

SEONG-HAK LEE

SELECTED WORKS

ACADEMIC WORK

COLUMBIA GSAPP

Same Space, Different Body
Pediatric & Books

Same Space, Different Body

Pediatric & Books

GSAPP Advanced Studio 6
Spring, 2025
Hilary Sample Studio

A pediatric clinic is a quiet kind of architecture. Short visits, a waiting room, then home again—through this rhythm, a child begins to form their first impressions of what a hospital is. This project sees that repetition not as a disruption, but as a chance to accumulate experience. If the clinic is a place they'll return to, then its spaces shouldn't just serve functions—they should leave memories.

Here, the space isn't divided into "waiting" and "exam." For a child, what matters more is how they walk, sit, crawl, and take part. Anchored by a central mass, the clinic lets programs like play, reading, rest, and care open and close around it, adapting to different uses across the day. Treatment remains at the center, but the space stays open and responsive.

A small bookstore is introduced—not as a separate feature, but as an extension of care. Books curated for children and families are accessible throughout the day, even outside clinical hours. This overlap turns the clinic into a space of learning and public engagement, where waiting becomes reading, and reading becomes a reason to return. In doing so, the clinic begins to reclaim its role as part of public, everyday life.



Site

The project is set at the Tribeca Pediatrics clinic on 114th Street and Frederick Douglass Boulevard in Harlem, a family-dense neighborhood adjacent to Morningside and Central Parks. Positioned along everyday routes used by children, the clinic is reimagined not as an isolated facility, but as part of a continuous civic landscape of play, movement, and care.

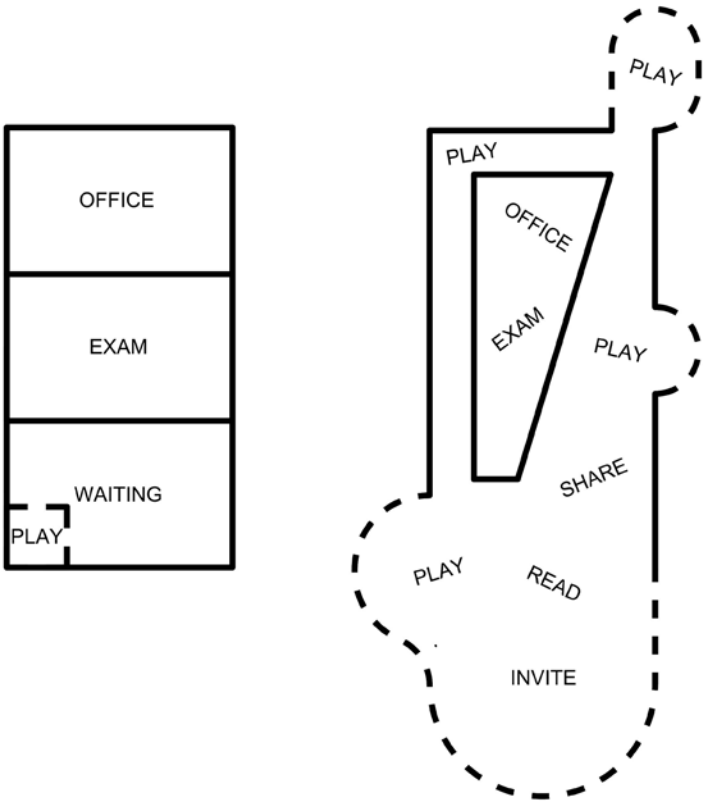


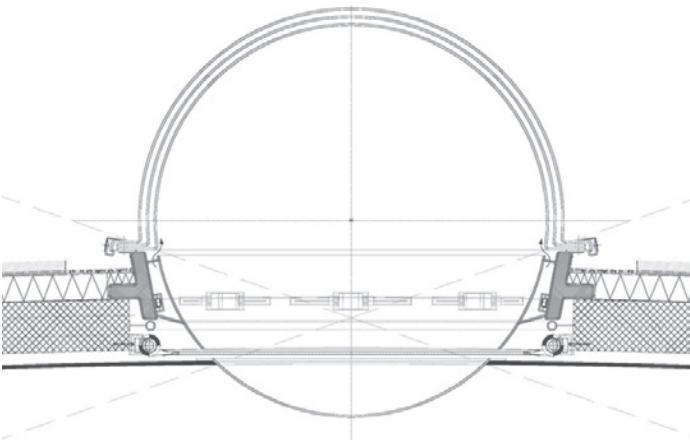
Children make frequent visits to clinics for over 15 routine vaccinations, with at least six in the first year alone. These repeated encounters shape early perceptions of healthcare, and this project seeks to turn them into positive, engaging spatial experiences rather than sources of fear or discomfort.

Unlike the traditional linear layout of pediatric clinics—where the waiting room leads directly to the exam room (**Left**)—this design proposes a structure in which treatment, play, and reading spaces overlap and extend into the public realm (**Right**)

Vaccination and the Continuity of Pediatric Experience

Immunization Schedule	Birth	Hepatitis B (HepB) vaccine.
	2 Months	Diphtheria, Tetanus, and acellular Pertussis (DTaP). Haemophilus influenzae type b (Hib). Inactivated Poliovirus (IPV). Pneumococcal conjugate vaccine (PCV13). New York State Department of Health Rotavirus vaccine (RV).
	4 Months	Second doses of DTaP, Hib, IPV, PCV13, and RV.
	6 Months	Third doses of DTaP, Hib, IPV, PCV13, and RV. Annual influenza vaccination begins.
	12 to 15 Months	Measles, Mumps, and Rubella (MMR). Varicella (VAR). Hepatitis A (HepA).
	4 to 6 Years	Booster doses of DTaP, IPV, MMR, and VAR.
	11 to 12 Years	Tetanus, Diphtheria, and acellular Pertussis (Tdap). Human Papillomavirus (HPV). Meningococcal conjugate vaccine (Men-ACWY).
	16 Years	Booster dose of MenACWY.





Precedent Study

The precedent study of 165 REHAB showed how a clinic can extend beyond treatment to support daily life and recovery. At its center is the 2.1-meter dome skylight above each bed, offering both natural light and a continuous visual link to the outside. For patients with neurological injuries, this helps regulate sleep, mood, and circadian rhythms. Acting as both a sensory and symbolic element, the skylight glows softly at night and marks each patient's presence from the roofline—affirming their place in the social landscape. This layered role of a single architectural device shaped a key concept in this project's development.

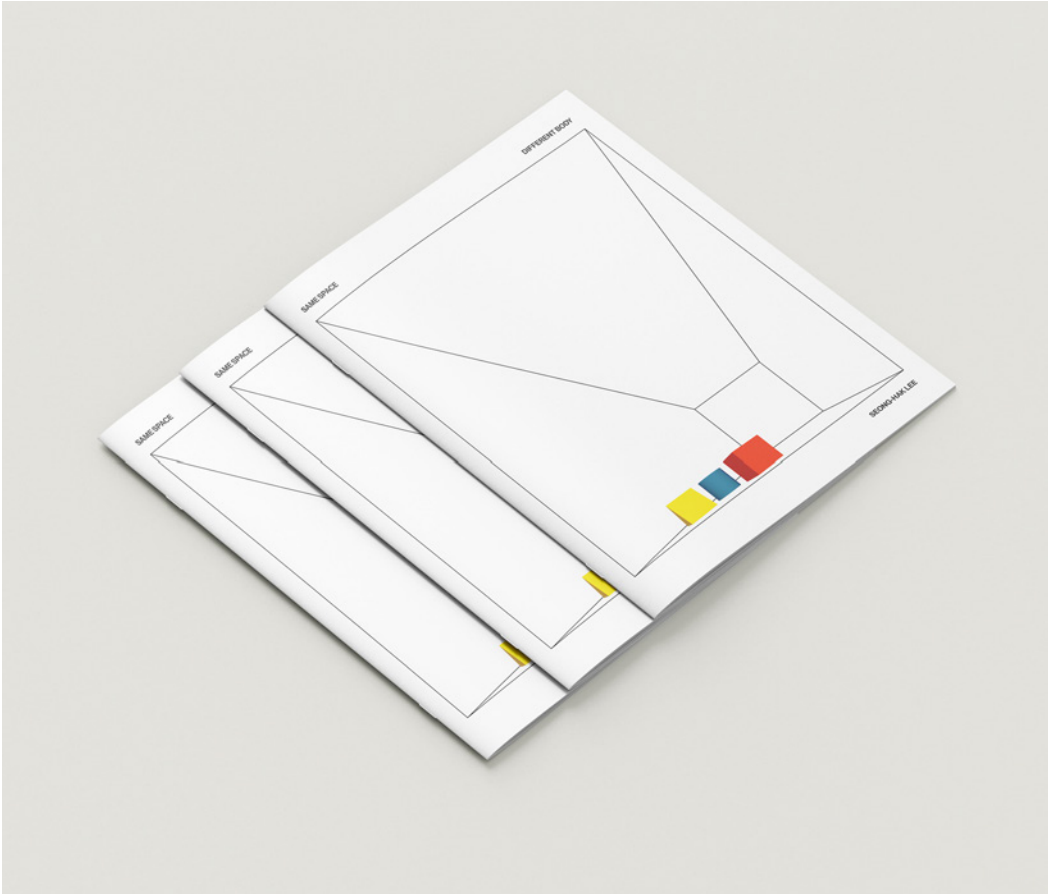
- 1 Section drawing of transparent dome skylight unit
- 2 Overview of the section drawing
- 3 Each patient can feel the presence of neighboring patients as well as others nearby the clinic
- 4 Exterior view



“Same Space, Different Body” Booklet

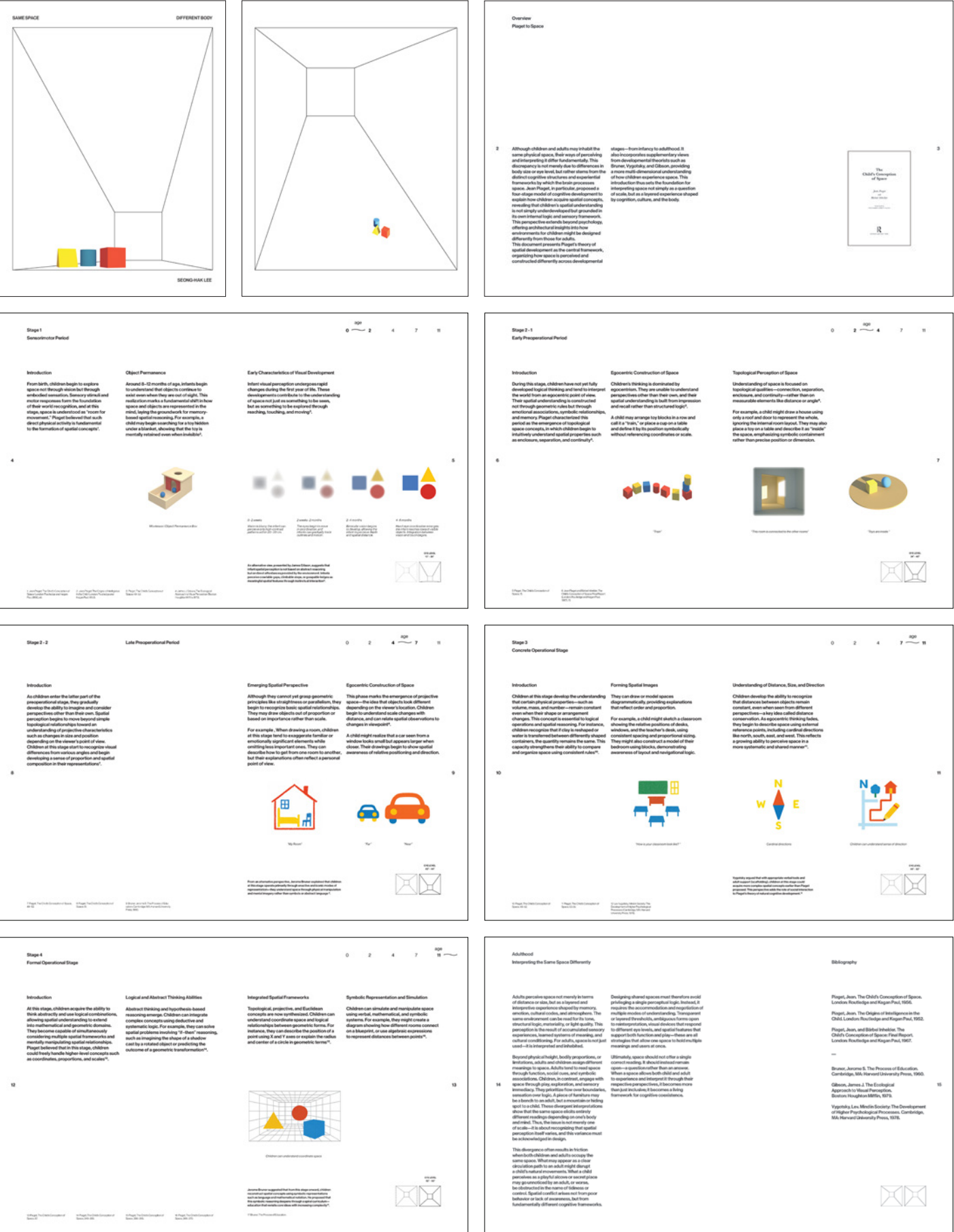
Collaborated with
GAP I: Design & Typography

Instructor : Yoonjai Choi



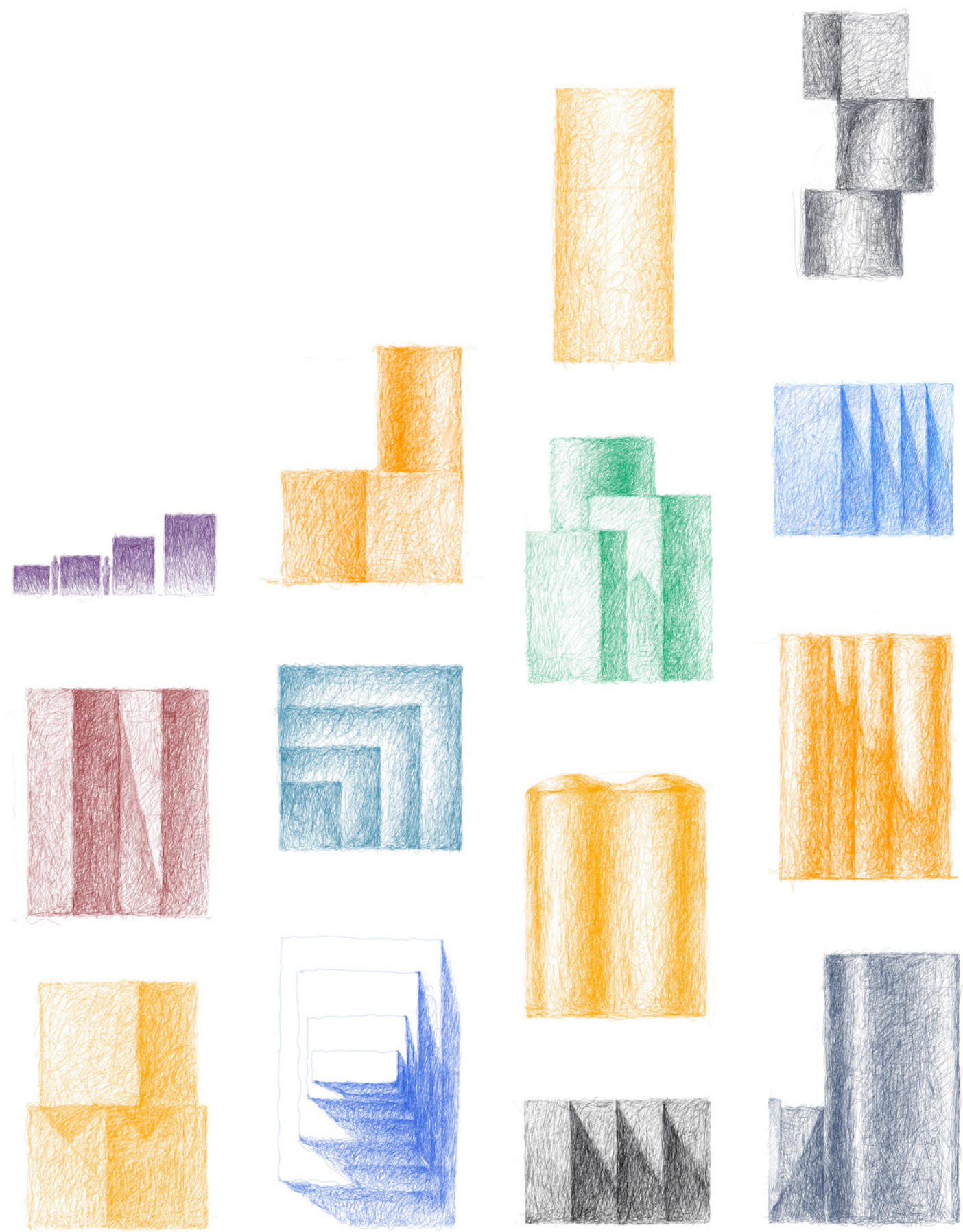
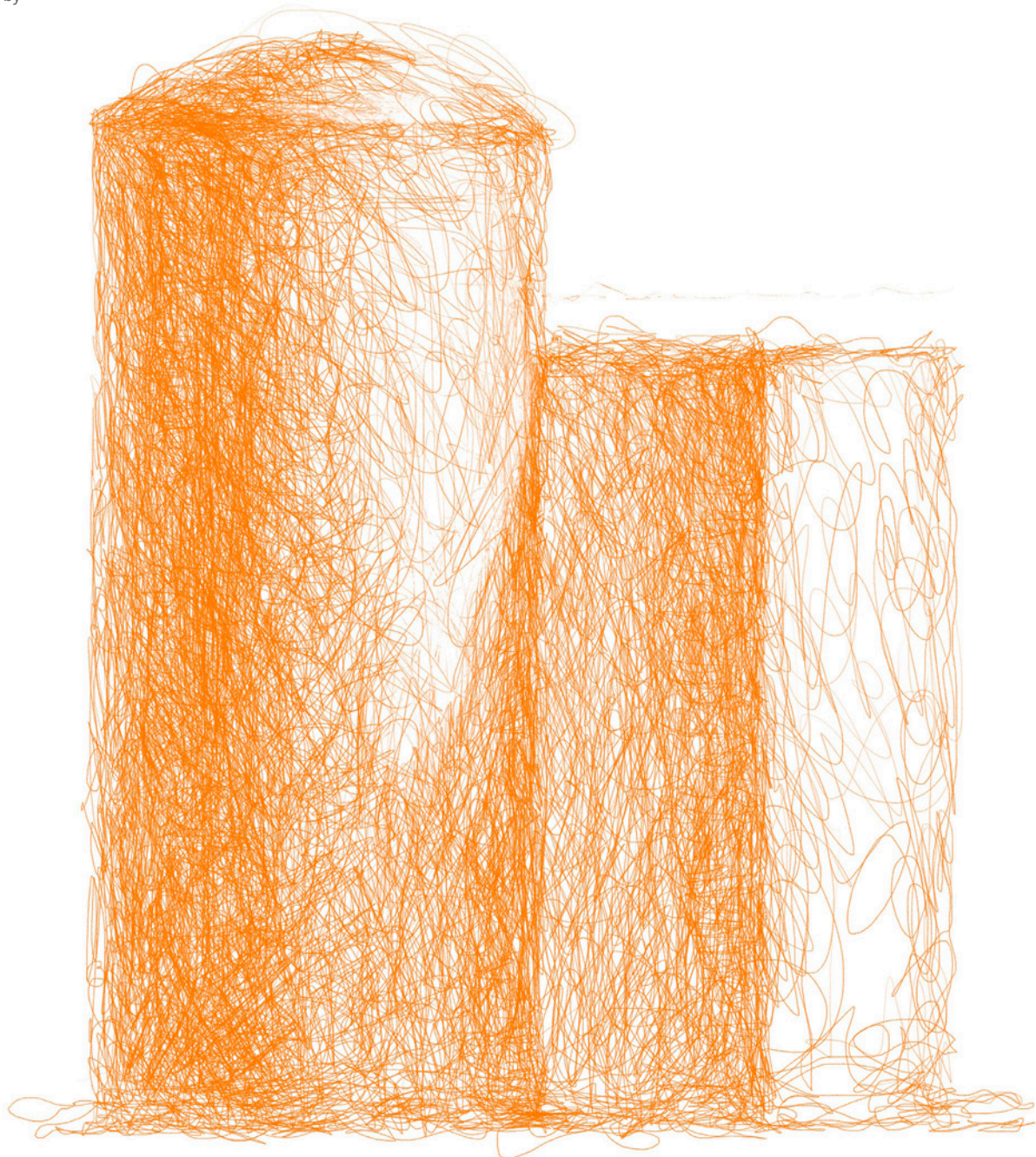
This project draws on the cognitive development theory of Swiss psychologist Jean Piaget, who explains how children perceive and understand space differently as they grow. According to Piaget, children understand space not only through visual cues but also through bodily movement and sensory experience. Architecture, then, should not be understood purely through form, but through physical interaction. This project proposes a pediatric clinic that children can explore, remember, and enjoy through active engagement.

