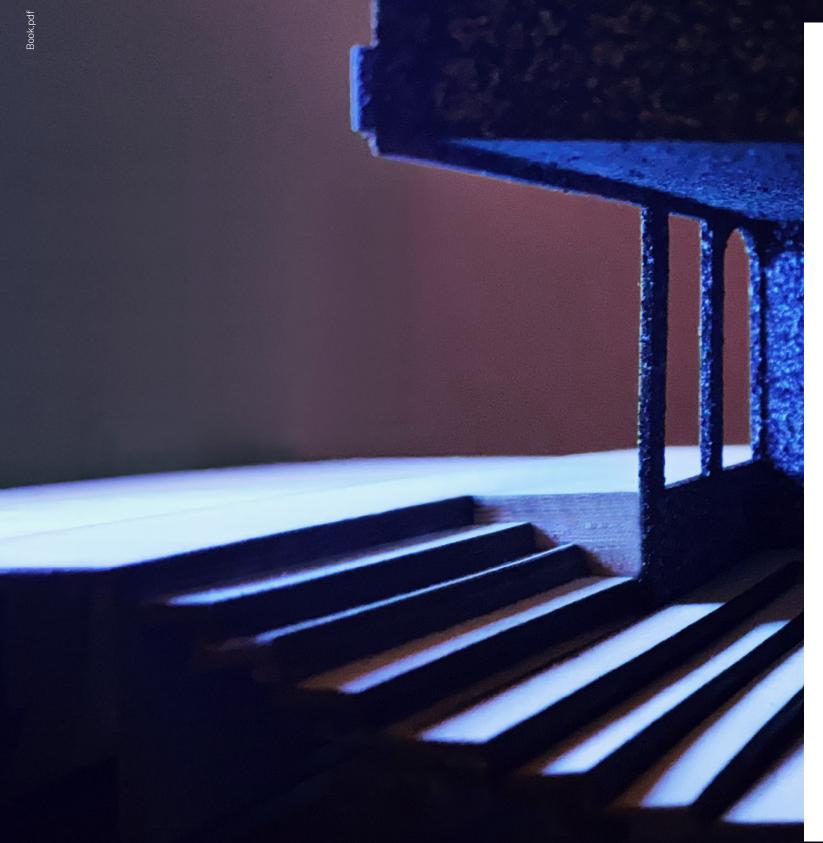
02

# Contents

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A School
Migrant Housing
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In Tension: Knots, Ropes, Memories and Practice

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# **Re-Connection**

community to its host.

Core I Studio GSAPP - Columbia University Fall - 2021 Led by Professor Amina Blacksher

40 43 Z 72 0'3.

≶

An underground public space, located at IO3 MacDougal Street, unites the ground conditions and connects the past and present axis of MacDougal and Minetta Street.

Rooted in the ground, this public space intervention

to reveal the hidden natural resources lying underneath

aims at breaking the existing urban typology

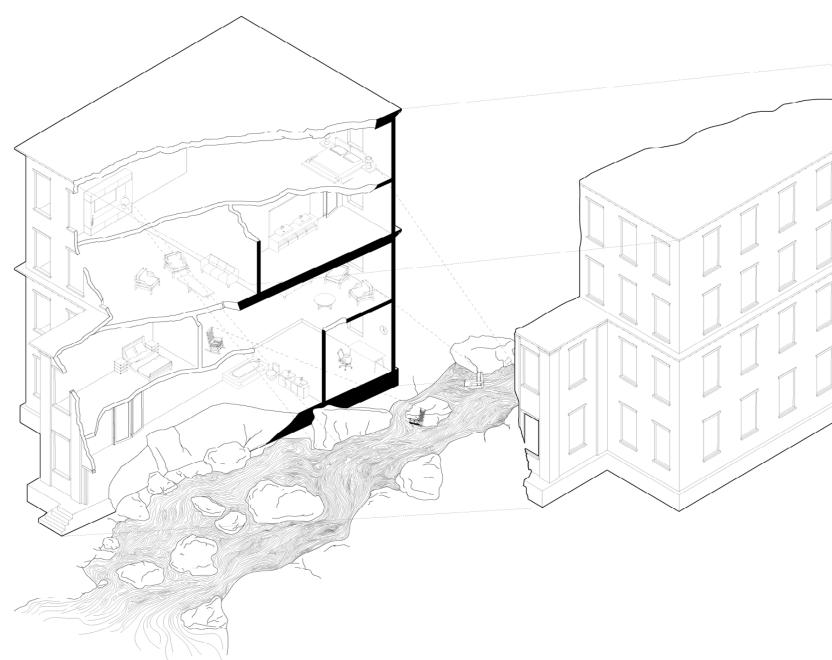
the surface. Re-connecting the existing

The existing site's underground history is critical to the project. Minetta Street contradicts the grid system of the surrounding streets, hinting at the subterranean creek in which it mimics. Minetta Creek can be seen as the thoroughfare of its time, connecting the Land of the Blacks to New Amsterdam. Since the Land of the Blacks, the ground has been used as a resource for economic capital, with hierarchies of power and community layering upon one another. This project aims at subverting this notion, using the ground as a resource of knowledge, wisdom and reflection.

Going into the ground and engaging with the past, rendering it to the present.

Core I - Re-Connection

Lucy Baird











Lucy Baird



Site Map



### **Street Conditions**

Life that inhabits the two streets framing IO3 MacDougal Street vary greatly.

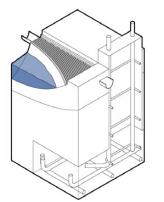
MacDougal Street today is occupied by various groups throughout the day. With restaurants and coffee shops using outdoor seating that spills out activity into the street, as well as many tourists visiting the popular area and students from the nearby college, New York University. At night, the street is a loud and active site for nightlife, including comedy shows and bars.

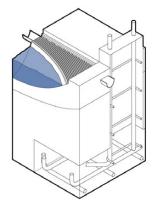
Minetta Street, one of few winding streets that contradicts the grid form of the street planning, following what once was a path along Minetta creek. This waterway served a number of functions throughout history. A place for fishing and navigation used by the Indigenous population. In the I7th century, the creek served as a means of connection between New Amsterdam and Little Africa which consisted of farmland owned by a community of half-free, formerly enscalved African-Americans. It was eventually filled in and paved over in the 19th century. Datums of history layer upon one another into what we see today, a quiet and otherwise unused street.

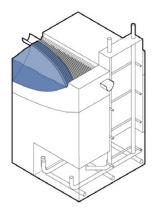
Core I - Re-Connection

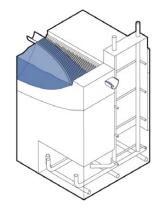


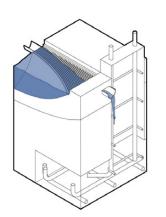
Minetta Street

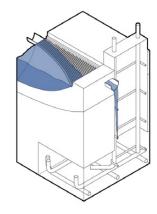


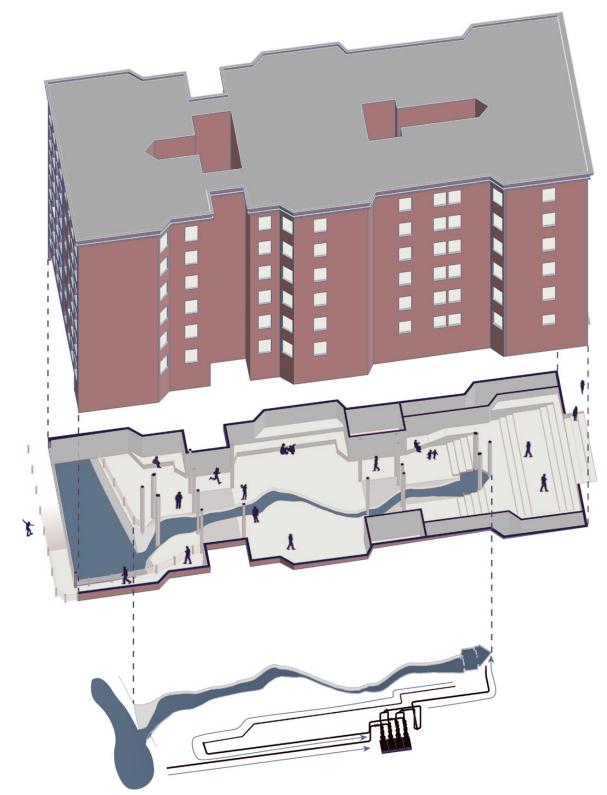












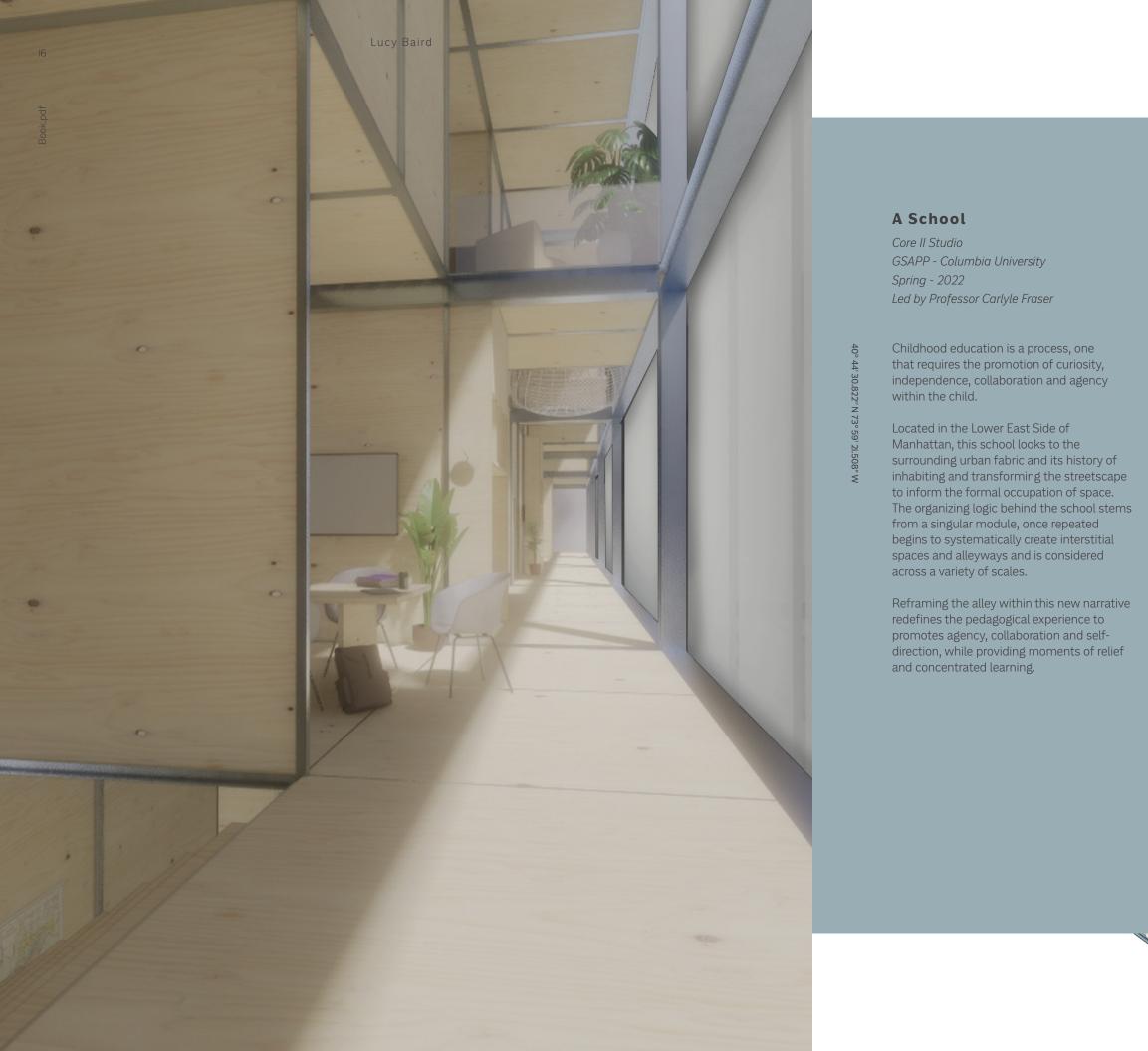
Exploded Axonometric

Water Circulation

Portfolio 2024











The larger site has been occupied, traversed, and transformed by various communities and societies. This process of translation and transformation has shaped the site and its occupants into what we see today.

### The Wickquasgeck Trail

The main route used by Indigenous peoples. The path goes south from Chatham square, roughly following what we know today as Park Row to City Hall and north up Bowery.

# The Dutch West India Company

Allocated land for a fort and farms dong the Wickquasgeck Trail. In 1787, a narrowlare on the farm was widened and became what we know today as Stuyvesant Street.

### The Slaughterhouse

Built by the collect pond and used as a dumping site. Disdain towards the area for the scent and prominence of diseases remained, and was thus became home to much of the poorer population.

1. ......

### The "EL"

An elevated train built along Bowery Street. leading to noise and air pollution, prompting property values to fall and shops to move. The 'El' was demolished in 1958.

### Sarah Delano Roosevelt Park

In 1929, land, formerly an African American burial ground, was purchased by the City of New York and transformed into a park stretched a total of 7 blocks from Houston Street to Canal Street.

### The Essex Market

For almost over a century, immigrants and migrants had set up pushcart markets on the side of many of the streets in the neighbourhood, the most popular being Orchard Street. The public became increasingly frustrated by the amount of congestion on the streets that housed the open air markets.

### Today

An informal occupation of space exists on the side walks, on the stoops of buildings, and the void space within the centers of street blocks. The urban form is both informing occupants on how to live, and being repurposed and transformed to meet their needs.



