

Isaac Li | University of California, Berkeley | M. Arch
Selected Works

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01

Berkeley Fish Market

University of California, Berkeley ARCH 203: *Imposters*
Instructor: Aaron Forrest
Berkeley, California
Fall 2024
In collaboration with Jackie Urwin

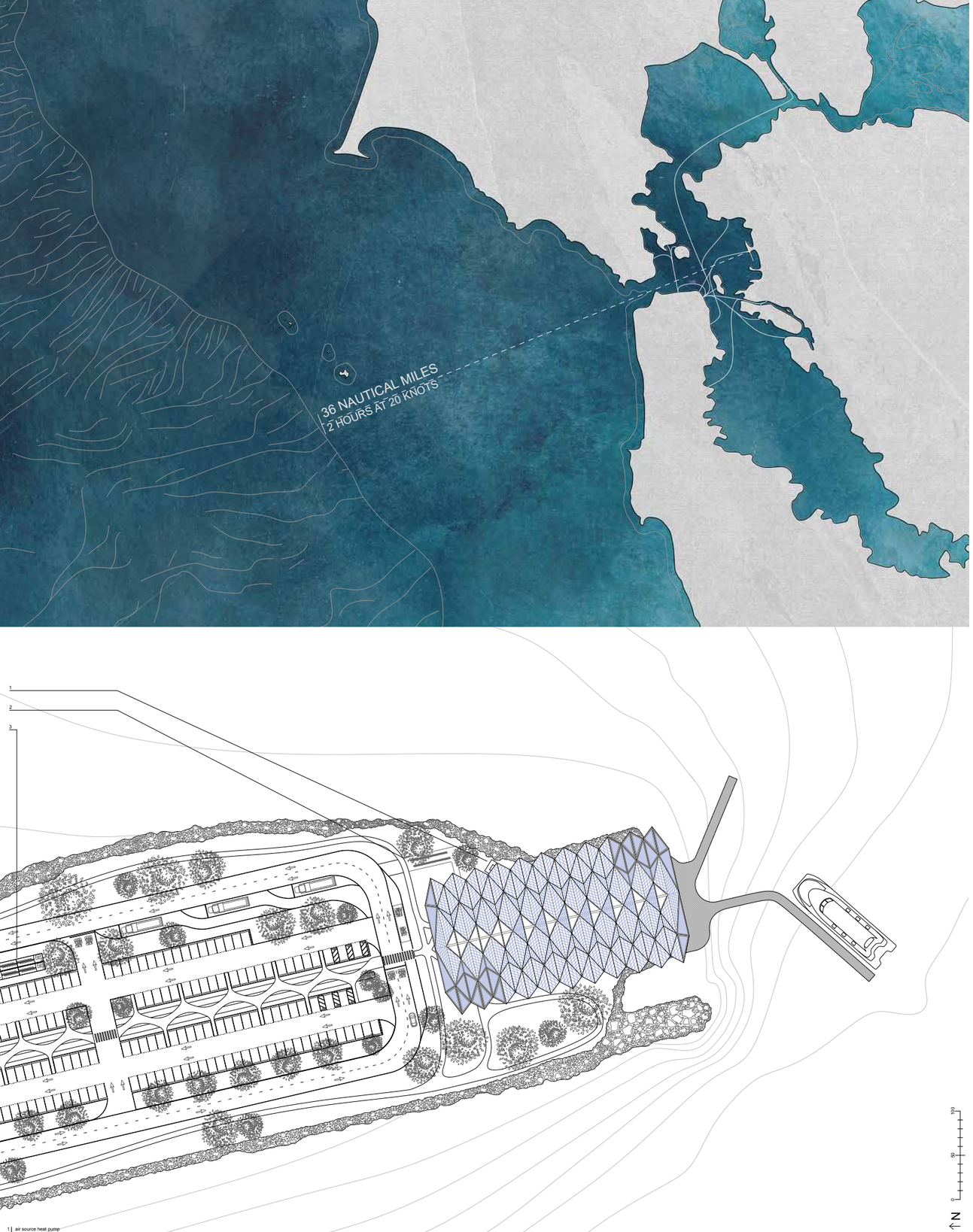
ferry terminal | market | industrial | folding | scales | icon

The San Francisco Bay Ferry's 2050 Service Vision imagines the Berkeley Marina as a Tier 1 expansion project. The site, which overlooks San Francisco and the greater Bay, accommodates local fisherman and recreational activities. In order to accommodate the site's existing activities, the form is organized by two large, offset spaces that highlight the building's programs of Ferry Terminal and Commercial Fish Market and largely flow into their respective dock spaces.

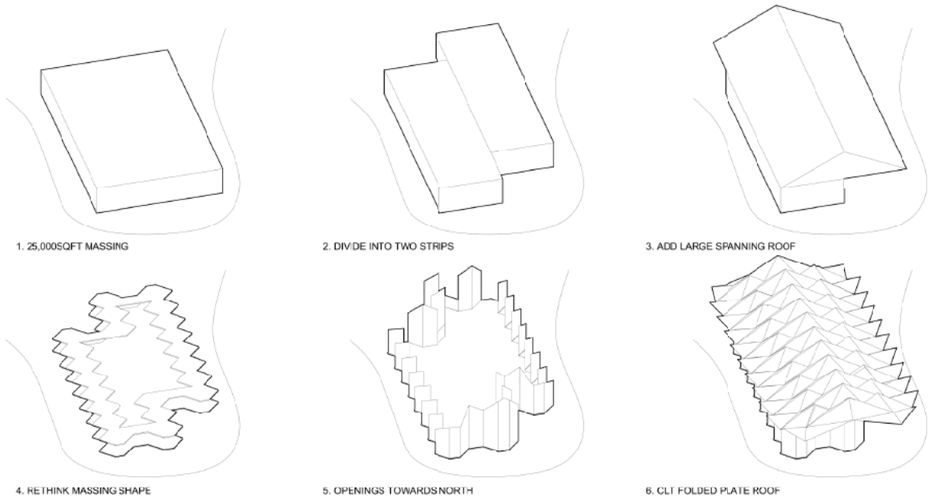
In order to free the roof from a dense post and beam system, our Ferry Building pursues a folded plate roof system, supported by few columns in order to allow light and air to flow through the space. The folded plate provides an intricate roof experience with endless peaks and valleys, paying homage to The Old Faithful Inn's monumental roof system. In the interior space, Market stalls are organized obliquely, to catch users that flow from the land to the bay and vice versa. These stalls, as well as the vertical garden and commercial fishing market, supply food to the second floor restaurant. On the exterior, the Ferry Building uses blue iridescent metal shingles that clad the roof to pay a tribute to the regional importance of the bay and the local importance of fishing.



Above
1/16" = 1'-0" Bristol & Basswood Model w/ Concrete Site
In Collaboration with Jackie Urwin



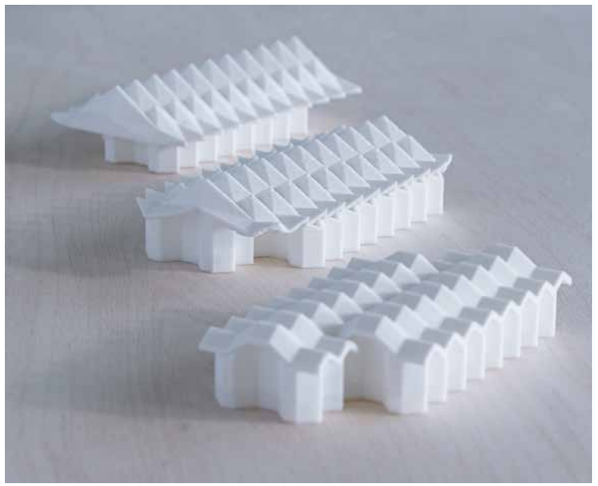
Left
Distance to Deep Sea Fishing
In Collaboration with Jackie Urwin



In order to free the roof form from a dense post and beam system, our ferry building pursues a folded plate roof system, supported by few columns, in order to allow light and air to flow through the space. The folded plate provides an intricate roof experience with endless peaks and valleys. The interior is organized by two large, offset spaces that highlight the buildings dual programs of ferry terminal and commercial fish market that flow into their respective dock spaces. Market stalls are organized obliquely, to catch users that flow from the land to the bay and vice versa.

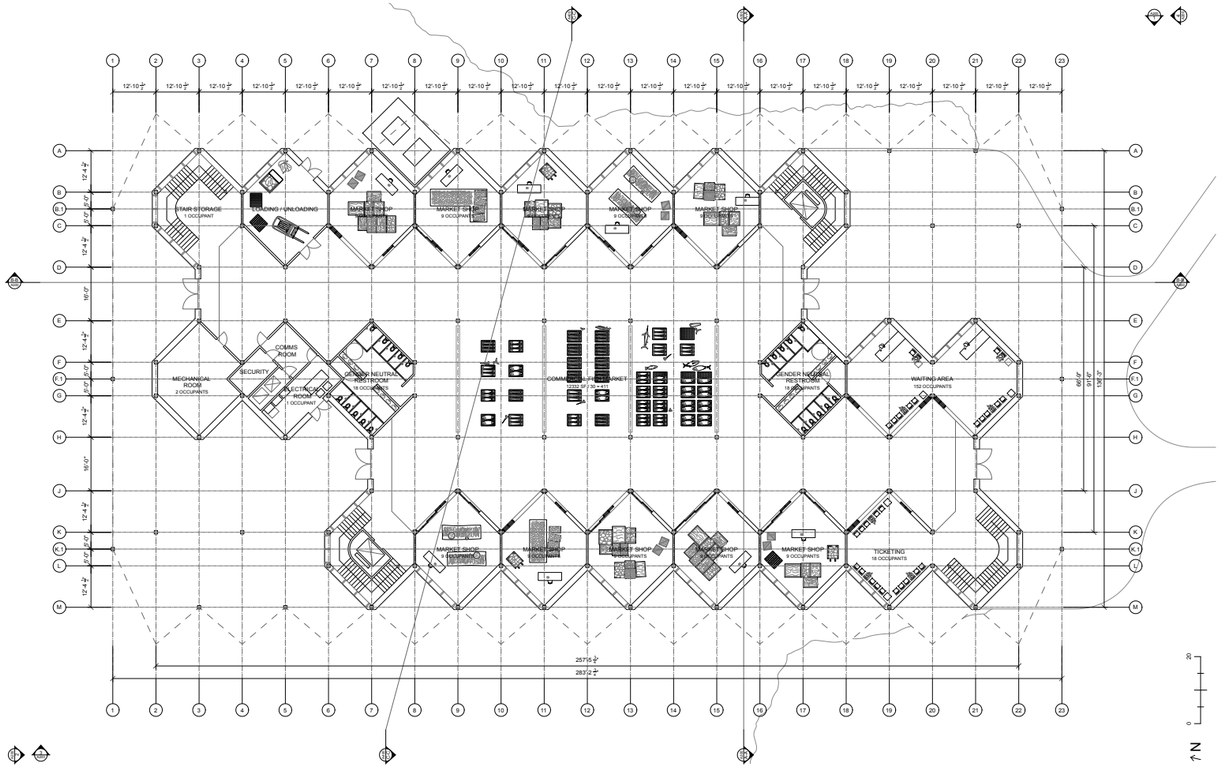
Left
Site Plan
In Collaboration with Jackie Urwin