This approach is further supported by my booklet 'Same Space, Different Body'. The booklet visually compares how children and adults experience the same space differently, offering theoretical grounding for the spatial strategies employed in the design.



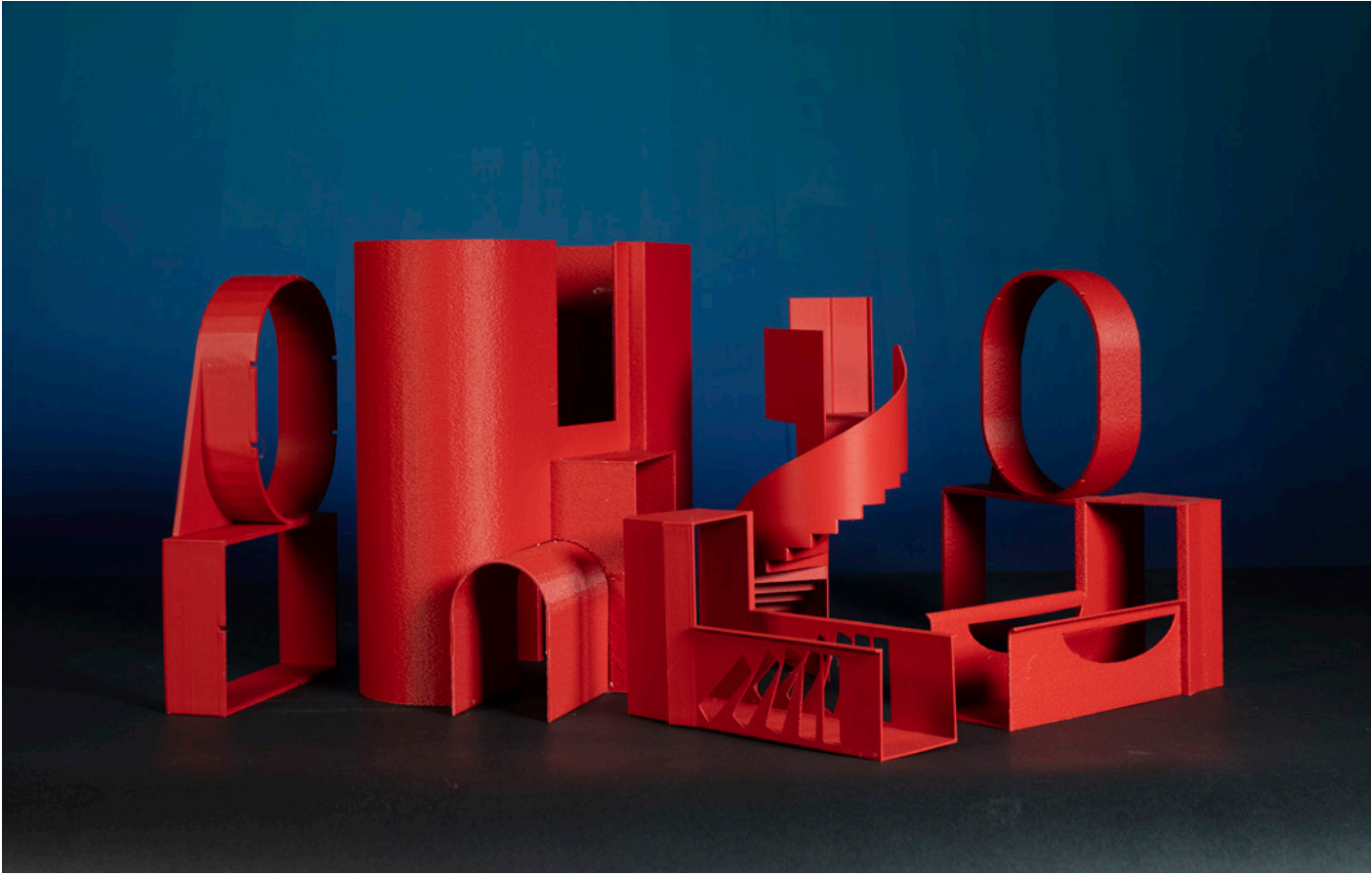
Massing Study - Drawings

The design was developed through an iterative study using massing drawings and 3D printing. Physical models allowed for continuous testing of spatial relationships at the scale of a child's body, enabling small shifts and refinements that were guided by tactile feedback and visual clarity.





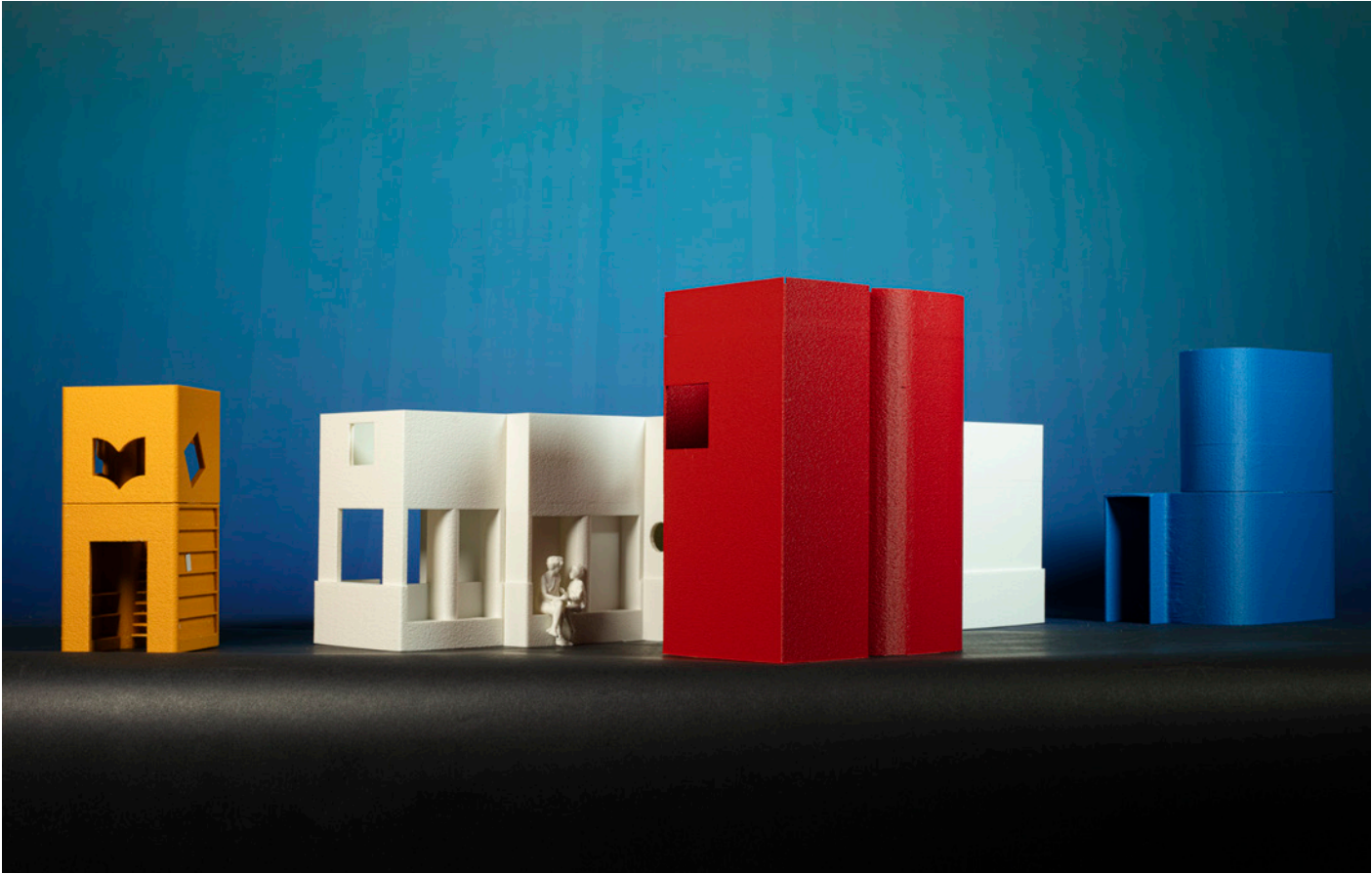
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2



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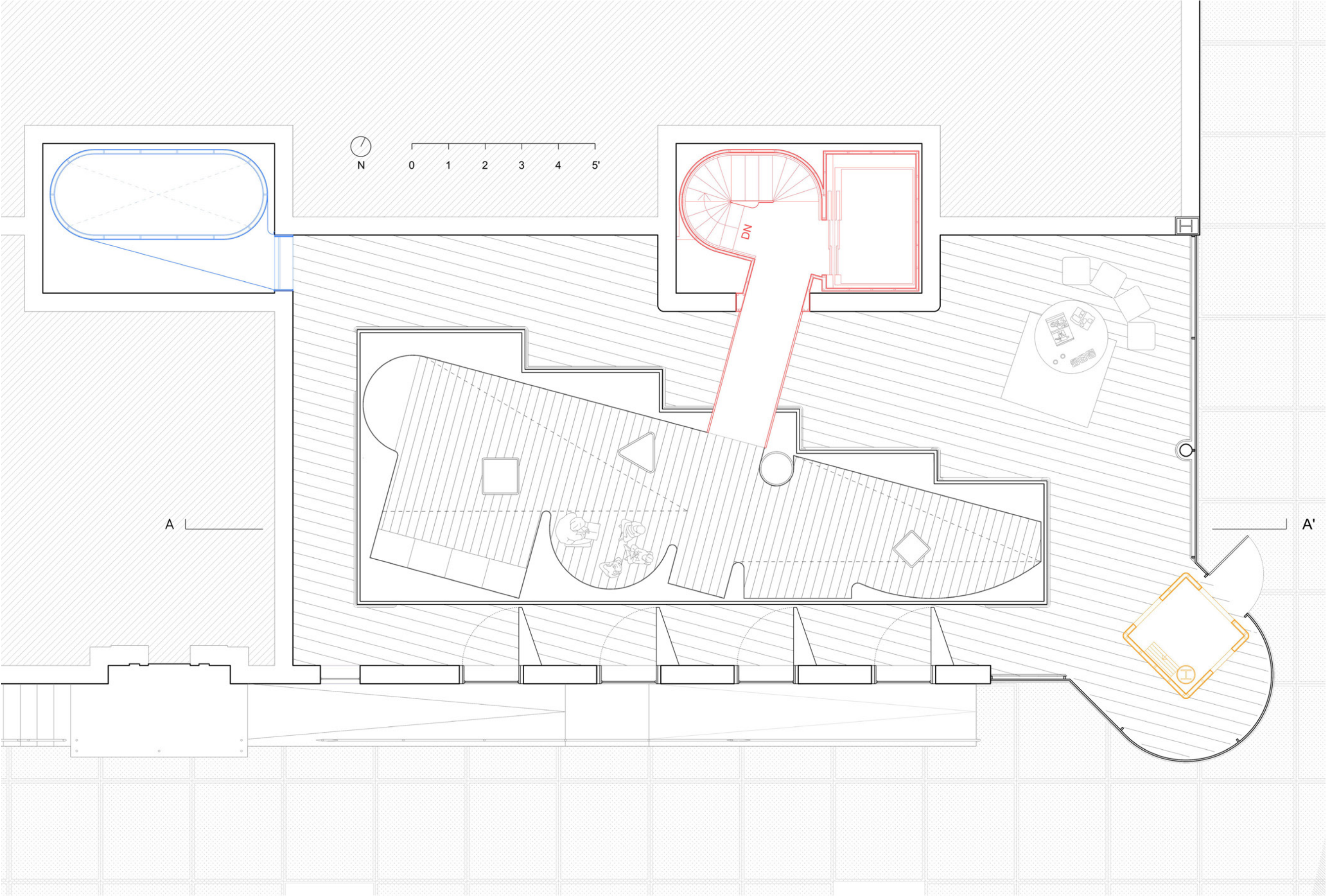


4

- 1 Circulation Massing Study
- 2 Entrance and Signage Massing Study
- 3 Playroom Massing Study
- 4 Overview of Final Volumes

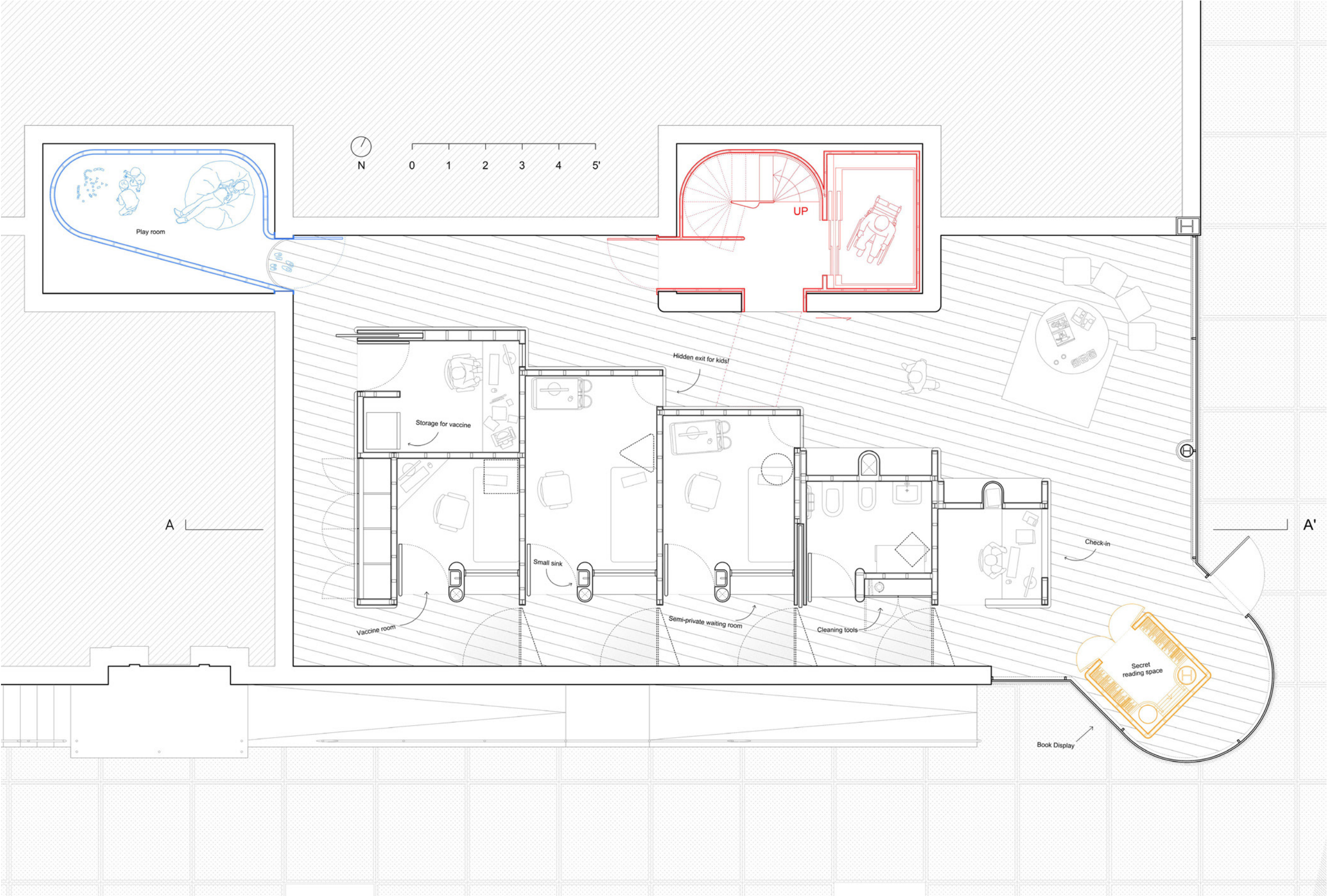


Model - Plan View



Plan - 10'

The mezzanine level functions as a playroom for children. From above, it offers a view down into the exam rooms below. Conversely, a child receiving treatment—lying back in a chair or on a bed—can look up toward the mezzanine, creating a subtle visual connection between the two levels.

