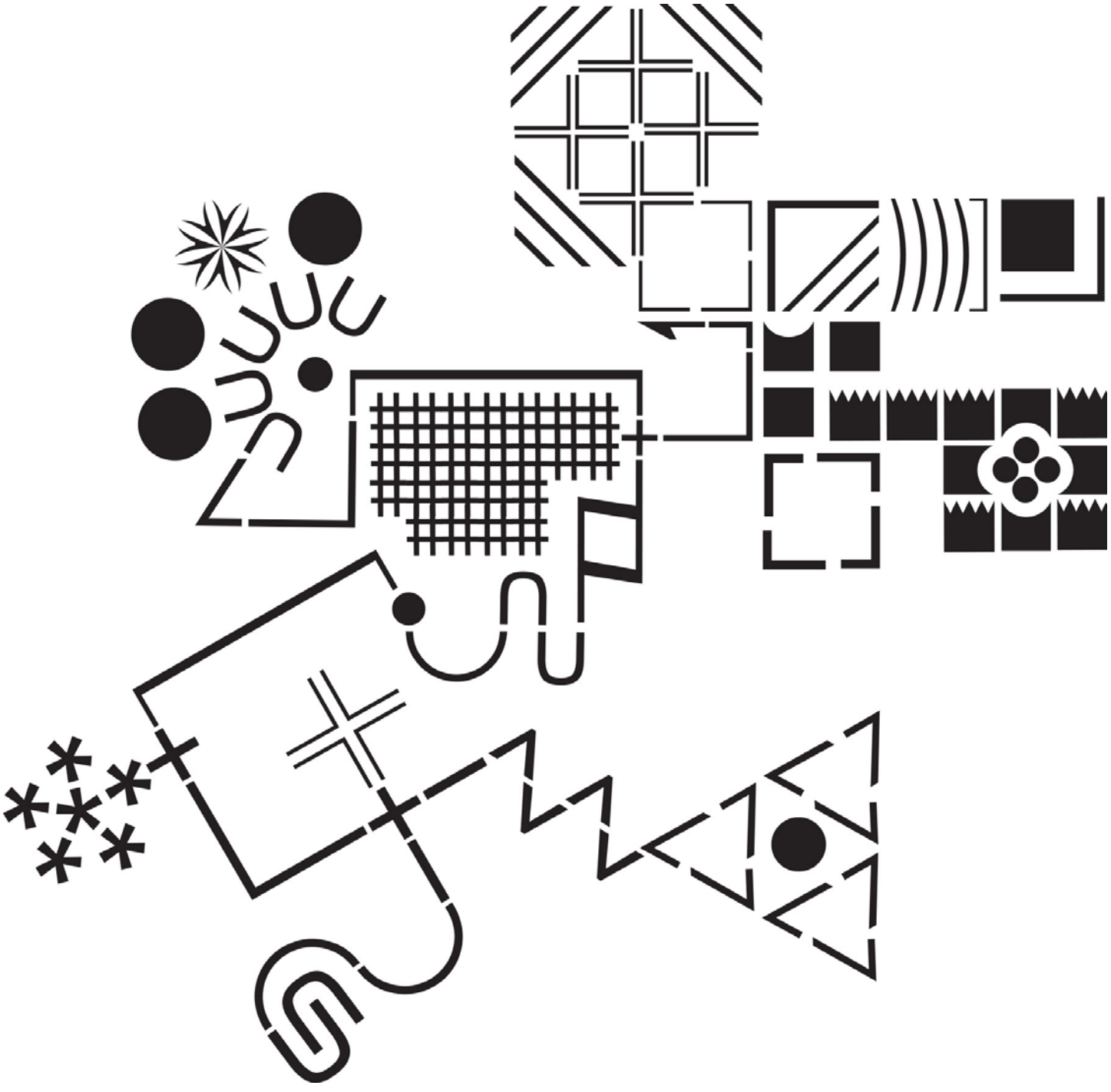
PORTFOLIO

Jack Raymond



JACK RAYMOND

1137 Massachusetts Ave, Apt. 41
Cambridge, MA 02138

jmraymond27@gmail.com
419.419.8511

EDUCATION

Graduate School of Design, Harvard University — September 2019 - May 2023
Master of Architecture
Thesis Advisors: Eric Howeler, Edward Eigen

Knowlton School, The Ohio State University — September 2014 - May 2018
Bachelor of Science in Architecture, Minor in English
Summa Cum Laude

EXPERIENCE

Designer and Builder
Independent | Boston, MA — June 2022 - Present
- Conversion of retreat cabin into single family home
- Design of additional living space and existing renovation
- Construction of project

Architectural Design Intern
Howeler + Yoon Architecture | Boston, MA — June 2021 - January 2022
- Massing and program studies for academic building
- Built scale models for client presentations
- Created wood-block ink prints for academy exhibition

Exhibition Designer
Harvard Graduate School of Design | Cambridge, MA — May - July 2022
- Eco-Folly studio professor Grace La
- Developed construction drawings for a zero-waste model platform
- Organized representational media for compiled booklets

Research Assistant
Harvard Graduate School of Design | Cambridge, MA — October 2021 - May 2022
- Professor Iman Fayyad
- Assisted in field testing and construction of shade pavilion
- Constructed furniture from high-density polyethylene
- Performed studies of curved-crease structural geometry

Architectural Design Intern
Howeler + Yoon Architecture | Boston, MA — May - August 2021
- Design team member for commercial development in Asia
- Massing, facade, and curtain wall studies
- Pedestrian bridge design

Fabrication Lab Teaching Assistant
Harvard Graduate School of Design | Cambridge, MA — January 2021 - Present
- Instruct students on the use of woodshop equipment
- Perform routine maintenance on wood-working machines

Designer
Pelli Clarke Pelli Architects | New Haven, CT — June 2018 - August 2019
- Design team member for commercial development in Asia
- Massing, facade, and curtain wall studies within envelope constraints

Laser Laboratory Supervisor
Knowlton School of Architecture | The Ohio State University — August 2017 - May 2018
- Diagnosed issues, serviced, and maintained machines in fabrication lab
- Instructed students on use of laser cutters

BIM Assistant
Engineering Facilities Management | The Ohio State University — June - August 2016
- Administered projection laser scans of university facilities with Ferroscan
- Constructed Revit models of mechanical systems from point clouds

INVOLVEMENT

Guest Lecturer: Harvard GSD, Thesis Prep — April 2024
- Presented architecture thesis to incoming thesis class

Guest Critic: Clemson School of Architecture — January 2024
- Reviewed and critiqued student portfolio work

Faculty Grant Exhibition — September 2023
- Studio project displayed by Center for Green Buildings and Cities

Harvard GSD Research Grant — May - September 2020
- Theorized scalar symmetry between global and individual COVID-19 infection
- Speculated implications for design at multiple architectural scales

Northern European Architecture Studies — May 2017
- Researched and toured Scandinavia, Netherlands, Belgium, Germany
- Compiled research and sketches of historic and contemporary buildings

Cuban Architecture Studies — March 2017
- Studied effects of revolution and globalism on Caribbean architecture
- Compiled research and sketches of historic and contemporary buildings

Southern European Architecture Studies — May 2016
- Researched and toured Austria, Italy, Switzerland, Germany, France
- Compiled research and sketches of historic and contemporary buildings

American Institute of Architecture Students — August 2015 - May 2018
- Discussed design techniques and building conventions
- Visited local architecture firms to learn about contemporary practice

SKILLS

Modeling Software: Rhinoceros, Grasshopper, SketchUp
Environmental Analysis: Ladybug, DIVA
Graphic Design: Adobe Creative Suite
Drafting/BIM Software: Revit, AutoCAD
Rendering Software: V-Ray, Lumion, Enscape

Carpentry
Framing
Fabrication
Material Exploration
Design

CONTENTS

A+ House

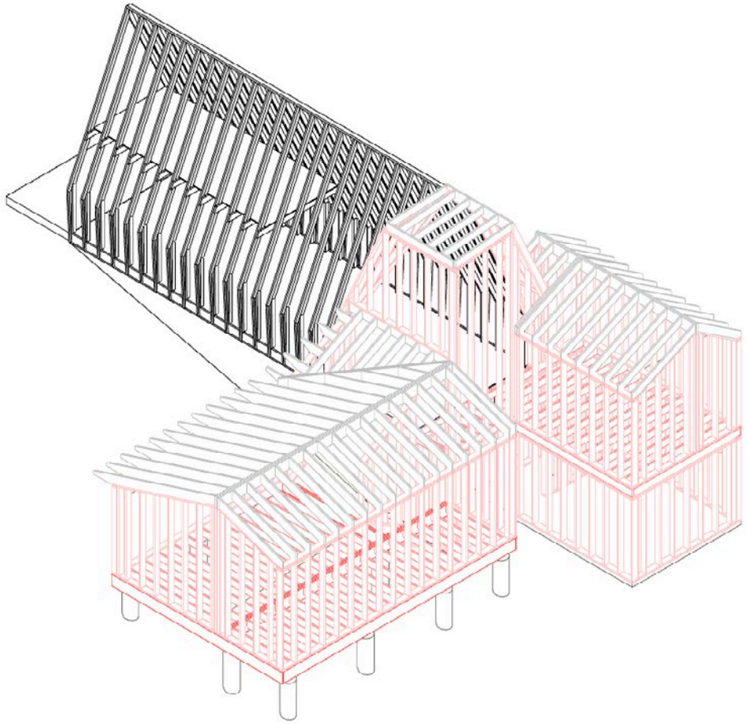
Renovation and Addition
Design-Build: Baden, PA
2023 - Ongoing

A project to convert this summer retreat cabin into a single family home through an addition and renovation of existing architecture.

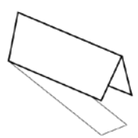
Overlooking a forested valley, the A-Frame-like, prefab house from the 1970s becomes the trunk of a new body, outspread towards the woods. The once abandoned cabin gets a face in the form of a “steeple”, where the additional volumes intersect with the original house. In one volume, a living room room, in the other, a dining room above a bedroom, both emerging like arms, offering views of the valley. An exterior deck descends from the main axis connecting the front and back doors, inviting the inabitants to step outside as early as they arrive.

Beveled hemlock siding describes the horizontal contours of the house on the sloped site. Corrugated metal defines the faceted planes of the roof. The building’s eastward orientation generously collects morning light, and shields the interior from hot afternoon sun. The operable windows of the steeple produce a stack effect, allowing the building to be cooled rapidly by night flushing.

The project has been constructed entirely without contractors. This, combined with the accellerated timeline of the design process, generous clients, and an “in-house builder” has left valuable space for detail and design development in situ. A+ House is thus a highly experimental and evolving model.