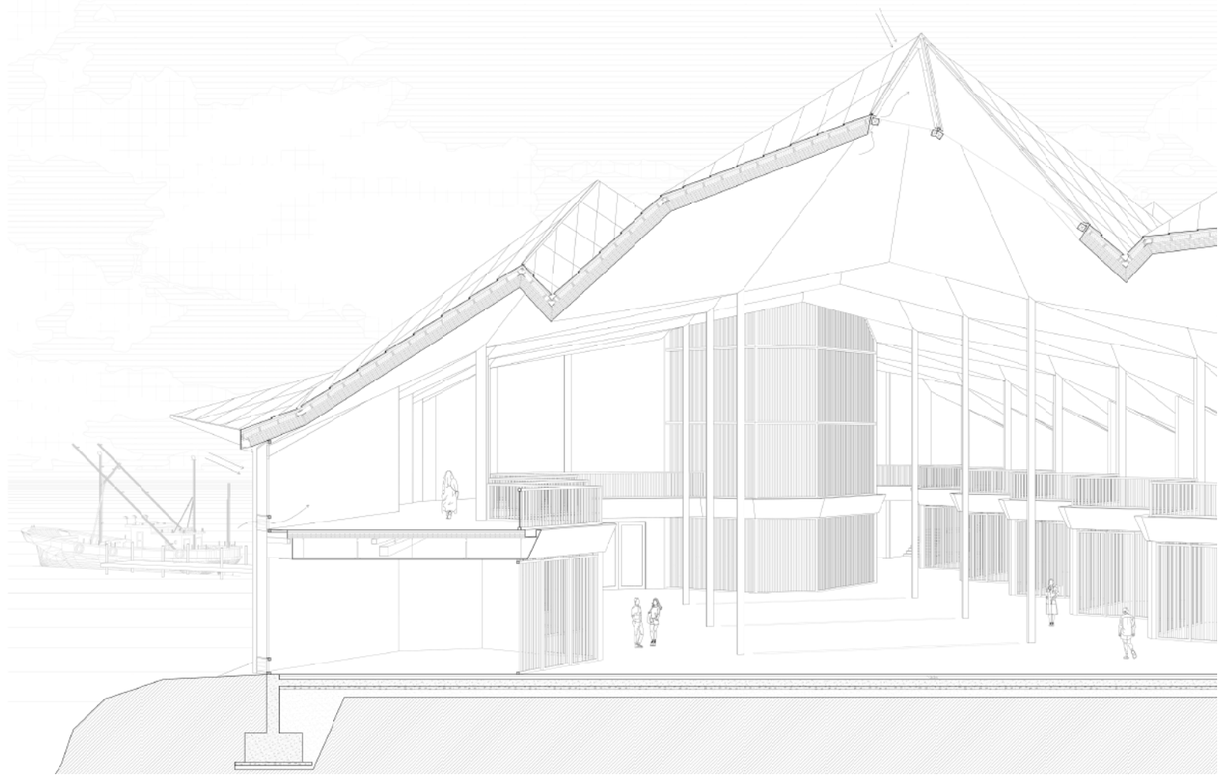
Below
1/64" = 1'-0" 3D Printed Model Iterations
In Collaboration with Jackie Urwin

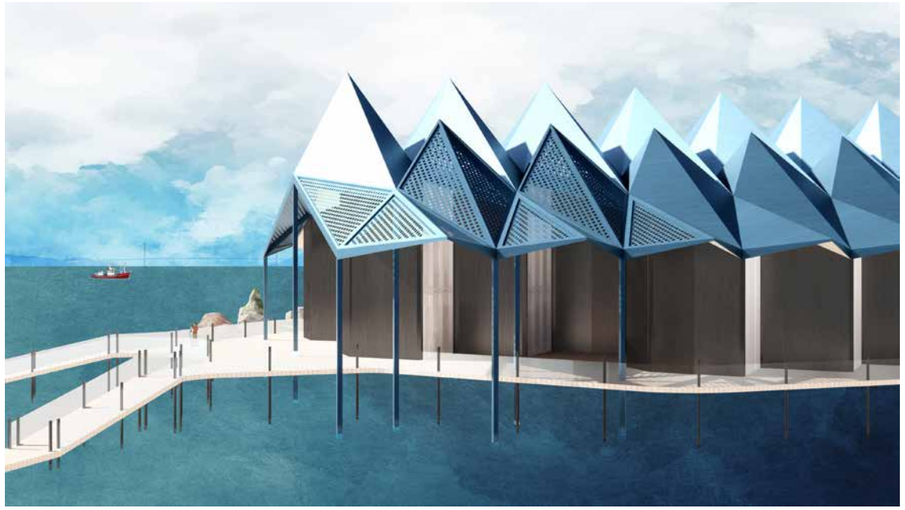


Below
1/64" = 1'-0" Acrylic Cast Model
In Collaboration with Jackie Urwin









Close up, the building appears monolithic in scale, dwarfing the human and even the boats. A fisherman using the pier can experience the roof as it continues to the exterior, while enjoying the view of the Golden Gate Bridge, Bay Bridge, and downtown San Francisco.

From deeper in the Berkeley Marina, the building blends in between the sea and the sky. The blue stainless steel panels reflect the conditions of the day, and stands at the horizon line intersection. Almost a spiritual experience, the building aims for the user to rethink how they inhabit the earth on both land and water.



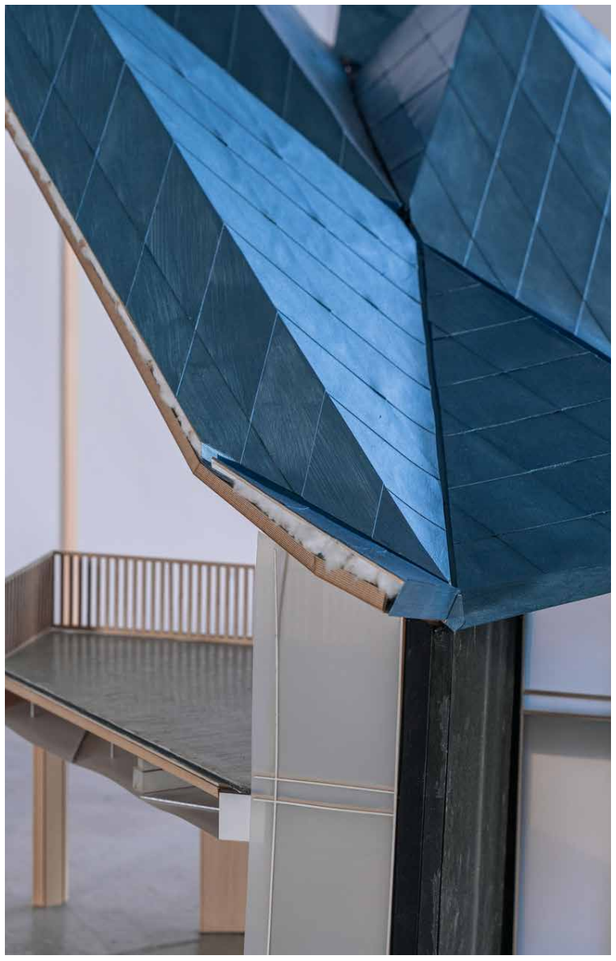
Above Left
Ground Floor Plan
In Collaboration with Jackie Urwin

Left
Integrated Section Perspective
Consultant: Priya Sathyanarayanan



From above, the terminal brings the water into the land; from the piers stretching out and guiding the boats in, to the roof connecting land transportation to sea transportation. The clouds shadows create a dynamic surface as the water level becomes shallower and deeper.



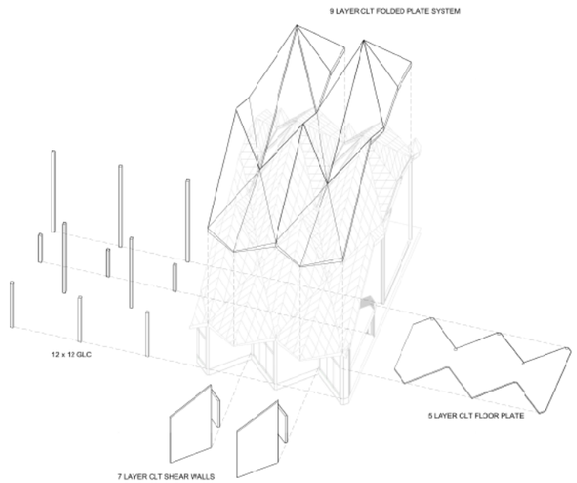


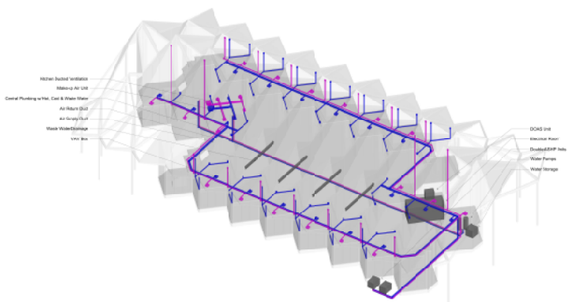
Our structure is predominately characterized by a folded plate roof structure, supported by a column grid to allow the roof to be open to light and air. Columns pierce the CLT folded plate system to allow for a clean and hidden connection to the roof. Thus the walls do not carry as much structural load, allowing for additional space allocated to building services. The oblique orientation of exterior and interior walls allows for lateral stability by accommodating the shear forces of the folded roof structure, especially in the seismic geographic location of the Bay Area.

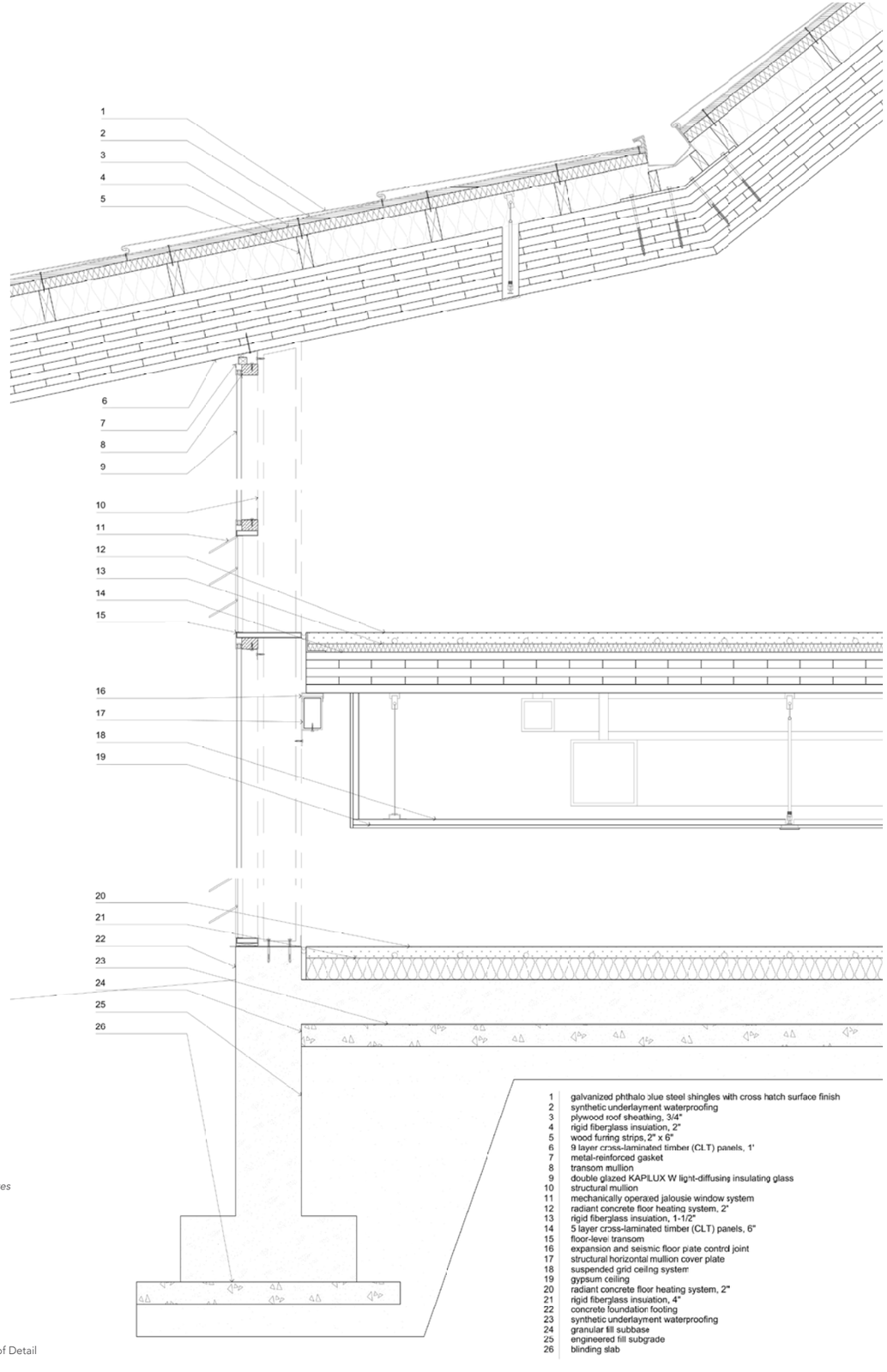
The facade features light-diffusing insulated glass curtain walls and charred wooden panels. Glass panels extend from ground to roof, oriented north to reduce glare and energy loads. Externally, light-colored mullions are hidden by diffused glass, a technique inspired by Steven Holl Architects, while internally, mullions are clad in ash wood, complementing the interior. Diffused lighting illuminates the atrium ceiling, focusing attention on the folded plate roof while obscuring Bay views. The south facade uses charred wood panels to block sunlight and minimize energy use, creating a contrast with the contemporary glass. Over time, the wood patinas, blending with the coastal environment.