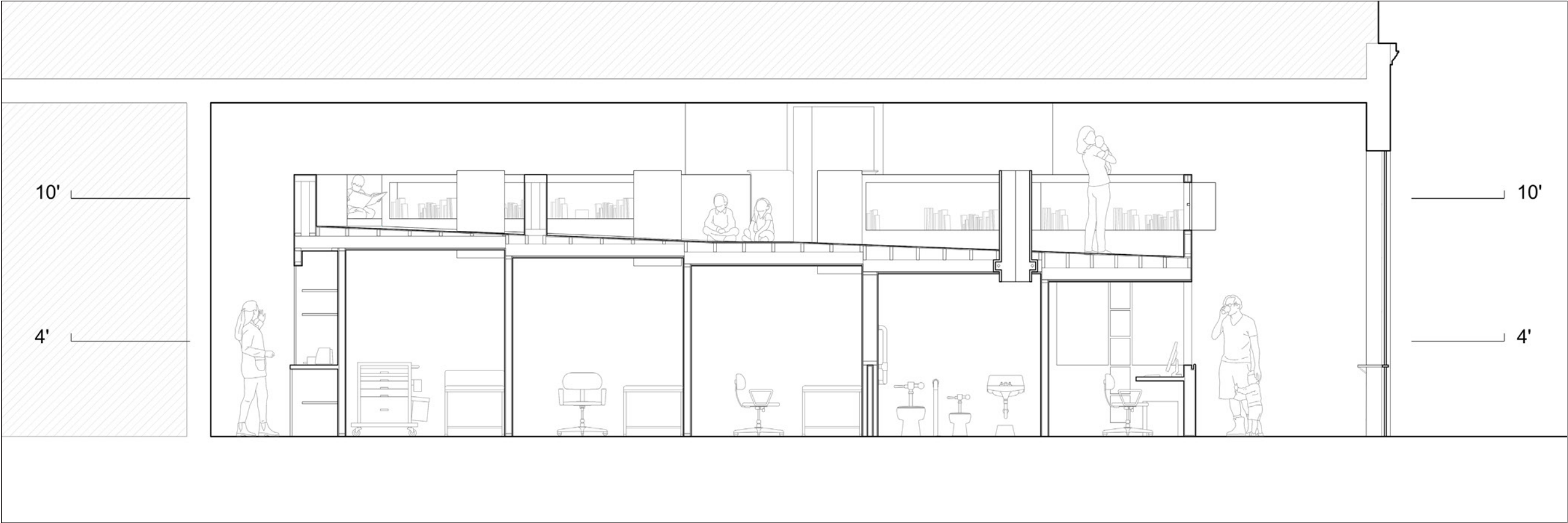


Plan - 4'

The clinic utilizes its corner site to increase visibility and public access. A central mass separates treatment and public zones, which can open or close independently depending on use and time. This mass includes three exam rooms, an office, restroom, and check-in area, all organized around a clear circulation loop.

Previously underused light cores are transformed into vertical playrooms and stairs, creating immersive spaces that engage children physically. These spatial encounters help children form memory and familiarity through movement.

Section



Massing Elevation





1

Each exam room is visually distinguished using reflected light and form. For example, vividly colored solid window panels on the south facade reflect light into small semi-waiting areas, softly bathing each room in a distinct hue. These colors are tied to simple geometric shapes—circle, triangle, square—which are used throughout the design to reinforce spatial recognition from a child's perspective.



2

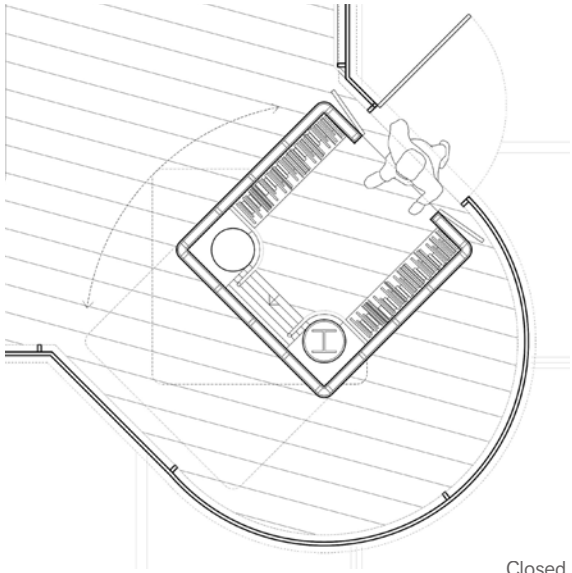
- 1 Overview
- 2 Semi-waiting area
- 3 South facade - Window Opened
- 4 South facade - Window Closed



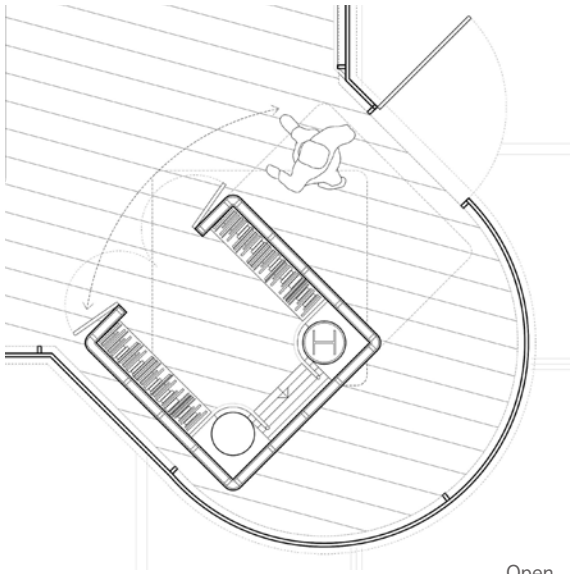
3



4



Closed



Open

The entry mass performs several functions. When closed, it acts as a kiosk for book sharing, as well as marking a boundary between the interior and exterior. When open, it transforms into a reading and play space connected to the loop of interior circulation. From outside, a display stand presents books to the public, while the upper part serves as a signage structure. Visually prominent at the block corner, this mass becomes a focal point that supports the overall presence of the clinic in the neighborhood.





- 1 Overview
- 2 Mezzanine
- 3 In between Massing



1

2



3

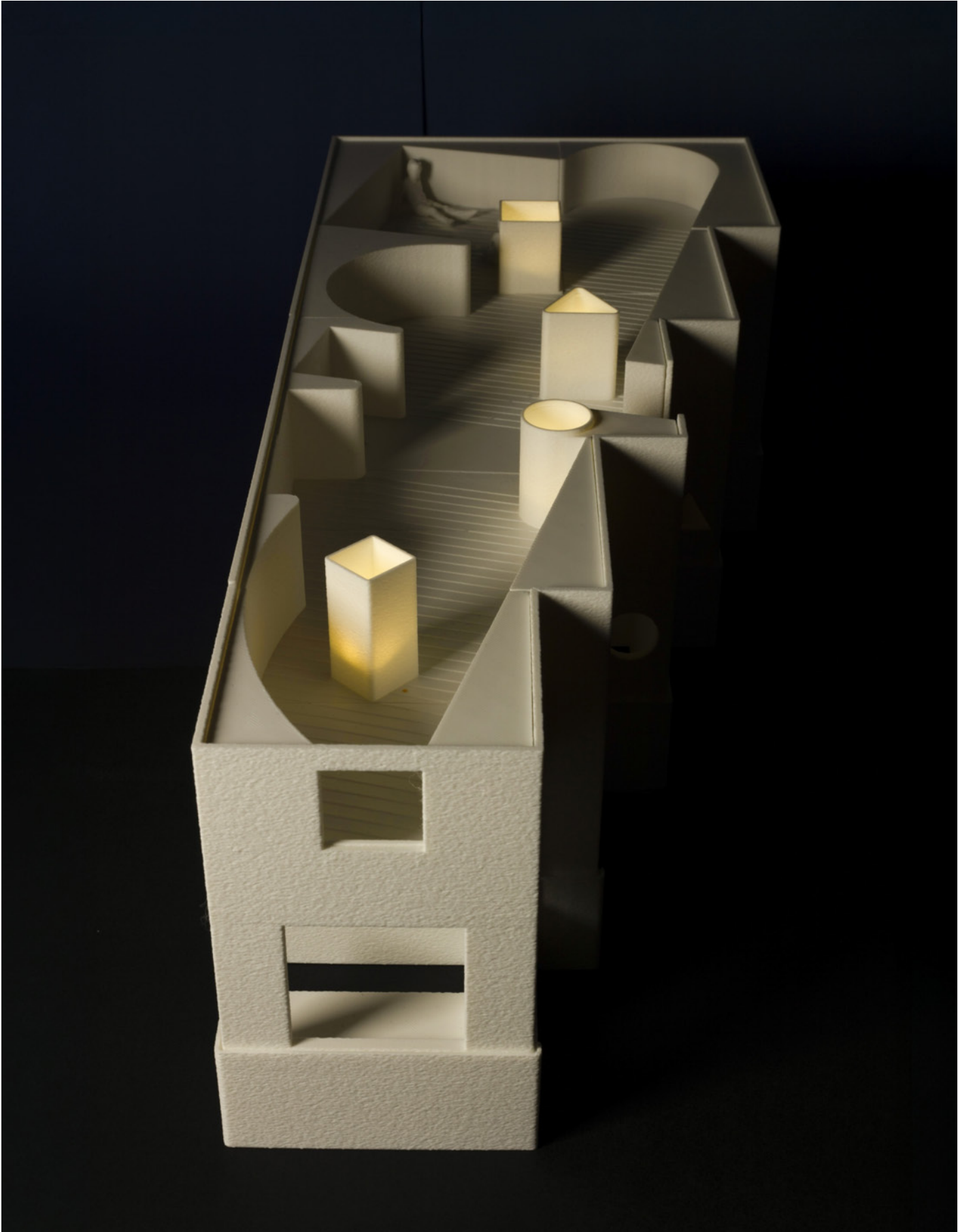


1



2

- 1 Interior view - exam room
- 2 Mezzanine
- 3 Massing overview



3



1



2

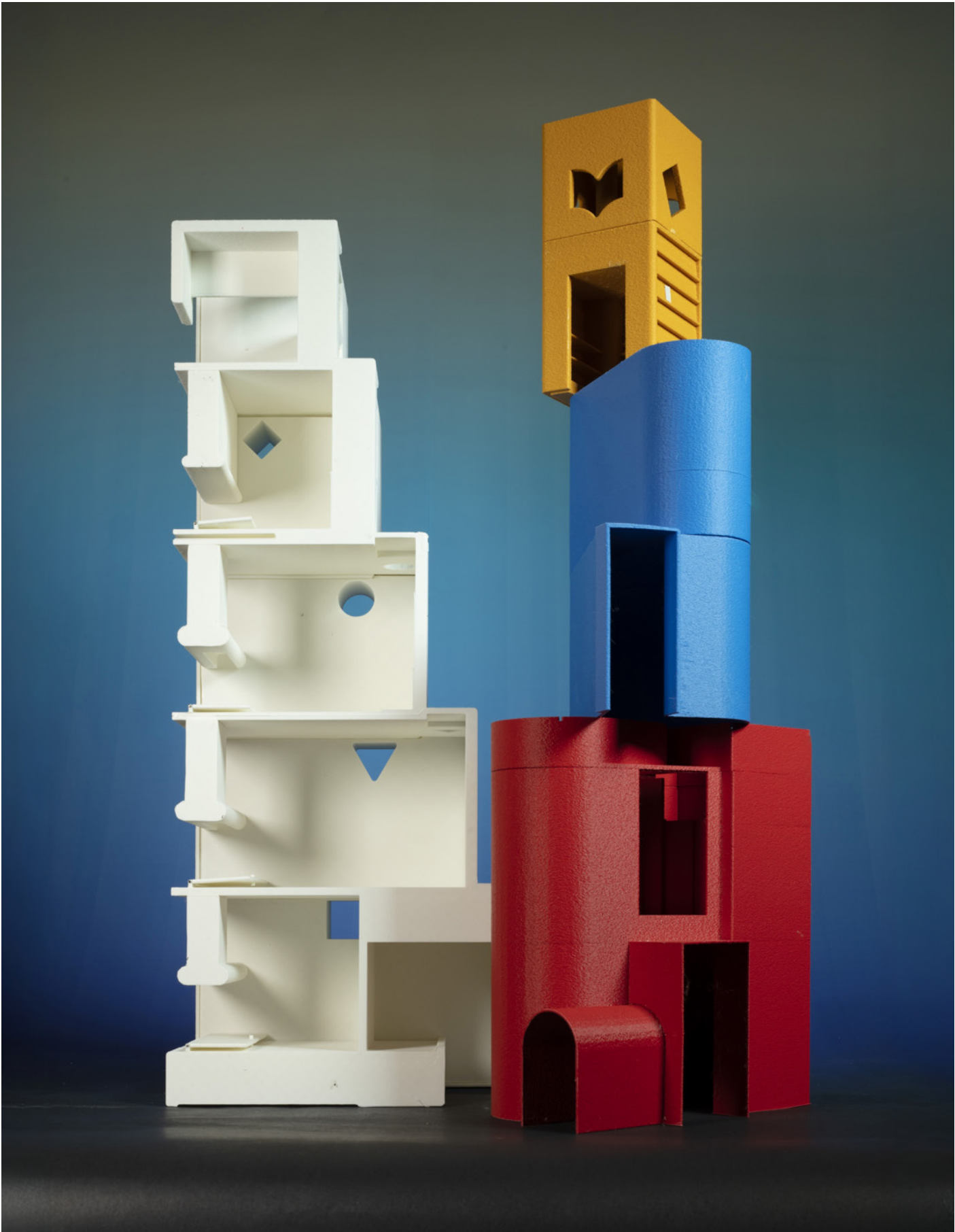
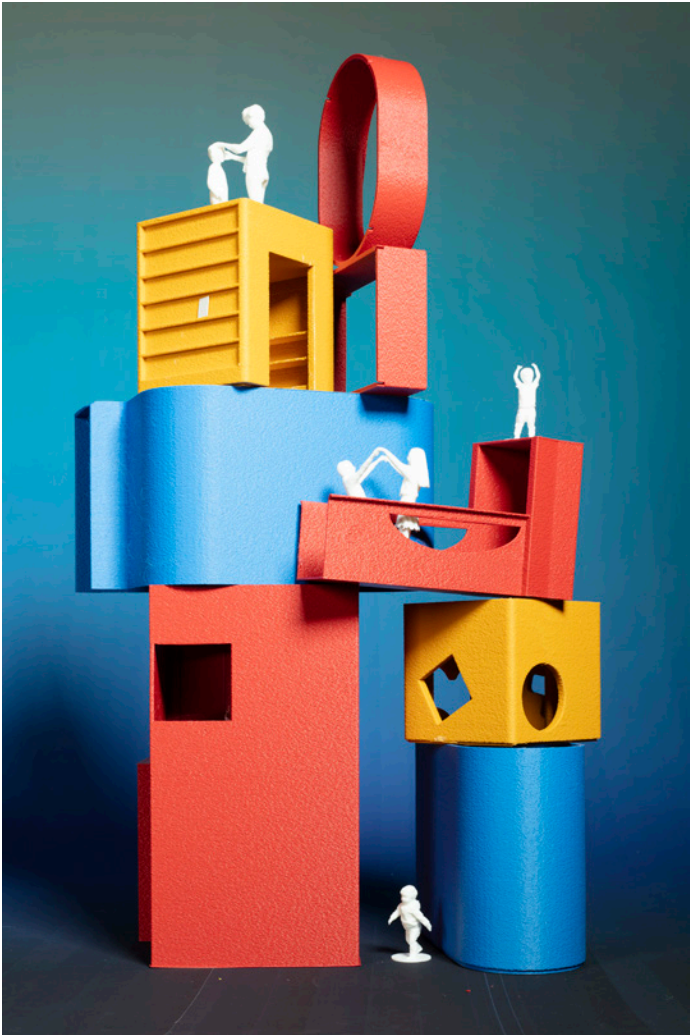