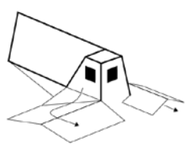


Framing Diagram of Addition

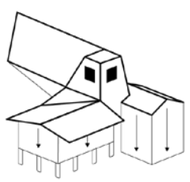


Roof is the dominant feature of an A-frame

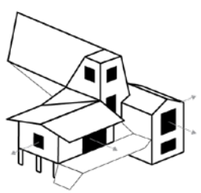
Lift roof into tower to create face towards woods



Unfold roof planes from tower

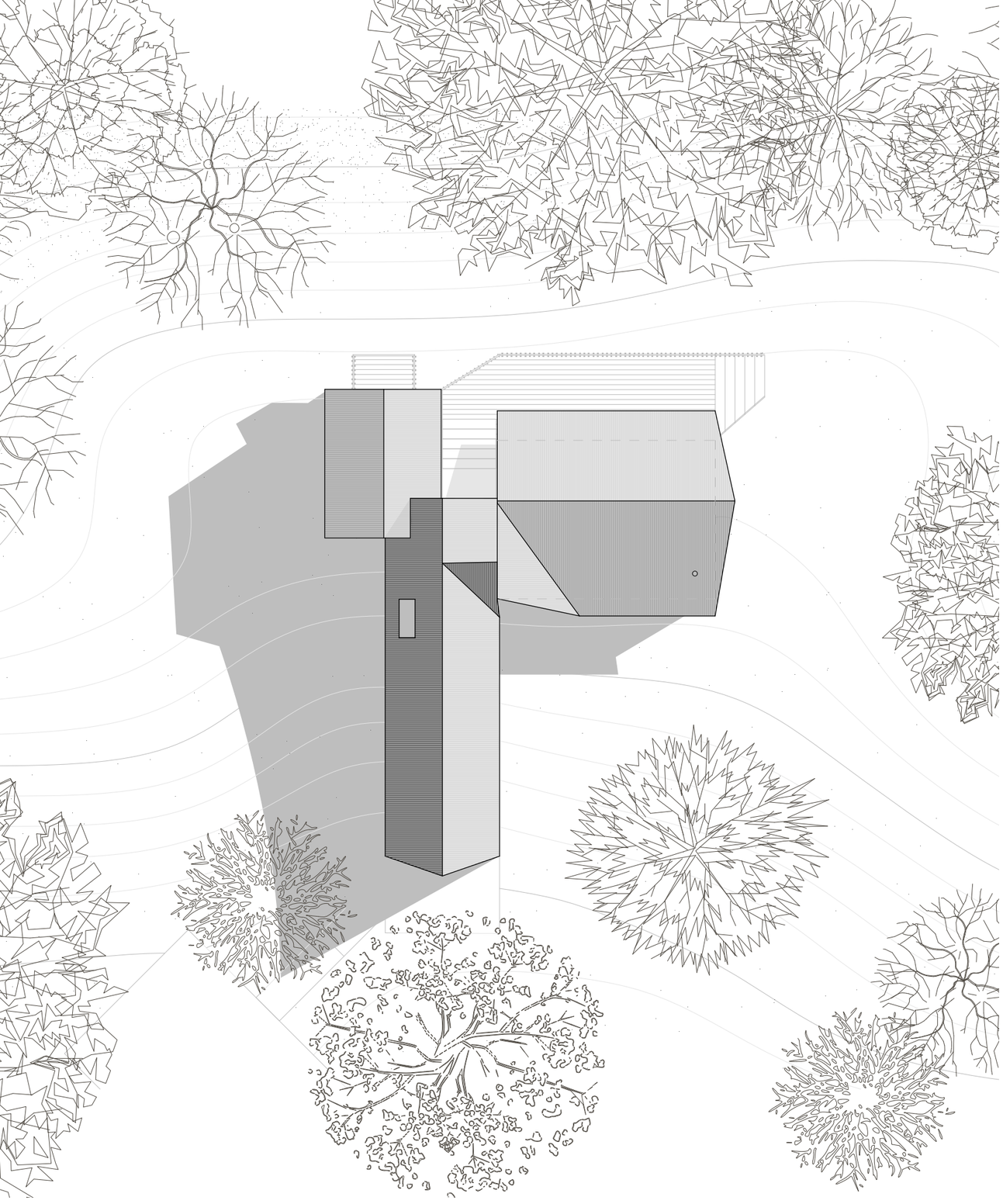


Bring down volumes from roof planes

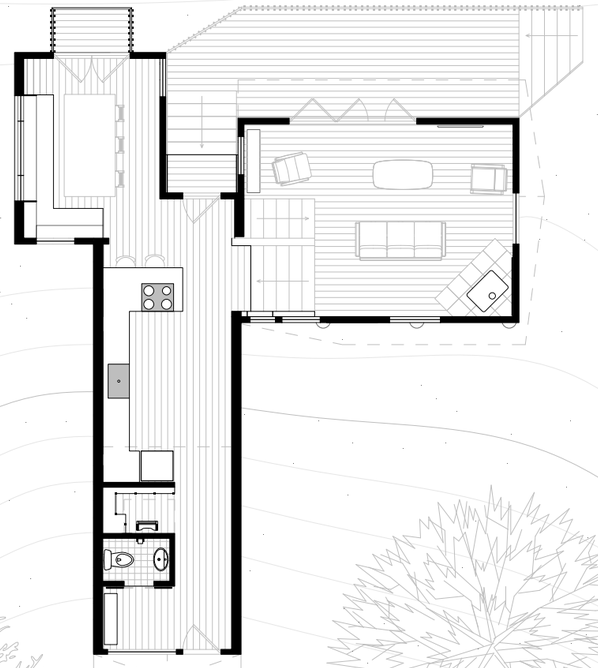


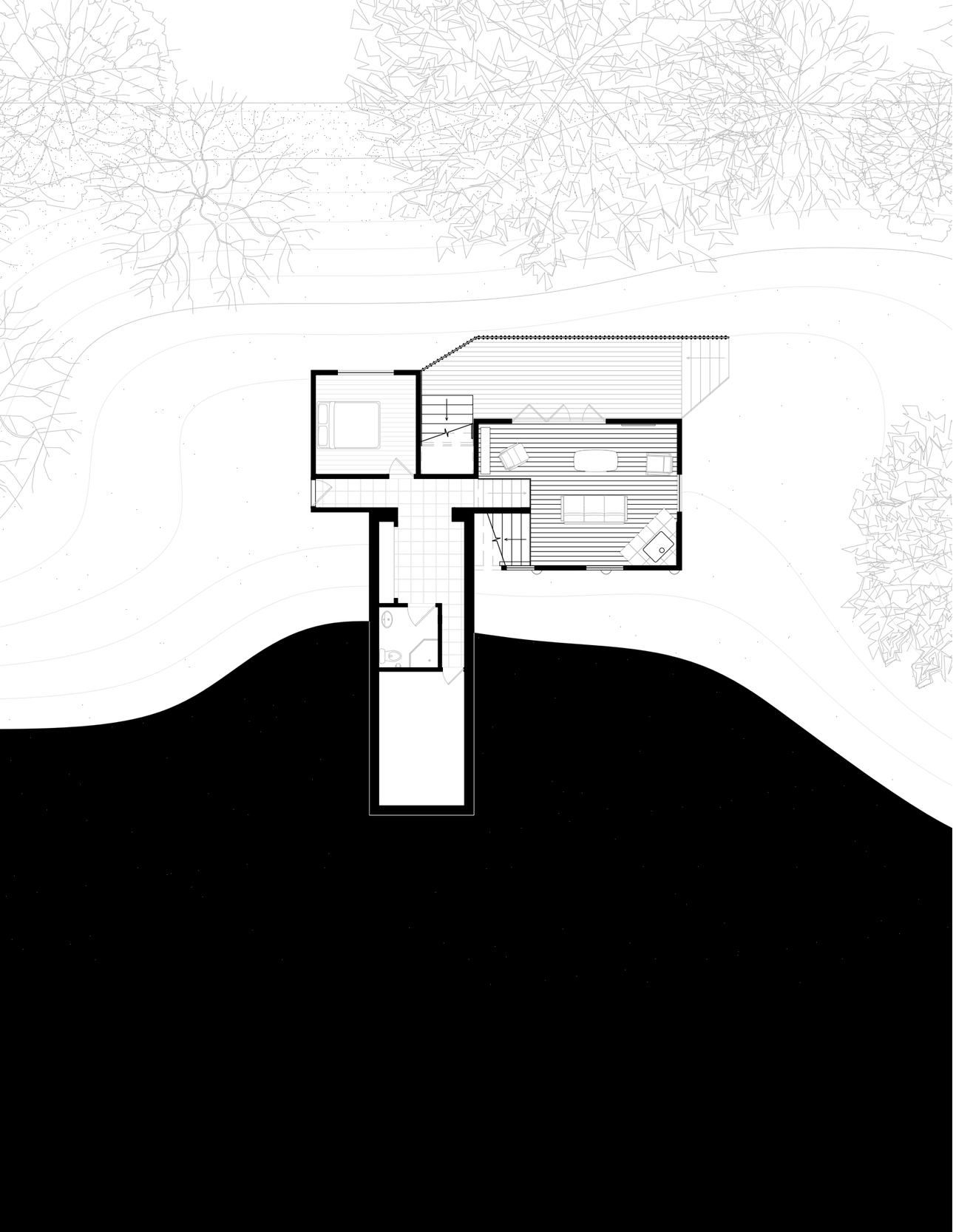
Create omni-directional views

Construction phases of addition allow the original house remain closed until the addition is enclosed and insulated.




System
ZIP System





The Righting Shed: Stations for Wild Infrastructure

Master of Architecture Thesis
Advisors: Eric Howeler, Ed Eigen
Spring 2023

Righting Sheds are educational marsh-repair stations where people in Massachusetts can learn how to participate in ecological restoration. Positioned near public boat access points, beach recreation areas, and town parks, the stations emerge from boardwalks drawing people into damaged salt marshes. Each contains various apertures, with instructions from a repair manual distributed throughout the space.

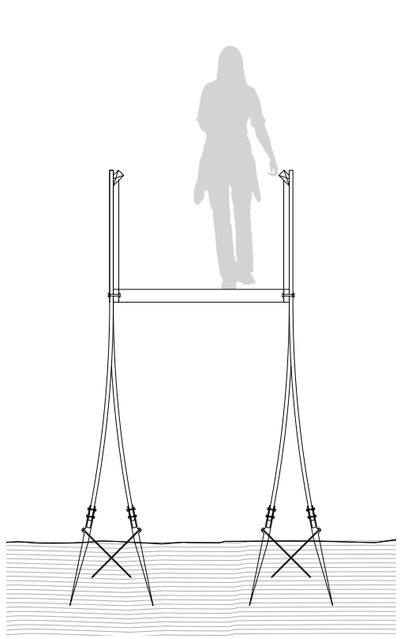
A space of action, an invitation to spontaneous labor, the Righting Shed tries to excite the public's imagination and focus it on ecology. Through the familiar material, and the dedicated atmosphere of a garden shed the project hopes to offer a domestic embrace of routine maintenance over the ecologically vulnerable marsh.

Ipswich

Crane Beach

Newbury

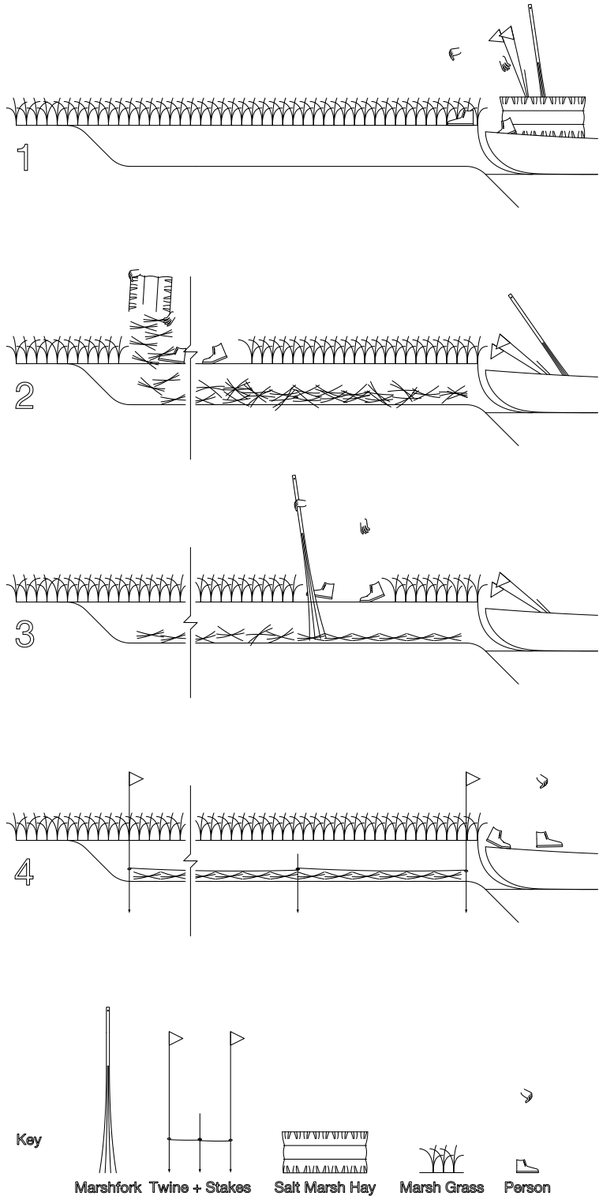
Righting Sheds are located in areas where high densities of mosquito ditches meet populated cultural nodes: boatyards, recreational beaches, water-front neighborhoods, and tourist attractions. They start as boardwalks and terminate at tidal creeks as stations for marsh repair.