Left
1/2" = 1'0" Second Floor Plate Detailed Model
In Collaboration with Jackie Urwin

Below Left
1/2" = 1'0" Roof Drainage Detailed Model
In Collaboration with Jackie Urwin







Above Left
Structural System
Consultant: Nick Sherrow-Groves

Left
MEP Systems Diagram
Consultant: Alyse Falconer

Right
Foundation, Floor, Facade, Roof Detail
Consultant: Felix Weber

02

Terminal M

University of Michigan ARCH 432: *Pop Goes the Artport*
Instructor: Steven Lauritano
Chicago, Illinois
Fall 2019
In collaboration with Christian Rios

museum | institution | depot | performance art | deaccession | disposal

Terminal M is a deaccessioning-oriented museum at an underutilized industrial lot next to a cargo railroad depot. Current museums have an issue of storing too many of their artifacts in storage and being unable to display them for the public in their galleries. Items are donated by the private sector, and not enough are deaccessioned in the current system. We were interested in exploring the intersection between private storage space and the public gallery in an industrial context. Through combining permanent storage, display, and auctioning space, guests can explore the gallery at their own pace, and utilize public facilities offered by the museum.





1934 Stock Yards Fire burns 90% of property



Chicago stockyards closes

1933-1934 | 1948 | 1965 | 1971



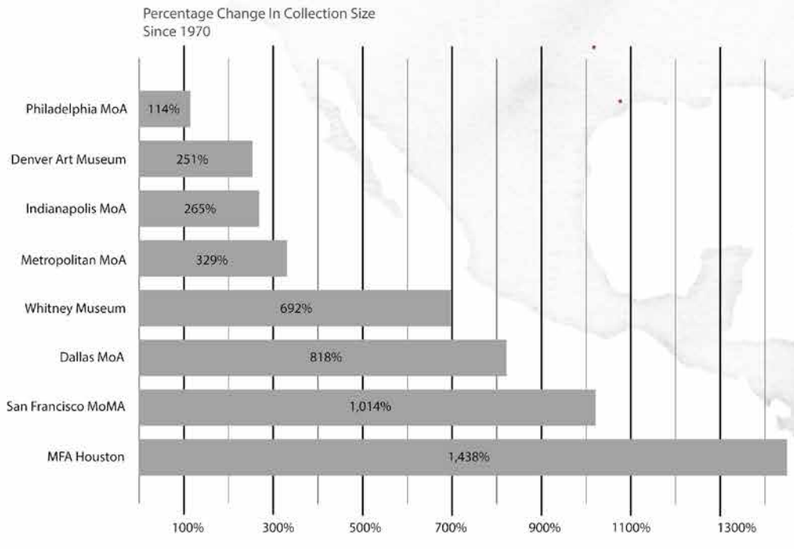


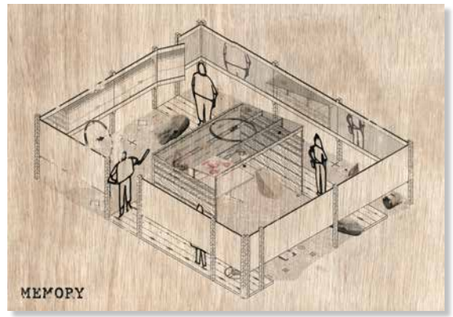
Chiang Kai-shek ships 2972 crates (696,000 artifacts) to Taiwan

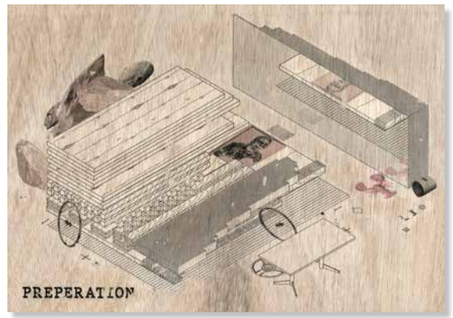


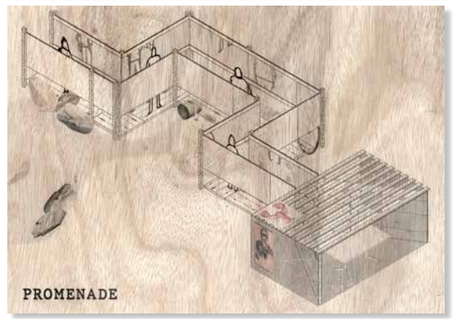
The National Palace Museum finishes construction

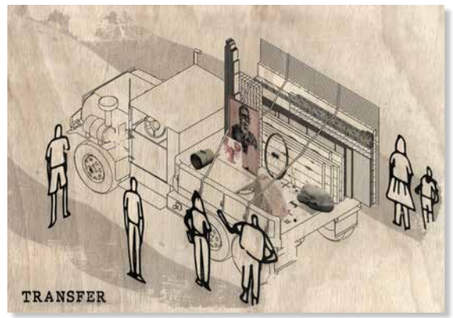


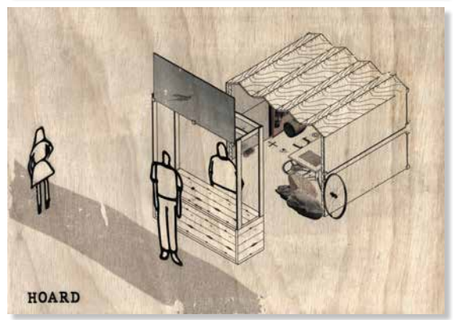












"Patio and Pavilion" exhibited at the This is Tomorrow exhibition in 1956. The architects for the work were Alison and Peter Smithson, and the artists were Eduardo Paolozzi and Nigel Henderson. Our study, re-creation and re-interpretation of this exhibition in digital form acts as a precursor and foundation to the key ideas that we aimed to highlight in the spaces we designed in Terminal M.

Memory The original art pop-up in digitized form (objects were choosen and not all are represented in these prints)

Preperation Disassembly of all components from the exhibition

Promenade Redesigning the pop-up through the placement of a particular sequence of objects

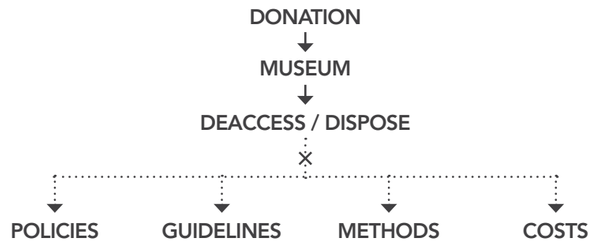
Transfer Moving the components on an army supply truck

Hoard Creating a reception and storage shed for the objects from the original art pop-up

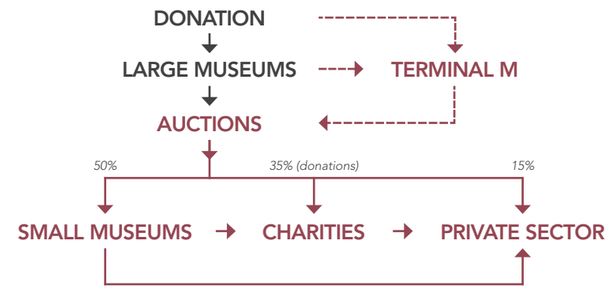
In representing these drawings we decided to experiment with and utilize ink transfer methods onto wood boards that were found from the workshop recycling pile. This choice ultimately influenced the spatial design decisions we made in our proposal.



Patio and Pavilion 1956, images on the right from 'Patio and Pavilion' Reconstructed, by Alison Smithson and Peter Smithson.



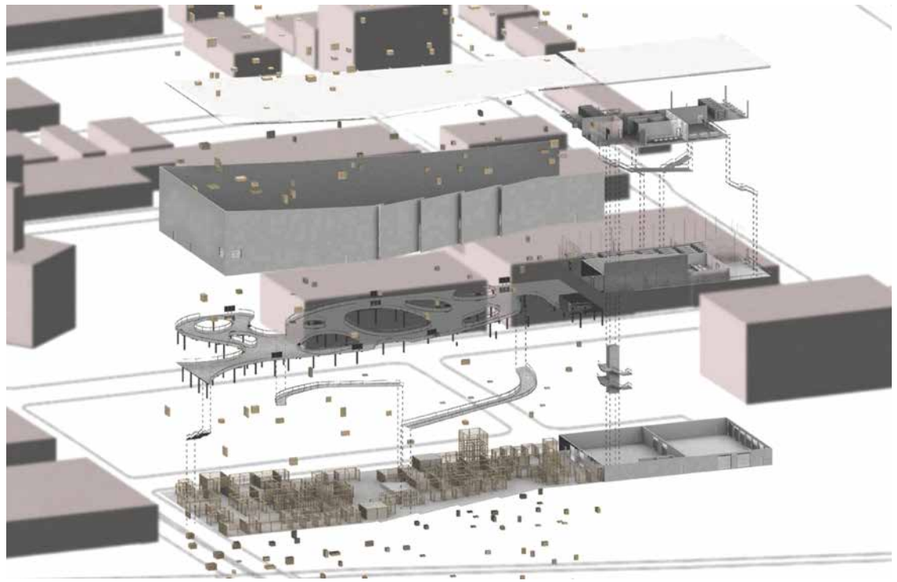
For institutions to deaccess/dispose of artifacts in their collection, there are currently huge boundaries to do so. One of the resulting consequences of this is that museums like the Metropolitan MOA has more than 1.4 million artifacts in storage, and a 330% increase in total collection size.



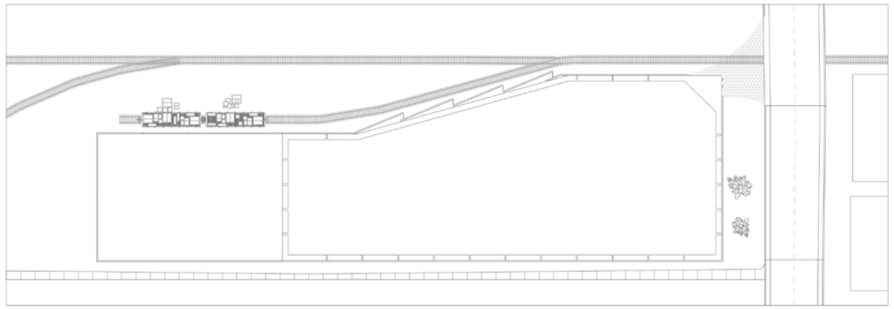
Although this is only one of the many reasons collection sizes and artifacts in storage systems have increased, our proposed institution will act as a bridge that will reduce this burden for large museums to deaccession/ dispose, allowing for other parties to gain access to these artifacts, while providing additional digitilization to document these artifacts.

works cited

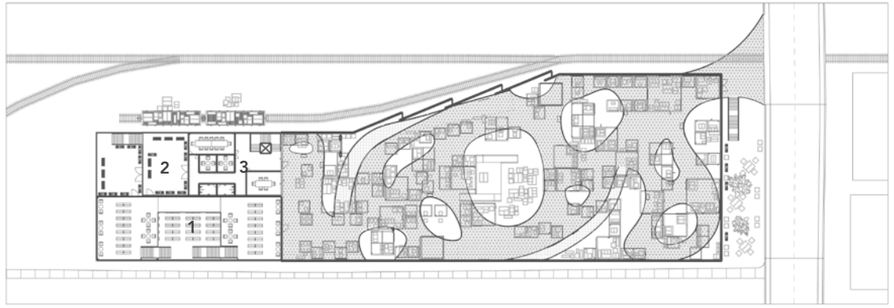
Concern at the Core: Managing Smithsonian Collections: Executive Summary, April 2005. Smithsonian Institution, Office of Policy and Analysis, 2005.
Sullivan, Paul. "Even for Philanthropists, Museums Can Make Art a Tough Give." The New York Times, The New York Times, 11 Aug. 2017.
sharondomain. "Museum Advocacy: Why People Donate." Western Museums Association, Western Museum Association, 20 Feb. 2012.
Vincent, Carol Norris. Creating and Building Endowments for Small Museums. 1997.
Pogrebin, Robin. "Clean House to Survive? Museums Confront Their Crowded Basements."The New York Times, The New York Times, 10 Mar. 2019.