3



4

- 1 Exterior - Day
- 2 Exterior - Night
- 3 Interior from outside:
Book share kiosk
- 4 Shadows created by signage



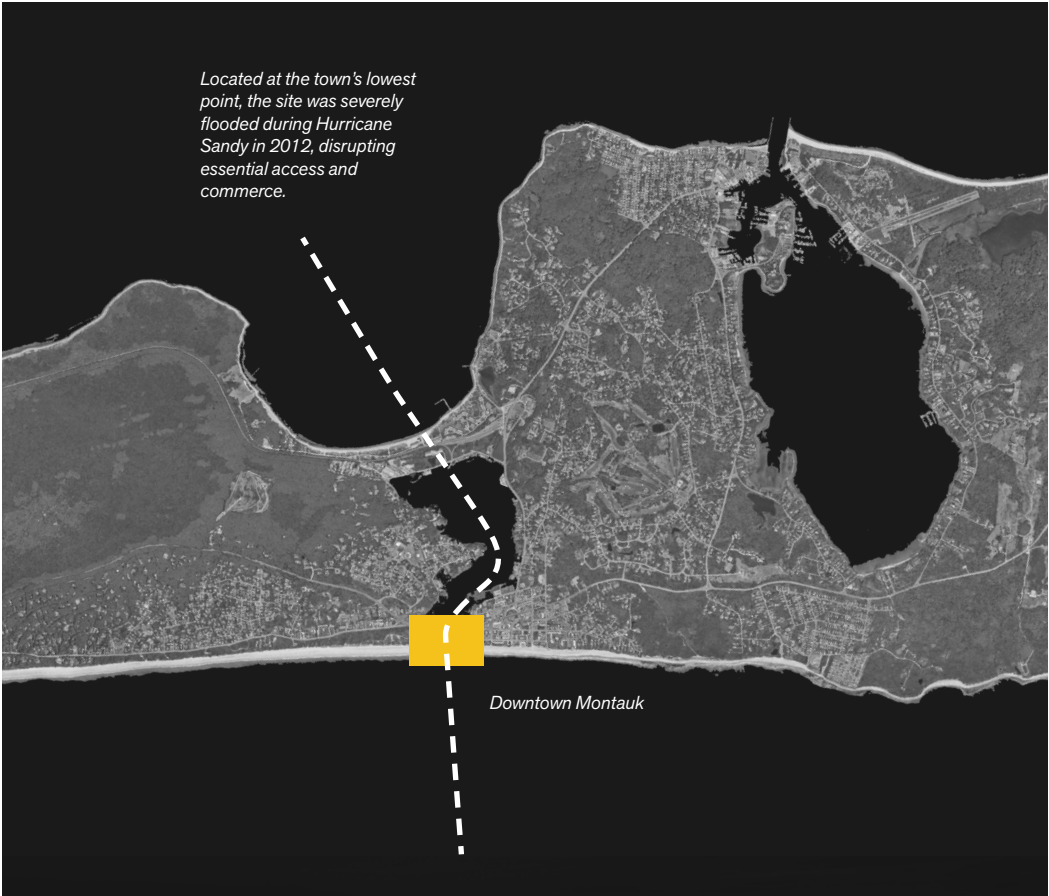
Montauk Community Shield :
A Boardwalk Barrier Against Hurricanes

Montauk Community Shield : A Boardwalk Barrier Against Hurricanes

GSAPP Advanced Studio 4
Spring 2024
Robert Marino Studio

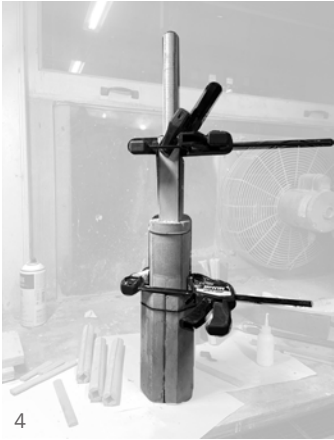
The site, located between two bodies of water, is highly vulnerable due to its position at the town's lowest point. This area has experienced significant flooding, including during Hurricane Sandy in 2012, which disrupted the local food supply and cut off access to the city. As Montauk's sole grocery store and primary access route are situated here, the protection of this area is paramount.

In response to these challenges, I propose a solution that offers immediate protection from seasonal hurricanes while maintaining flexibility to adapt to potential sand erosion over time. The design envisions the transformation of the public open space between S Emerson Avenue and the beach into a recreational boardwalk that dissipates wave energy and serves as a bridge when submerged. The inclusion of hostel units along the wings and a seasonal marketplace in the center aims to create employment opportunities, attract visitors, and foster economic vitality within the community.

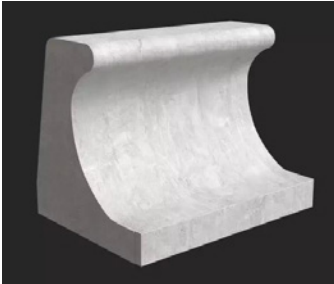




1
2
3 Through various iterations of 3D printing and MDF molding, the project explores an efficient multi-casting method. Each form is designed with a 1/64" tolerance to ensure precision in production.



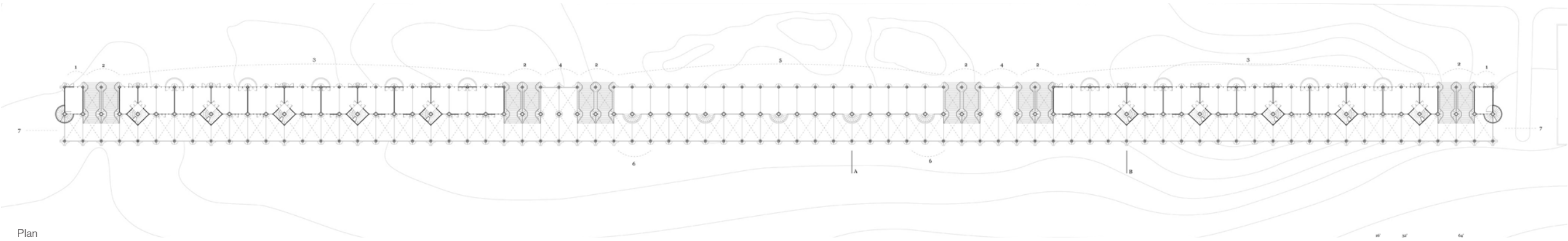
The project is initiated by the seawall's concept of dissipating wave energy and explores mass production through molding techniques.



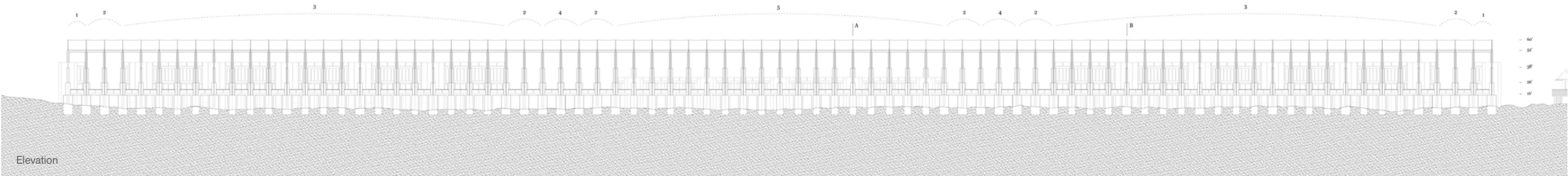
4
5
6 The casting method is designed for efficient replication, utilizing telescopic structures to enable scalable and precise production.



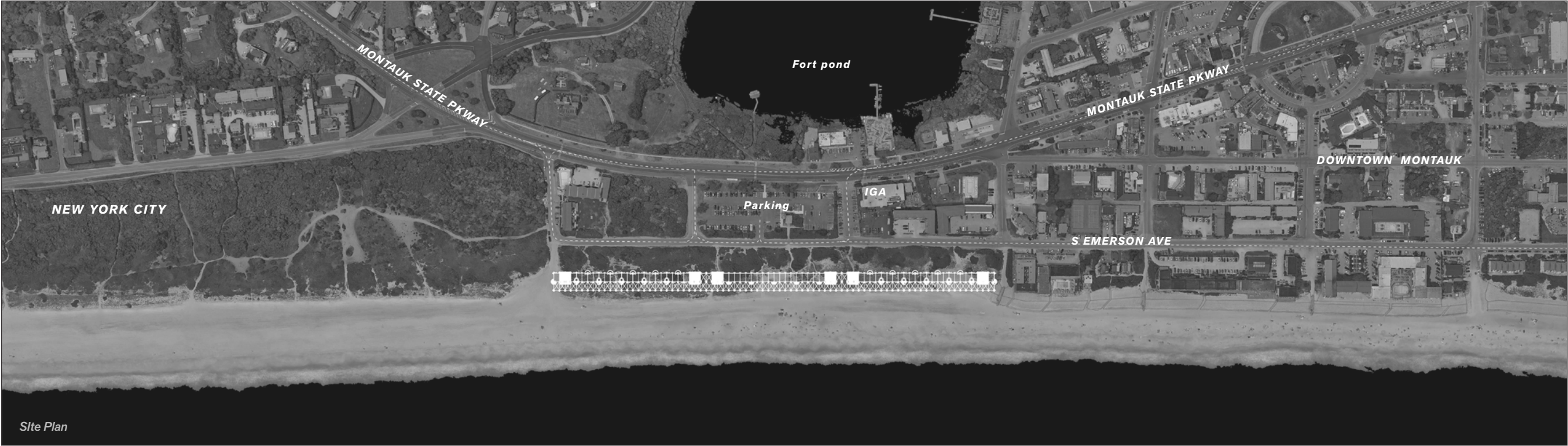
- 1 Office / Lobby
- 2 Entrance
- 3 Hostel
- 4 Meeting Area
- 5 Retail
- 6 Public Restroom
- 7 Boardwalk / Bridge



- 1 Office / Lobby
- 2 Entrance
- 3 Hostel
- 4 Meeting Area
- 5 Retail

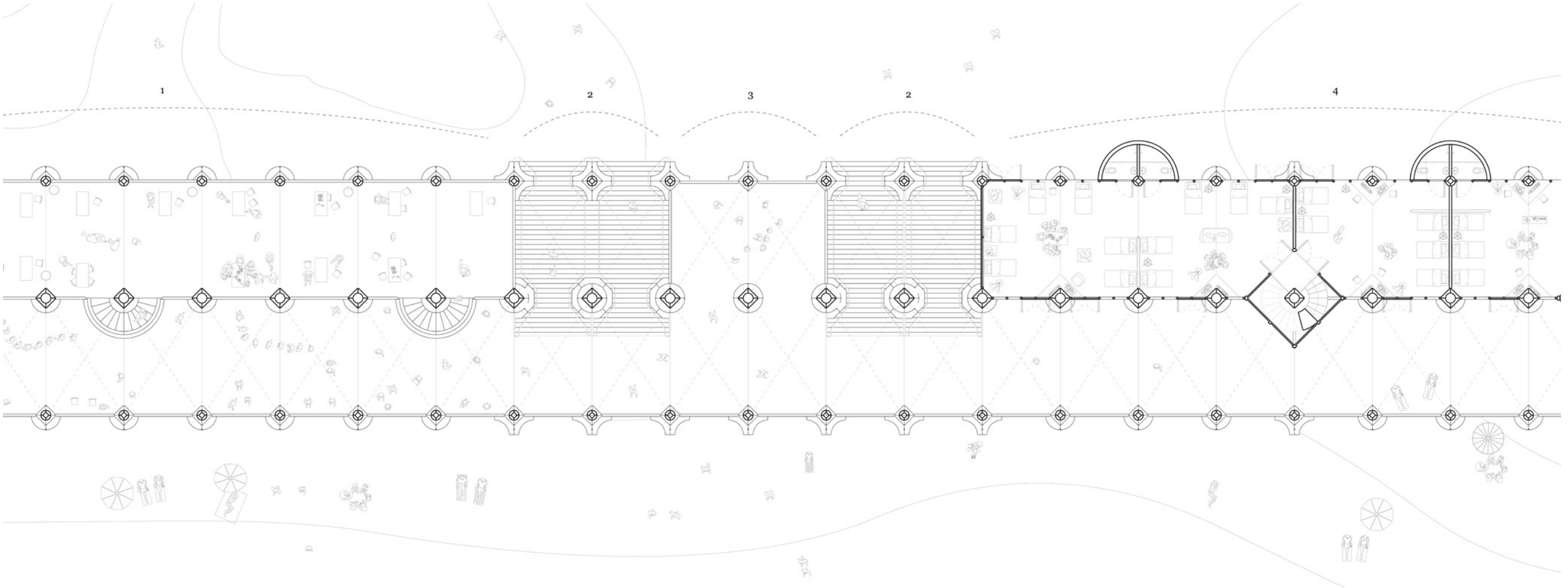


While safeguarding Montauk State Parkway, the town's sole connection to the outside, and the only grocery store in the low-lying area, the project also establishes a boardwalk and public infrastructure to support both visitors and the existing community.