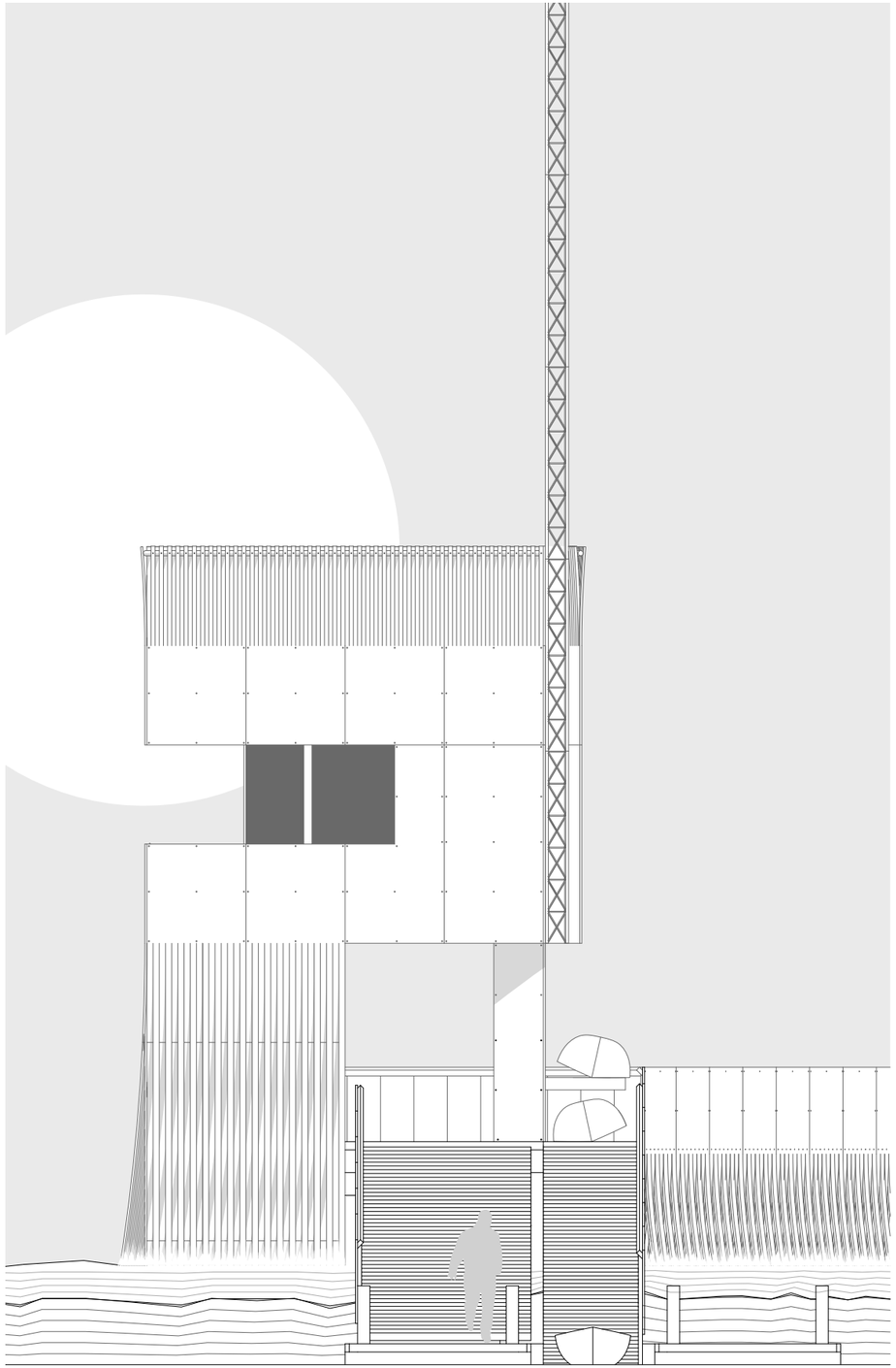
Plywood is split and splayed to create a spread footing module for the board-walk, distributing loads gently into the marsh, a forgiving and inherently redundant structural system.

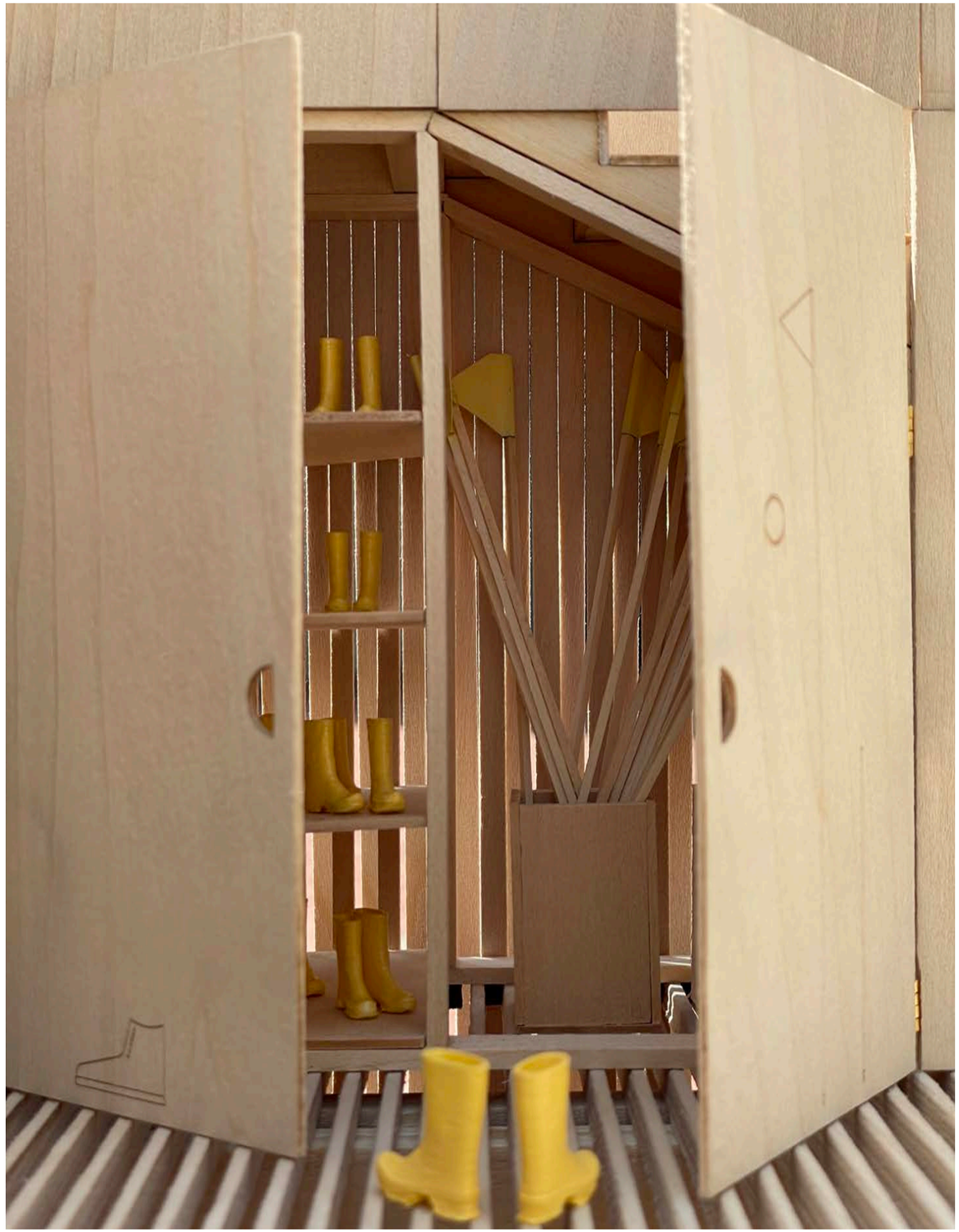
As a social project, the plywood module indicates, by its scale and accessibility, the value of individual contributions from builders and volunteers.

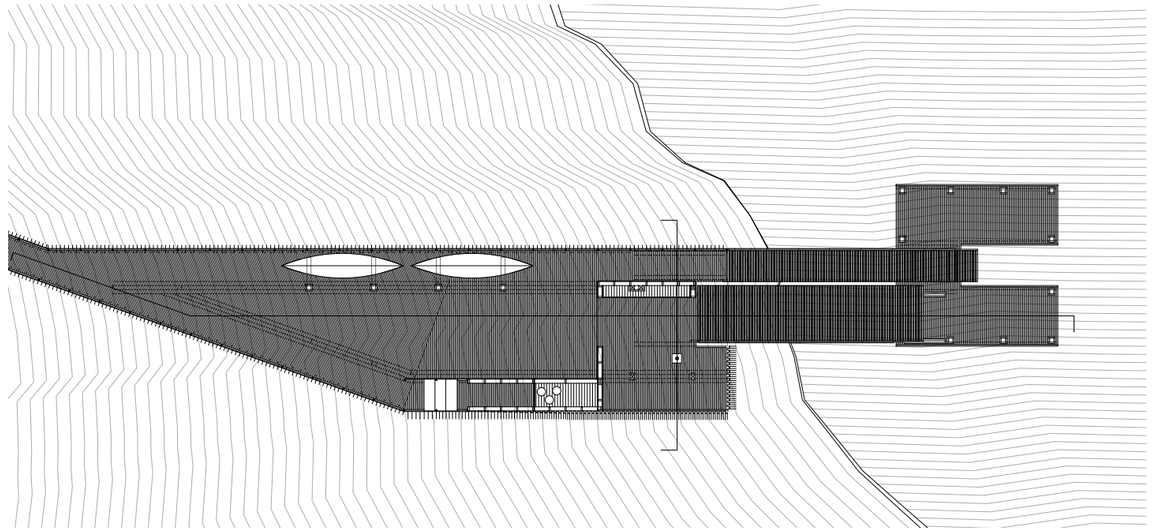
In the attic of the Station, the visitor discovers inscriptions: a site map, carved to invite touch, and a manual on how to spot and fix mosquito ditches. Once the visitor has planned a remediation, the firepole (the roof downspout) allows them to drop into the first level to borrow supplies.

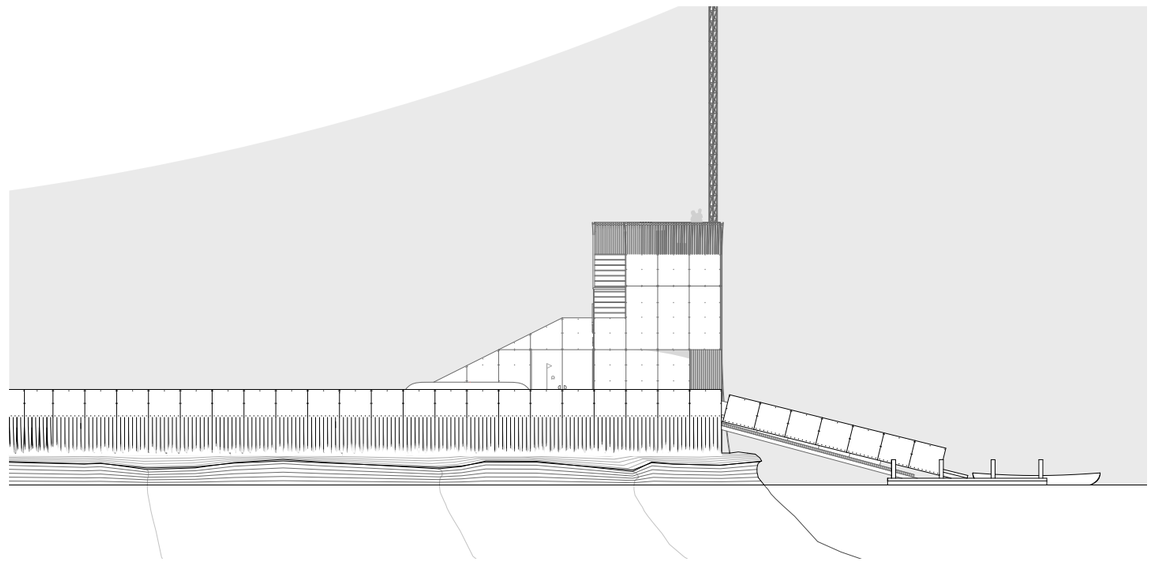


1 Arrive at ditch by canoe or kayak with materials and tools.
2 Deposit bale of hay into bottom of ditch.
3 Tamp hay gently with marsh fork.
4 Stake in place with twine and flags.