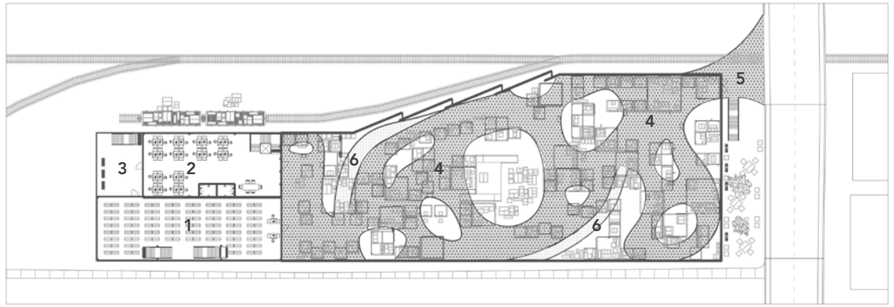
Visualizing the flow of excess artifacts through Terminal M.



RF



1 Library (L3)
2 Outdoor reading space
L3 **3** Meeting rooms



1 Library (L2)
2 Digitalization center
3 Outdoor reading space
4 Suspended walkways
5 Connecting Bridge
L2 **6** Ramps to L1



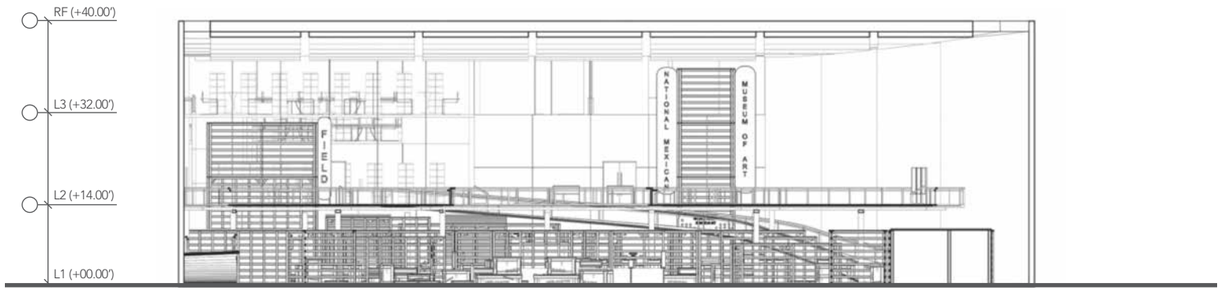
1 Vehicular transport station
2 Railroad transport station
3 Preperation room
4 Auction center
5 Artifact enclosures
L1 **6** Outdoor artifact enclosures

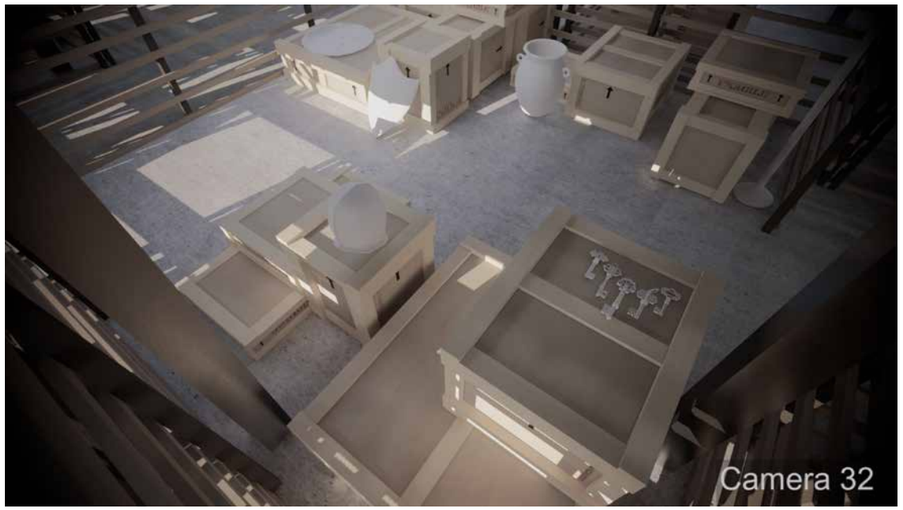
The goal in designing this space was to first create a functional hall for the documentation and transportation of artifacts. This resulted in a very open L1, only enclosing back of house spaces. We then wanted to explore the ways the public can interact with the artifacts being displayed and documented, resulting in the free flowing form of the L2 suspended walkways that contrast the organization of the L1 artifact enclosures. **Ultimately the space is divided between the "memory, preperation, promenade, and transfer" spaces. There is no hidden space for "hoarding".**

The trickling down effect of artifacts moving through Terminal M. A critique of wealth distribution and hoarding of valuable pieces by only those with the wealth, power and influence. Terminal M is the institution in which this exchange will take place with full view from the public.



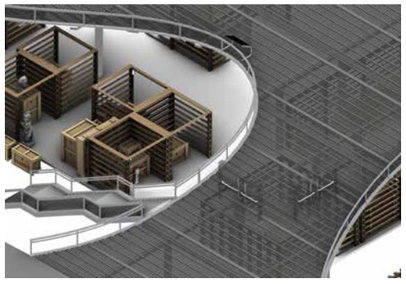
Short section-elevation of the key interior space, showing the relationship between the auction center, artifact enclosures, library, and L2 walkway.



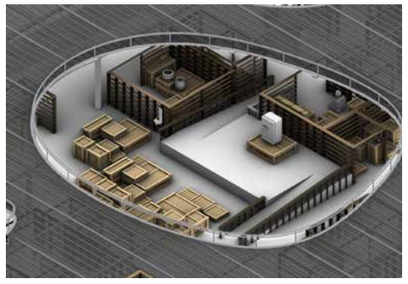


Various cameras are placed around the enclosures as a security measure, and also for the digital exhibition and voting system.

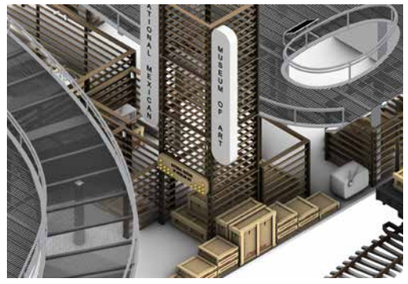
The main entrance to the space, visitors can enter through the L2 bridge entrance connecting to the interior. The initial experience after entering showcases the scale of the operation and institution.



The auction center, visitors can experience and spectate from the elevated walkway or head down to L1 to be closer to the action. The center of the hall, the auction center is the beating heart of Terminal M.

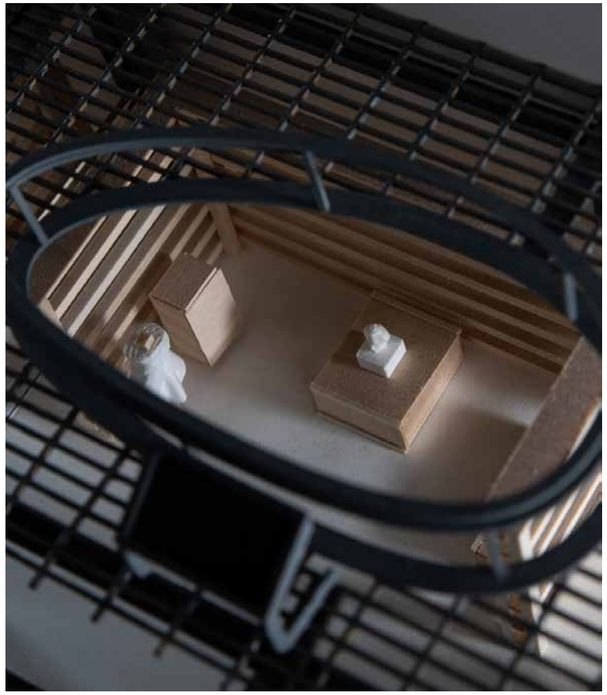


Showcasing the ramp and its relationship with the artifact enclosures and exterior railway transport system. The proximity between all facilities allows for efficient deaccessioning and transfer of artifacts.





Section model showing the relationship between the artifact enclosures, elevated walkway, digital display system and reflective wall. Most materials used were painted wood, with some additional 3d printing of the artifacts, and a sheet of mirror finish.



One-to-one scale container of the artifacts as a method of transport and display. Materials were found from various recycling piles, and we added some spray painted stencils to add to the effect of quickly putting together boxes for transporting the artifacts.



03

Yinchuan Yoyo City Mall

L&P Architects
Supervisor: Shen Yifan
Yinchuan, China
Fall 2021 - Fall 2022
In collaboration with Austin, CG, Jaenes, Francisco, Sikan, David

commercial | shopping mall | retail street | landmark destination

A large scale mixed-use development project, our team spent many months focusing on various stages of development for different aspects of the project, including interior design, landscape design, and architecture. In my portfolio I will focus on the most significant contributions I believe I made. I was involved with SD, DD and CD stages, and focused on varous details surrounding parametric and biomorphic design, providing architectural visualization and construction documentation.

To be noted, all drawings and visualizations were done with the consultation and guidance from team members and supervisors, and it will be noted when certain aspects of the project I am presenting in my portfolio were not fully completed by me.

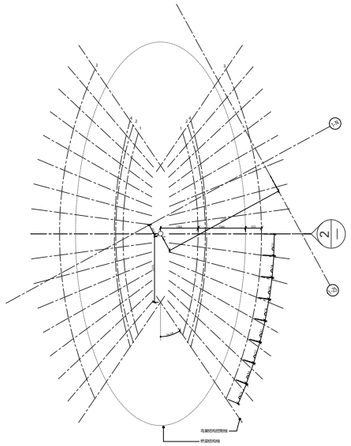


View of the main atrium interior. Key design choices include the decision to create a glass sky bridge "suspended birds nest" which connects the two sides of L4, and the "seaweed forest" ceiling design which leads to the cylindrical waterfall. My role in this render was the design and 3d modelling of the "suspended birds nest" and "seaweed forest," and the final render using Lumion and Photoshop. I was not directly involved with 3d modelling of the massing, plans, or shopfront/atrium edge details.

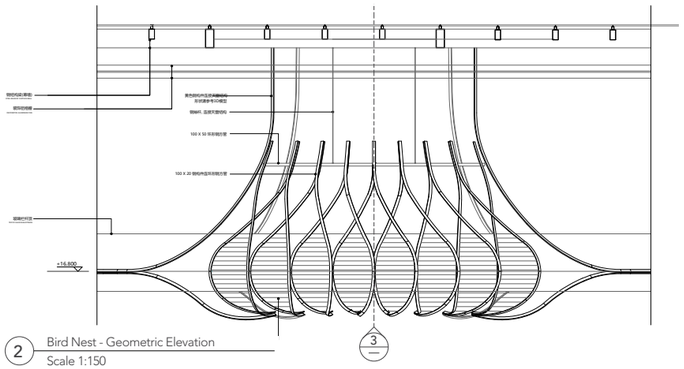
MAIN “BIRD’S NEST” ATRIUM



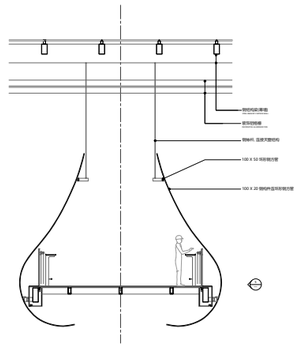
This page shows the construction drawings and details I was involved in designing for the main atrium in the rendering from the previous page. These drawings were completed by me under my supervisors guidance.