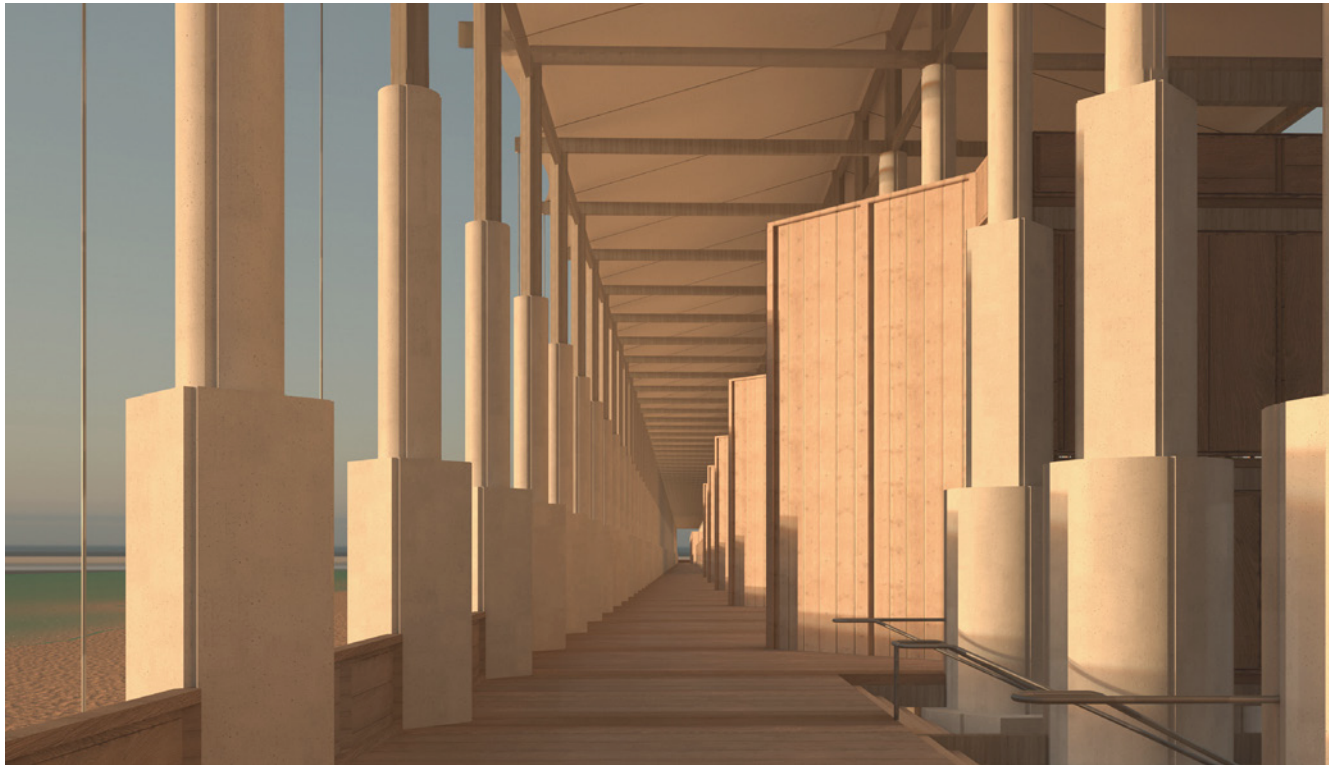
Second Floor Plan

- 1 Retail - Eating Area
- 2 Entrance
- 3 Meeting Area
- 4 Hostel



1

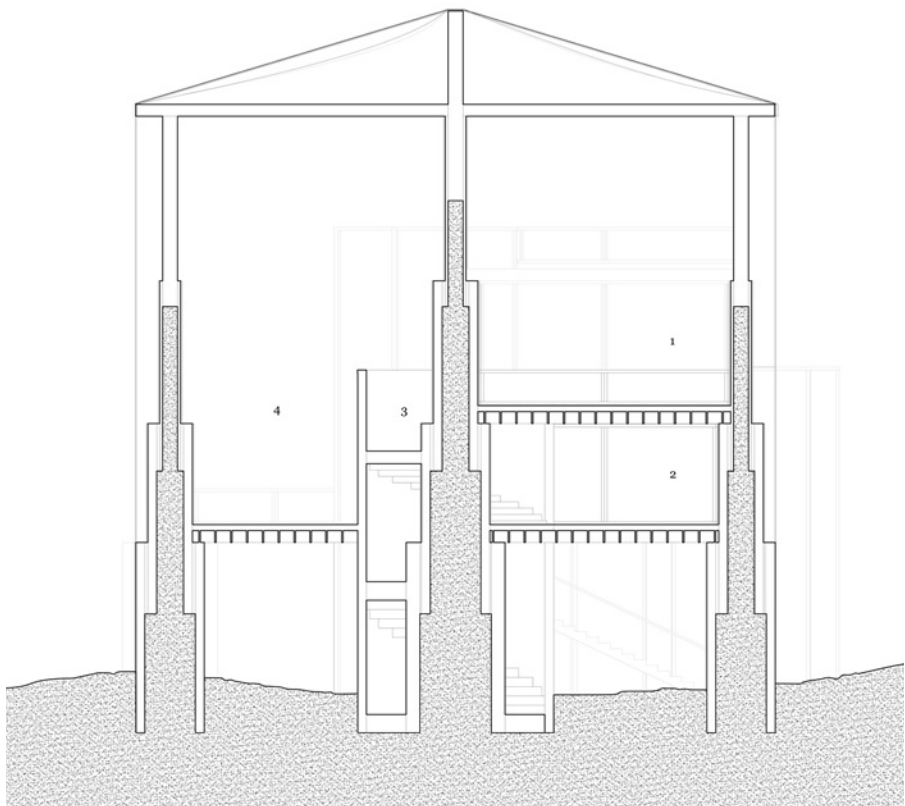
2



- 1 Hostel - Communal Space
- 2 Boardwalk / Bridge

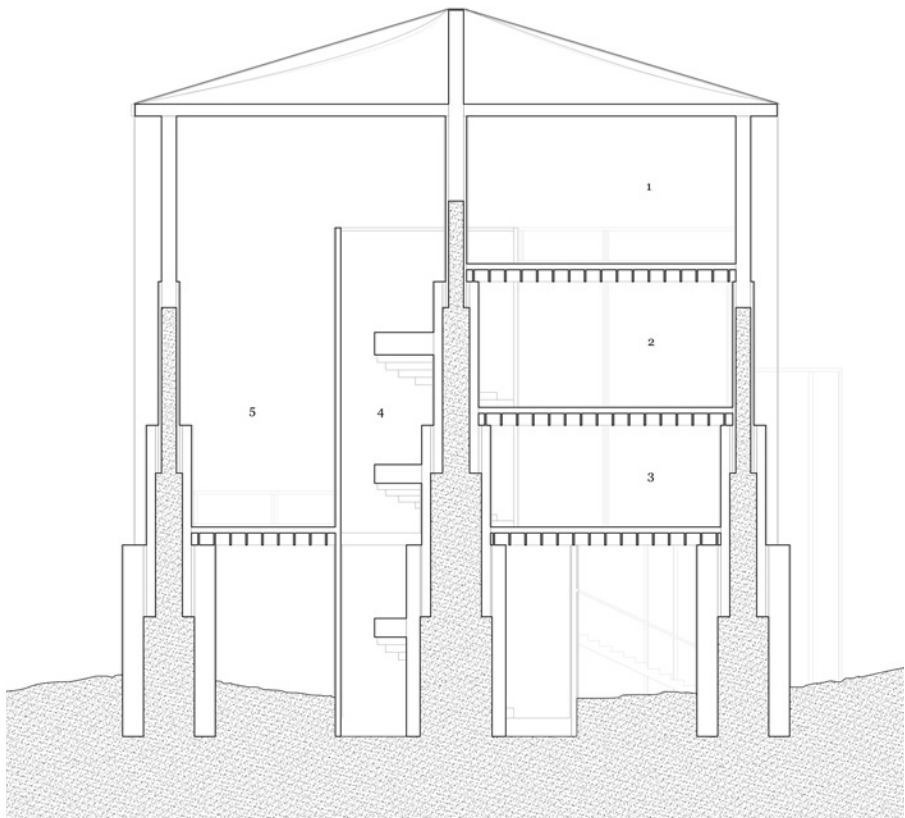
Section - Retail Area

- 1 Eating Area
- 2 Retail Venue
- 3 Clrculation
- 4 Boardwalk / Bridge



Section - Hostel Area

- 1 Hostel - Communal Space
- 2 Hostel - Bedroom
- 3 Hostel - Kitchen / Living
- 4 Hostel - Circulation
- 5 Boardwlak / Bridge





Module

The prefabricated module serves as a container for sand and can extend telescopically. Its outer shell possesses the largest volume and negative space to accommodate sand, while the inner sections gradually increase in strength and decrease in weight. As each layer is filled, subsequent layers are added atop.

These telescopic characteristics, it naturally creates a spatial sequence from compression to expansion as one moves vertically.

The chamfered corners define each individual form when the module set is collected and create a notch to receive prefabricated wall units or wire or square voids that could receive a dowel to cap or tighten the vertical connection.

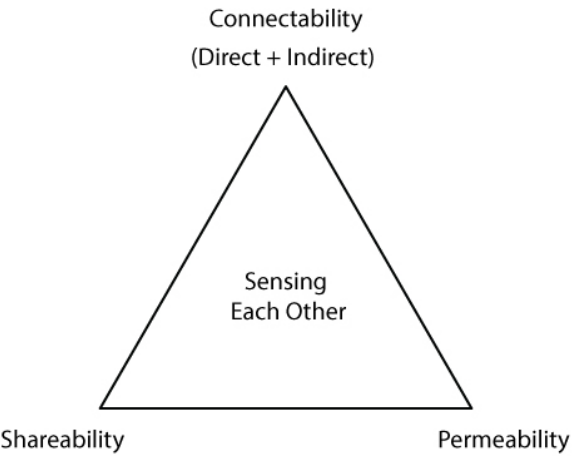


Sensing Each Other
In-Between Spaces for Urban Collective Living

Sensing Each Other In-Between Spaces for Urban Collective Living

GSAPP Core Studio 3
Fall 2023
Collaborate with Jaeyu Kim
Christopher Leong Studio

NYCHA has undergone significant transformation since federal funding cuts in the 1970s and 1980s, leading to increasing reliance on public-private partnerships for affordable housing. Recent plans to redevelop the Fulton and Elliott-Chelsea Houses as a mixed-use complex highlight tensions between affordability and resident displacement. In response, we propose a 148-unit public housing project on West 128th Street in West Harlem, rethinking the value of public space and housing through scale and proximity. More than just housing, it aims to restore publicness and community in urban living.



1 Historic site image in 1967 which captures the area's industrial past, showing old industrial buildings that once existed on the site.



2

2 **MX-15** allows a mix of residential, commercial, and light manufacturing uses, while **R7A** promotes medium-density housing with seven- to nine-story buildings that align with the street. With both designations, the site can blend residential and commercial functions while maintaining the neighborhood's scale and character.



3

3 *Massing Model*





1



2



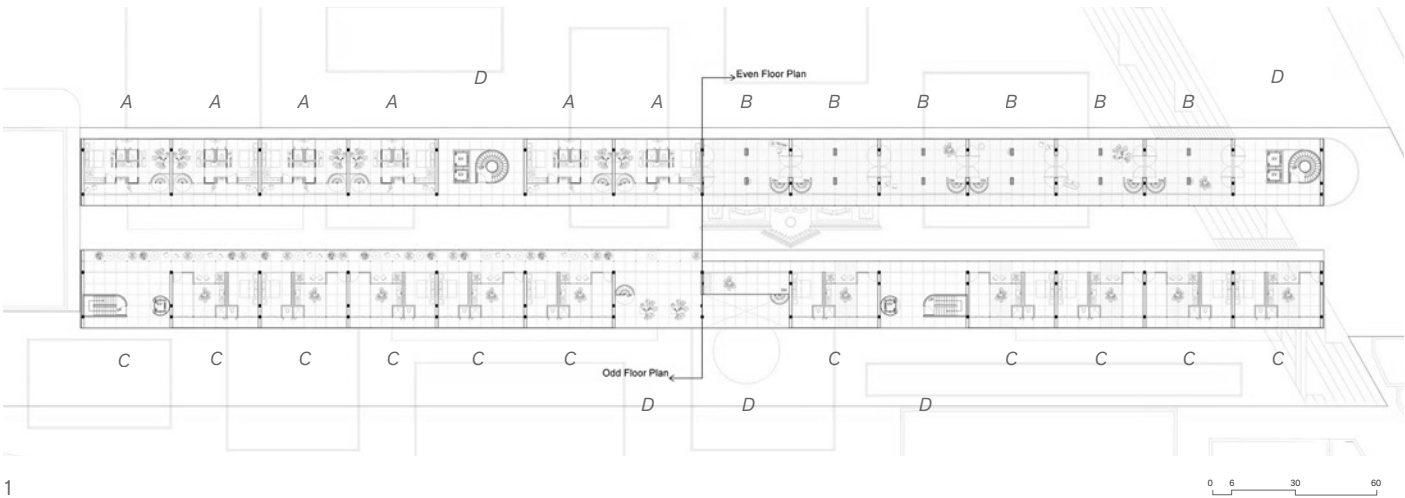
3

- 1 Spatial Interaction Study – The partial study model with stacked, unfixed layers explores variations in spacing to find the optimal intervals for human interaction within the limited site.
- 2 Permeability Study – The partial study model incorporates insertable units to test natural light penetration through the 16-foot thin massing.
- 3 Structure Study – Examining the shifted massing's structure while identifying the three-story-high public area.

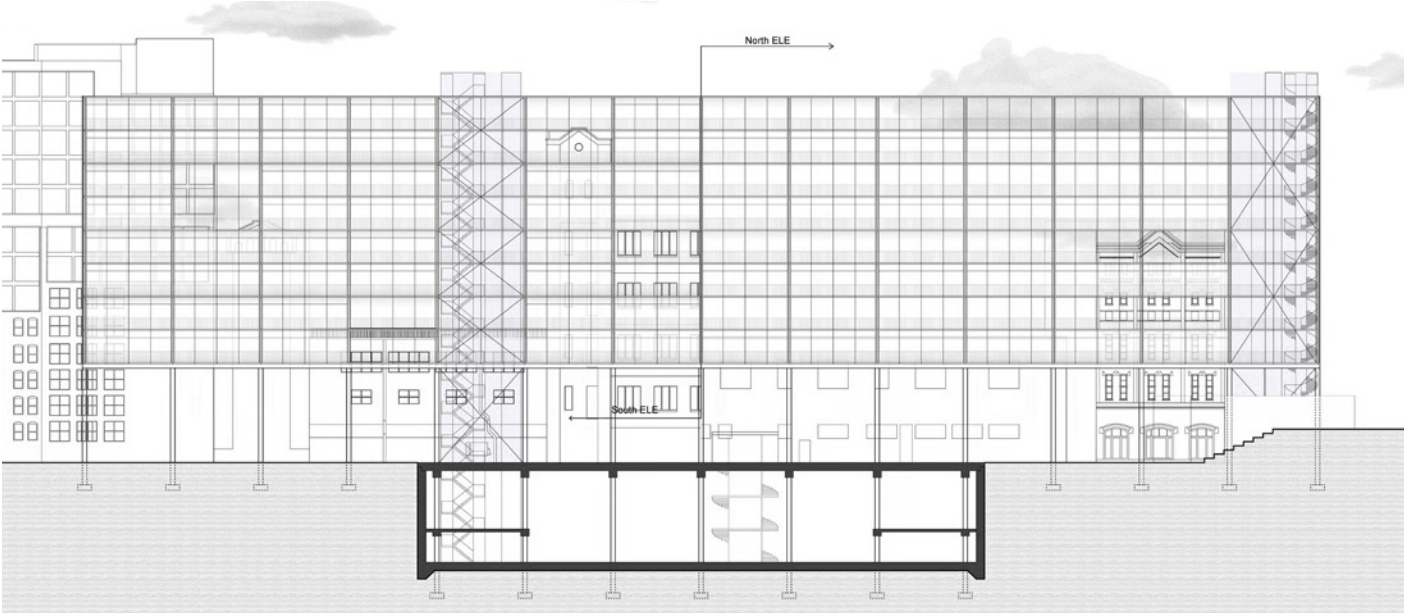
4 1'=1/4" Scale Section Model



4

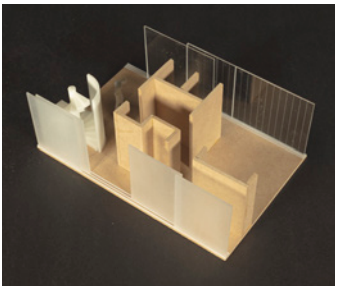


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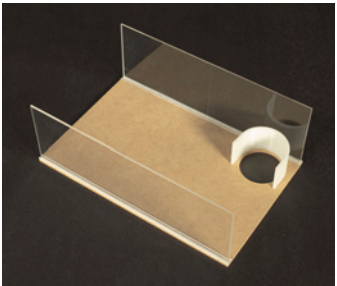


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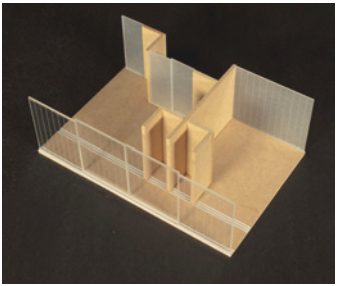
- 1 Type A residential units and Type B working units are vertically connected by internal stairs, with the open nature of Type B creating a horizontally permeable facade. Type C residential units, influenced by the double-height public unit, form an irregular permeable facade facing south. These varying levels of permeability ensure that the central space features a hall that remains open rather than enclosed.
- 2 The three-story lifted massing stands out, creating a vertical visual connection between the public space, the underground venue, and the elevated structure.



3



4

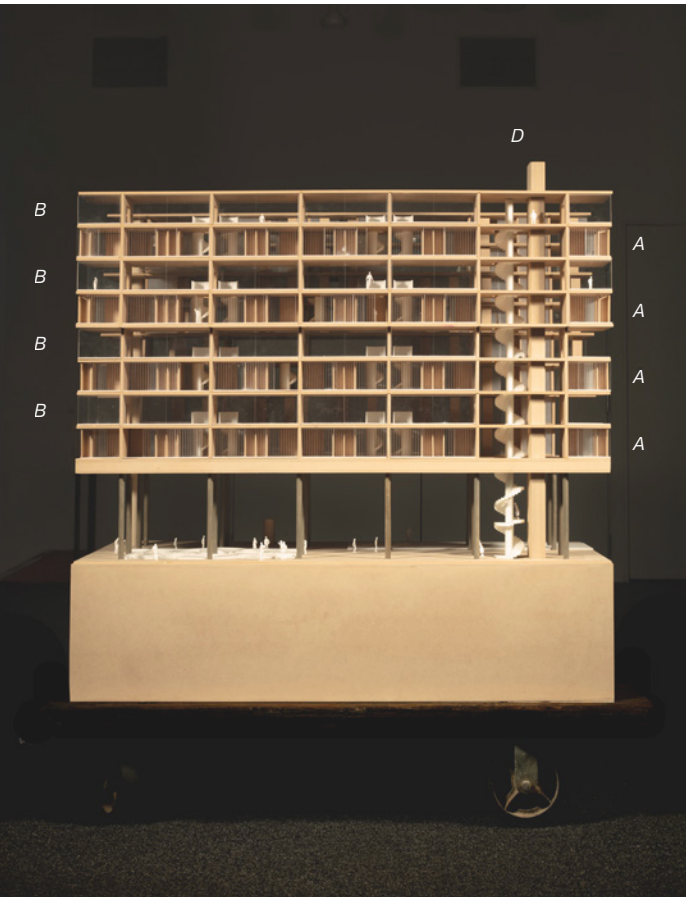


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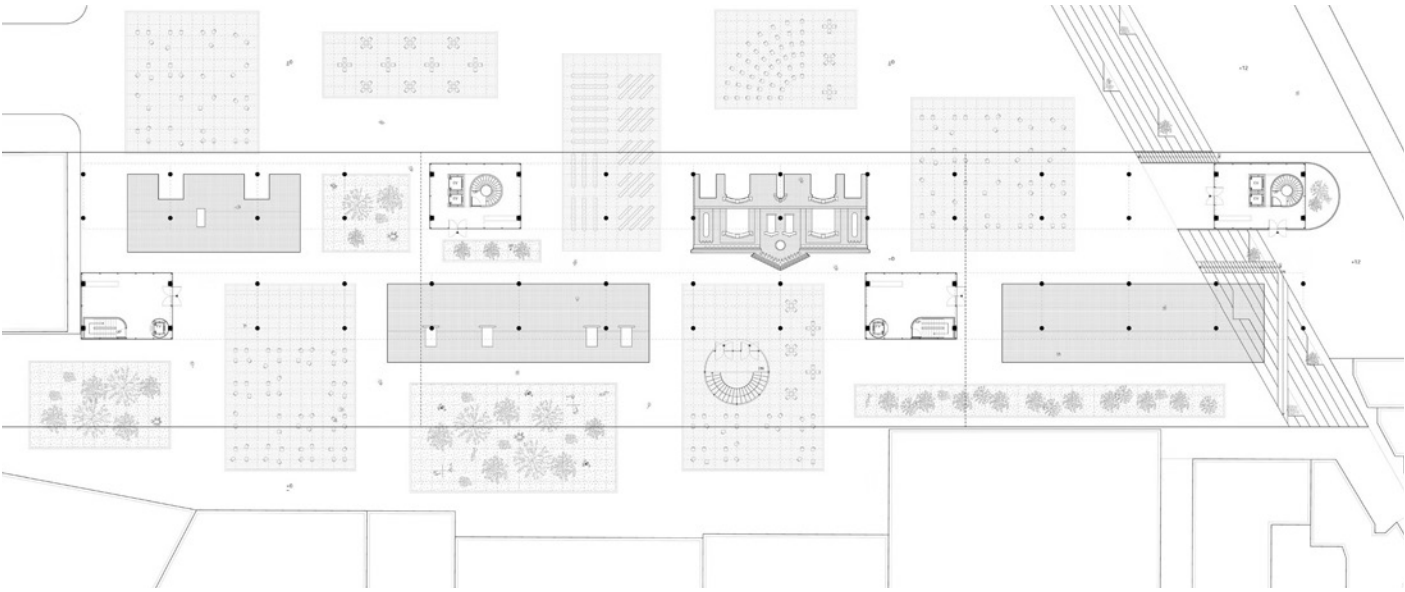
- 3 Type A - Living Unit
- 4 Type B - Working Unit
- 5 Type C - Living Unit
- 6 South Facade - The irregular double-height public space channels daylight between the two thin massings.
- 7 North Facade - The alternating arrangement of Type A and B units creates a structured, horizontally open facade.