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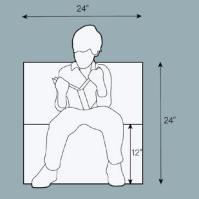
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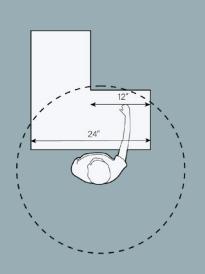
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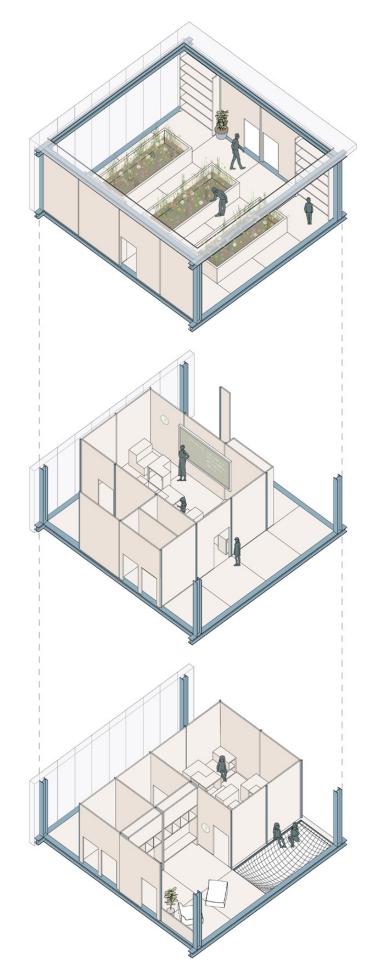
24"

24″

12"



The repeated module used to systematically create the interstial spaces that drive the interior street of the building are considered at a smaller scale,looking to the size of a child to create multi-purpose furniture that can be combined to create new spaces for children to engage with.





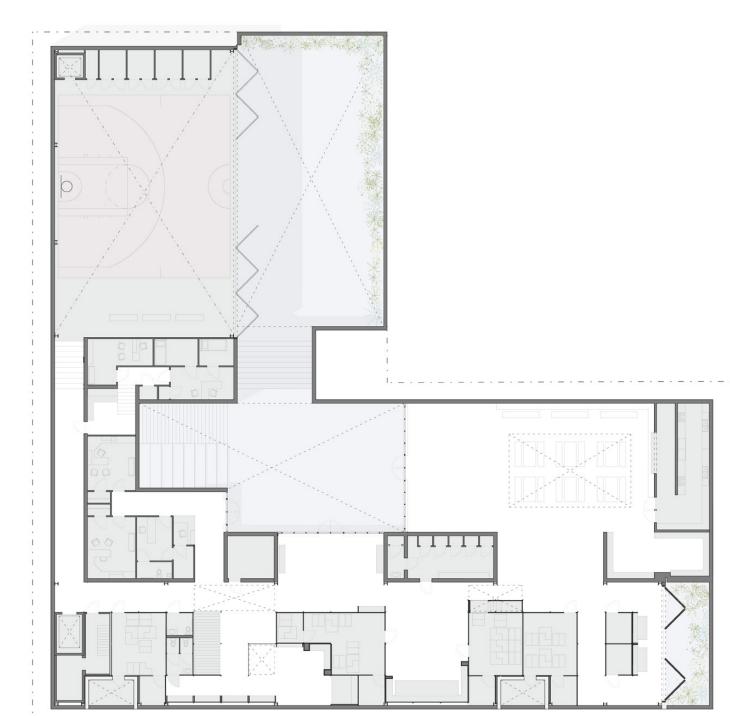


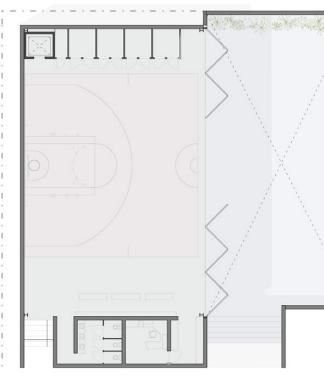


Top Left Ground Floor Plan

Top Right Floor Plan 2 - 4

Circulation is repurposed as a space for learning. Expanded to allow for new forms of occupation. Classroom are centered within the building, providing known spaces for concentrated learning. Moments of reprieve form around corners and jut out over double height spaces, creating moments of connection and solitude.

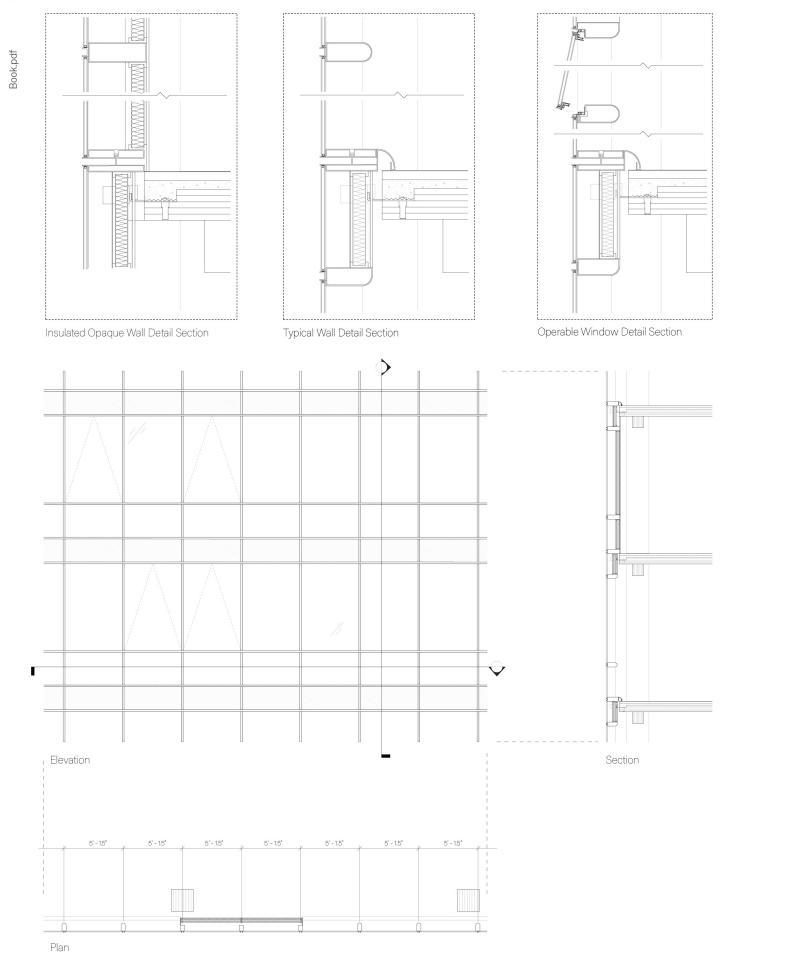


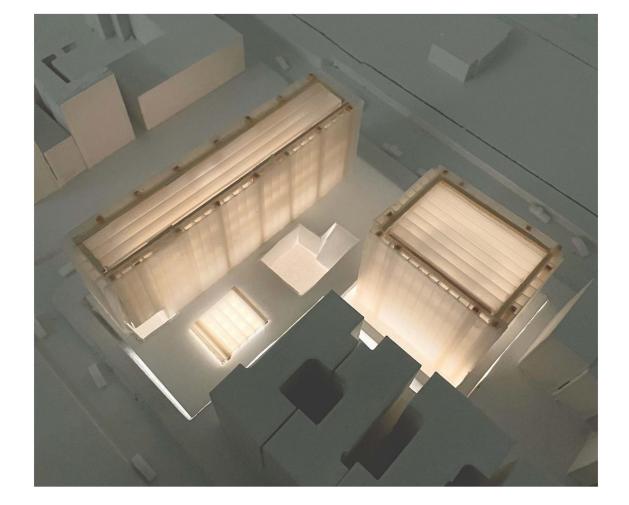


Below Grade Floor Plan Left

Above Below Grade 2 Floor Plan



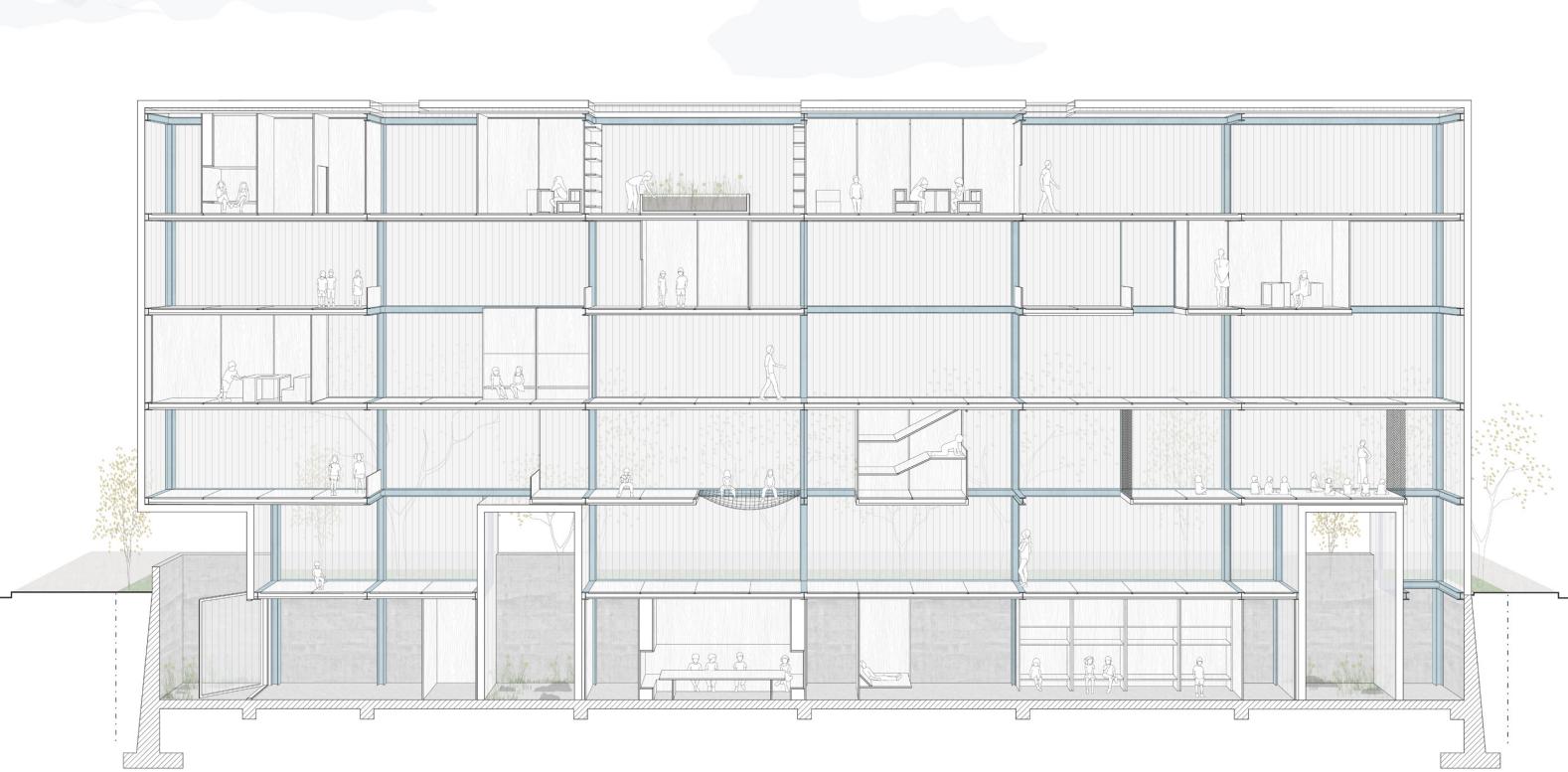




Facade Details Left

Model Photo Above





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# **Migrant Housing**

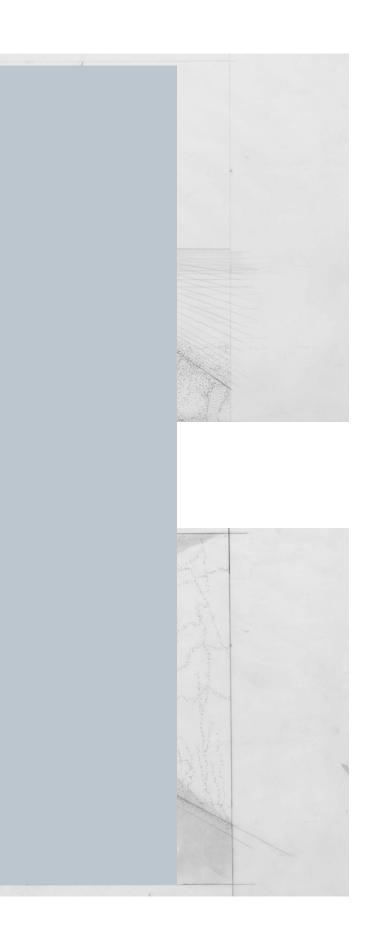
Core III Housing Studio GSAPP - Columbia University Fall - 2022 Led by Professor Hilary Sample In partnership with Hanouf AlFehaid

The concept of house as home is tied to both the cultural and social climate of its geographical boundary, and to the embodied dwelling traditions developed within. The process of migration is a complete disruption to this sense of stability.

This project looks to become a node within an existing network of support for migrants in the Bronx and the greater New York City area. Utilizing a boardwalk like condition for circulation that activates public spaces and sunken gardens in its absence. A flexible coliving residential floorplan that allows for the varying forms of arriving groups and families, and in its long-term outlook, the expansion and contraction of these groups over time.