9
STATION
SANDWICH

Marsh Override

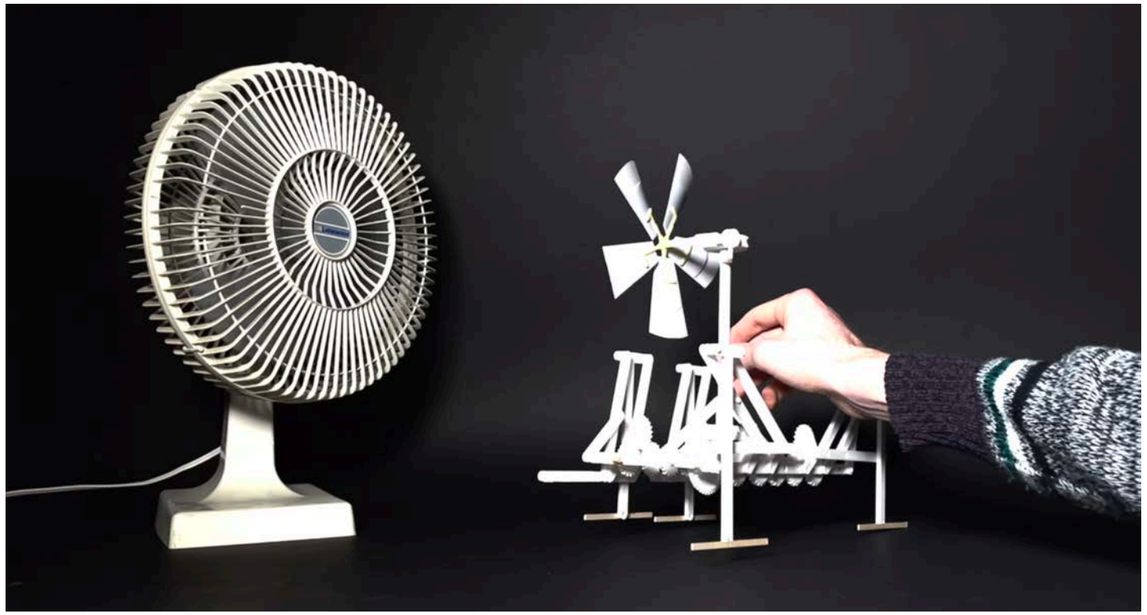
“Eco-Folly”: Studio/Seminar

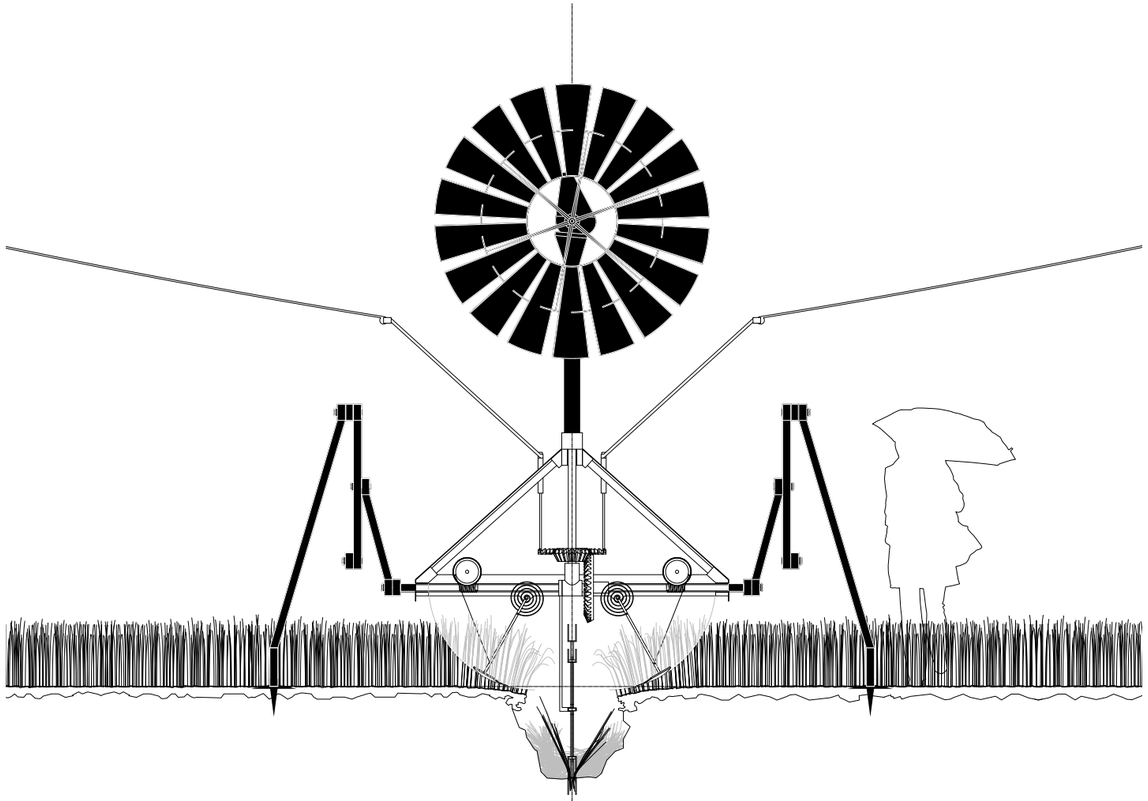
Grace La, Erika Naginsky

Spring 2022

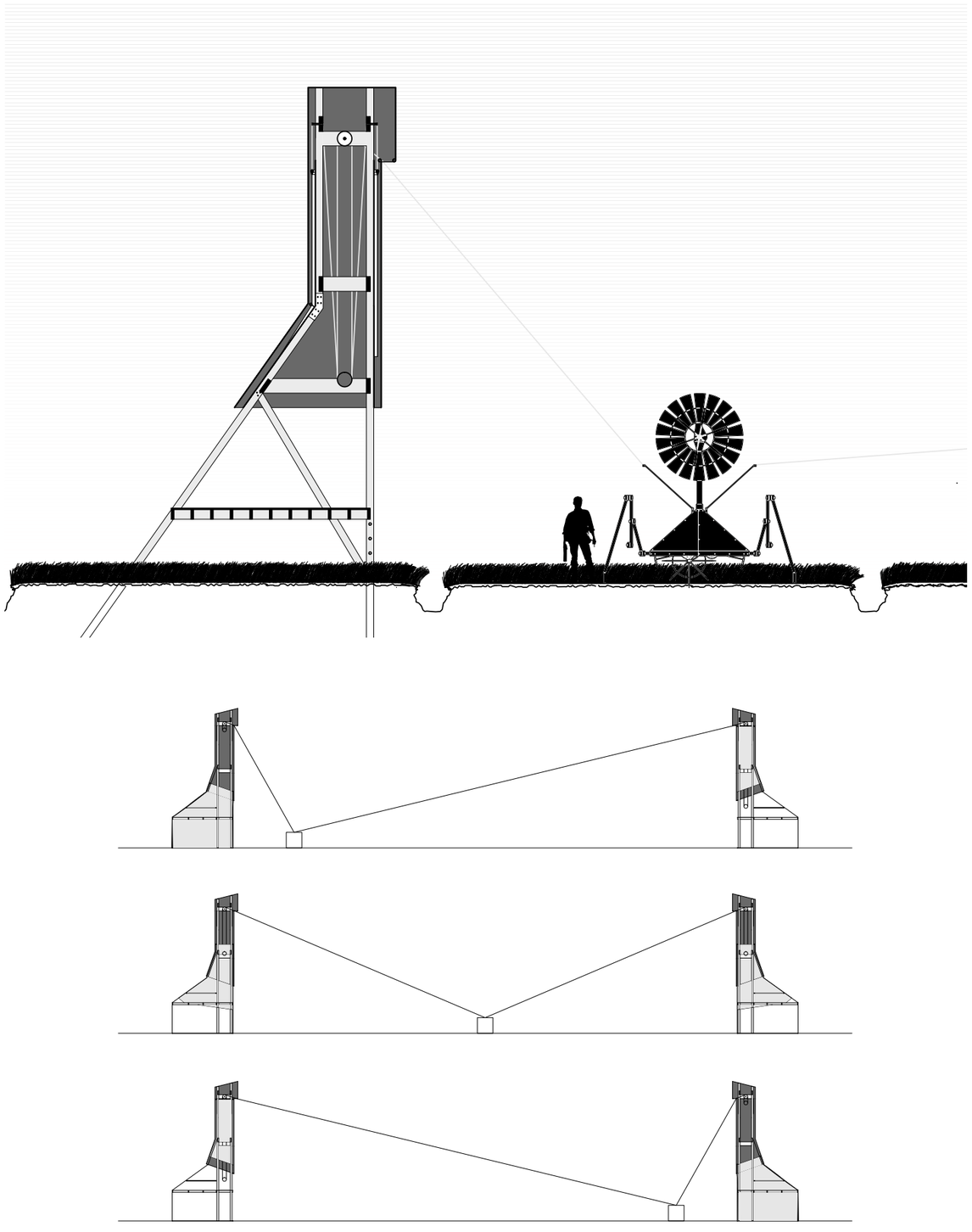
A precursor to “The Righting Shed,” Marsh Override is a system of wind-activated follies designed to restore the salt marsh at the Crane Estate in Ipswich, MA. The project consists of a wind-powered machine and a series of towers. The machine, using rotary motion from an Aermotor windmill, crawls through the marsh in search of ditches to fill with salt marsh hay, a proven-method for ditch remediation. The ditches were dug under dubious pretenses during the Great Depressio-on, and have since caused damage to the ecological functions of the marsh.