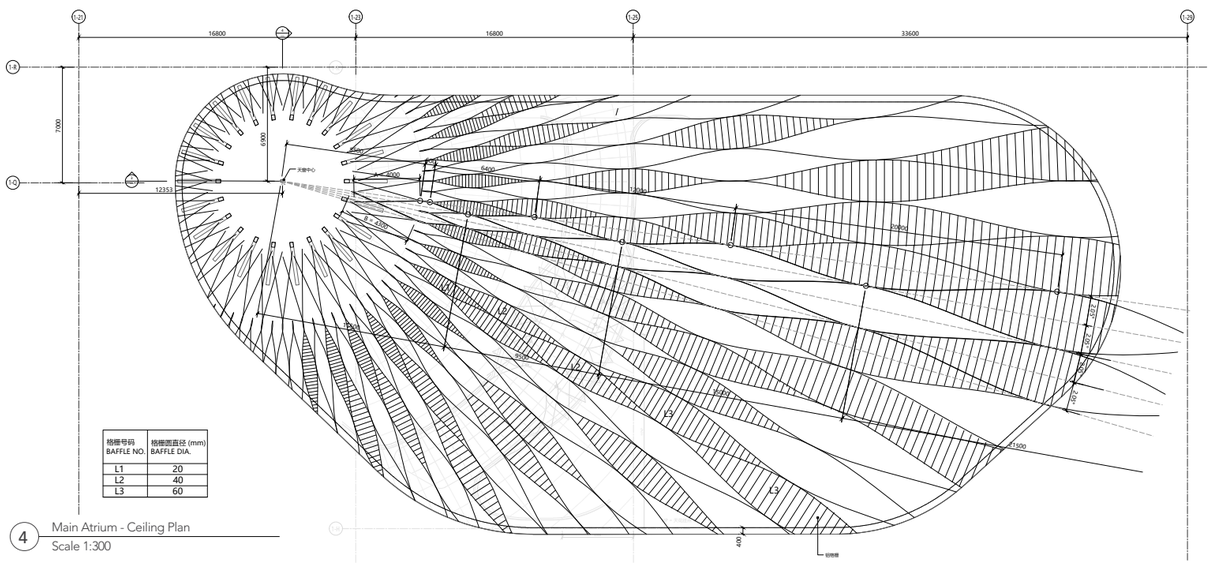
1 Bird Nest - Control Lines
Scale 1:150



2 Bird Nest - Geometric Elevation
Scale 1:150

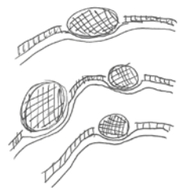


3 Bird Nest - Geometric Section
Scale 1:150

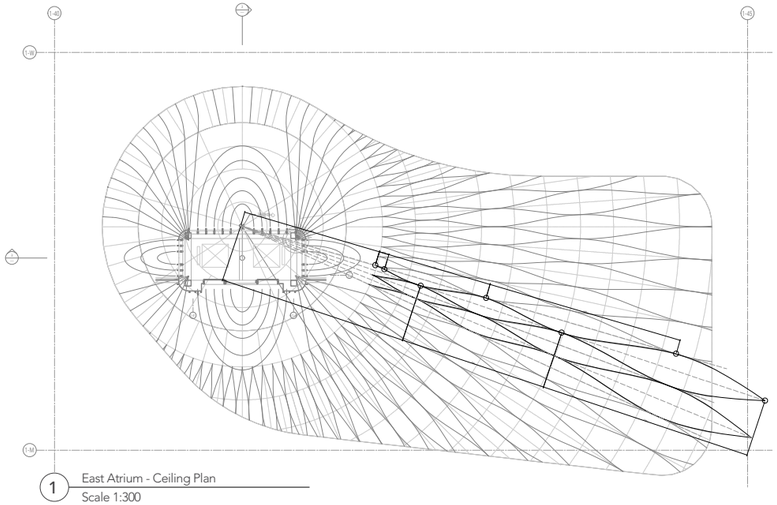


4 Main Atrium - Ceiling Plan
Scale 1:300

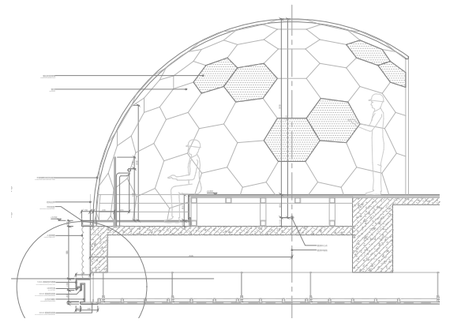
EAST “BUBBLE” ATRIUM



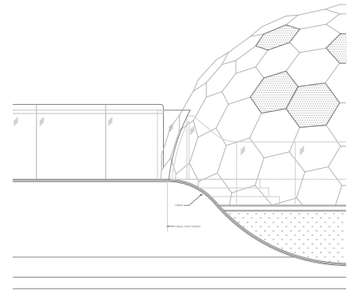
A similar design language was used in the east atrium, with the addition of geodesic domes that sat on the edge of the atrium void.



1 East Atrium - Ceiling Plan
Scale 1:300



2 East Atrium - Geodesic Dome Section
Scale 1:100



3 East Atrium - Geodesic Dome Elevation
Scale 1:100



View of the east atrium interior. Vertical metal louvres stretch out across the skylight, and geodesic domes sit beside the atrium void. My role in this render was the design and 3d modelling of the geodesic domes through grasshopper, and the final render using Lumion and Photoshop.

Photos show various phases of construction and completion. I was involved with the design for both the exteriors and interiors of the buildings.



Right
Dynamic Facade Panels with Night-time Lighting Treatments
Main Entrance Exterior



Right
Glass Facade with Stone & Aluminium Paneling
Exterior Commercial Markets



Top Left Facing
Ceiling Louver Pattern Stretching to Sky Bridge Nest
Main Atrium Interior

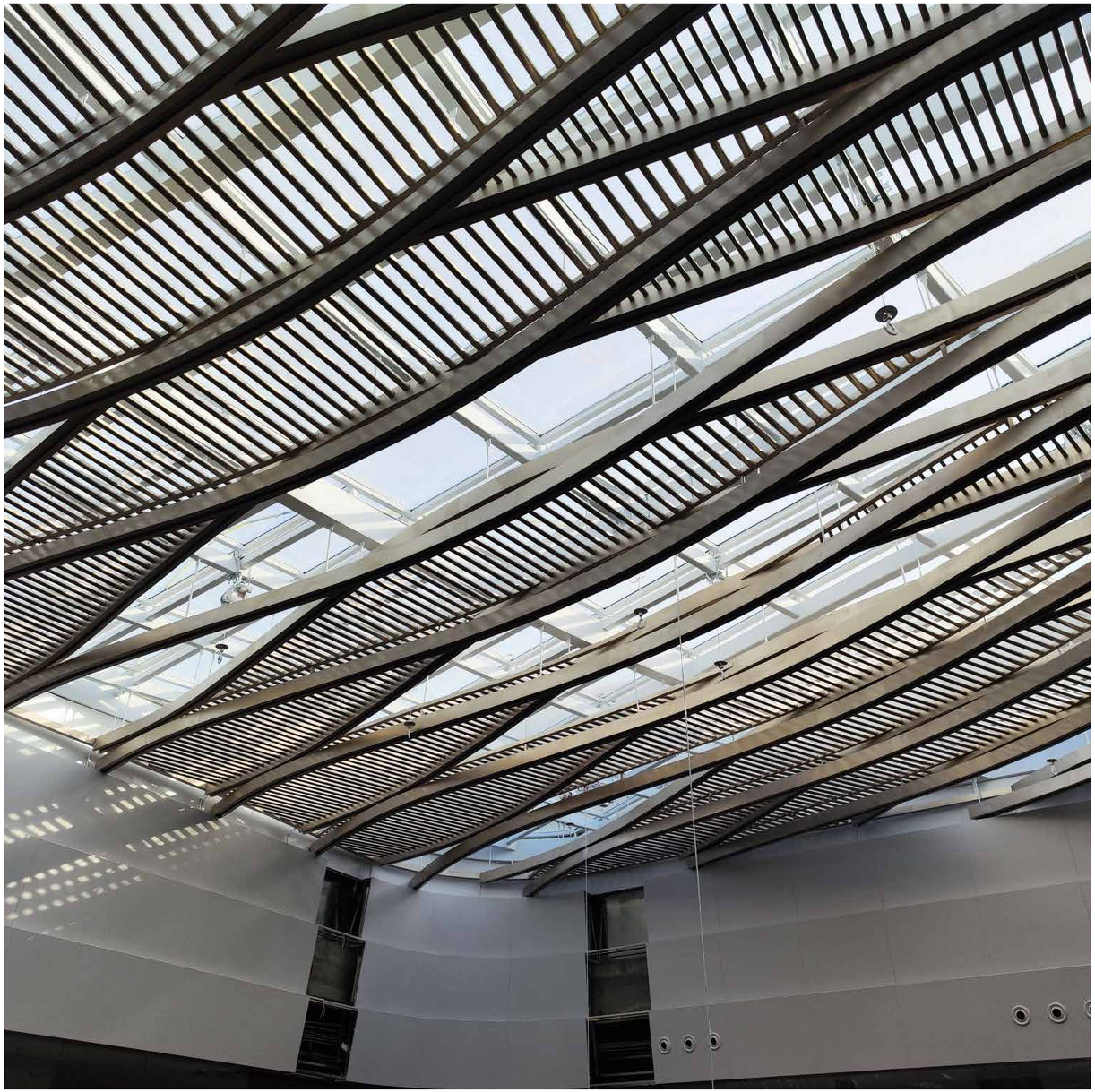
Top Right Facing
Louver Pattern Stretching from Elevator Base to Ceiling
Secondary Atrium Interior

Right Facing
Ceiling Louver Pattern to Reduce Direct Light
Main Atrium Interior

Right
Seating Area Leading to Below Ground Level
Sunken Plaza Exterior







04

Ephemeral Library

University of Michigan ARCH 312: *Design Studio I*
Instructor: Melissa Harris
Ann Arbor, Michigan
Fall 2018
Individual work

light & shadow | memories | spatial movement | twisting

This project studied Italo Calvino's publication Invisible Cities, specifically the City of Memories. The goal was to spatialize a concept chosen from the passage, and I decided to explore memory as a spatial concept.

Exploration of various massing concepts formed the basis of the libraries key spatial experience. Beginning with simple studies through physical modelling, to diagramtic sketches of a central focus point for the space, the thought process and sequence of arriving to each design conclusion will conveyed in the design of the library and additional spaces for learning.



Above
Concrete Cast Model
Photograph



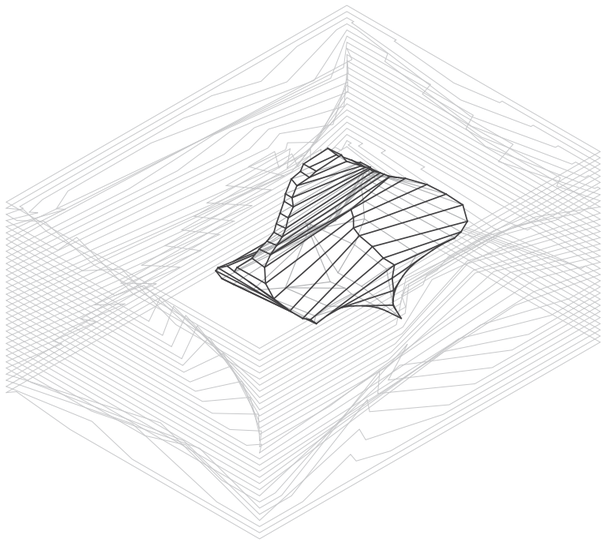
Using minimal cuts between each piece of bristol board, I created a gradient of flowing massing that pushes into the block. To balance the inward push, a central void was created to then create a spatial experience from the inside and outside of the massing. This is shown in the digitzed drawings of the bristol board model that were drawn afterwards below. Both the solid and void spatial experiences were considered when designing the massing. The exterior spatial experience can be seen in the drawings on the left, while the spatial experience of standing in the solid can be seen in the concrete massing model photos on the right. This experience forms the basis of this projects attempt to create a balanced, flowing movement of space, which starts from the design at the massing level.