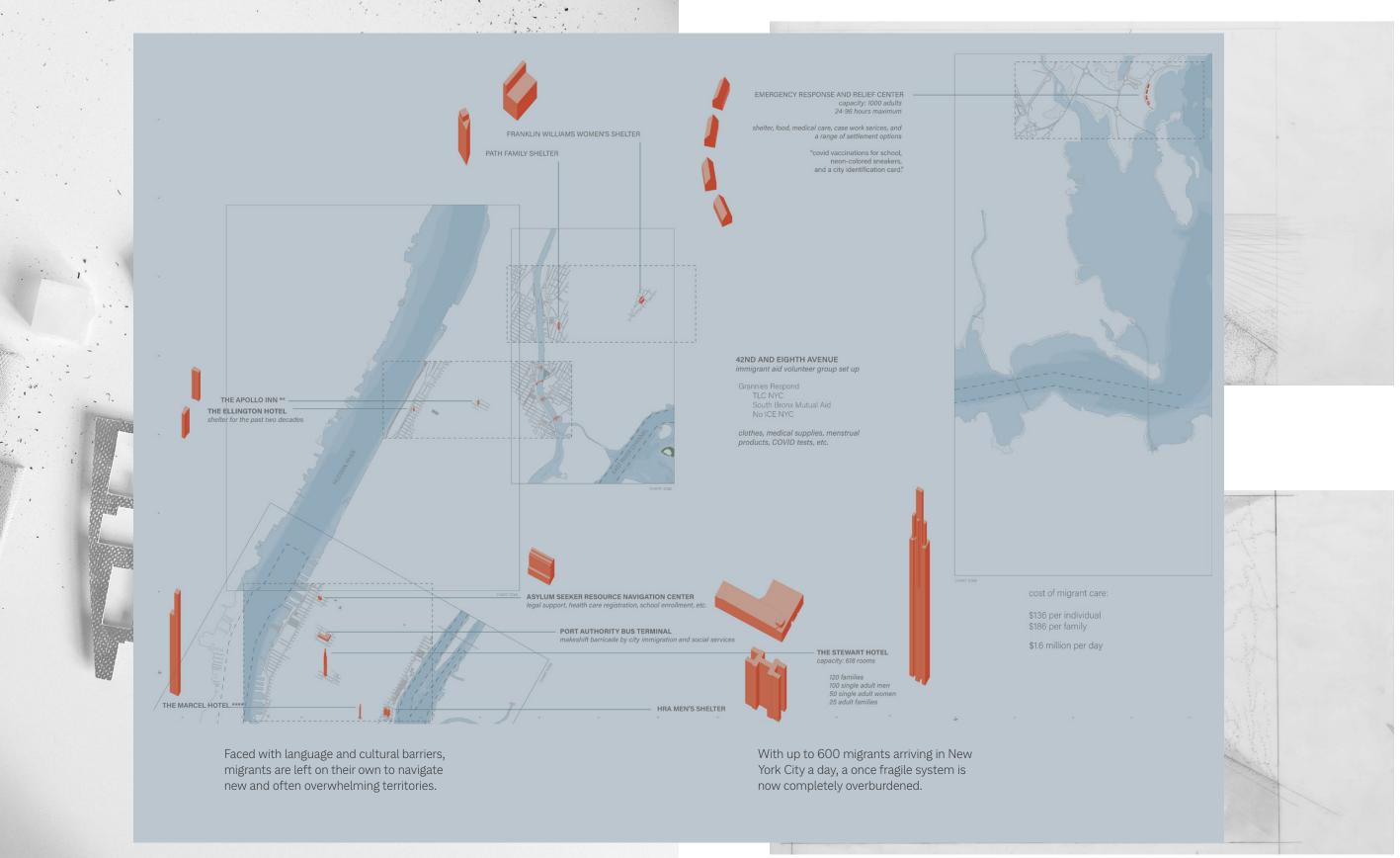
With a view that with an immediacy to social and public services, the isolating journey of a migrant upon arrival will hopefully, at a minimum, become less of an overwhelming process of settlement.

sunken garden and boardwalk, pencil on trace paper Above exterior circulation, pencil on trace paper Below kit of parts site model, card stock, metal mesh, rockite, soil Left



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Above sunken garden and boardwalk, pencil on trace paper Below exterior circulation, pencil on trace paper kit of parts site model, card stock, metal mesh, rockite, soil Left

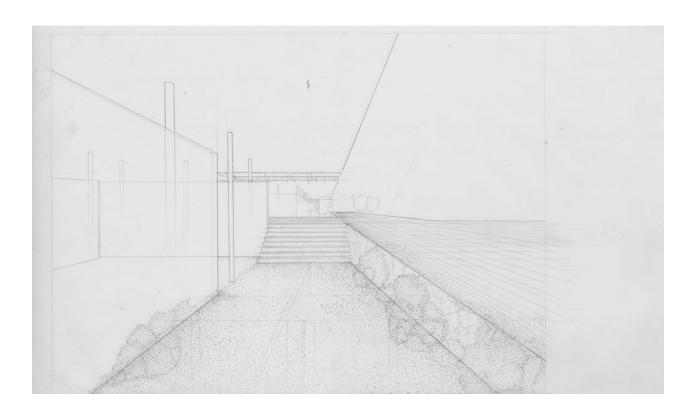
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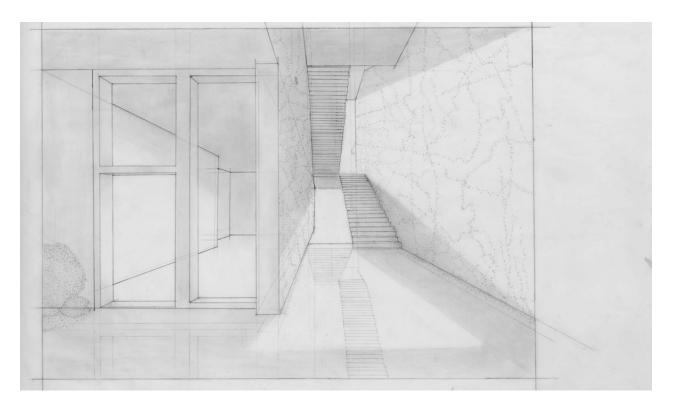
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# Migrant Housing

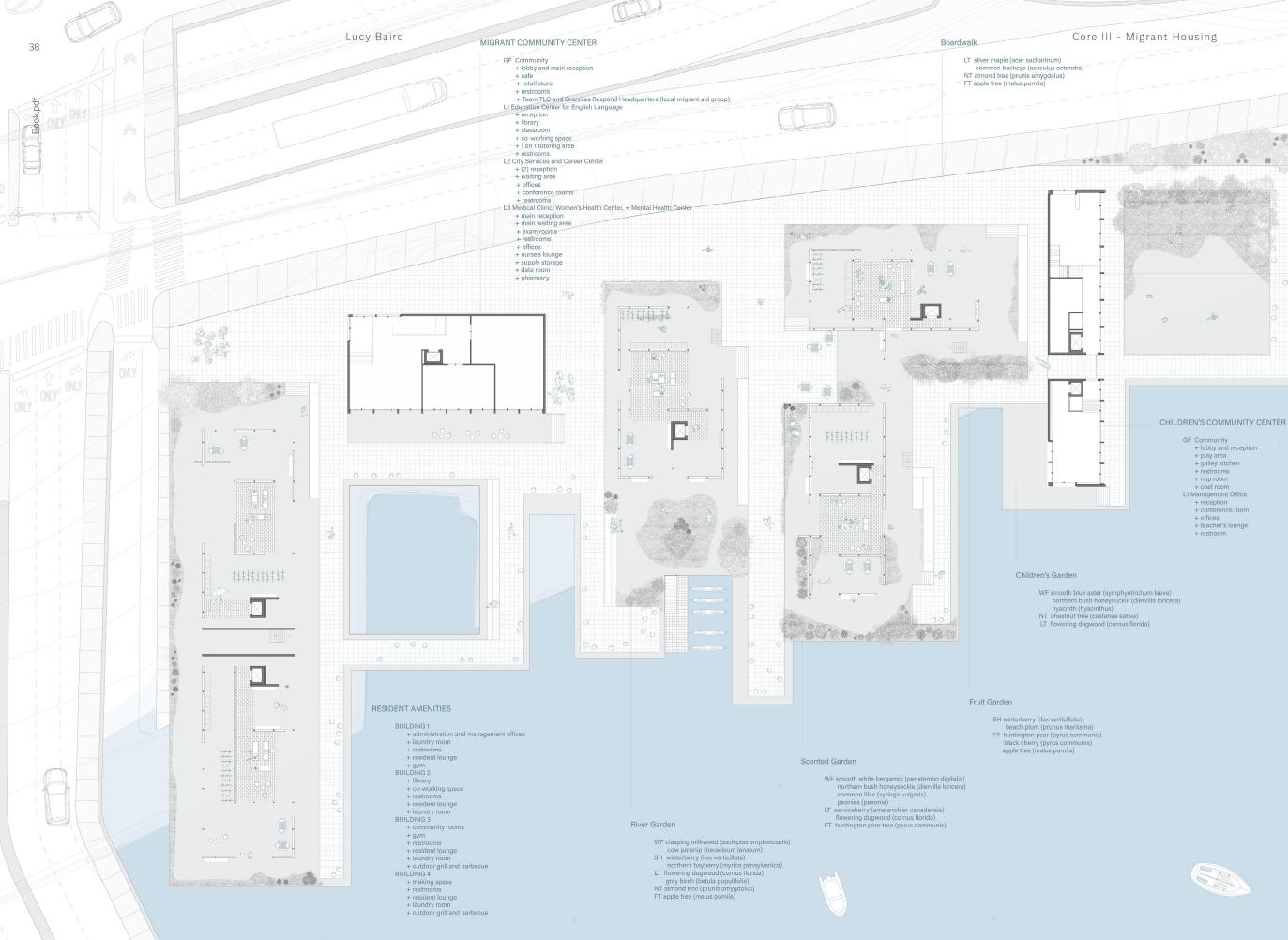
Lucy Baird

- i mediates with the resident as processes of negotiation and confrontation take place during the process of settlement
- ii prioritizes spatial conditions that do not define domesticity to a singular culture or generation
- iii embraces the cultural heterogeneity of the residents while also balancing the need for privacy and sociability





sunken garden and boardwalk, pencil on trace paper exterior circulation, pencil on trace paper kit of parts site model, card stock, metal mesh, rockite, soil Above Below Left





### Street Garden

\*\*\*

165

WF swamp milkweed (asclepias incarnata) cow parsnip (heracleum lanatum) TR american elm (ulmus americana) american linden (tilla americana)

### COMMUNITY CENTER FOR THE AGING

# GF Community + lobby and reception

- + cafe + hair salon
- + restrooms
- + exercise room + dining room + kitchen

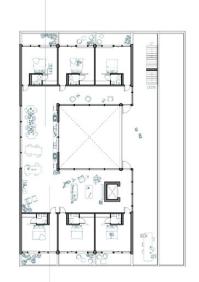
- + Richen + Iounge L1 Management Office + reception + conference room + offices
- + nurse's lounge
- + restroom



Team TLC NYC Asylum Seeker and Migrant Organization Headquarters (2) private w.c. (3) private offices (1) front desk (2) coffee makers (7) communal desks (1) conference room (2) printers (5) bookshelves (23) office chairs + + + + + +

\$ . D ÖD-, 1





+	(2) ovens
+	(2) sinks
+	(2) refridgerators
+	(4) dining tables
+	(16) dining chairs
+	(3) sofas
+	(6) armchairs
+	(1) television
+	(2) bookshelves
1	(1) music



Co-Living Spaces					
(2) ovens					
(2) sinks					
(2) refridgerators					
(4) dining tables					
(16) dining chairs					
(2) sofas					
(6) armchairs					
(1) television					
(1) cooking class					
(1) children' fort					
(1) bookshelves					

-Living Spaces (2) ovens (2) sinks (2) refridgerators (1) island (4) dining tables (16) dining chairs (2) sofas (5) armchairs (1) television (1) painting station (2) bookshelves	
-Living Spaces (2) ovens (2) sinks (2) refridgerators (1) island (4) dining tables (6) dining tables (2) sofas (5) armchairs (5) armchairs (1) television (1) pottery station (4) bookshelves	

**Co-Living Spaces** Living Spaces (2) ovens (2) sinks (2) refridgerato (1) island (4) dining table (16) dining table (17) dining table (18) dining table (19) 

**Co-Living Spaces** 

+

+ + + + + +

**Co-Living Spaces** 

- (2) ovens (2) sinks (2) refridgerators (4) dining tables (16) dining chairs (3) sofas (6) armchairs (1) television (1) piano (2) bookshelves

# Kitchen

placed at the core of the co-living space, treated in many cultures as the heart of the home, and the space for gathering

# Units

host bed, bath, and outdoor terrace, allowing for moments of privacy and reprieve

### Non Load Bearing Walls

can be reconfigured to consolidate units to accommodate the malleability of family dynamics

# **Residential Floor Plan**

Migrants do not come with assumed living traditions, cultural and religious needs, or family configurations. Identity is what they impose, their rituals are what reshape space.

Translating, reconfiguring, and repurposing to meet their needs. From the removing or replacing of dividing walls, to painting the interior of the units, the residents have both the right to shape their surrounding environment, as well as the responsibility to maintain it.