6



7



1

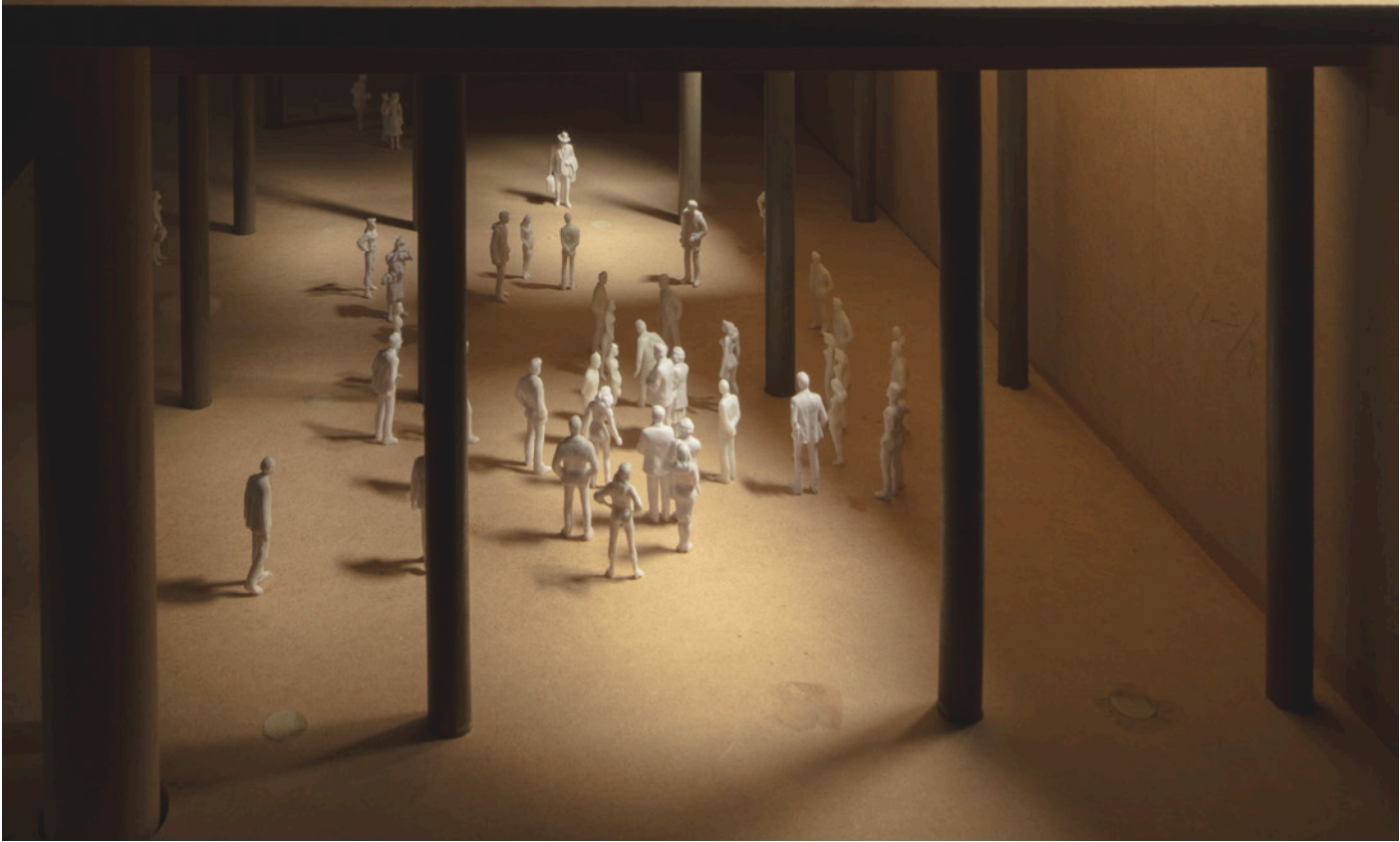


2



3

- 1 The existing building's facade is dismantled and placed on the ground, with its former openings repurposed to direct views toward the underground venue, preserving its historical character.
- 2 The building's thin, elongated massing creates a dynamic spatial variation through regular openings to the north and irregular, sunlit openings to the south, maintaining both proximity and contrast.
- 3 As the public moves through the three-story massing, views of the venue below and the spaces between buildings create a sense of openness.
- 4 The integration of three major public spaces—an underground indoor venue, an outdoor public area, and public housing—maximizes the continuity and accessibility of shared spaces while posing the question: What defines true public space?



4

Ground

Ground

GSAPP Core 1
Spring 2022
Christoph Kumpusch Studio



Between high densities and empty space, there is a thin layer called ground. It's common.

Thinly covering the earth, ground is what we walk on every day. It's immersive.

Stories, histories, and functions that imprint.

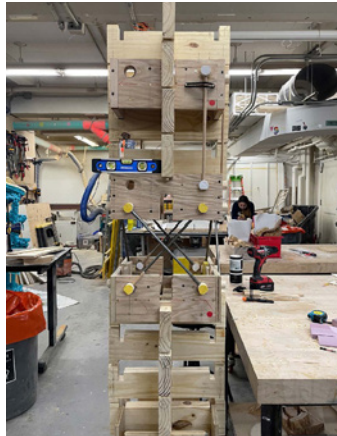
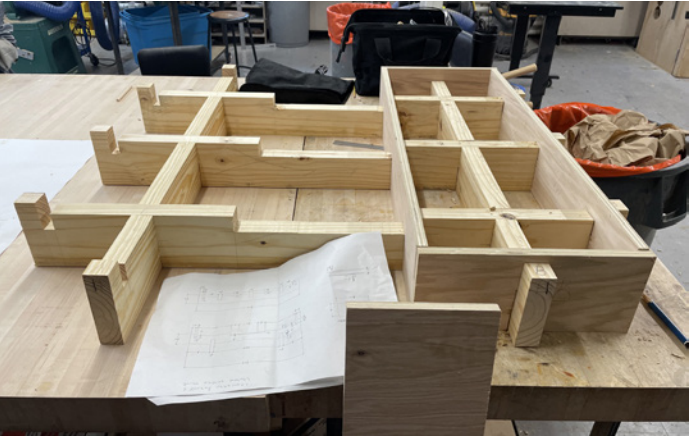
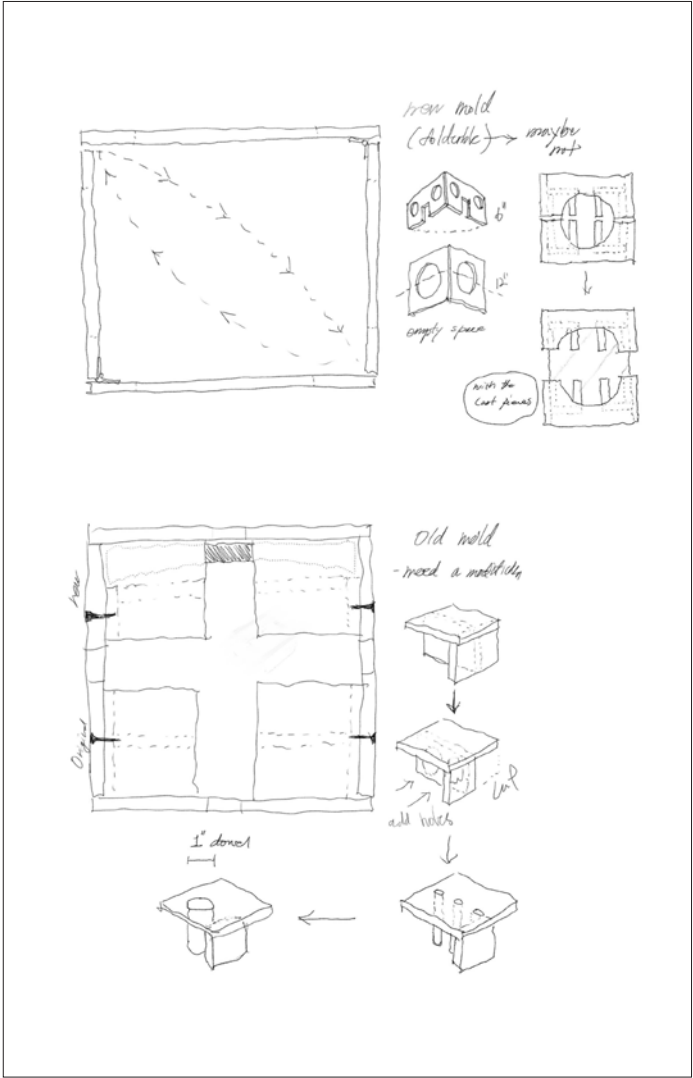
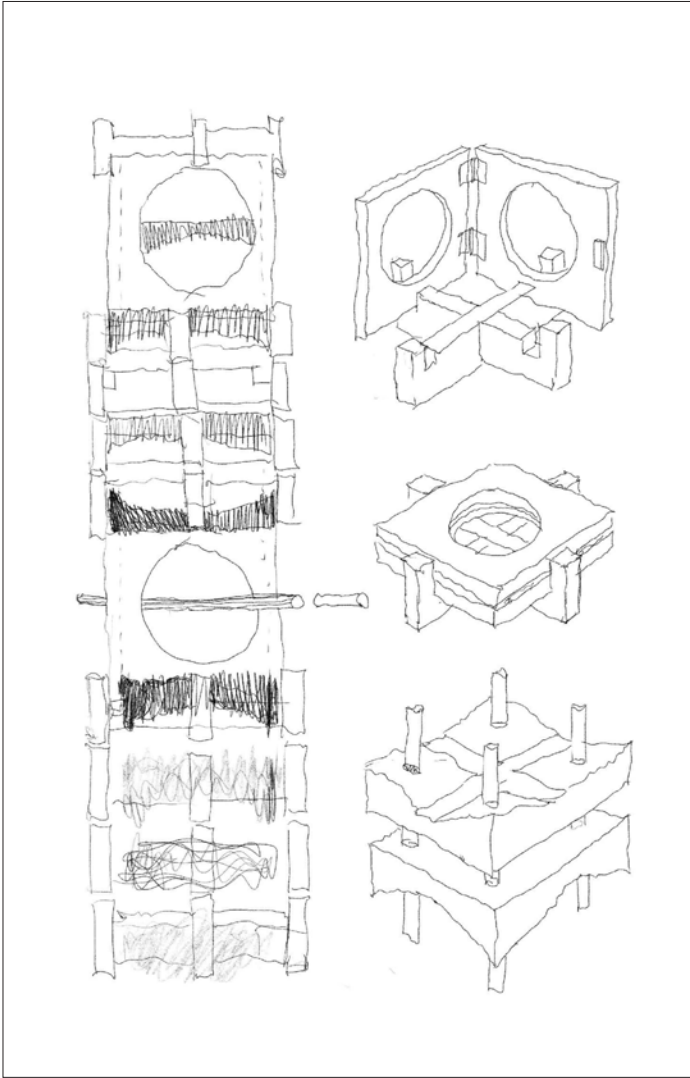
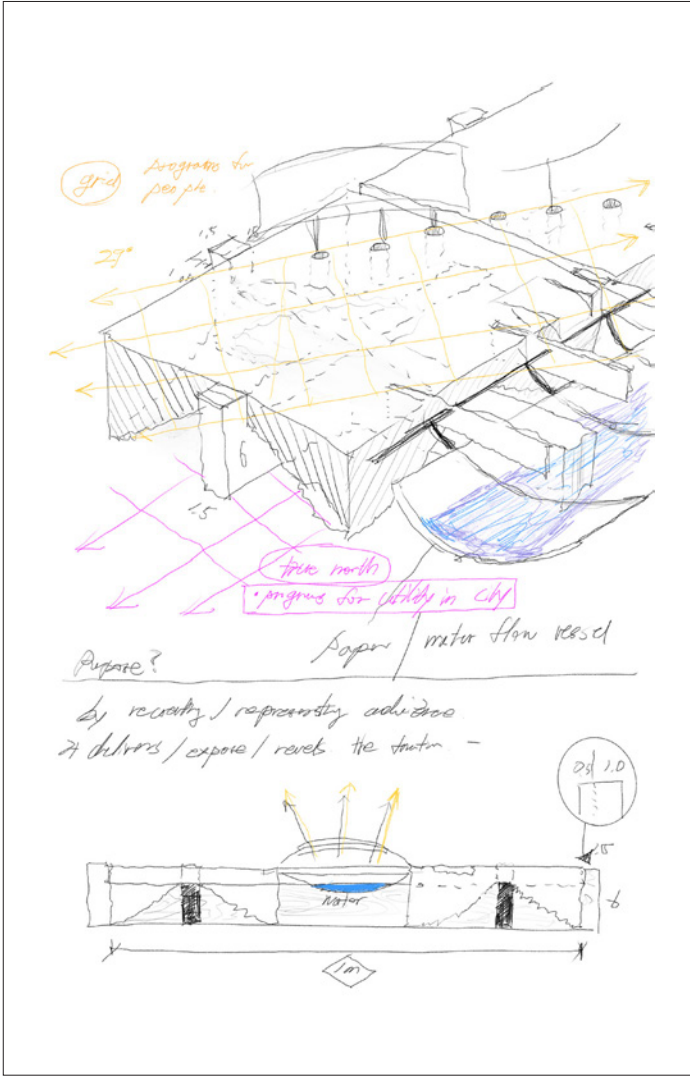
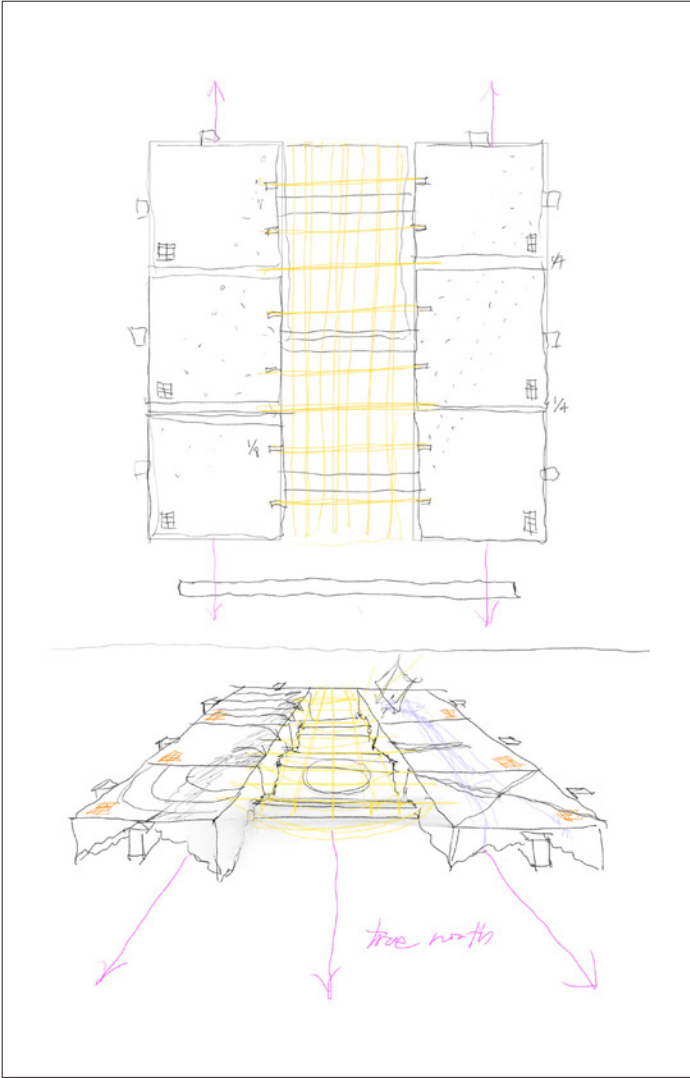
Footprints, signage, gums, coffee spills, vomit, tire marks, road paints, chalk drawings, construction patches, rain, water puddles, plants, spray paint, shadow, light — and almost everything above it. It even reveals what's underneath. These may guide us, encourage us, and distract us to act a certain way. For a second. We interact with it consciously and unconsciously.