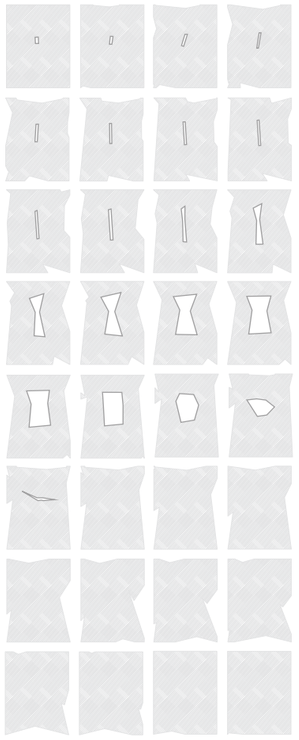












To better understand the interior void of the solid block, the axonometric above and the sequence of section cuts on the right shows the movement of the space created by each piece of bristol board. Also shown is the push/pull between the central void and the exterior massing.

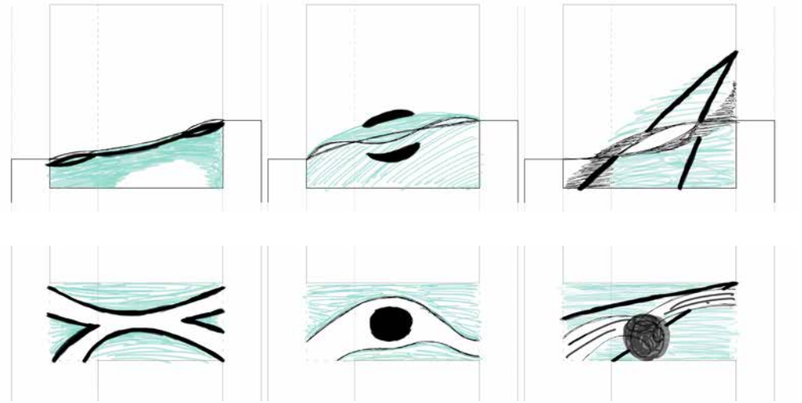


Right
Concrete Cast Model
Photograph



Right
Concrete Cast Model
Photograph

A concrete model was made as the inverse of the bristol card model to the left, to explore ideas of transparency. The goal was to create spaces in which people can feel the shaped massing and experience the play between light and shadow.



Section Diagrams

Plan Diagrams

1 Exploration of connecting two ends on different elevations, with surrounding spatial experiences being considered in relation to the previous solid-void studies.

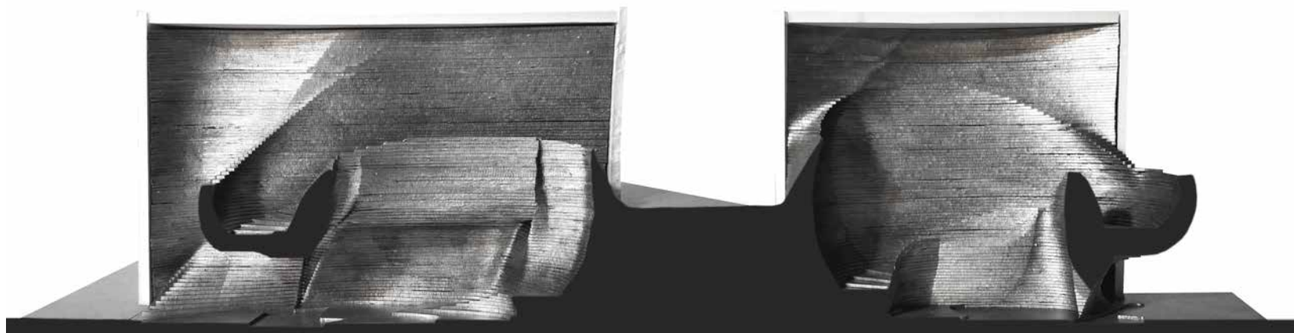
2 Creating a central focal point the path rotates around; the key focus point of the spatial experience lies in the center of this space.

3 Extending the experience to above and below the path to enhance the connections, while using the key focus point as the center of the spatial gesture.



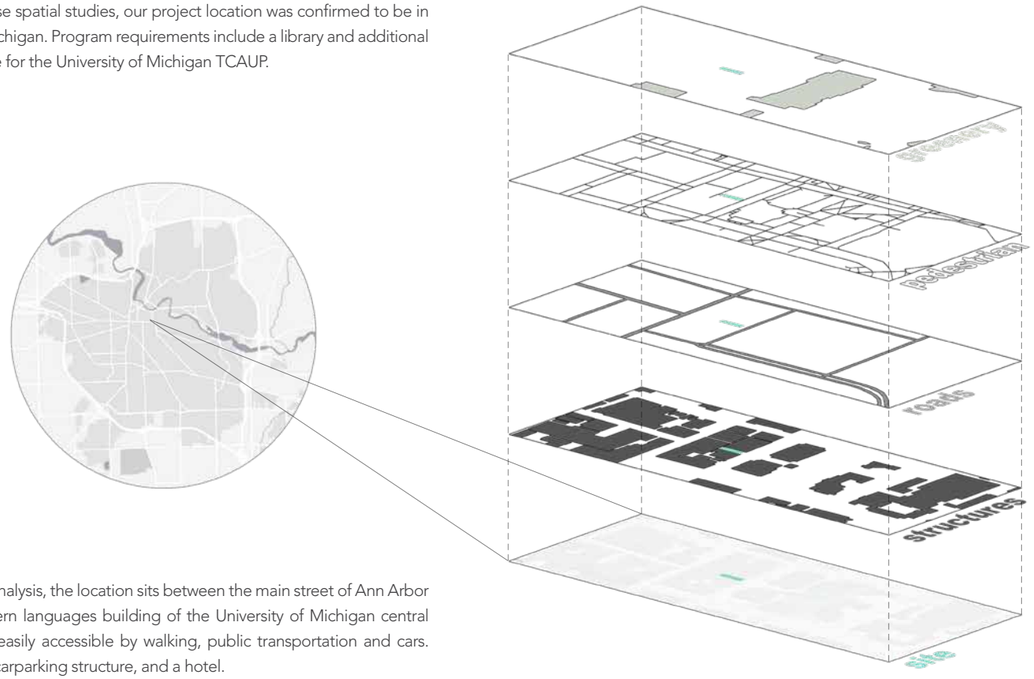


Details of the study model, made from stacking many layers of laser cut museum board, then multiple coats of silver-grey acrylic paint applied on top.

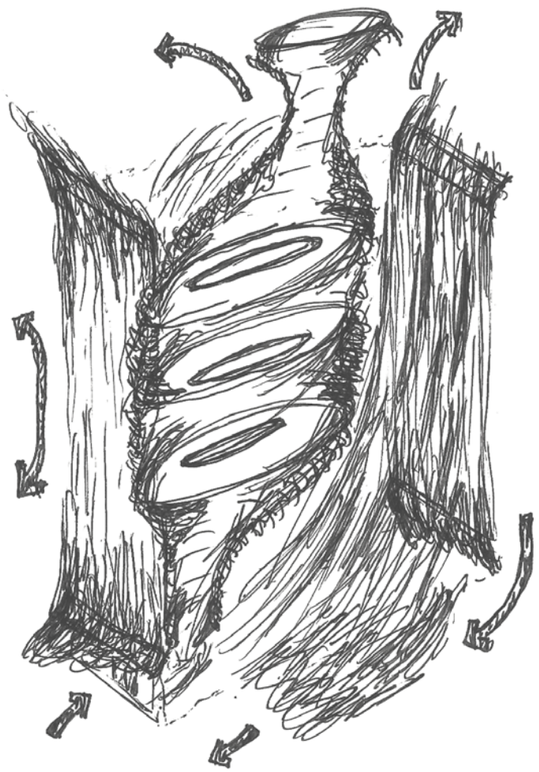


Sectional model made in two parts; split in the center, it allows for clear analysis of the wall curvatures and the twisting ramp path. This spatial experience is comparable to moments found in nature such as the Antelope Canyon.

Following these spatial studies, our project location was confirmed to be in Ann Arbor, Michigan. Program requirements include a library and additional learning space for the University of Michigan TCAUP.

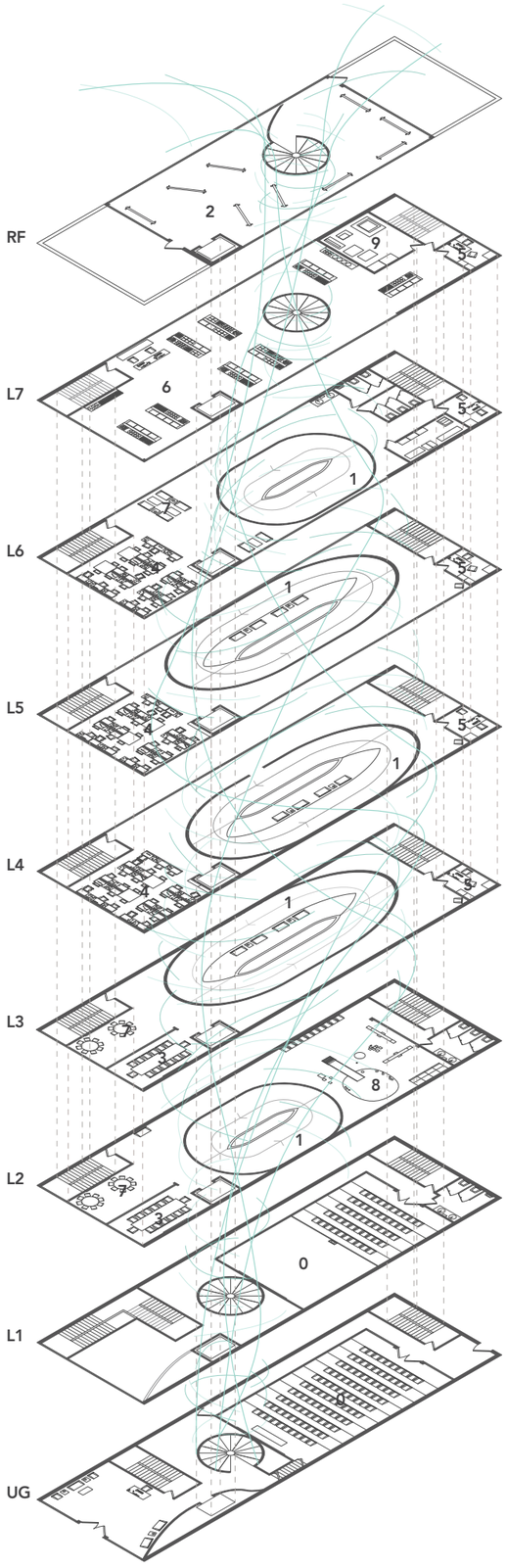


In doing site analysis, the location sits between the main street of Ann Arbor and the modern languages building of the University of Michigan central campus. It is easily accessible by walking, public transportation and cars. Adjacent is a carparking structure, and a hotel.



Initial sketching showed an extension of the spatial concepts explored previously to create the central library space knowledge core as the foundation for the additional surrounding learning spaces.

This section on the right showcases the central library core space in relationship to the other learning spaces surrounding it. The twisting gesture as was explored previously can be felt in contrast to the rectangular, efficiently stacked floors surrounding the library. The focus of the design was to extend and explore the feelings of walking through and experiencing such spaces.



Plans on the left are arranged to show the vertical connection beetween the spaces as well as the locations of the various programs.

0 Auditorium
1 Library bookshelves
2 Gallery
3 Meeting room
4 Studio space
5 Office
6 Shop
7 Lounge
8 Playground
9 Storage

Below
Main Entrance Lobby
Collage



Entering the L1 lobby space reveals the scale of the intellectual memory held within the space of the building.

Right
Central Library Twist
Collage



Experiencing the twisting ramps from the interior of the library. As books are borrowed and returned, the libraries transparency will change over time, revealing more and less of the interior walls.