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## **Daily Commute**

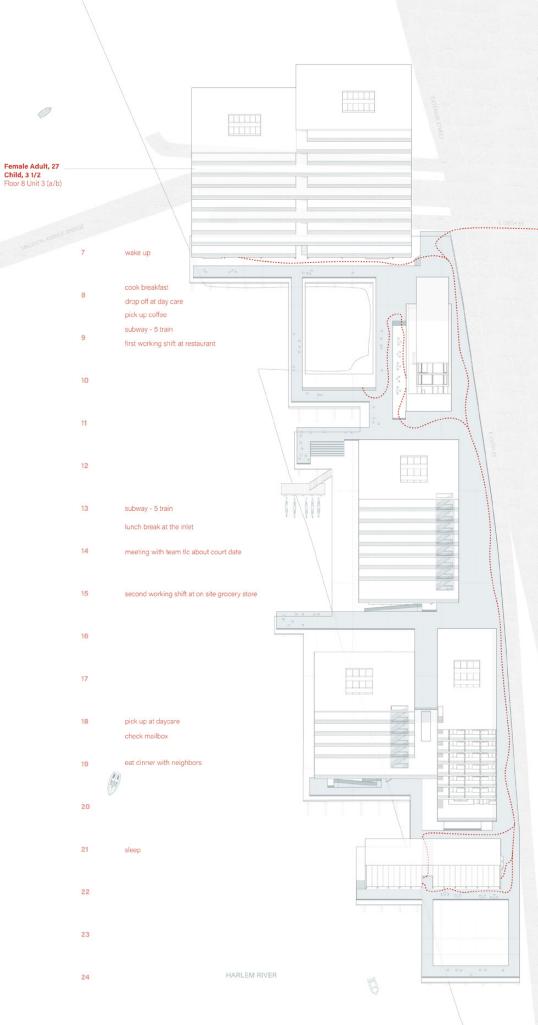
After the traumatic journey of migration, the migrant is expected to navigate new social and cultural realities. This isolating process requires immediacy in its approach to community as it relates to social services and housing.

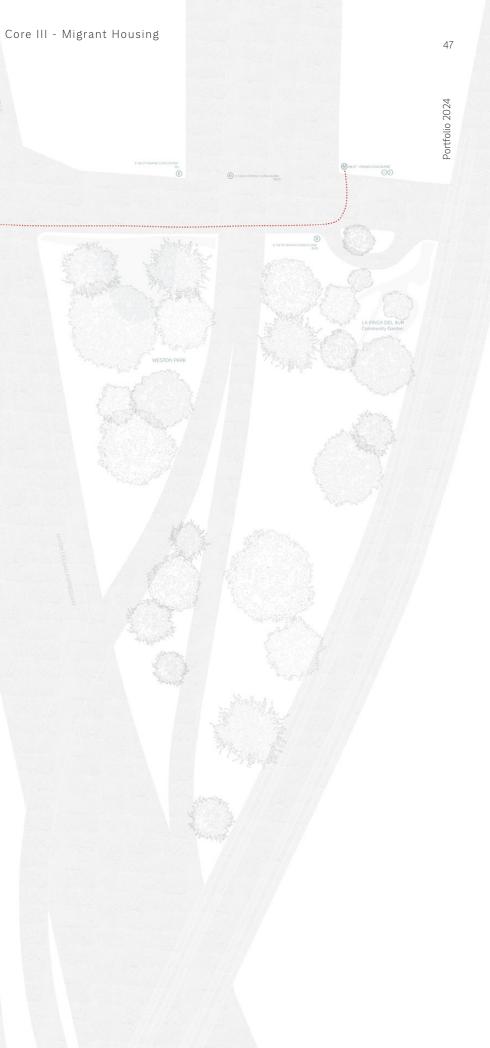
With this in mind, we approached this project as a site of support. Creating a network of spaces that play critical roles in assisting migrants in navigating new bureaucratic systems and facilitating an inclusive economic freedom. This includes, in part, childcare, health care and administrative services.

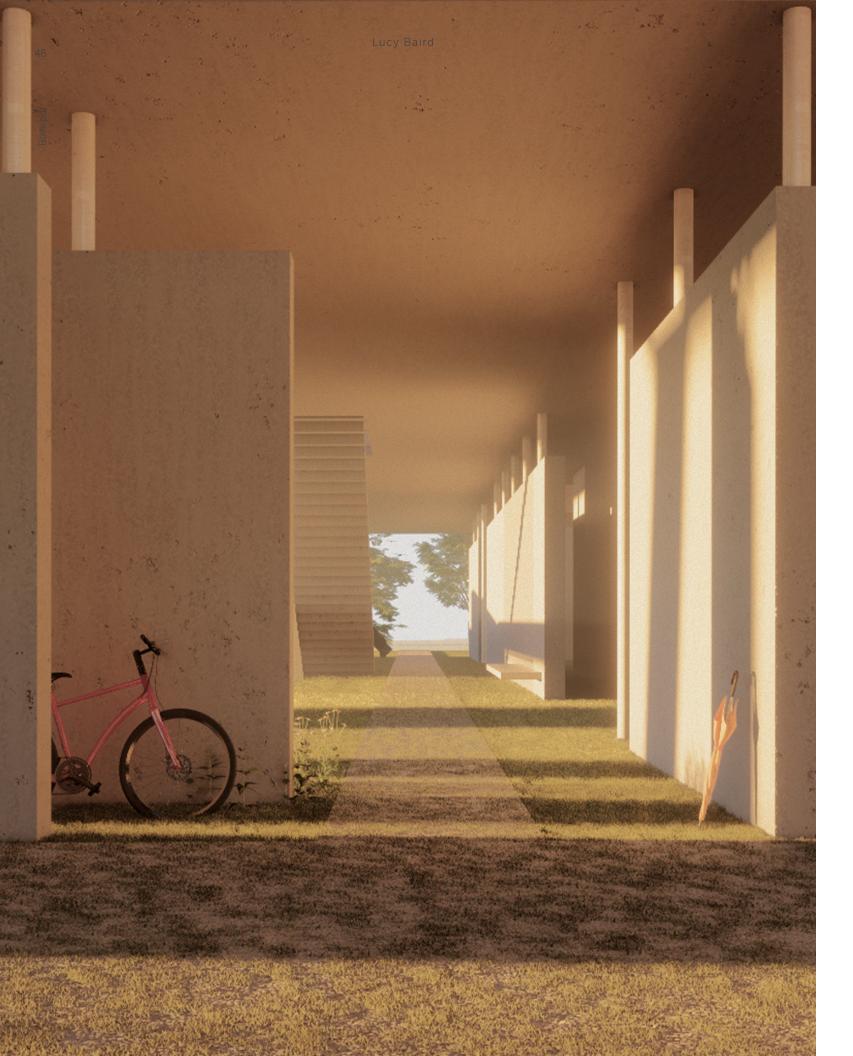
A few blocks from our site in the South Bronx is the main family intake center as well as the women's shelter, thus our site looks outward and extends towards its surrounding community, becoming an additional node within an existing network of support.

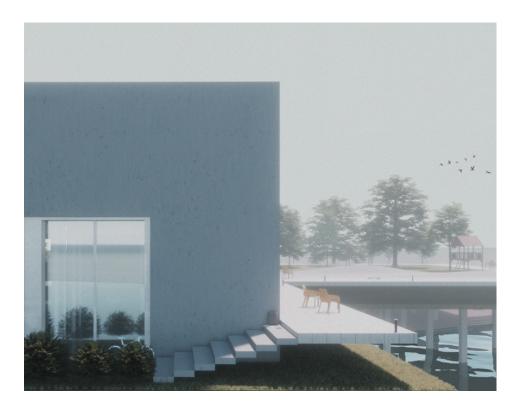
Circulation extends this network. Through a publicly accessible boardwalk, public spaces are shaped between, within and around the housing blocks. Forming sunken gardens in its absence, and creating visual thresholds of privacy and intimacy within individual housing courtyards and gardens.

While the process of settlement is alleviated through the implementation of social services and public spaces, the nurturing of domesticity is crafted through shared gardens and a co-living environment.











Above park Below resident mailboxes Left courtyard

# BRÖDERNA OHLSON

## A Boat

40

Advanced IV Studio GSAPP - Columbia University Spring - 2023 Led by Professor Robert Marino

This studio aims to provide life-saving facilities on the border between land and ocean. The central question is how to build within a shifting and dynamic landscape.

With previous knowledge of the subject, the primary research centered around boat construction as the main driver for design, material, and construction techniques.

This project proposes a series of concrete keels that support built structures between, above and within them. Stress skin panels spaced every four or eight feet outline the interior programming, including locker rooms, a mess room, outdoor showers, washrooms, storage, jet ski cradles and garages. As their peaks meet the roof at varied heights, they form to meet a parabolic spine that runs the length of the building. The conoid roof structure rests on top, alluding to an overturned hull.

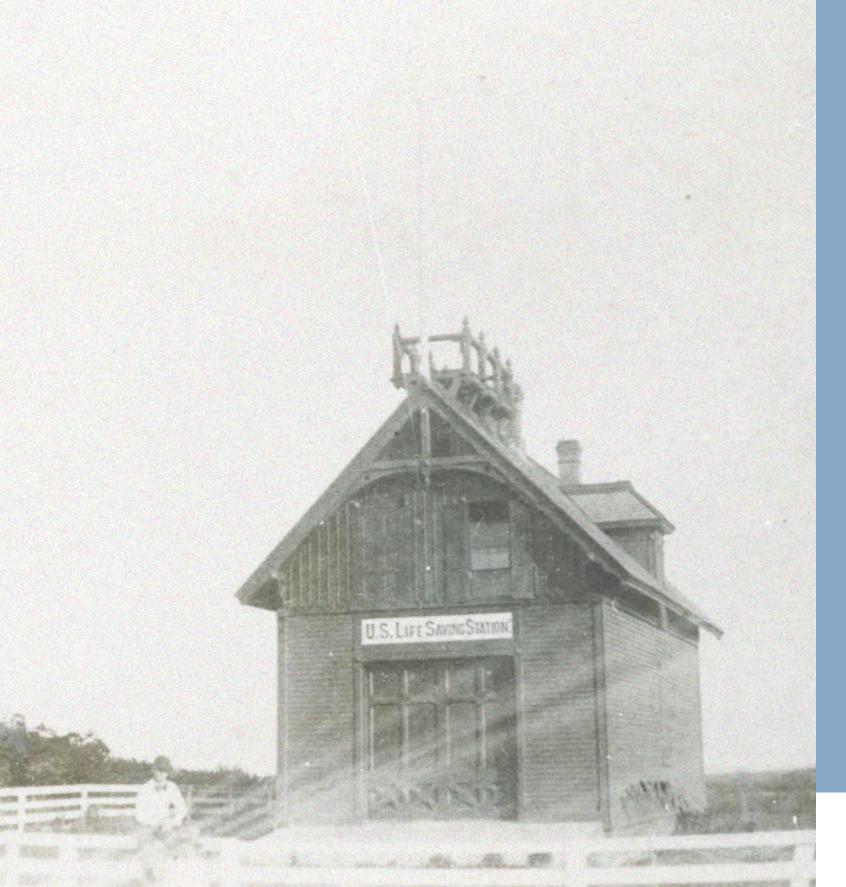
As means of communication and observation have changed over the years, this Life Saving Facility does not project itself high into the sky but rather plants itself deeply into the sand like capsized hulls in the water. Making space for necessary equipment and facilities for those who run the lifeguarding operations of the East Hamptons.

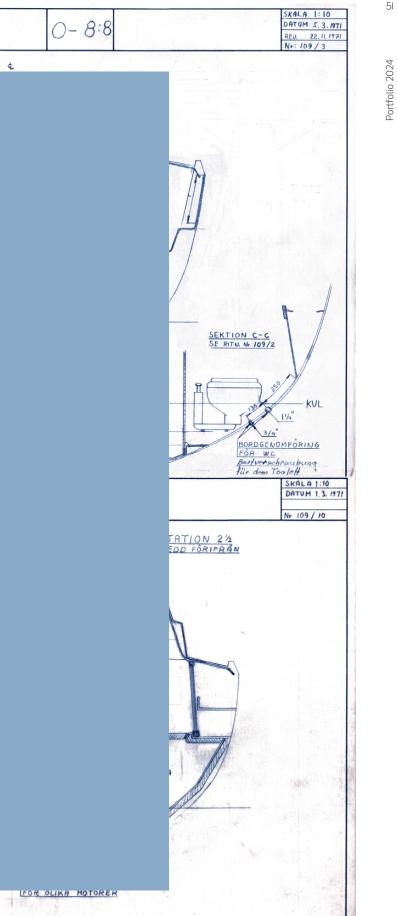
As time goes on, more of the structure may be revealed to beachgoers as the sand erodes and builds up around the keels. There may even come a time when all that is left are shipwreck-like structures on a sandspit, a relic of past maritime events.

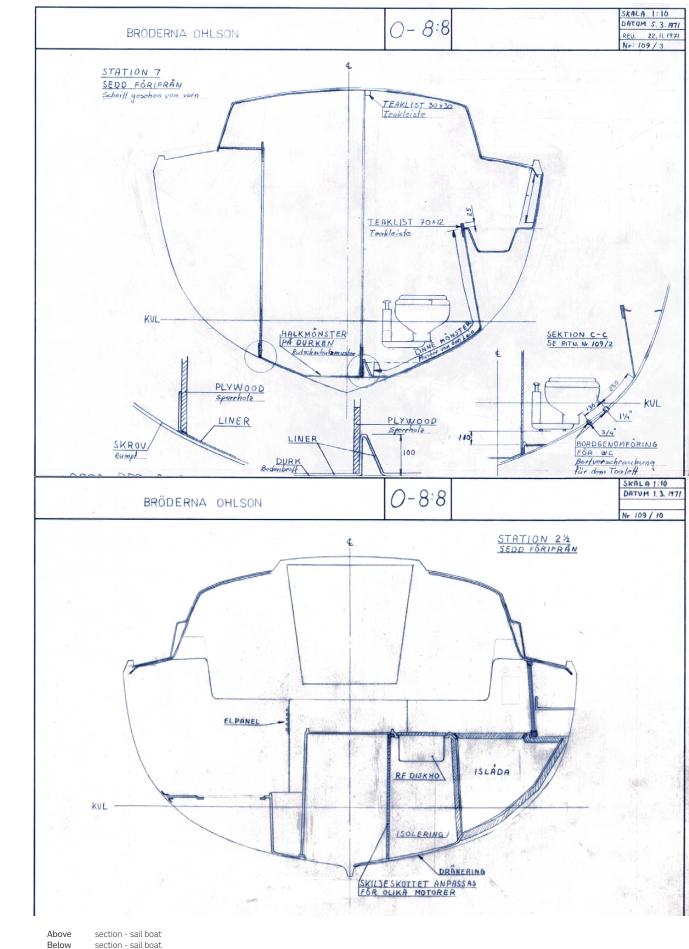
 Above
 section - sail boat

 Below
 section - sail boat

 Left
 1880, U.S. Life Saving Station Outpost, Amagansett, NY







1880, U.S. Life Saving Station Outpost, Amagansett, NY

Left

# Keel

i the longitudinal structure along the centerline of a vessel's hull, on which the rest of the hull is built, extending downwards as a blade or ridge to increase stability

### Observation

- i. the act of noticing/ perceiving incidents for the gathering of information
- ii methods can include physical observation that results in a direct reaction, or the relaying of information to innact a reaction

Elements of the physics and construction methods for boat building became key drivers of design.