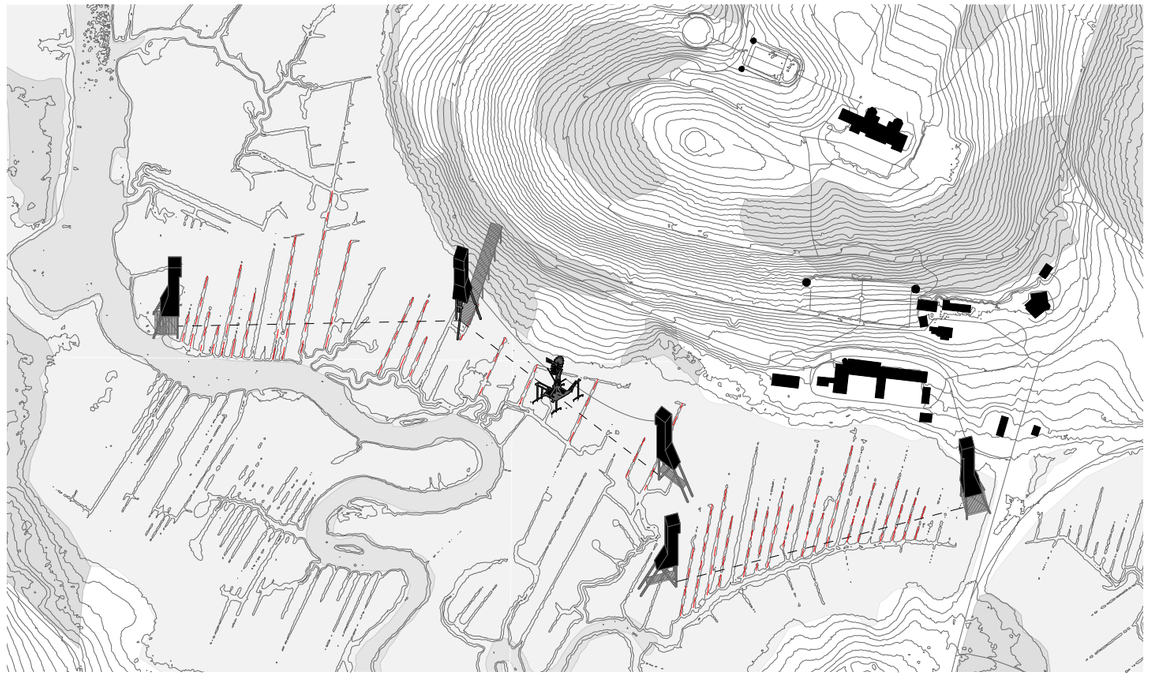
The towers guide the machine on a course through the marsh, intersecting as many ditches as possible by their placement. As the machine wanders, it raises and lowers mosquito nets, inviting kayakers, hikers, and visitors to the Crane Estate to witness its labor, and the scarred beauty of the marsh from elevated platforms.





Depression Era mosquito ditches cause salt marshes to erode and subside in a feedback loop with every cycle of the tide. Wind power has been historically linked with hydrological manipulation. The Aermotor windmill is harnessed in this project as the engine for marsh remediation. An autonomous machine roams the marsh in search of ditches to remediate. It is a spectacle of ecological repair for visitors to the Crane Estate.





The towers guide the machine on a course through the marsh, intersecting as many ditches as possible by their placement. As the machine wanders, it raises and lowers mosquito nets, inviting kayakers, hikers, and visitors to the Crane Estate to witness its labor from elevated platforms.

After the remediation is complete, the follies will remain in the marsh as stations for researchers, camping platforms, and rest areas for kayakers. They mark this latest, and hopefully final phase of human intervention in the marsh.

Back of House

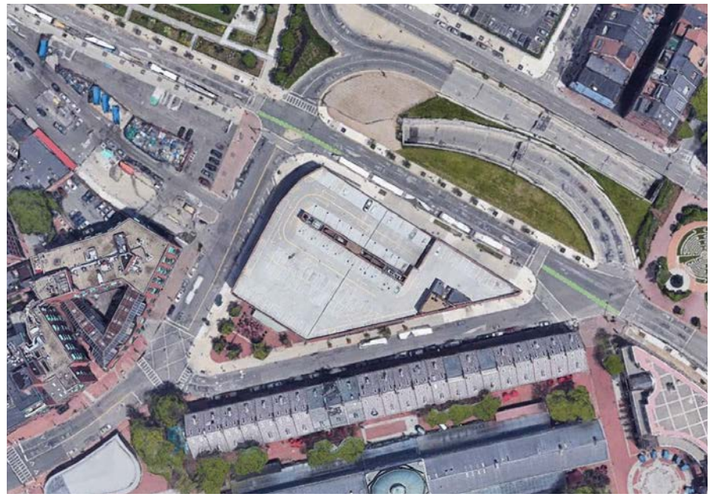
GSD Core IV: Affordable Housing, Boston

Professor Jon Lott With Keeley Chism

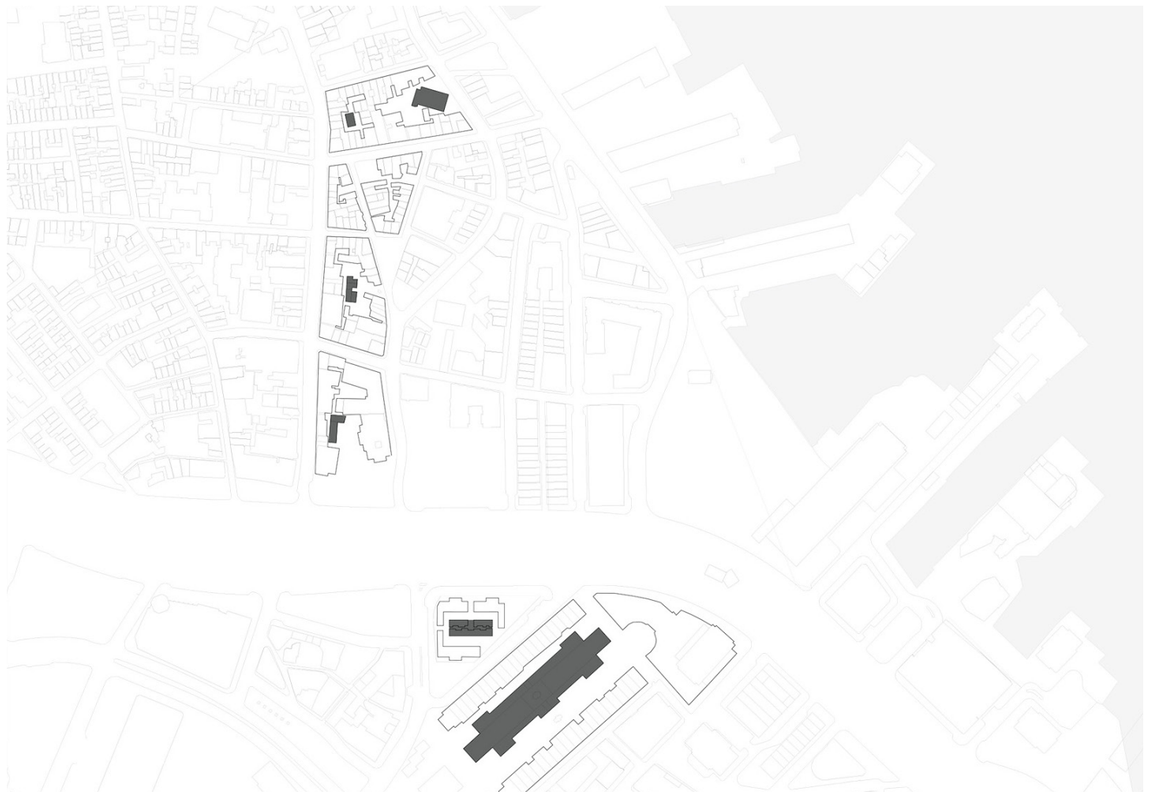
Spring 2022

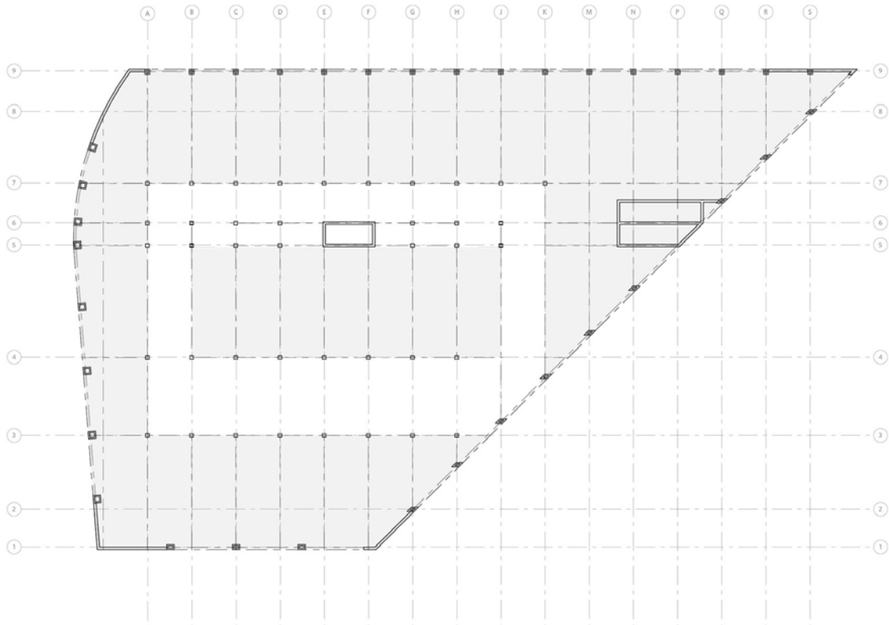
This project welcomes a future in which parking garages become obsolete with more advanced forms of public transportation than the automobile. A parking garage along the Rose Kennedy Greenway in Boston's North End is a model for preserving the enormous amounts of embodied energy of these buildings, while converting their use to affordable housing, reclaiming the street as a pedestrian space. Back of House is a microcosm of the urban experience, an embrace of the street as a communal space.

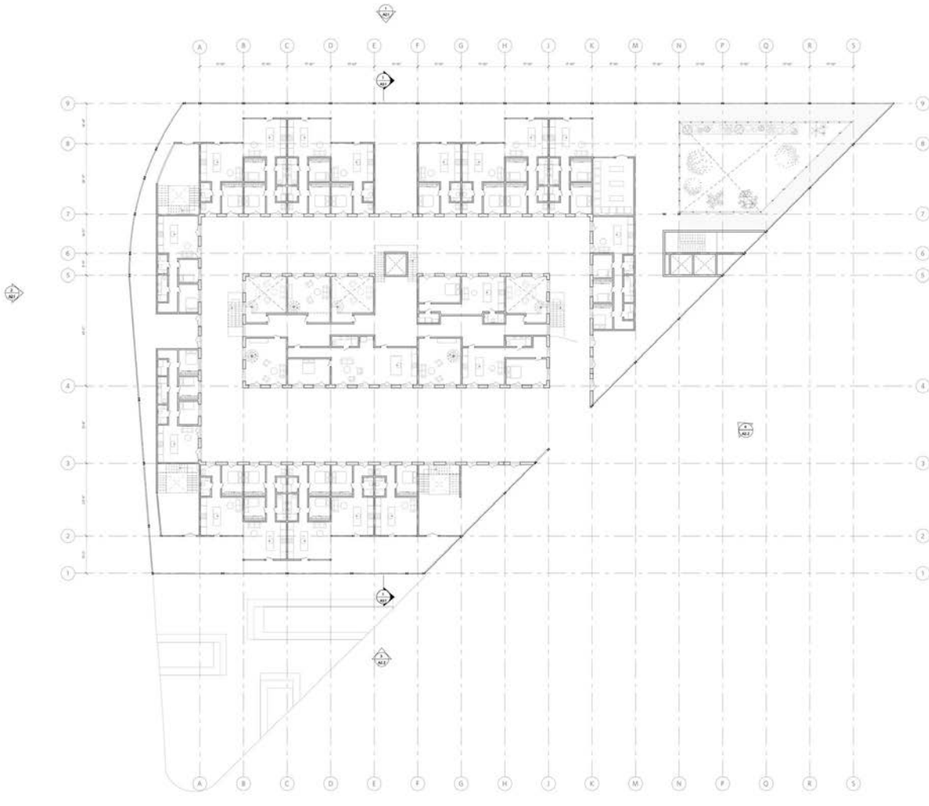
Noticing in neighborhoods throughout the North End that buildings often shelter in the courtyards of other buildings, we proposed to carve a ring of space from the monolithic volume, severing the building into a courtyard building with an island. Units are grouped within and between the buildings, served from interior and exterior sidewalks, creating unexpected associations, and nuances of privacy. Identical facades give the pair of buildings an undeniable partnership, undermined by their complex internal layouts.