The sum of these elements infinitely expands seeking moments and interconnectivity or ground and what surrounds it. Its basis is exploration. Finding orders and disorder, elements that object and subjects that can adapt and create new spatial transcalarities, common ground, and it's public.



Initial finds from Broadway between 59th Street to 72nd Street.





In Phase One, the aim was to replicate Broadway's discoveries, including its construction, utilities, textures, and history, while preserving the conceptual 'ground' idea without removals or alterations.

In Phase Two, the goal was to convert existing elements into a verticalized language while adapting and modifying them to enhance flexibility for inter-element connections.



1



2

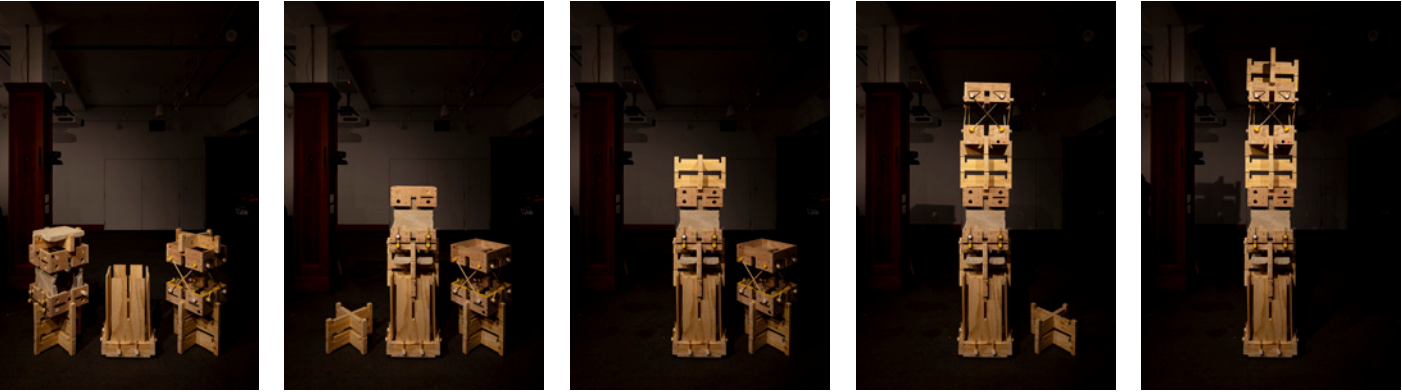


3

- 1 Extracting a vertical architectural language from the horizontal composition of urban ground.
- 2 Components translated through the modeling of ground—modulated ground, the mold that shapes it, and the structure that supports it.
- 3
- 4 Each element can interconnect in multi-directions, generating vertical space in various ways and forming vertical connections.

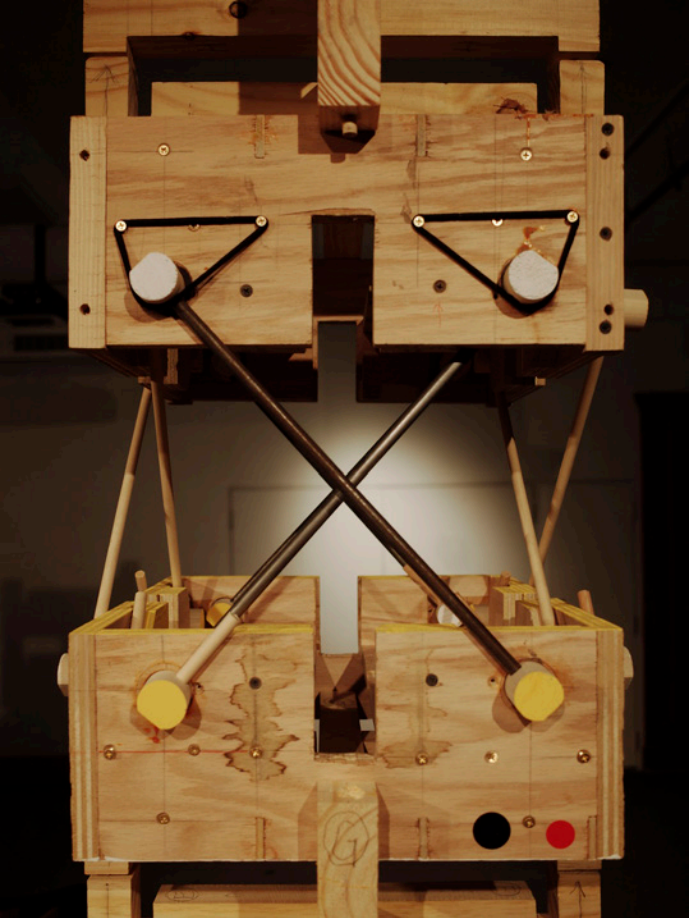


4



1

- 1 A sequential process of assembling and stacking modular elements to shape the overall form.
- 2 Every screw, band, and dowel not only participates in the process of making, but also contributes to the structural formation.
- 3 A compactly stacked form where each module serves as process, structure, and outcome.



2



3

Beacons of Remembrance

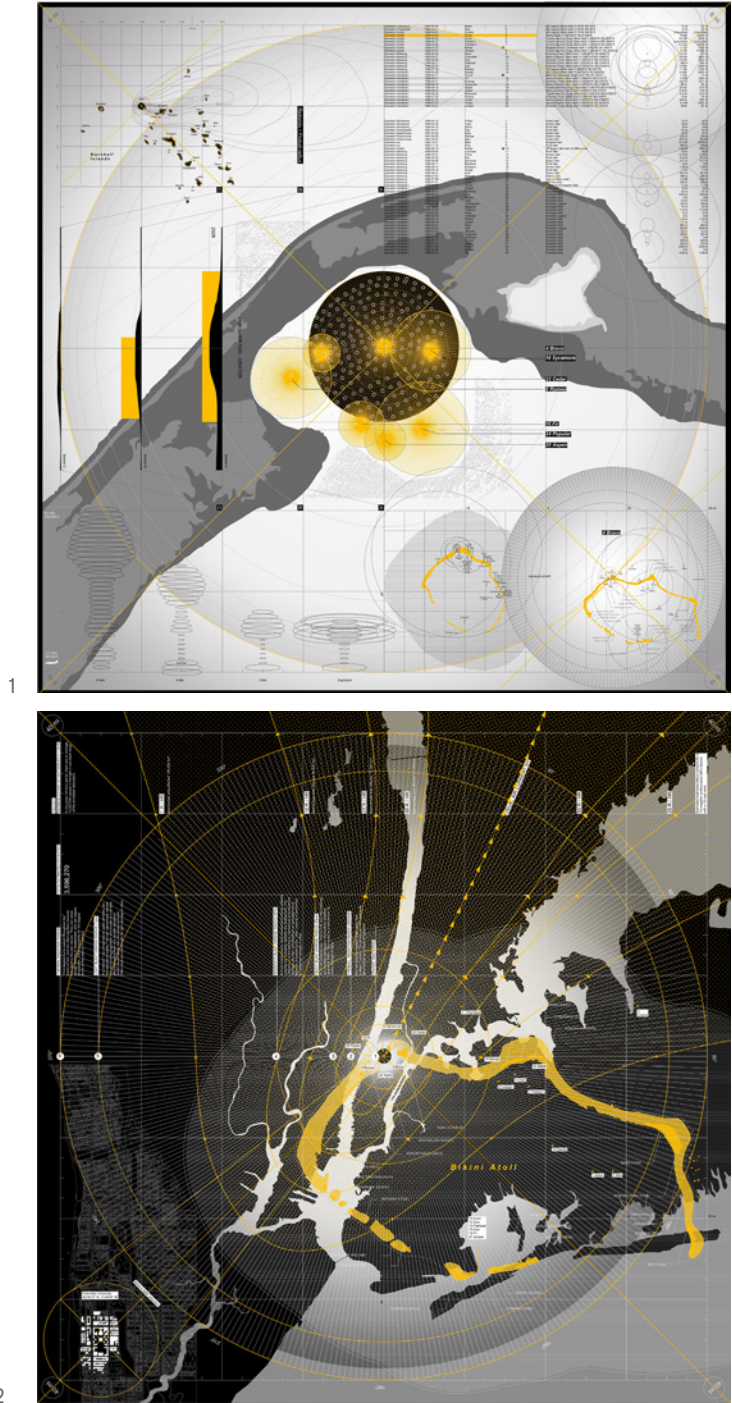
Beacons of Remembrance

GSAPP Core 2
Fall 2022
Carlyle Fraser Studio

Nuclear awareness through scale and light.

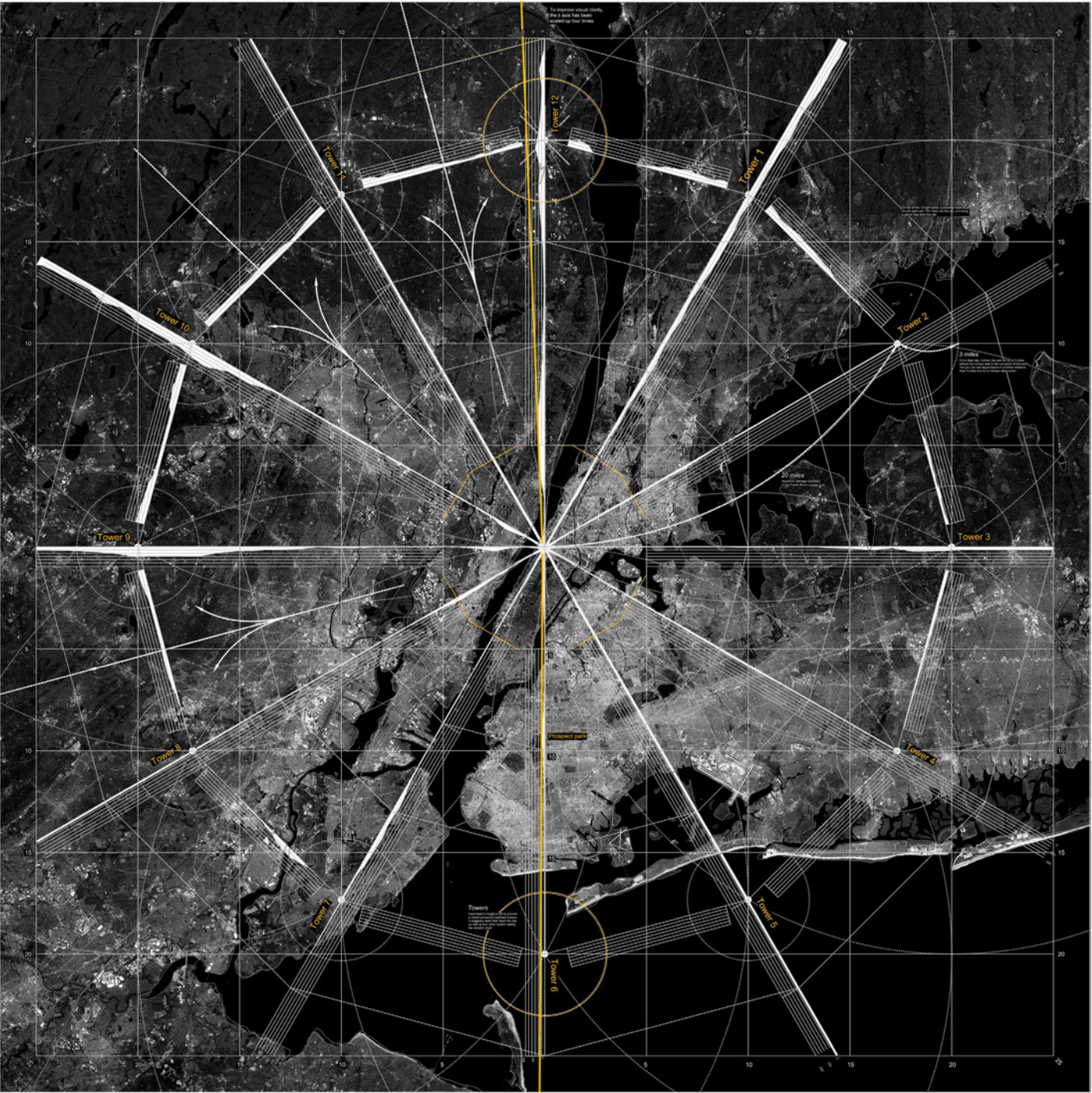
90 years after the catastrophic Bikini Atoll nuclear test, its impact has faded into fragmented records and distant screens, desensitizing us to the ongoing threat. Yet, 13,080 warheads remain poised for use.

This intervention translates the scale of the Castle Bravo test—the most powerful U.S. detonation—into an urban experience. Twelve light towers, marking the blast's maximum damage boundary, are placed across New York, where the Manhattan Project began. Each tower offers a 20-mile city view and connects visually at night, transforming into a decentralized network of communal spaces that reframe nuclear awareness.

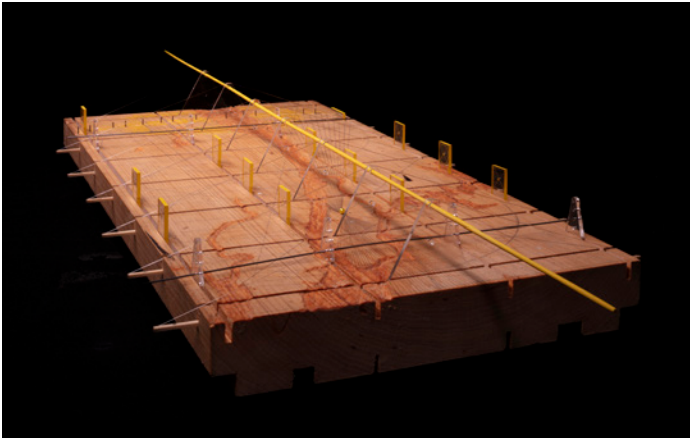


1 Map illustrating all nuclea explosion experiments conducted at Bikini Atoll and their associated environmental consequences.

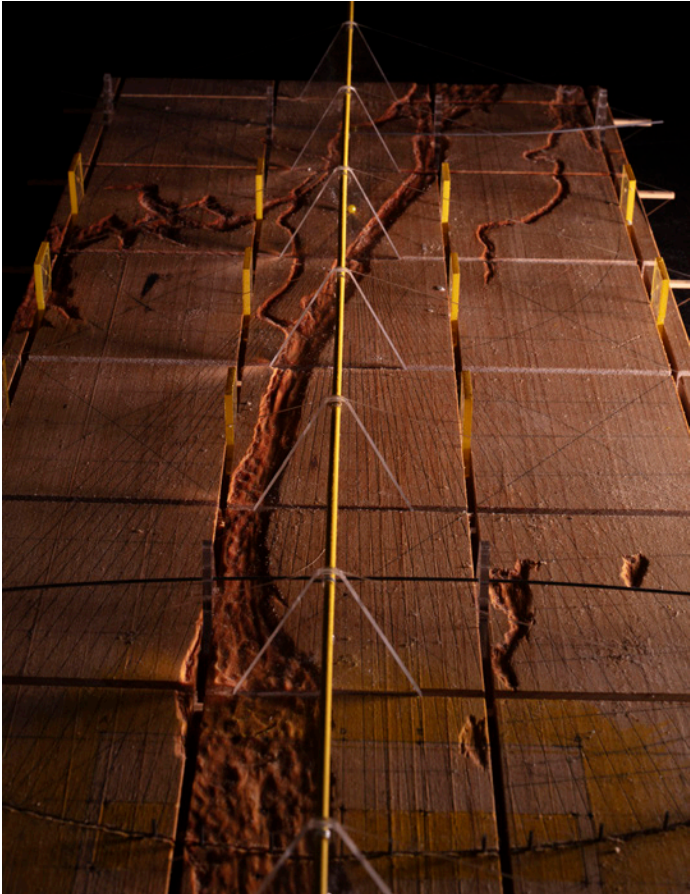
2 Overlay of the nuclear damage on New York. (Below)



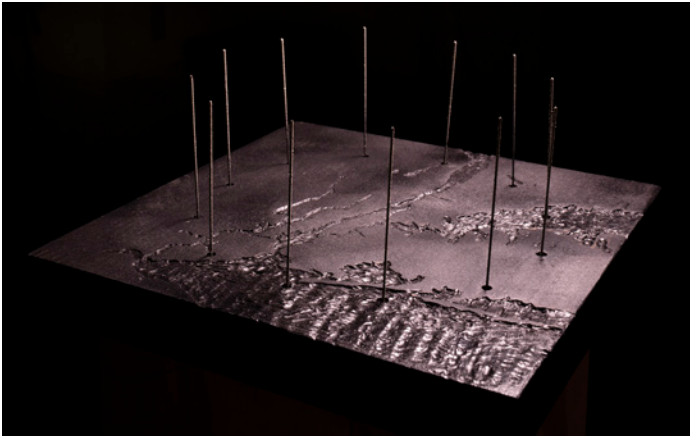
Cross-sectional drawings extending forty miles across New York, where topography determines the heights of each tower to ensure visibility among the twelve beacon locations.