The first is the cross section. Utilized in the drafting process, key ribs along the length of a boat differ from the ordinary outline of the hull to accomodate the programming that occurs below and above deck. The ribs begin to define a bench, the height of a counter, and the deck above. The cross sections plans out sequentially the oranization of space; program and structure begin to mould into one.

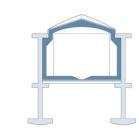
Sailboats require an additional element to help them move in the direction in which they are pointed, rather than just drifting downwind. The keel utilizes the same shape engineered by airplane wings and sails to generate lift as water flows around it, preventing side slipping. The keel is the central member of the boat that provides stability within the dynamic environment of the ocean.



## Translation

Long architectural keels are planted deeply into the dunes, creating stability within an eroding and shifting landscape.

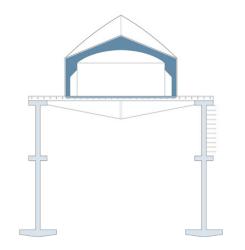
Stress-skin panels are employed sequentially throughout the project as a means of articulating the interior throughout the length of the individual buildings, defining programming and meeting the needs of the users.



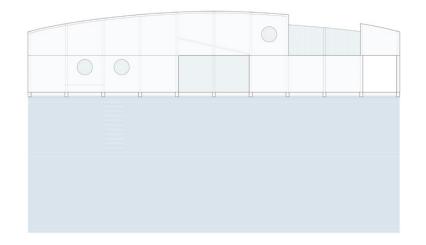
shower, changerooms, bathrooms 2

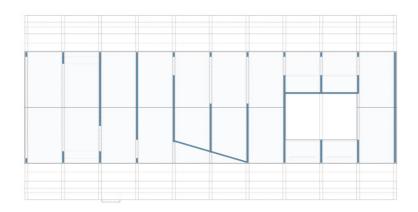
3

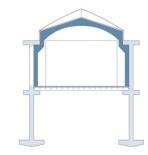
watercraft and equipment storage 3



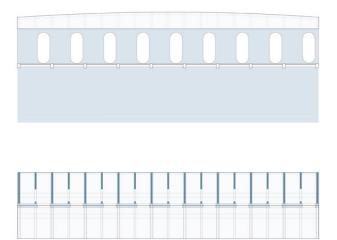
lifeguard station I

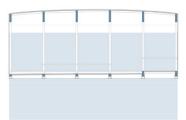




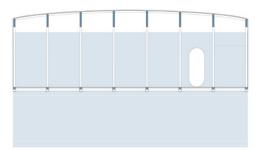


vehicular and equipment storage 4



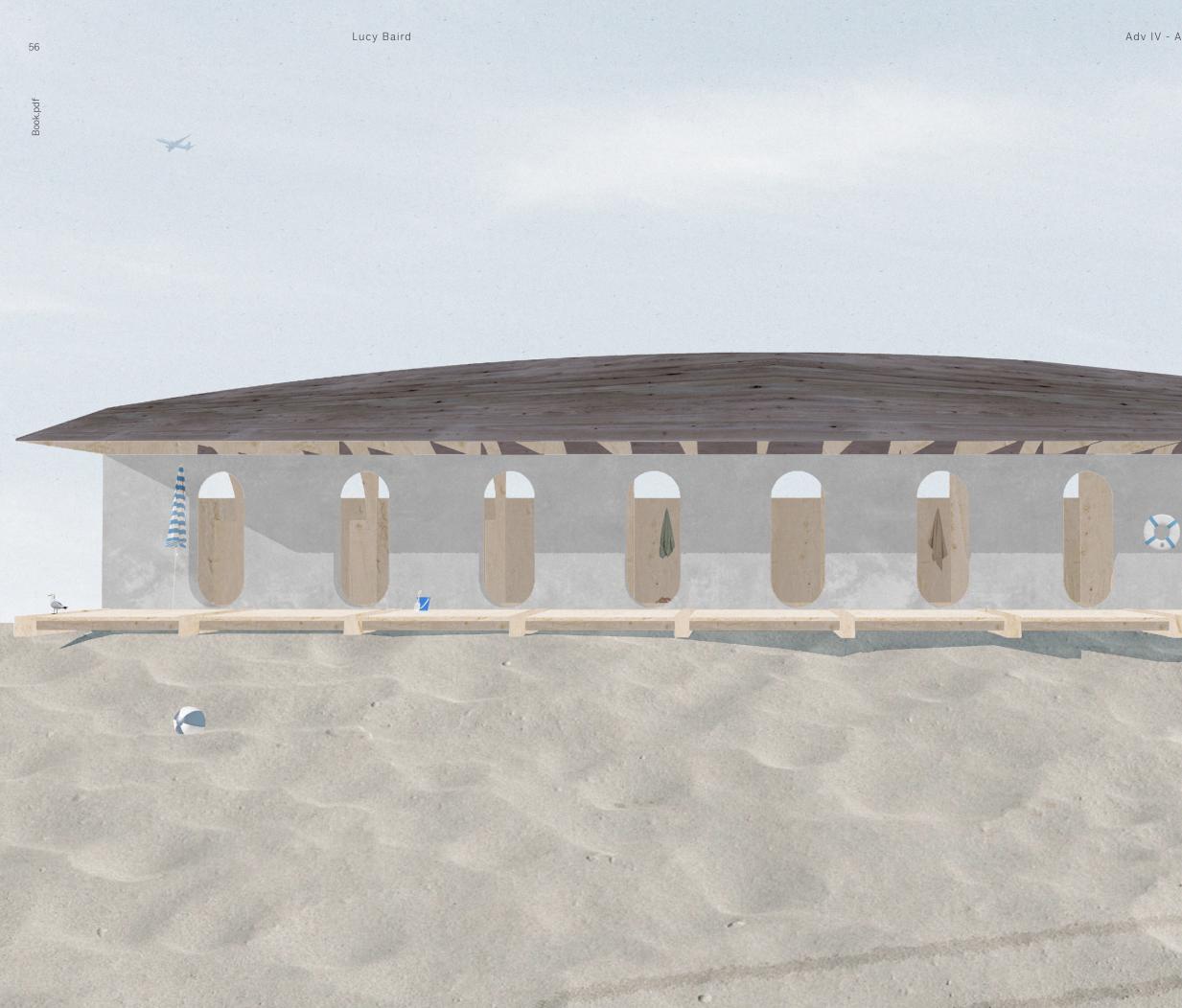


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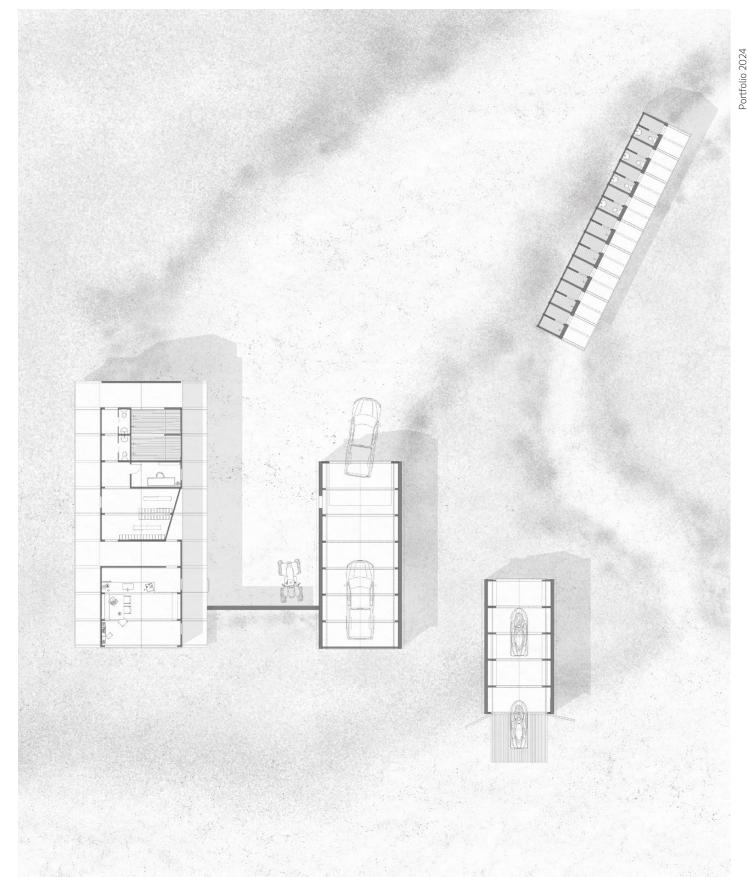


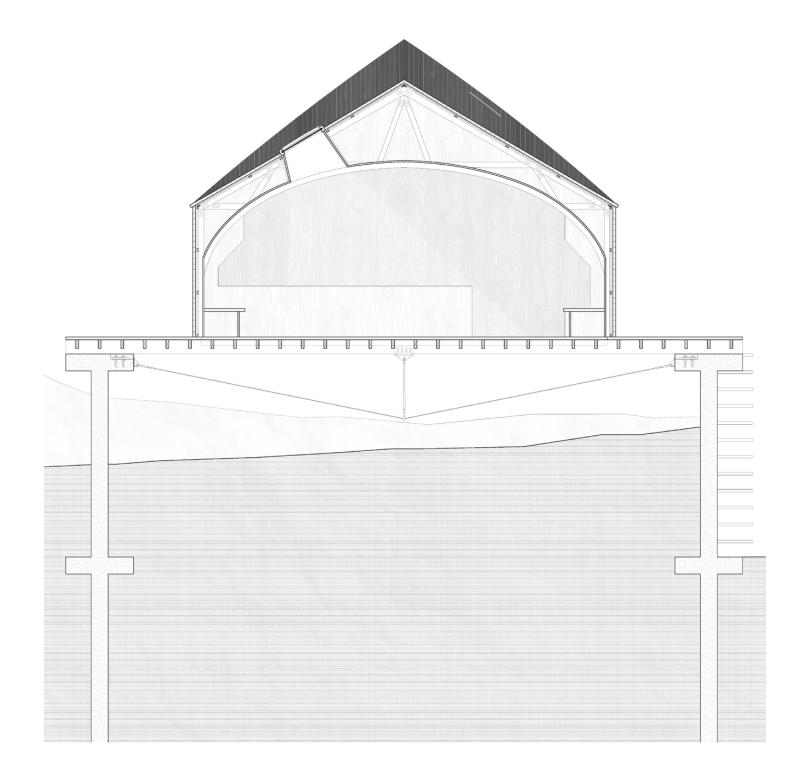


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CO.L.









Mhat if the armory w

# City \ Park

Advanced V Studio GSAPP - Columbia University Fall - 2023 Led by Professor Wonne Ickx In partnership with Will Wang