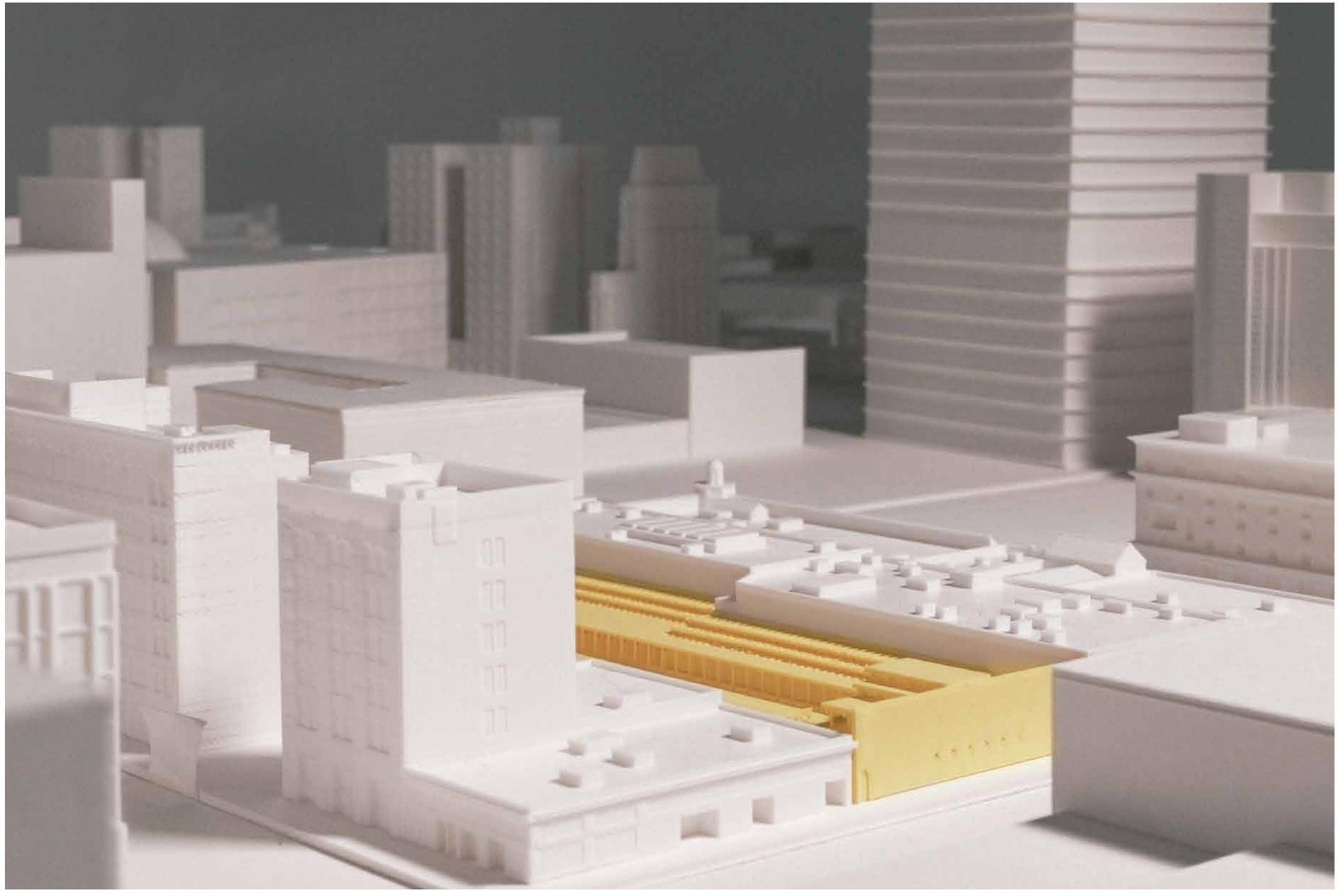
05

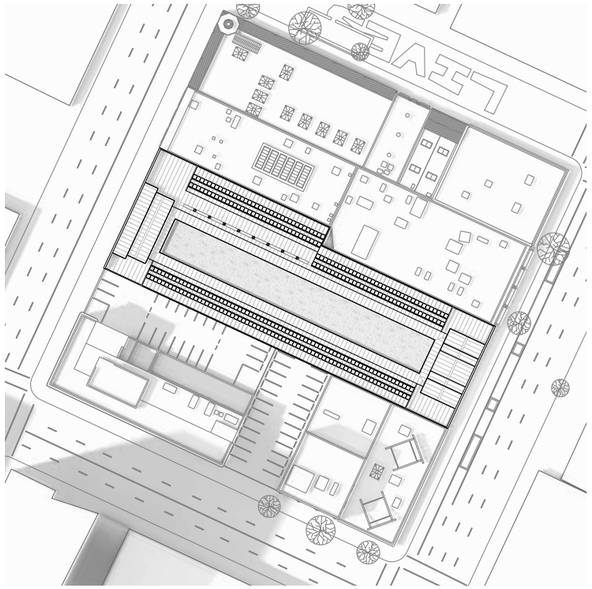
Rehousing Recipe

University of California, Berkeley ARCH 201: *The City as Storage*
Instructor: Georgios Eftaxiopoulos
Oakland, California
Fall 2023
Individual work

urban monastery | city void | communally driven

Located in Downtown Oakland, the housing proposal adapts a form of living used for millenia into modern society. Monasteries historically have some of the strongest communal bonds, the architecture and spaces all supporting functions of communal living and service. This project attempts to suggest a new way of working and living for people experiencing homelessness, with various supportive programs adapted from monastic living.





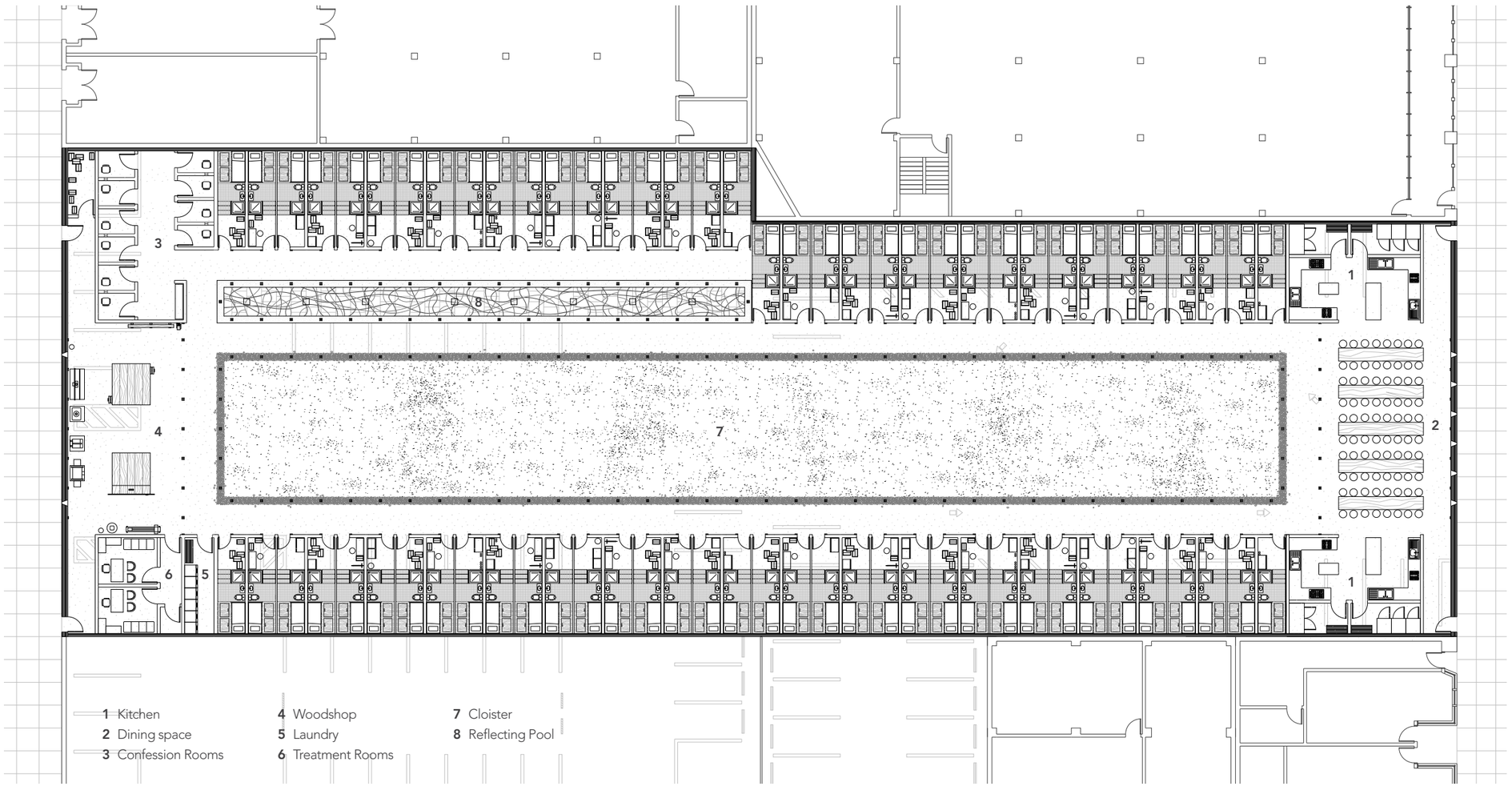


Located in Downtown Oakland, the building sits on a vacant parking lot surrounded by mid-rise commercial buildings.

The entrance to the building mimics a monastery, and contrasts the dense facade language of the city. It acts as a void and a break in Oakland.

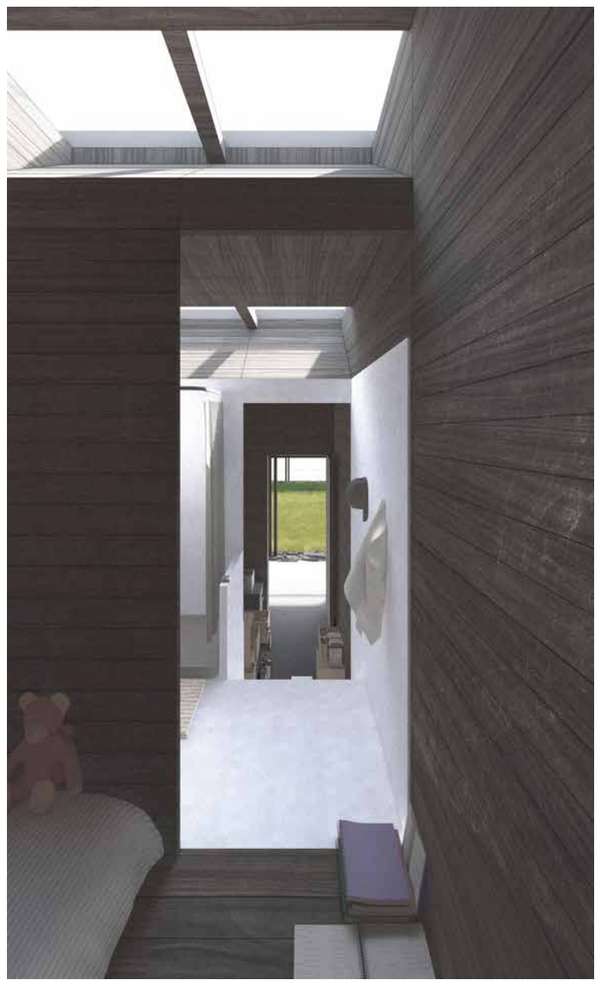
Far Left
Space Situated in Downtown Oakland
Roof Site Plan