1

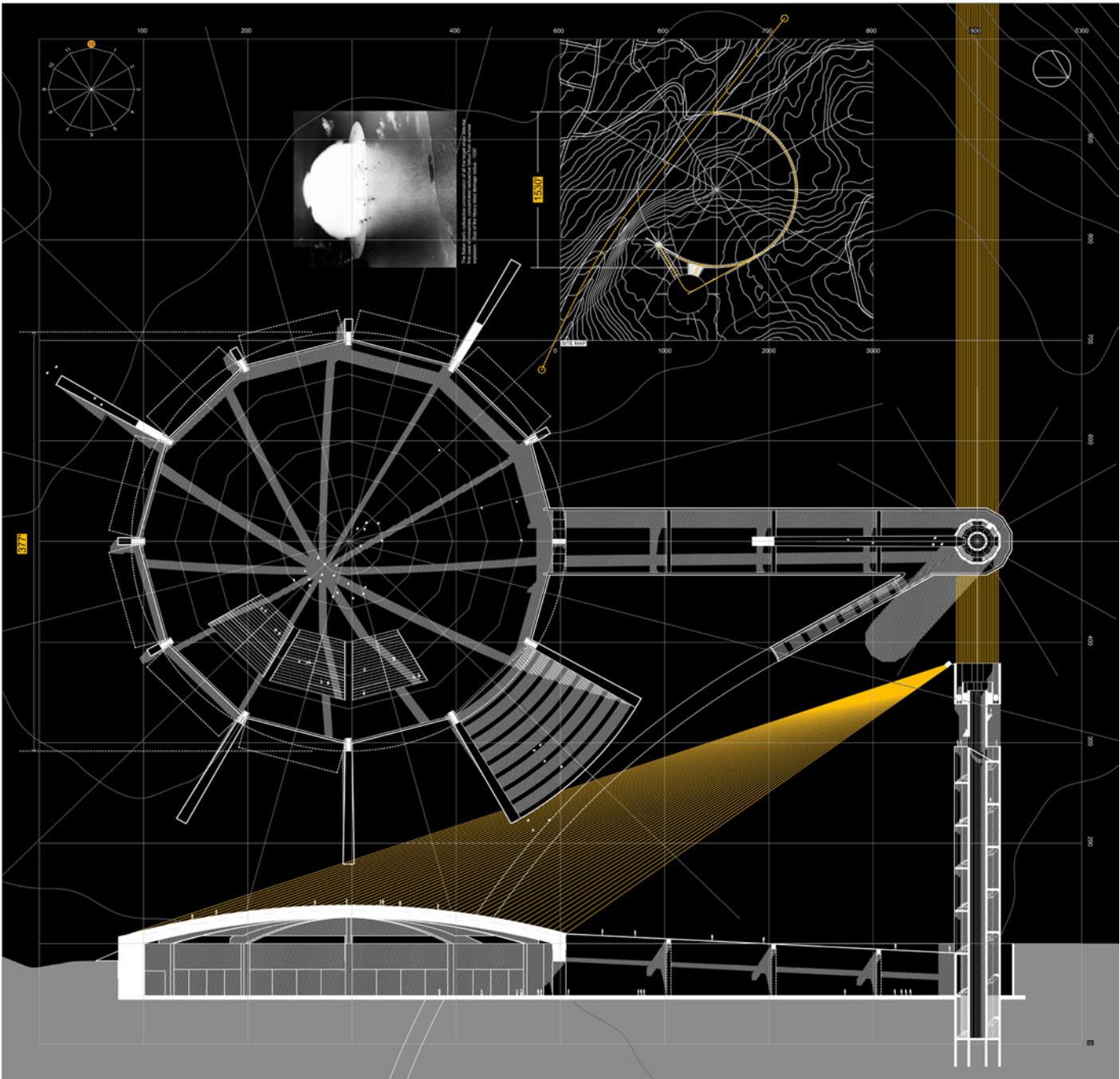


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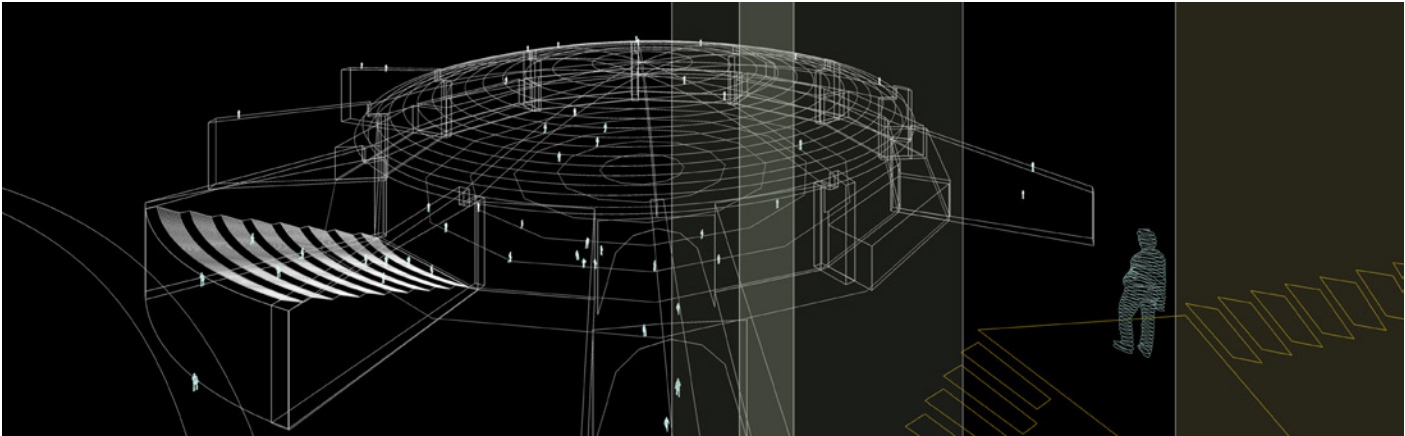


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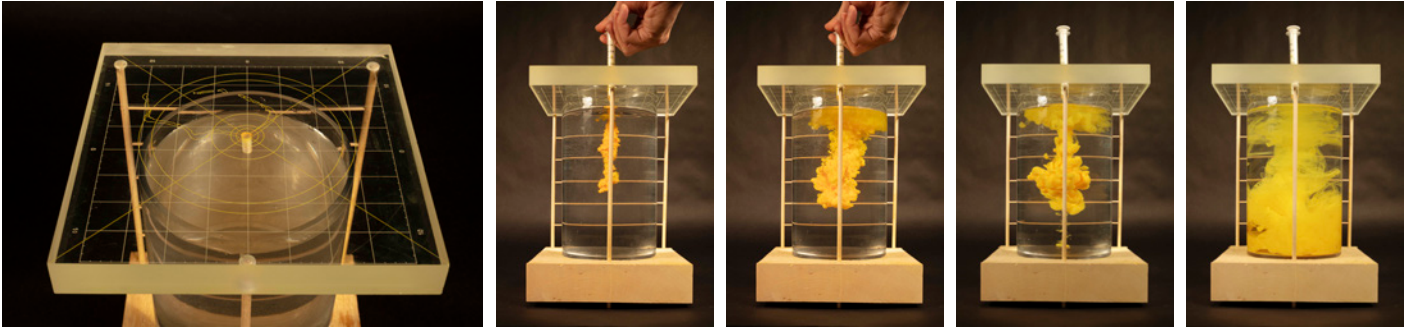
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- 2 Sectional model of 125.66 miles of visual connectivity. The yellow line delineates the boundary of the Castle Bravo explosion.
- 3 Overview of the Castle Bravo explosion boundary, overlaid onto Manhattan with a 40-mile diameter, along with the placement of 12 towers.
- 4
- 5 The tower and community venue at the 12 o'clock position. The spatial composition, formed by various circular elements, incorporates passage dimensions derived from the damage scale tested during the Manhattan Project.



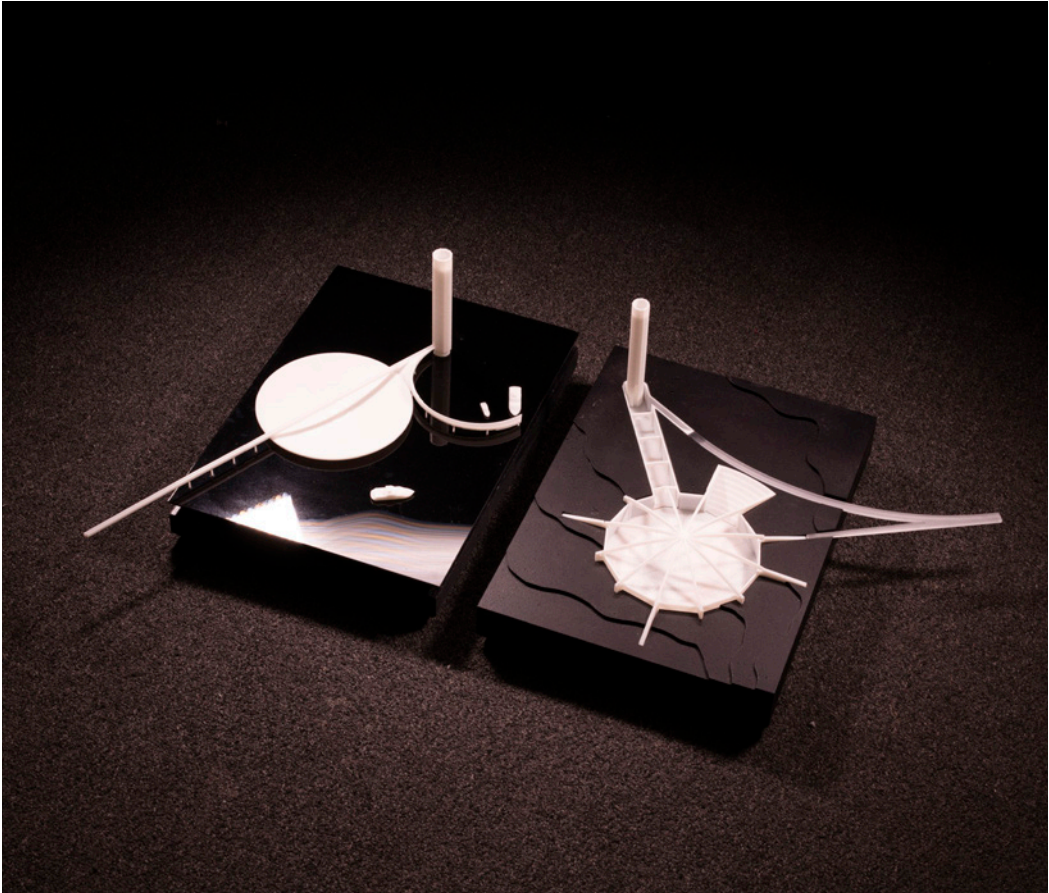
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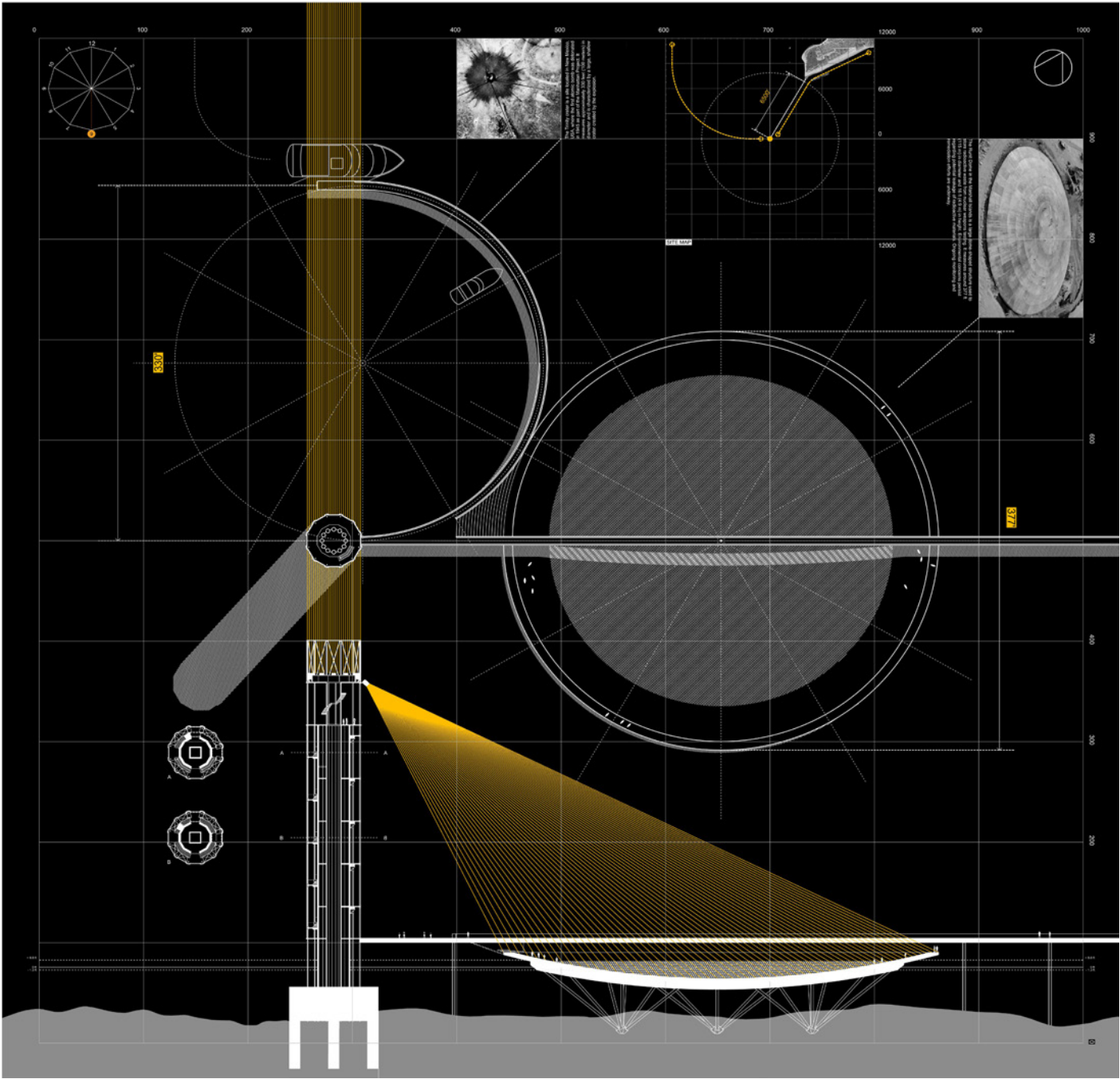
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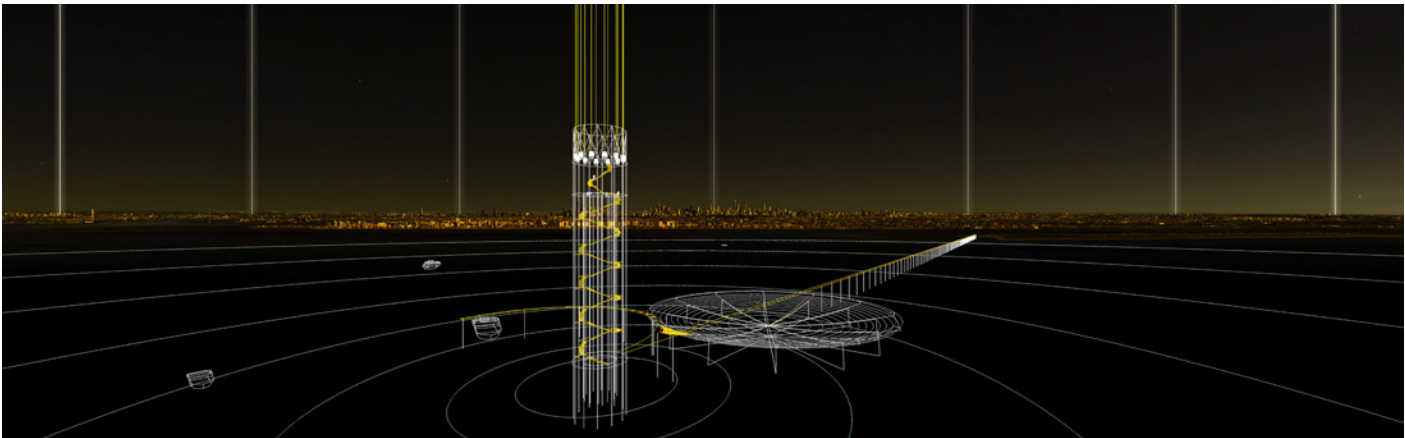
1



- 1 Demonstrating the impact of the Castle Bravo explosion over time through a physical model. Eventually, the damage extends into the atmosphere.
- 2 Physical models depicting 6 o'clock and 12 o'clock tower / public space.
- 3
- 4 The proposed tower and public pool, positioned at the 6 o'clock location near Coney Island, serve as a commemorative space. On Memorial Day, a beam of light ascends into the sky, rendering the site visible from distant locations. This illumination not only marks the memorial but also offers a visual representation of the extent of damage and loss, extending beyond the immediate site.



3



4