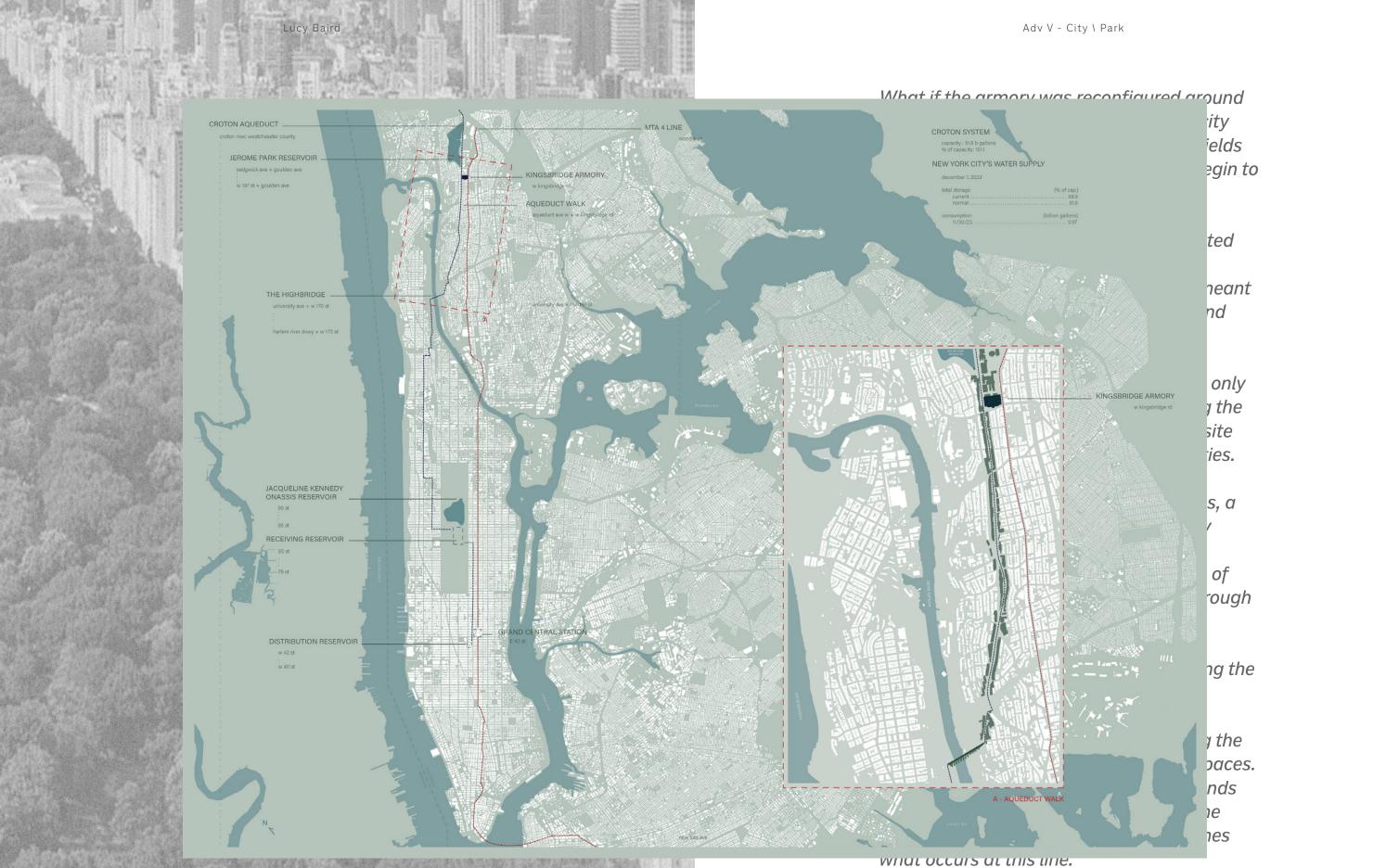
The Kingsbridge Armory, built in 1917 and originally intended for military function, has witnessed various attempts at repurposing the vast available space, ranging from film sets to hockey rinks. Sitting within a 245,600 square-foot site, hosting an 180,000 squarefoot drill hall with three below grade stories, the armory offers a rare opportunity to provide large scale reinvestment into the existing community.

In response to the City and State of New York's 200 million dollar investment in the redevelopment of the Armory, and a request for proposals issued by the NYC Economic Development Corporation, this project seeks to reconnect the Armory to it's surrounding community.

Our project began through a self imposed prompt. What if the armory was a place where two entitities meet, the city and the park? Bisecting the whole, leaving half to be developed, and half to nature.

# what occurs at this line.

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What if the armory was reconfigured around two identities, the old and the new, the city and the park. What occurs when these fields overlap, weave within each other, and begin to interact with one another?

The binary of the city and the park is rooted within the history of the site. In 1906 the Jerome Park Reservoir was excavated, meant to supply water for the whole of Bronx and Manhattan.

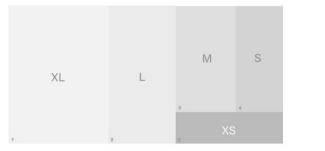
Originally conceived to have two basins, only one would be built, with the other having the encroaching city take over. The existing site now reorganized around two new identities.

*City:* a collection of academic institutions, a main commercial avenue and an armory

**Park:** a public park system delineating the below grade aqueduct that runs through the site

A line threads between the two, mediating the parallels between them.

This line weaves through the city, tracing the Croton Aqueduct with splintered greenspaces. Pulling this line through the Armory extends this pre-existing condition, reinforcing the binary of the city and park, and reimagines what occurs at this line. ortfolio 2024

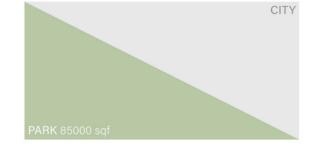


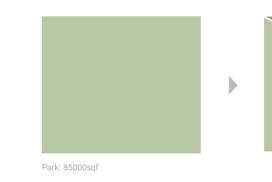
XL 27400 sqf L 17750 sqf M 12500 sqf S 10450 sqf XS 6750 sqf

Program Diagram Will Wang



Lucy Baird

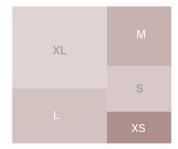




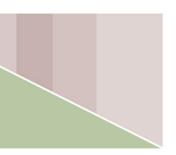


Rainwater 558000 gallons Stormwater 426500 gallons Greywater 15600 gallons Facilities 12937 sqf

- film studio / manufacturing / event venue XL exhibition space / studio / theatre L
- Greenhouse / Daycare Center/ dance studio / art studio M
  - post office / clothing store / barber S cafe / baker / florist / bar XS



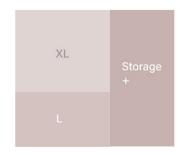




27400 sqf XL 17750 sqf L 12500 sqf M 10450 sqf S

Park Level

film studio / manufacturing / event venue XL exhibition space / studio / theatre L



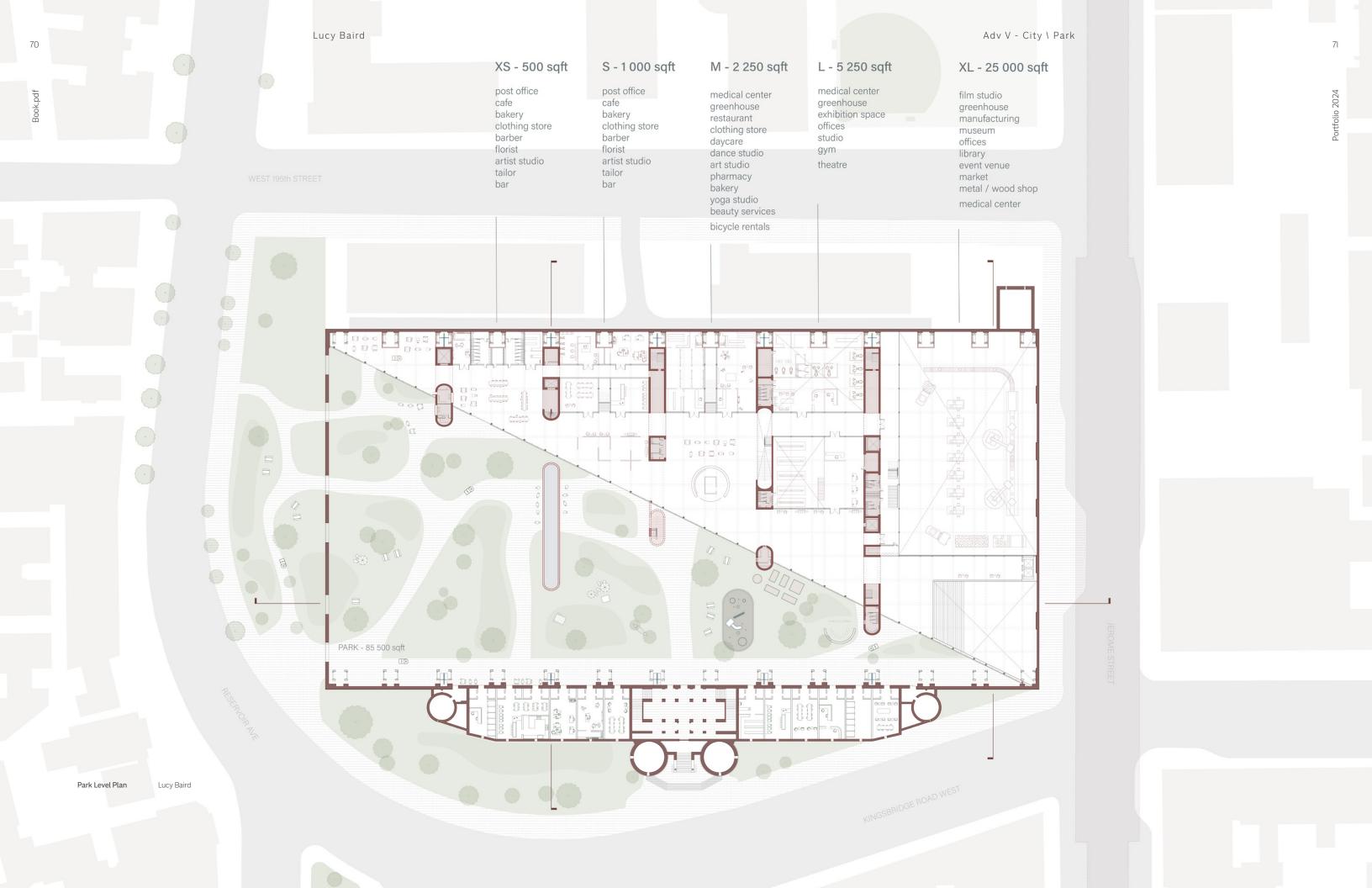
29700 sqf Storage + 27400 sqf XL 17750 sqf L

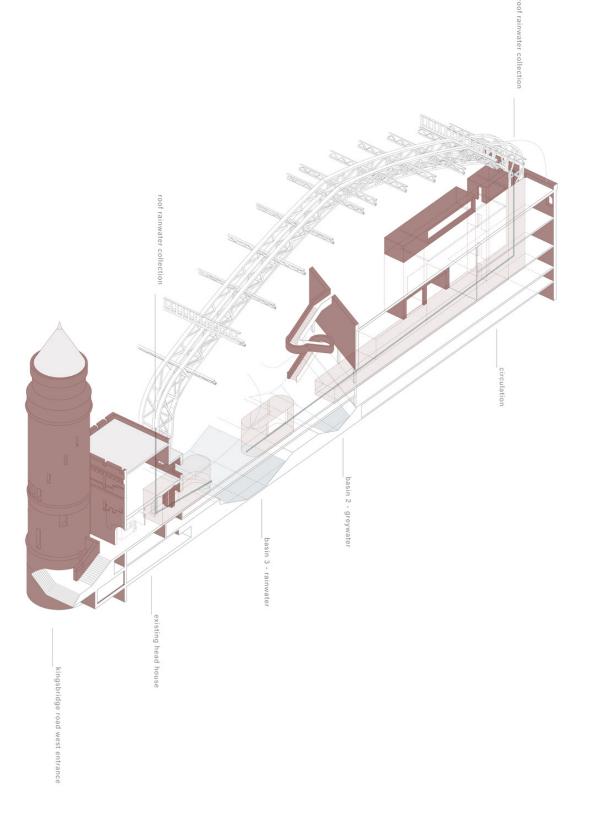


.



Below Grade Level





Diagrams Lucy Baird

gatehouse - rainwater collection gatehouse - greywater distribution Left

Right

capacity

basin 1 -basin 2 -basin 3 -

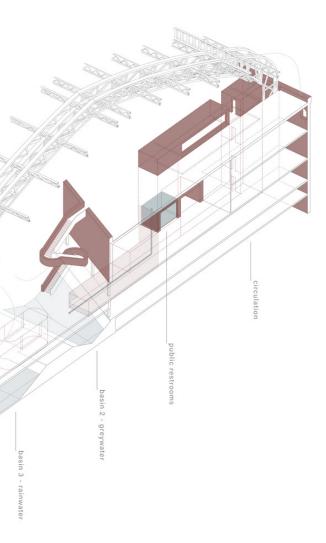
total catchmen

total rainwater

required water

required water for

Portfolio 2024



#### BELOW GRADE WATER SYSTEM

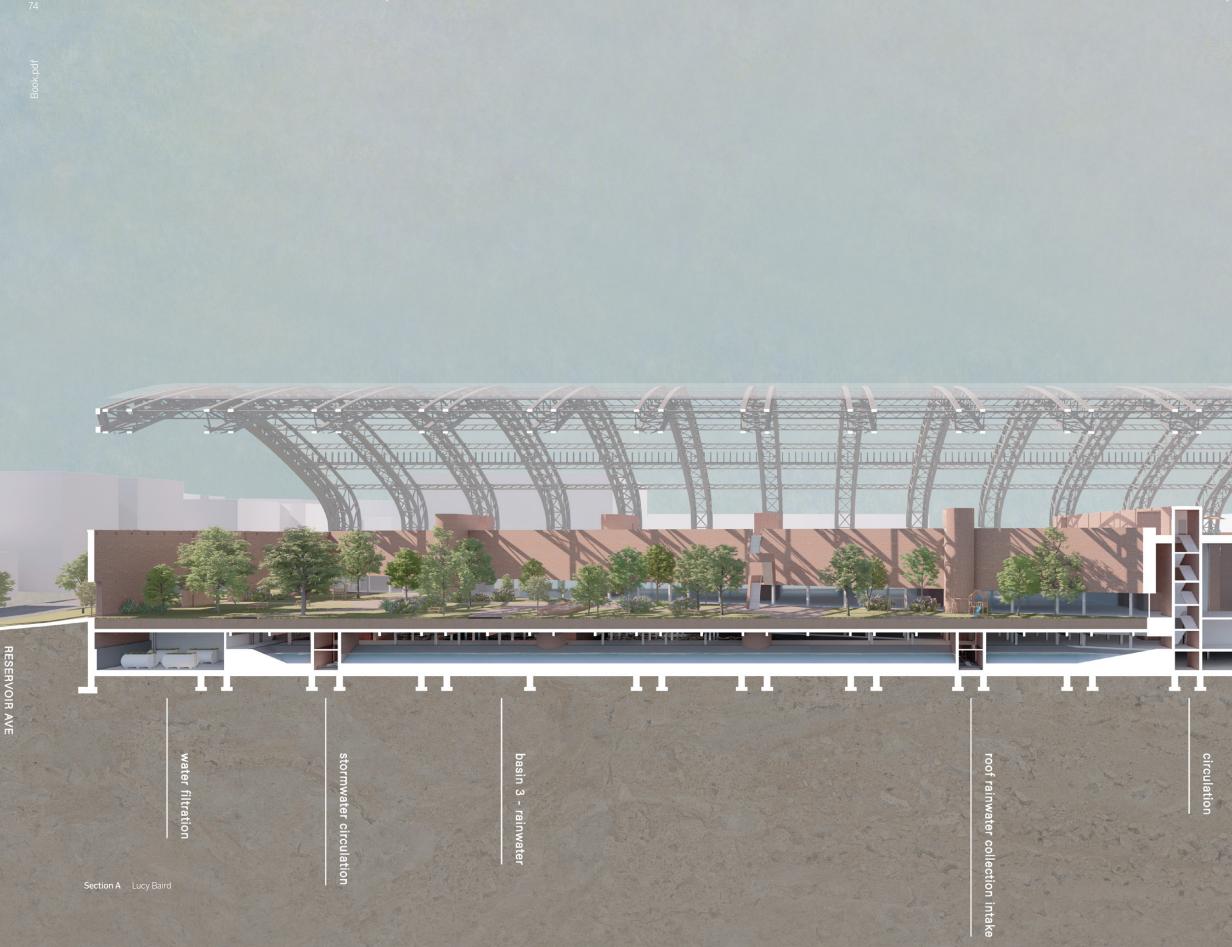
	(gallons)
stormwater	426 500
- greywater	156 000
- rainwater	558 000

nt area	211 151 sqft
r collected / year 5 528	000 gallons
r for vegetation / year 10 000	000 gallons
r for vegetation / day	000 gallons