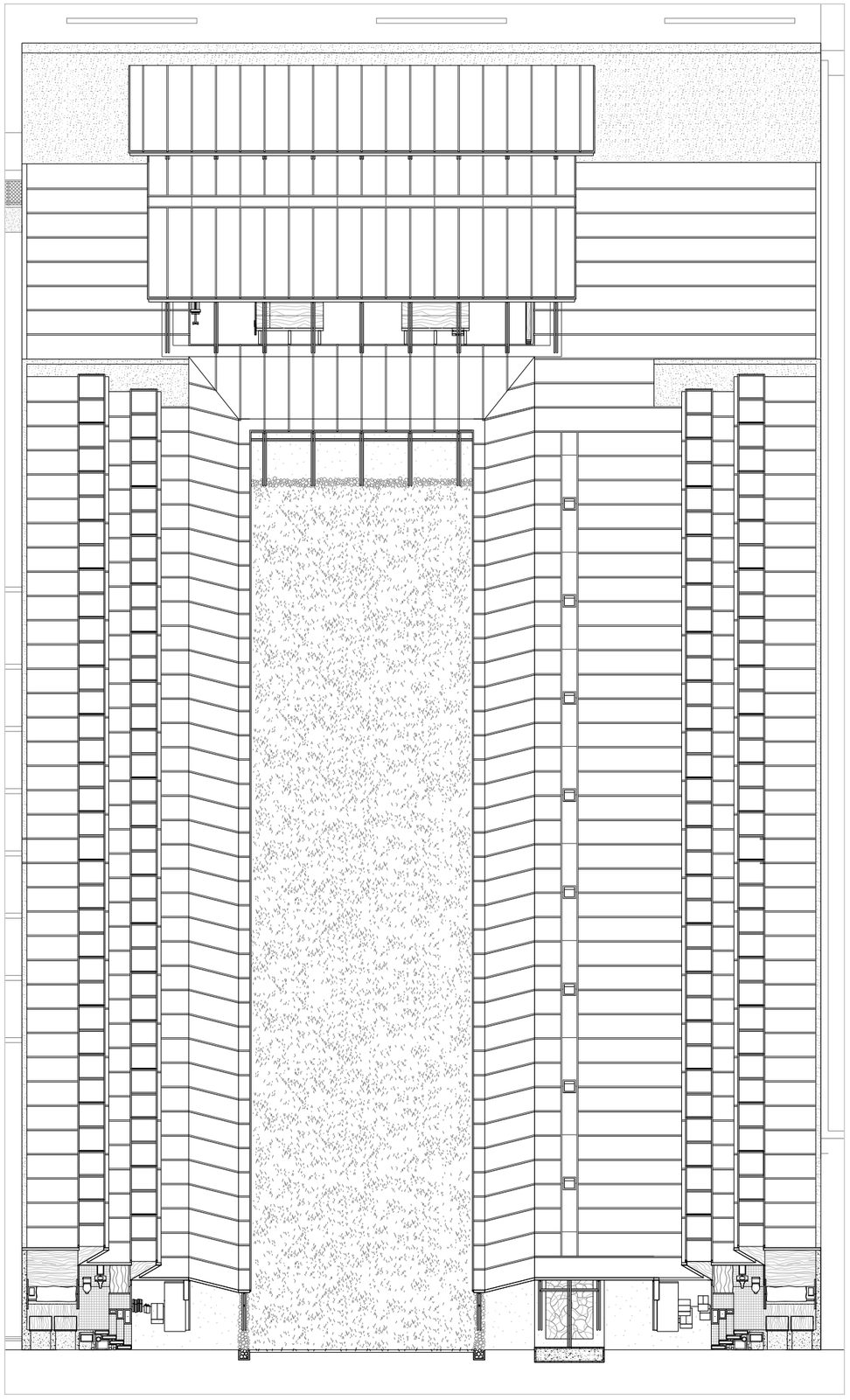
Left
Exterior Main Entrance with Neighboring Wall Tags
Collage Rendering



1 Kitchen
2 Dining space
3 Confession Rooms
4 Woodshop
5 Laundry
6 Treatment Rooms
7 Cloister
8 Reflecting Pool

Below
Individual Unit Experience
Collage Rendering





On the left, a 0-degree axonometric shows the relationship between the housing units and the cloister.

Far Right
Cloister and Reflecting Pool
Collage Rendering



Right
Cloister and Corridor Experience
Collage Rendering



Right
City Scaled to Cloister
Section Perspective

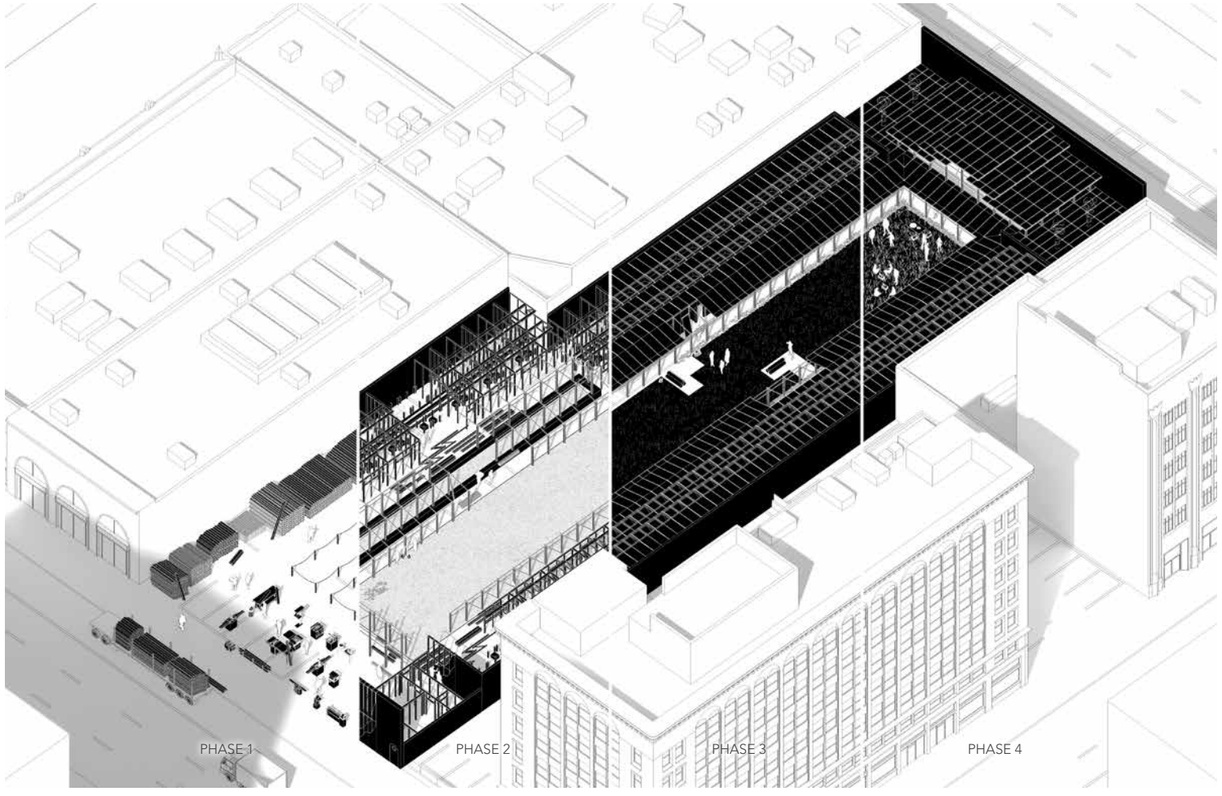
Left
Cloister to Unit Relationship
Oblique Section Line Drawing

To the right, a section perspective cutting through the center of the cloister, woodshop and dining area shows the setting between the void of the building and the dense cityscape behind.

Below
Exterior Facade Blends into Cityscape
Elevation Line Drawing



Below
Different Use Cases As the People and Space Evolves
Axonometric Across Time



The constructions and usages of the building over its various phases of development.

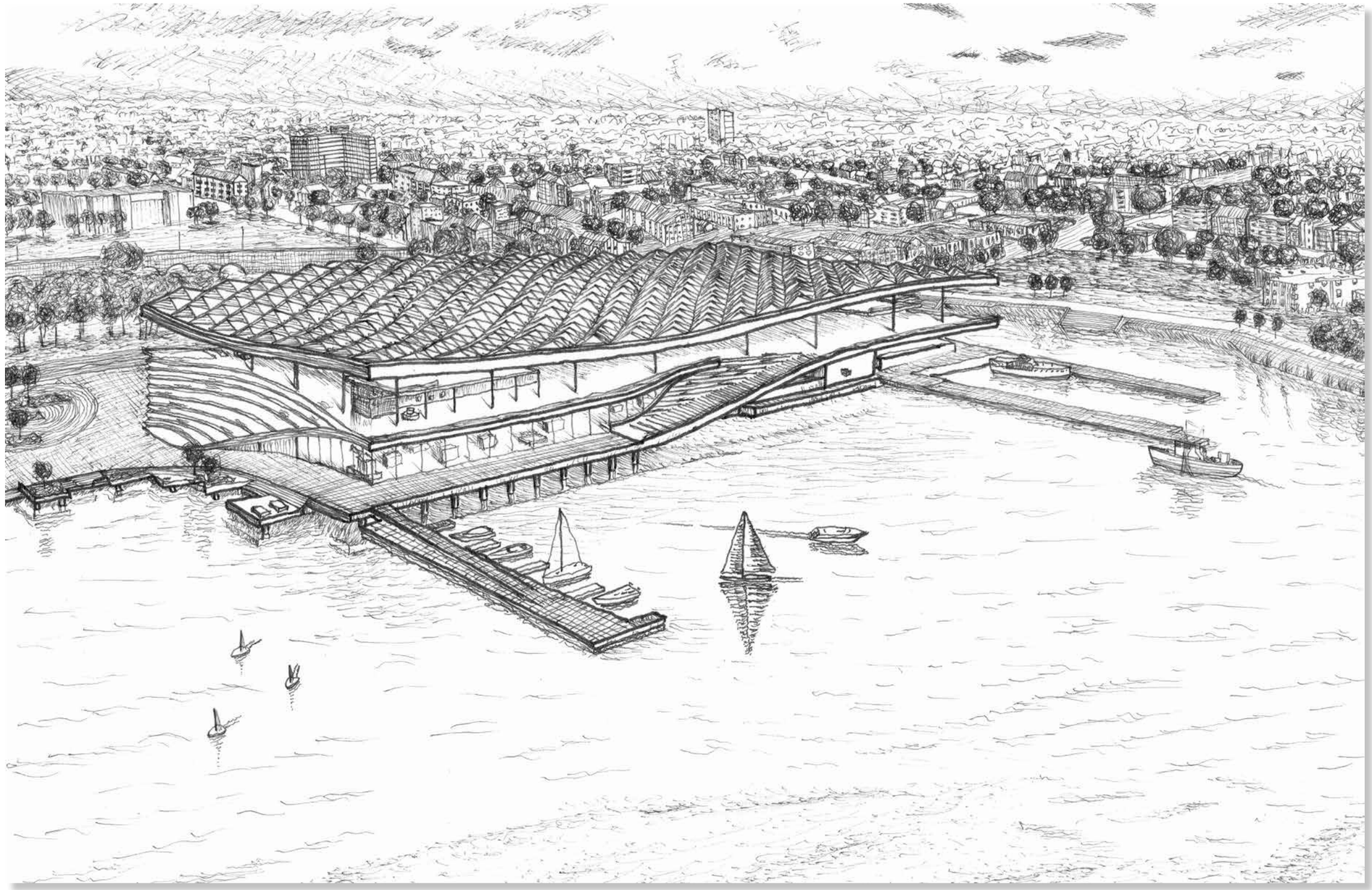
06a

3XN Sydney Fish Market

Sydney, Australia
Spring 2022
Individual work

trace paper | 003 005 01 03 fineliner | 8.5 x 11

When I first joined L&P Architects, I realized the one skill that is crucial for practicing architects is hand sketching and utilizing its ability to convey precise, visually compelling design details. Luisito Biluan, a colleague at the practice, inspired me to learn and develop my own sketching skills. My goal was to practice sketching the spaces I wanted to design as an architect, and to convey as many details as possible with only the fineliner as my communication device.



06b

MVRDV Tianjin Binhai Library

Tianjin, China
Fall 2022
Individual work

vellum paper | 003 005 01 03 fineliner | 8.5 x 11

Between my first and second sketches, I wanted to expand my ability to capture interior and exterior spaces in equal capacities. With natural and urban elements being the focus of the first sketch, the second would test my representation of the complex details of a library interior.