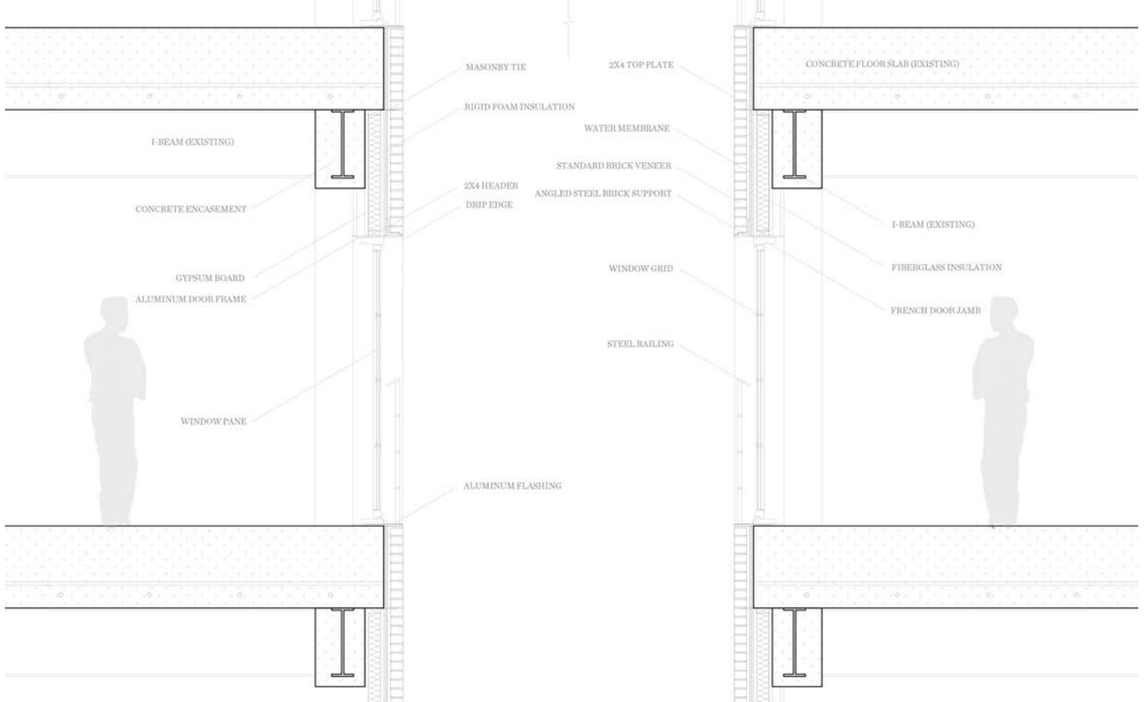


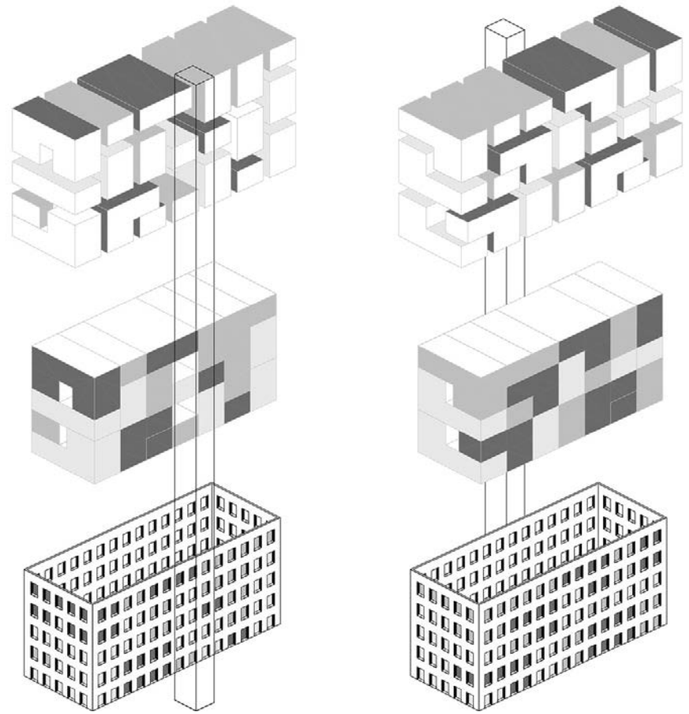
The continuous spiral ramp of the parking garage informs the spatial ring of the void carved from the mass. The structure is divorced into two independent systems. The infill of apartment units complicate the reading of a central figure by creating embedded sub-figures.

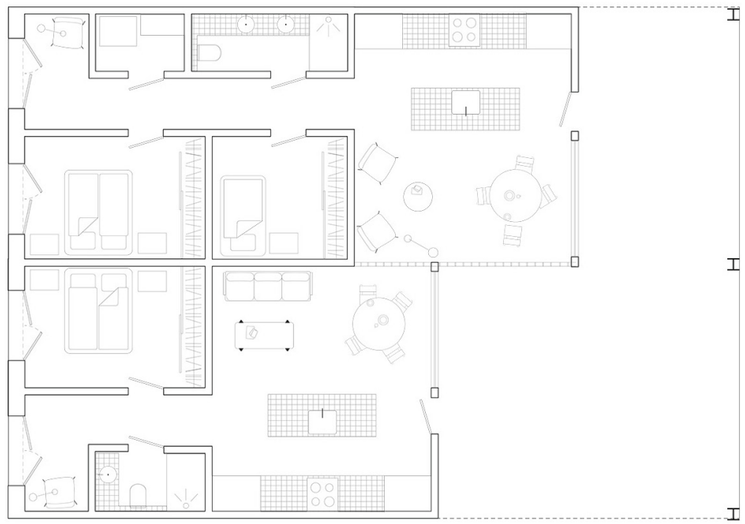


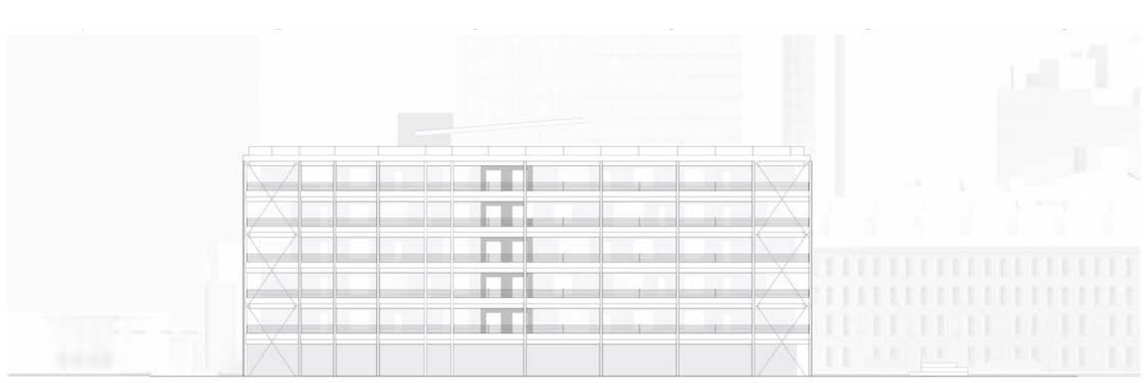


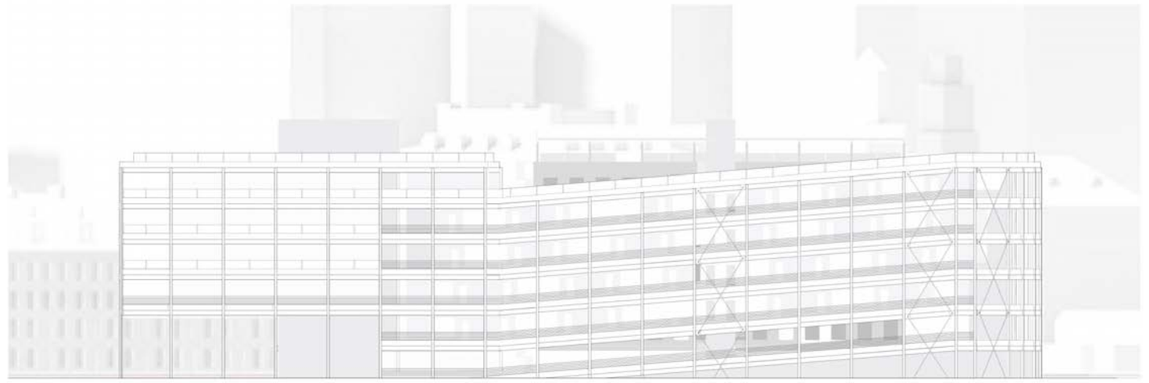



MASONRY TIE
RIGID FOAM INSULATION
I-BEAM (EXISTING)
CONCRETE ENCASEMENT
2X4 HEADER
DRIP EDGE
GYPSUM BOARD
ALUMINUM DOOR FRAME
WINDOW PANE
ALUMINUM FLASHING
2X4 TOP PLATE
WATER MEMBRANE
STANDARD BRICK VENEER
ANGLED STEEL BRICK SUPPORT
WINDOW GRID
STEEL RAILING
CONCRETE FLOOR SLAB (EXISTING)
I-BEAM (EXISTING)
FIBERGLASS INSULATION
FRENCH DOOR JAMB









Landing

GSD Core III: MAS, NYC

Professor Eric Howeler

Fall 2021

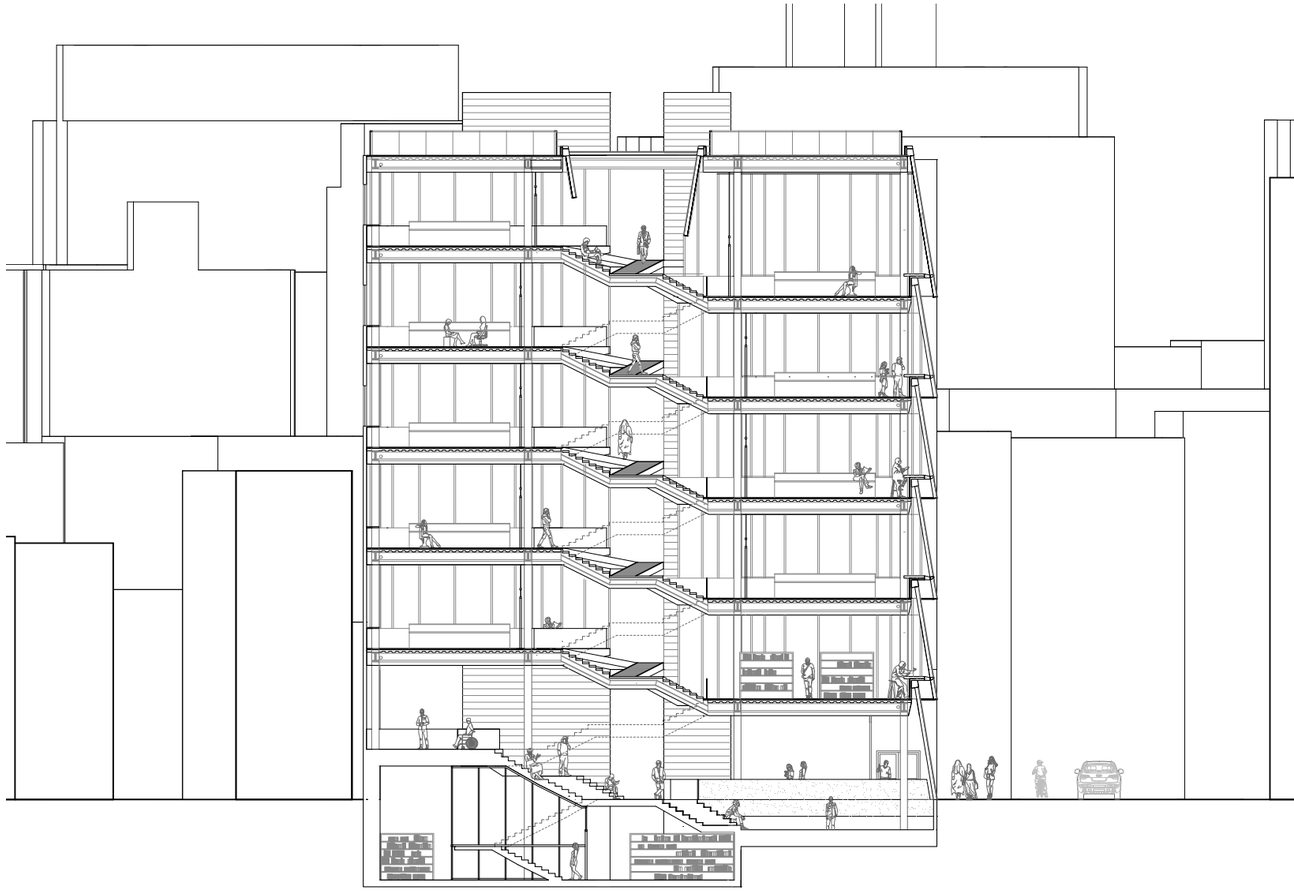
This project explores how the ideology of a municipal body can be embodied by its own architecture. It uses the ubiquitous New York City stoop as an interface between two parties, and a generator of social and performance space. At its core, this project communicates urban generosity and accessibility.