#### precipitation 2022

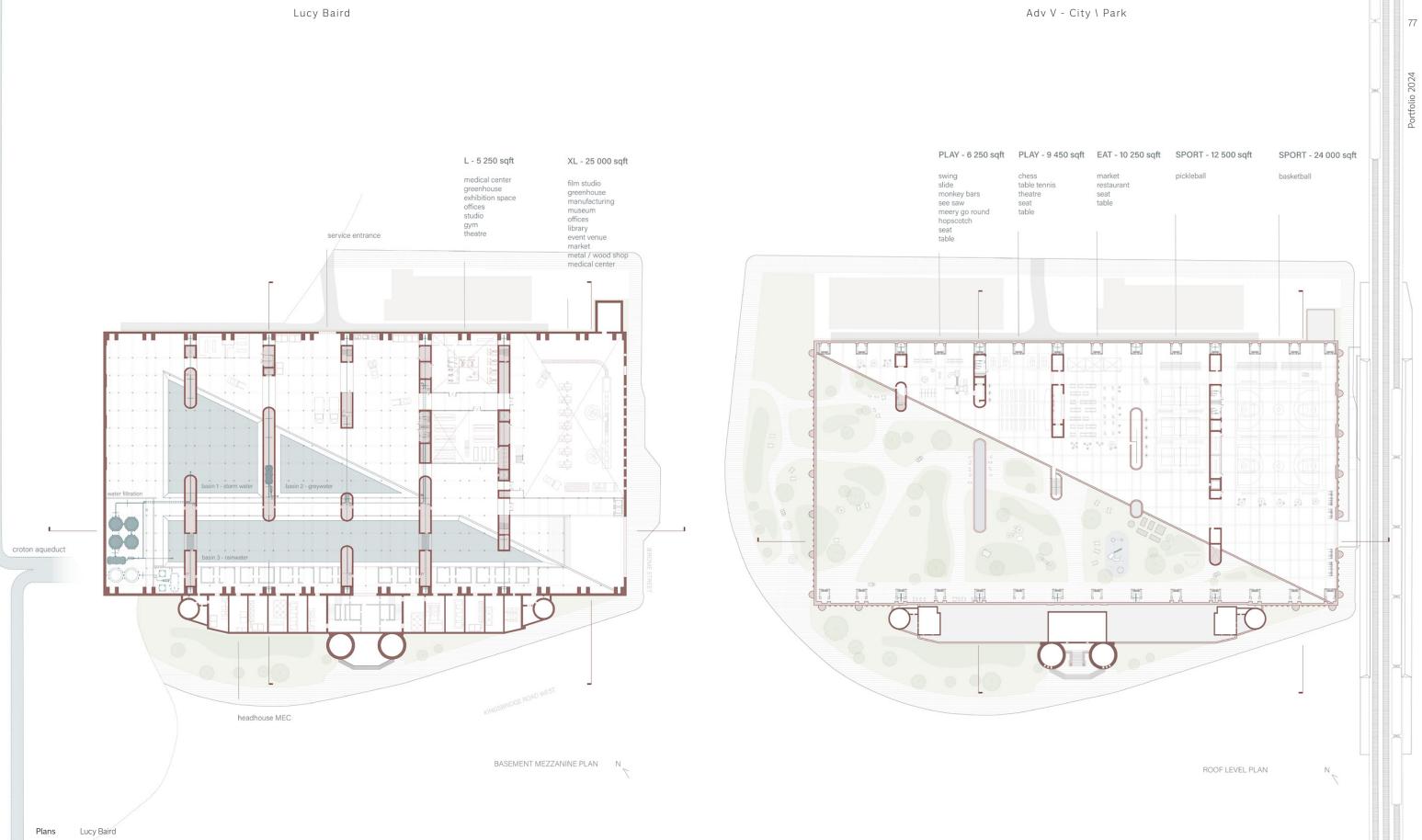
(inches / sqft)

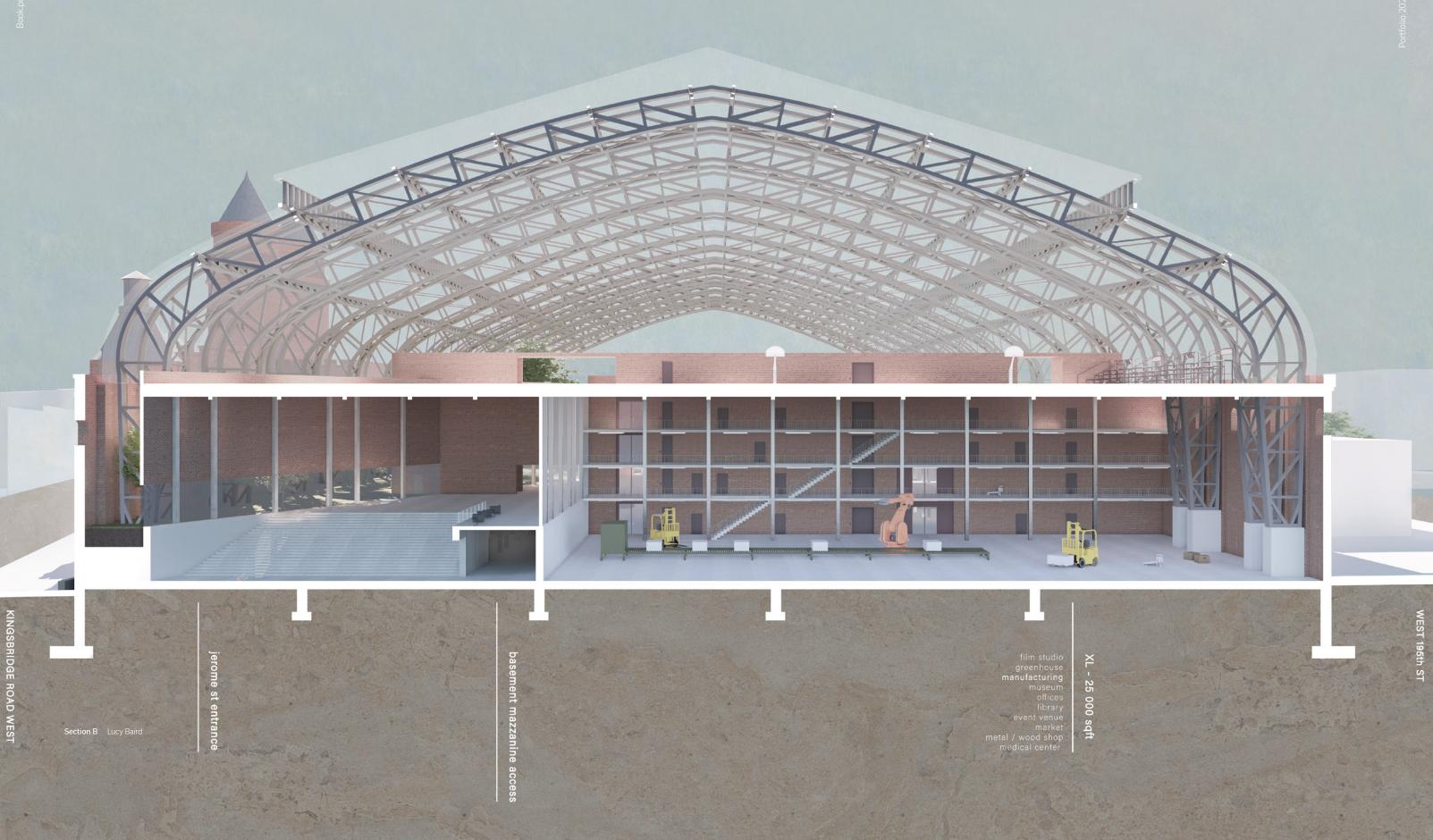
january
february 3.23
march 2.39
april 4.53
may 4.52
june 2.92
july 4.55
august
september 4.10
october
november
december 5.83
total

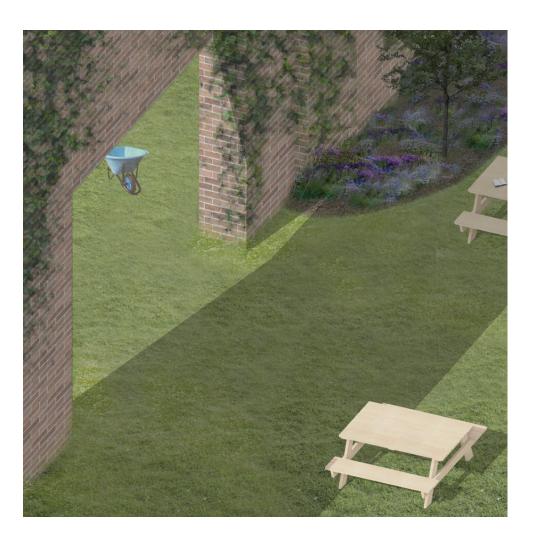




JEROME ST 









Renders Lucy Baird

existing armory wall, park entrance park fountain, seating gatehouse greywater park access Left Center Right





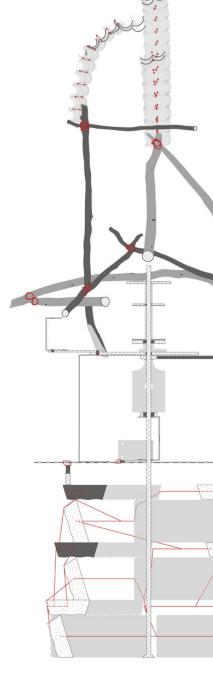
This book

Lucy Baird

serves as a personal archive, a collection of photographs, maps, historical images, textures and forms of practice inherited through shared memories and lived experiences. From this, new images begin to form memories, somewhat hazy, overlapping, and perhaps impossible. These memories are my own, but they are also my father's, my grandmother's and my brother's. They have been relayed to me, passed down to me, and live within me. These memories come with embedded knowledge that have developed into a form of practice explored in the following work.

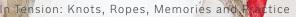
I have built a collection of forms in tension. Through tension these forms are able to stand, albeit somewhat unstable. Tied together with rope and and fastened with knots, earth, metal, wood, and plastic, settle to

form new spaces.





06













Tension: Knots, Ropes, Memories and Fractice

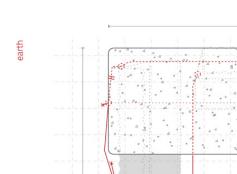
nakergraph

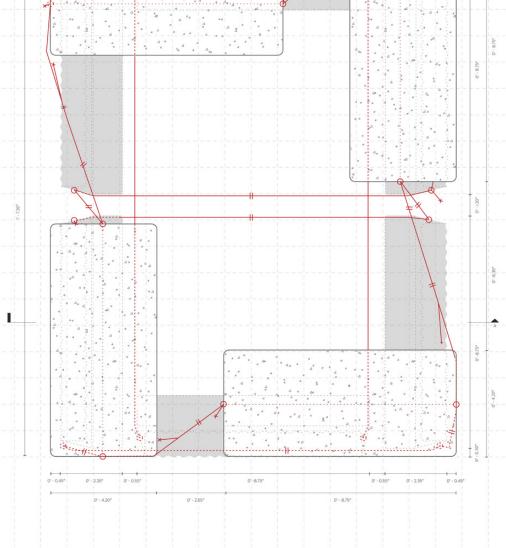
17

rockite [4 cups] water [l cup] plaster [l cup] sand [2 cup] string [2 feet]

rockite [4 cups] water [l cup] sand [l cup] asphalt [l cup] nylon rope [2 feet]