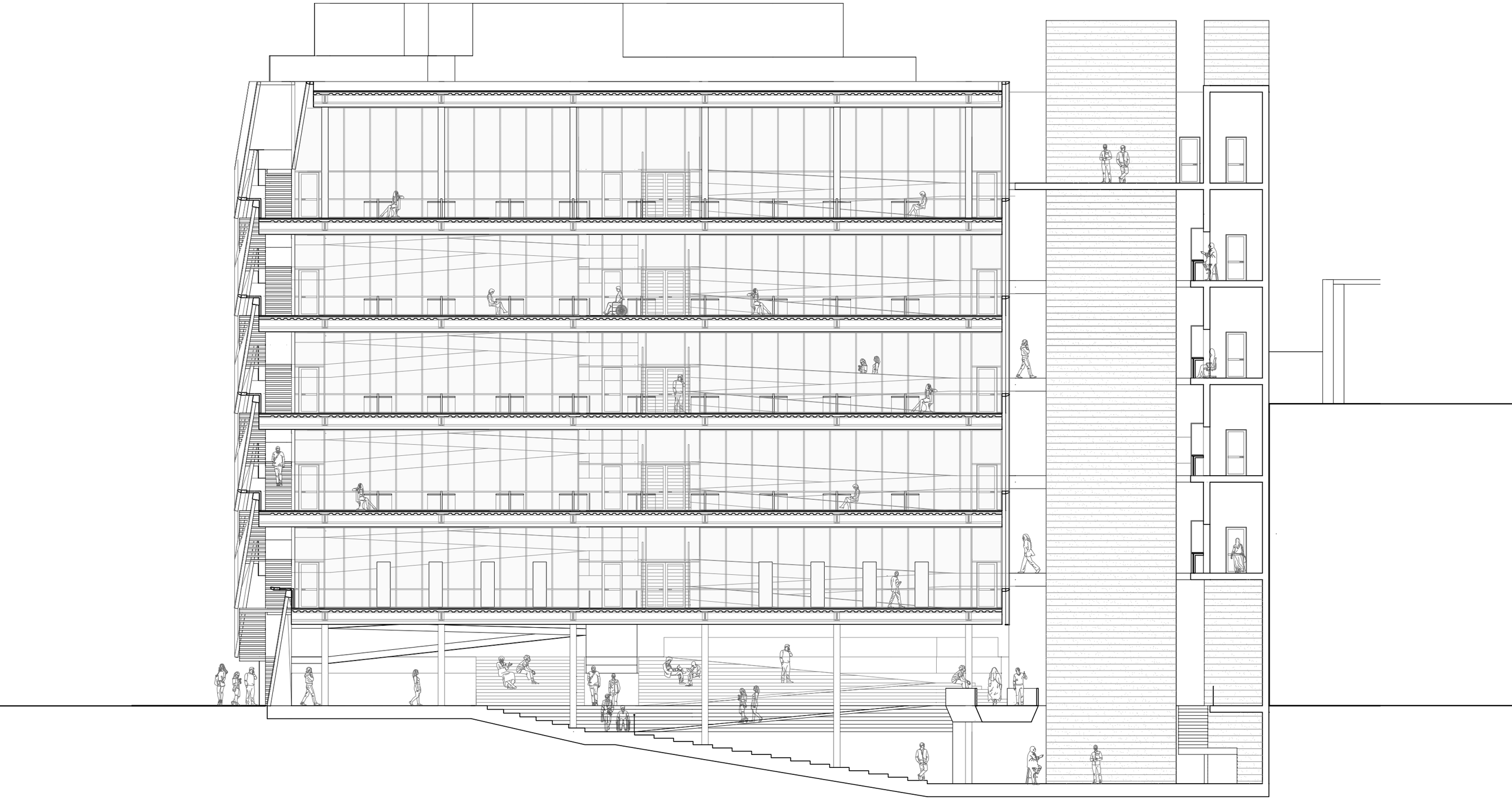
The MAS building presents the institutionalism of MAS, without representing exclusivity. Two split level office stacks are stitched together across an atrium. The MAS building celebrates the urban experience of occupying the space between buildings, the shared use of exterior space, the street, and a strong connection to the ground. It fosters a collective identity through a circulation system that embraces accessibility as a universal experience. The vertical shafts, rising from the fluid ground plane are like hearths in a familiar and domestic space.

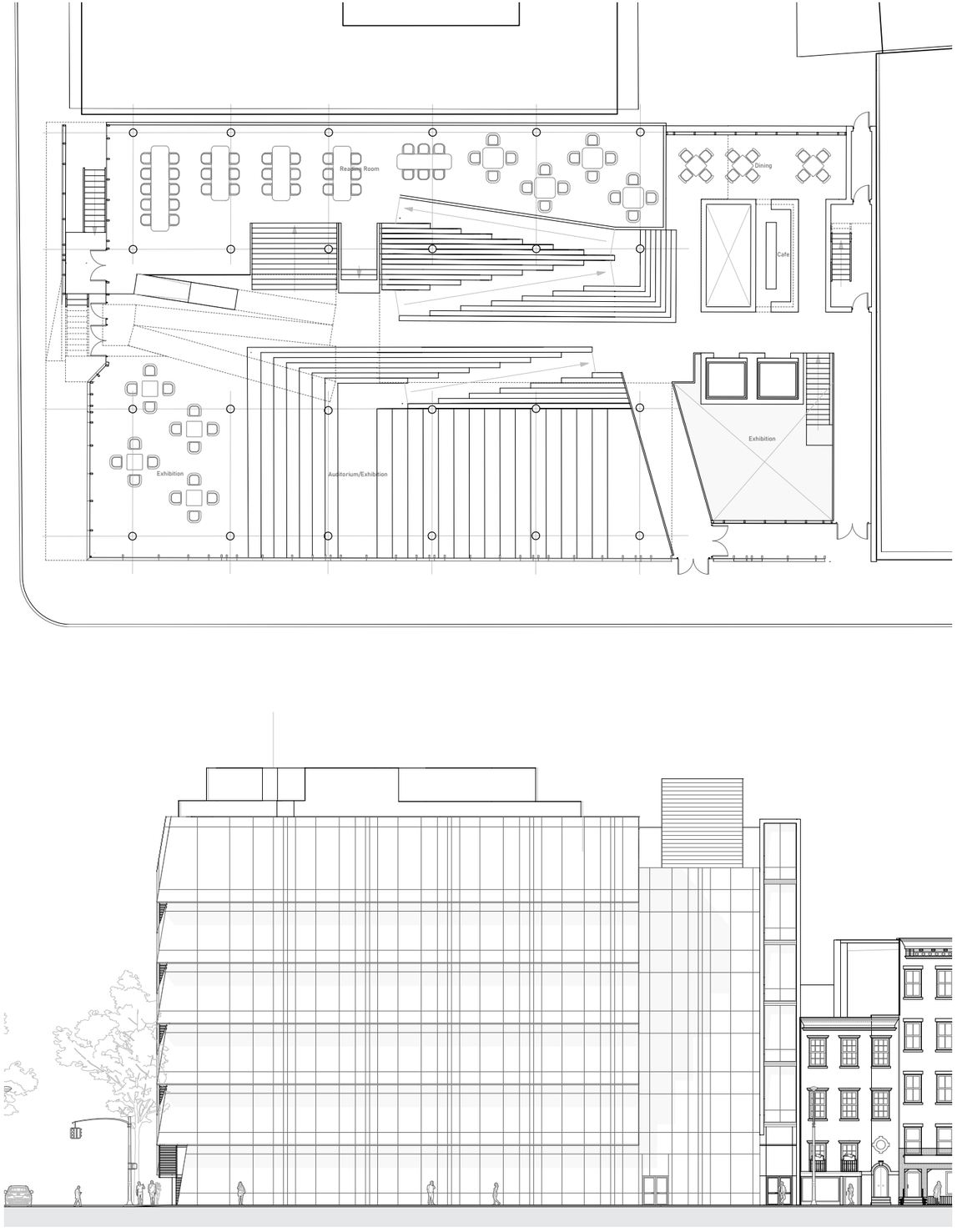
How can the ubiquitous New York City stoop become an icon for public space? How does the monumental stair convey institutionality?

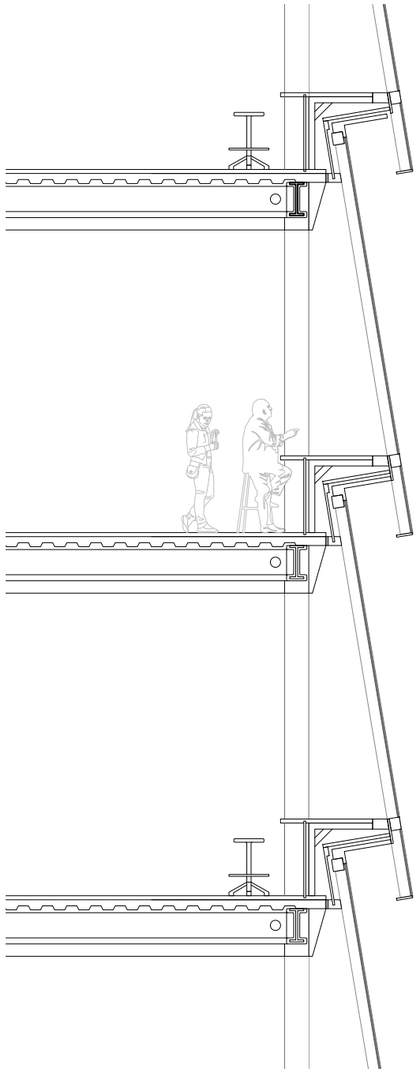
How can the monumental stair become inclusive rather than prohibitive, while still representing intitutionality?

A system of ramps and stairs links the two organizations who share the building. There is no space inaccessible by wheelchair, a clear model of inclusion.






Reading Room
Dining
Cafe
Exhibition
Auditorium/Exhibition
Exhibition

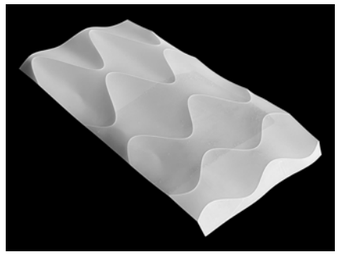
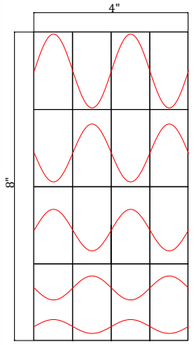
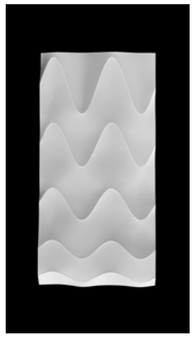
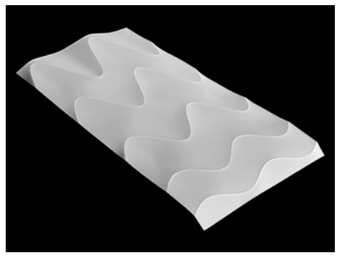
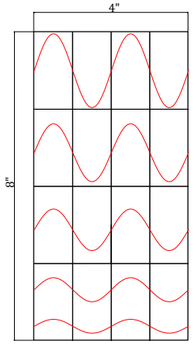
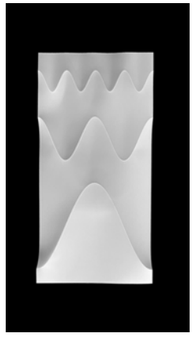
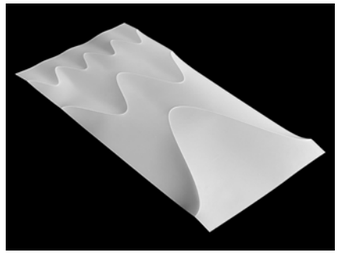
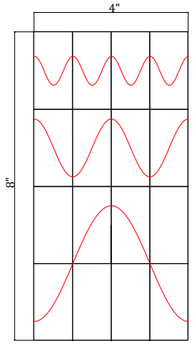


CloudHouse:
Research + Production Team

Pavilion at Greene-Rose Park
Iman Fayyad
Spring-Summer 2021

From project:if project description: “CloudHouse is a shade pavilion designed in response to the City of Cambridge’s “Resilient Cambridge” program in collaboration with the Cambridge Development Department and the Public Space Lab, which recommends an increase in shading in parks in lower income neighborhoods that have a deficit of tree canopy coverage.

These pavilions are designed and constructed using curved-crease folding, a geometric technique akin to origami that creates rigid structural surfaces out of low-cost, standard sized sheet material. The primary material is HDPE (high-density polyethylene), a recyclable UV-treated lightweight plastic. Its translucency provides shade while letting some ambient light through, creating a sheltering membrane that is both illuminated and protective. The structure is composed of five unique modules that shape the roof, walls, individual seats, and communal benches.”

Plan View	Perspective View	Unrolled Plan
		
		
		

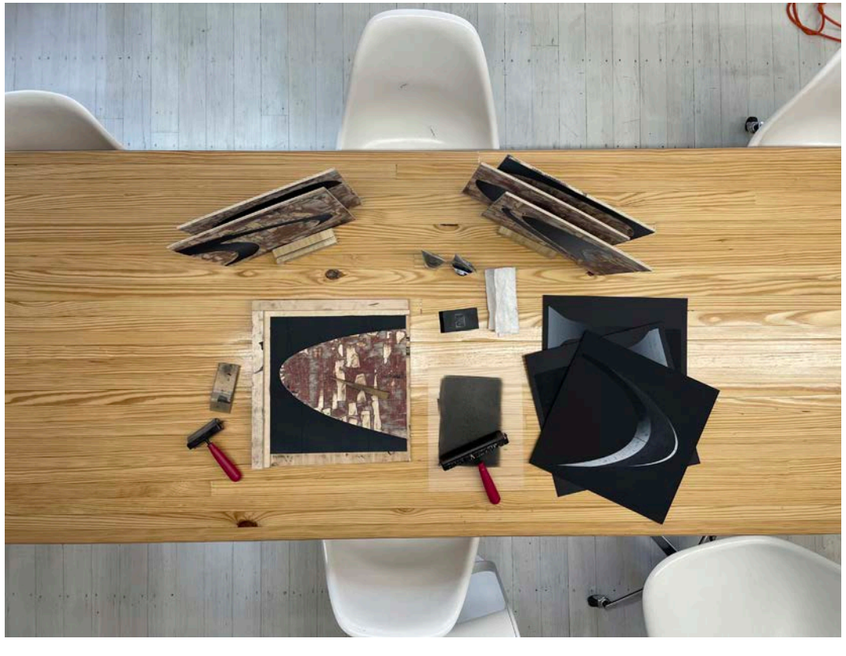
Project Production Team:
Rayshad Dorsey,
Pietro Mendonca,
Jack Raymond,
Audrey Watkins

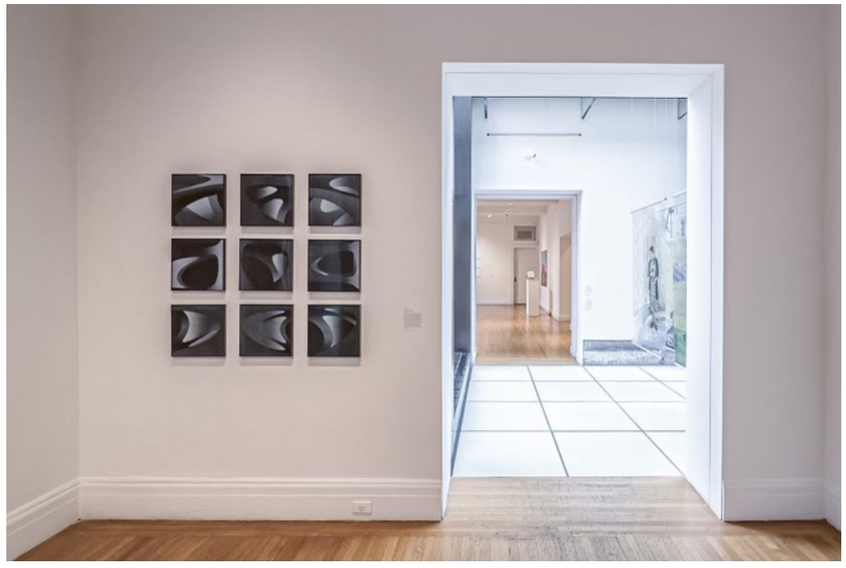
Howeler + Yoon
Academy of Arts and Letters

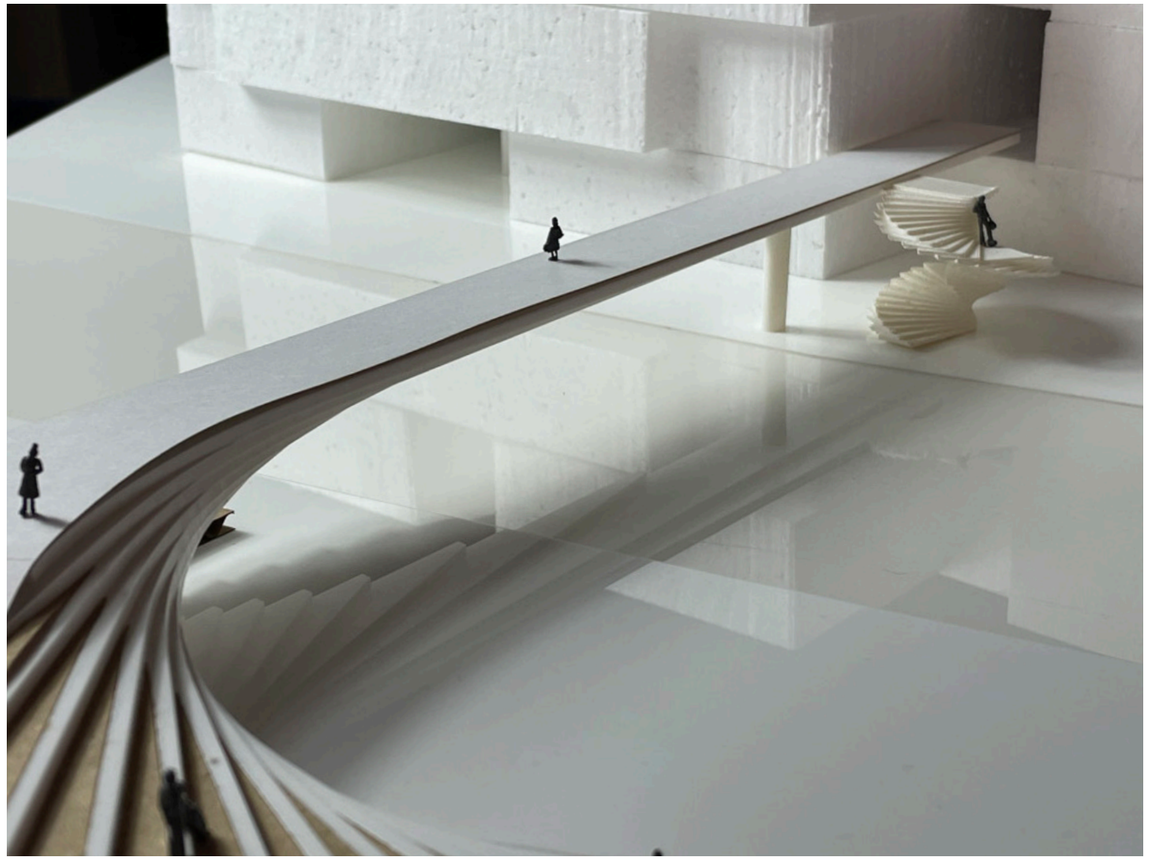
Wood Block Prints of Collier Memorial

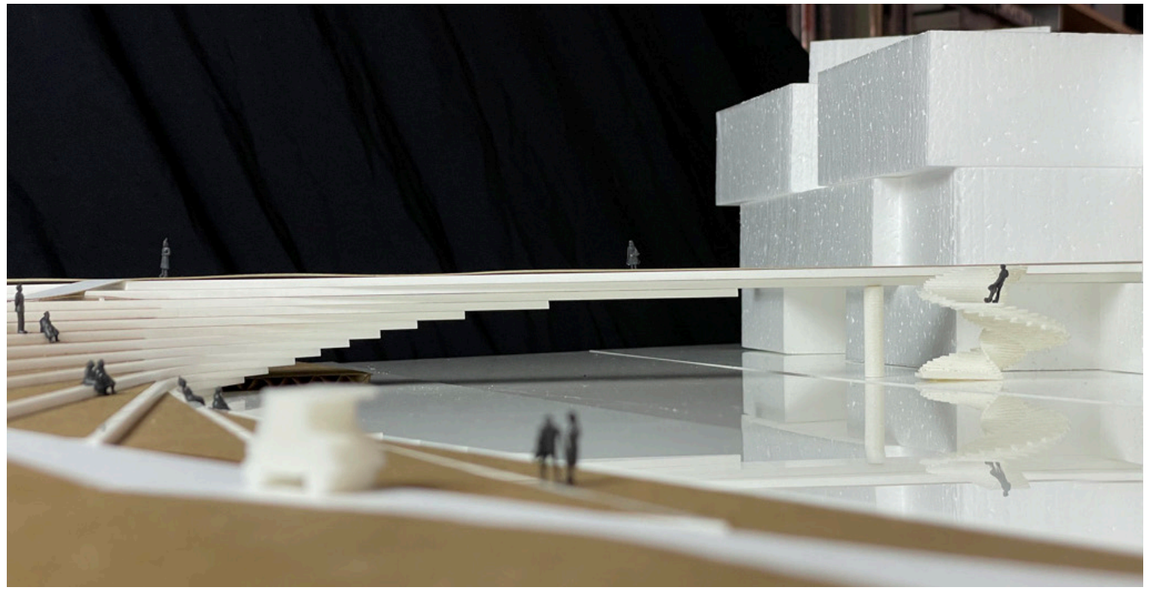
Oil based ink on black paper
Fall 2022

"The Collier Memorial marks the site of tragedy on MIT's campus, creating a space of remembrance through a form that embodies the concept of empathy through unity. Commissioned to honor the life of Sean Collier, an MIT Campus Police officer who died during the Boston Marathon bombing in 2013, the memorial was completed in 2015. This interpretation of the work presents a perspective of the portals and frames created by carving out a central void in the structure's five-pointed figure. In translating these views of the form's digital model into two-dimensional block prints, they detail the relationship between absence and presence of space and form."









Howeler + Yoon

Pedestrian Bridge Design

Chengdu, China
Fall 2022

A pedestrial bridge linking a public promenade to a new mixed use development with a combined electric cart path and walkway. The bridge is comprised of layers that fan from structural abutments into a stepped landscape. Their rotation creates a amphitheater-like pocket of public space along the river. A fanning spiral staircase links circulation to the ground of the urban strip.

Thank you