## Lucy Bair





- 3.45

section B connection end slip knot

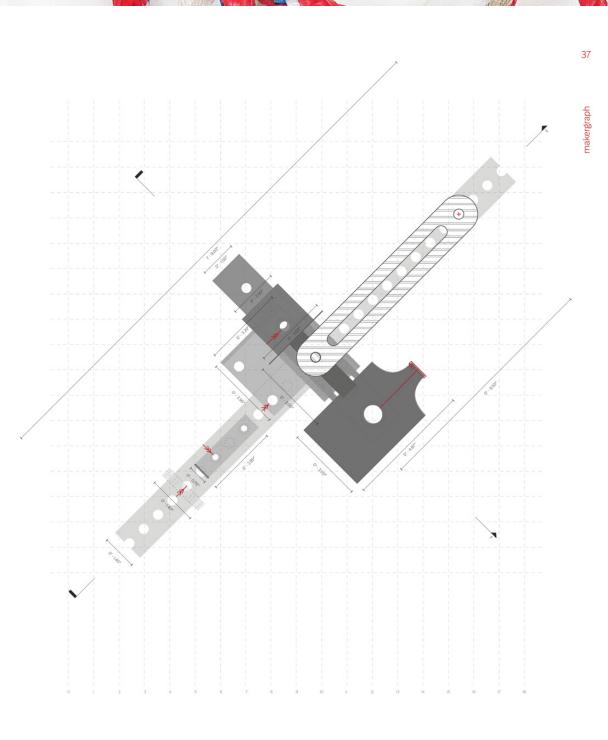
0 X ||









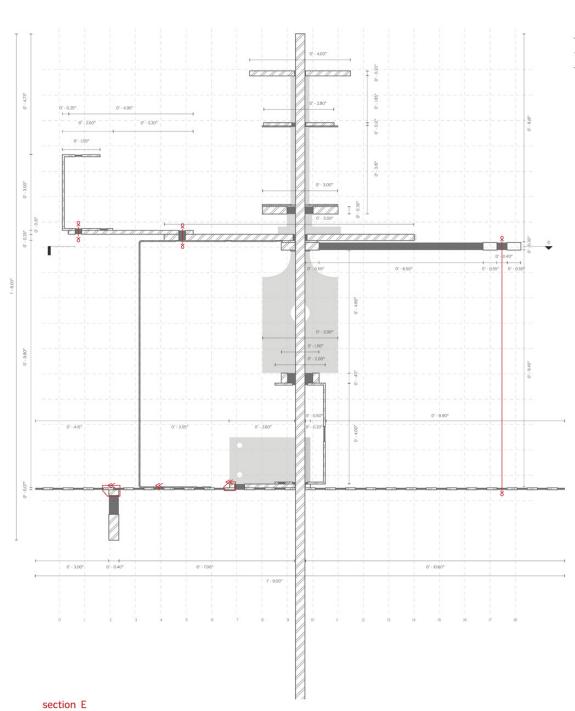


section D

overhand knot 🛛 🞗 reef knot

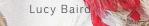
Lucy Bair





overhand knot ♀ reef knot ♀ L - In Tension: Knots, Ropes, Memories and Practice

49



my own memories are formed through texture maps photographs drawings

20



and a state of the state of the

appendix and the second

- Alandaria

layering upon each other creating places i may never go again,

L'ACOLOG!

or have never been

90

-

Lucy Baird

70

#### left

Killocks - home made anchors made of large stones bound by whittled wood, held in place with larger crossing wood pieces at the base and rope.

Photographed by Robert Norwood, 195-, Portugese Bay, Nova Scotia.











L- In Tension: Knots, Ropes, Memories and Practice



Crew member coiling rope on the deck of S/V Maraval, E 1938.

#### top right

Lighthouse, Peggy's Cove, Nova Scotia.

bottom left Hare Bay, Newfoundland.

#### bottom right

Sand after the tide has gone out, Bras D'Or Lakes, Nova Scotia.



Lucy Baird

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Walter Walter

April 1914

100 g HS

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S MANY

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Tec!

ARTING STREET, MARKEN AND AND AND

the second in

but if a story is retold so many times, does my mind fill in the blanks with color and texture to render it reality?

72

The state

do i trust my own memories?

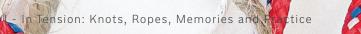
or do they belong to others and passed down to me through forms of practice

Webbell R

1740

ALL BAR STOR

1 2 2 2 4 5



90

-

#### Lucy Baird

78

#### **right** Slip Knot - ||

Can be used in two different scenarios. The first is using one rope to form a loop, allowing for the not to enclose and tighten onto an object and can be easily released by pulling on the loose end of the rope. The other is to attach one rope to another, allowing for the knot to be slid along the length of the second rope, and can be tightened as needed.

The slip knot is commonly used when attaching buoys to the life line of a vessel, allowing for the buoys to be slid along for ease of placement, and rapidly removed when necessary.





In Tension: Knots, Ropes, Memories and Practice

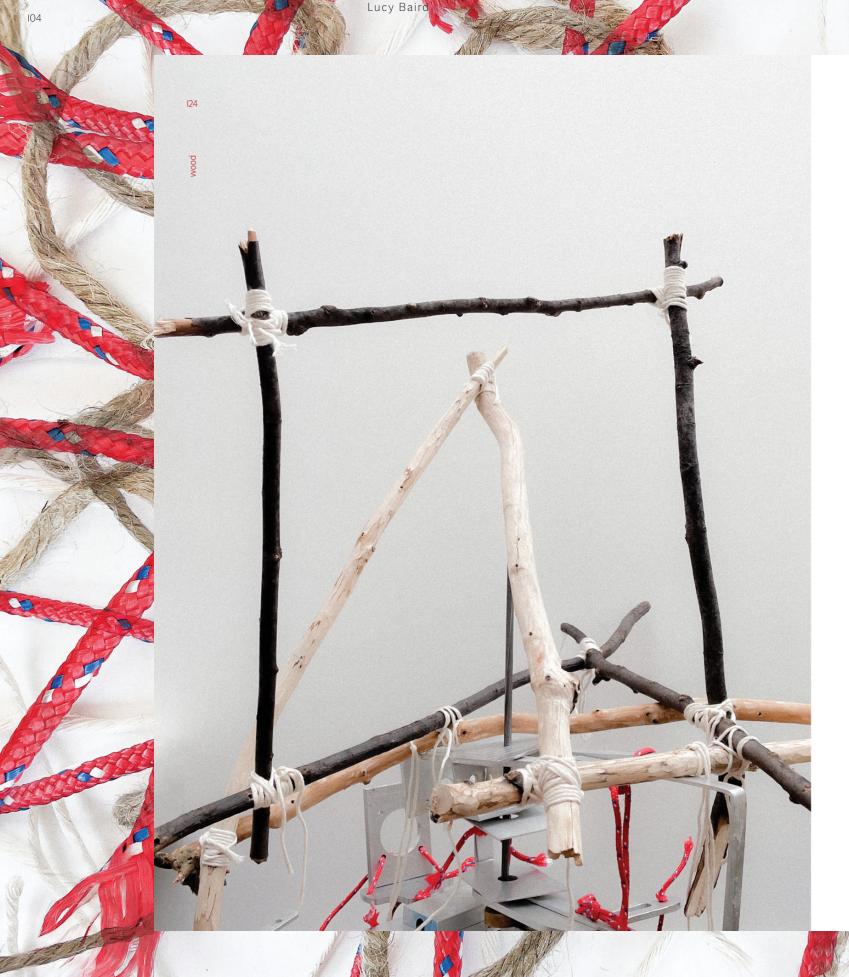
79

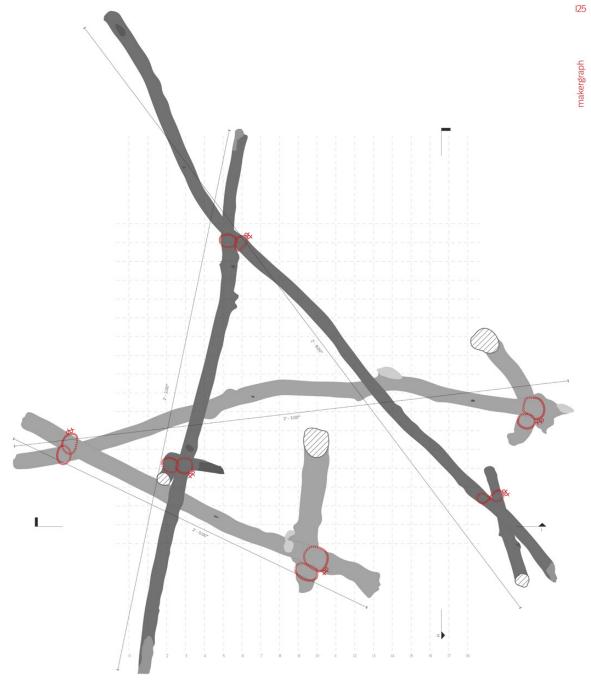
right Reef Knot -

Used to secure two lines or the ends of one line together. The name originates from it's common use for the reefing line on a sailboat. A reefing line is used to drop, most commonly, the mainsail in order to reduce sail area and gain control over the vessel.







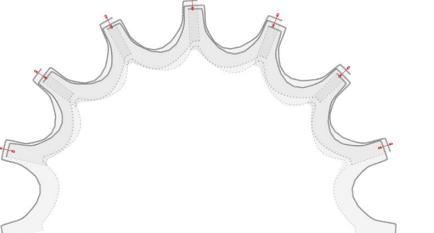


section G half-hitch knot 🛛 🞗



typical construction overhand knot 🛛 🎗

1





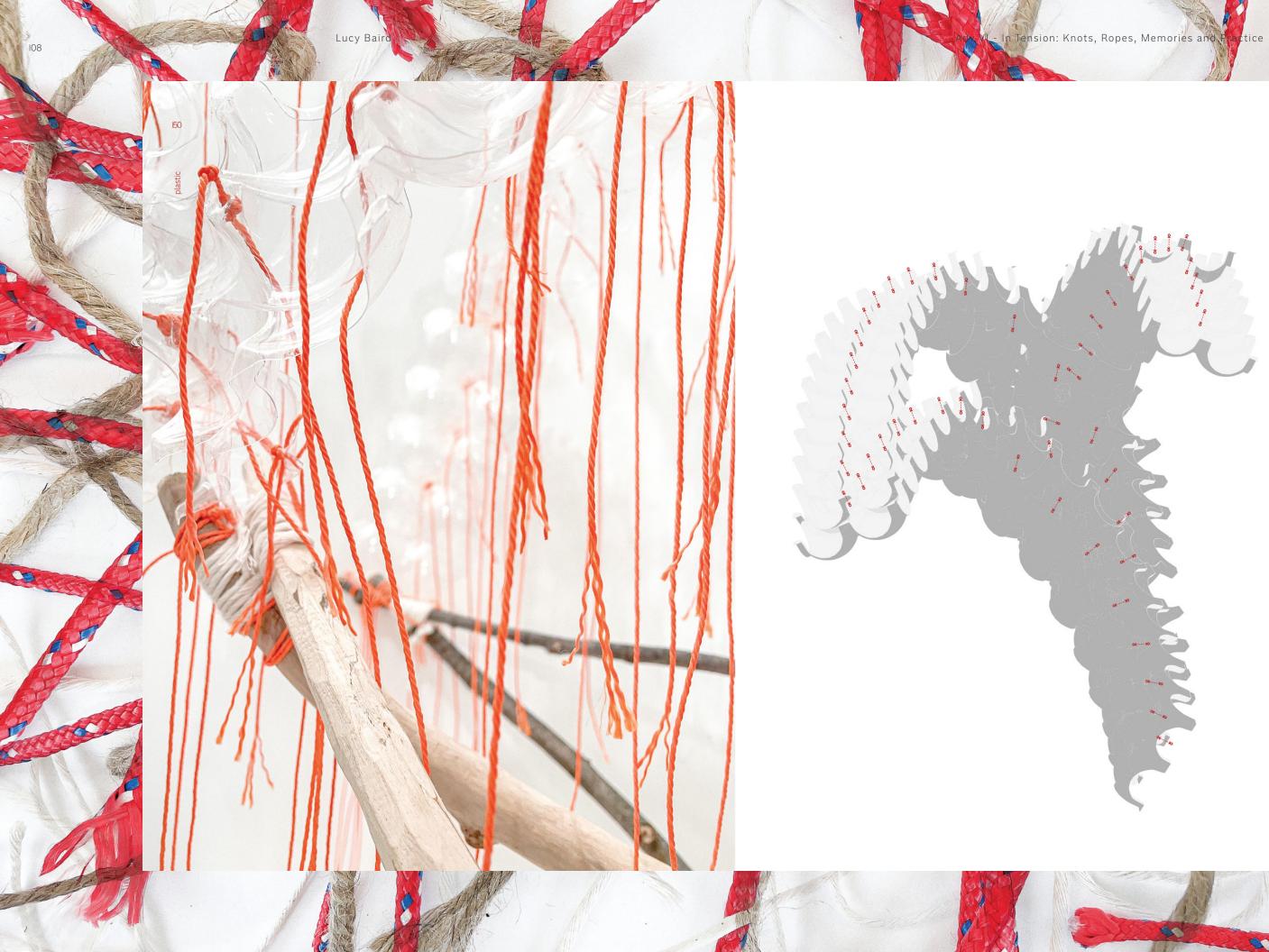
3A



IVIN

90





makergraph G















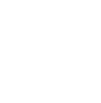
























































Tension: Knots, Ropes, Memories and Fractice













Lucy Bair

GSAPP	Columbia University
Makergraph	Spring - 2024
Lucy Baird	Drawings Photographs Knots Editing
Critics	Ada Tolla Giuseppe Lignano
References	The Rooms Provincial Archives

1

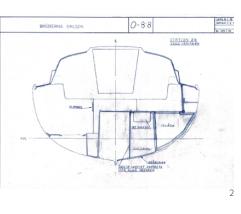
C.A

Memorial University

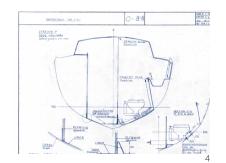
Tension: Knots, Ropes, Memories and Proctice

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- 7 Coleman, Fred. Crew member coiling rope on deck of Maraval. n.d. The Rooms. http://gencat.eloquent-systems.com/therooms\_permalink. html?key=5648I.

References

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Thank you to my professors, without their dedicated time and guidance this portfolio would not be possible.

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Portfolio 2024 Lucy Baird | M.Arch To my friends and collaborators, thank you for the laughs, the coffees and the helpful nudges along the way.

To my parents, none of this would be a reality without your love and support, thank you.

Portfolio 2024

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