

Calvin Mlcek

# About.



*Calvin Mlcek*

I'm a **third-year** architecture student at **The Ohio State University**, pursuing a **Bachelor of Science in Architecture** with a **minor in Engineering Science**. My work explores the relationship between **built form, material systems, and lived experience**, with an **emphasis on clarity, structure, and spatial intention**.

# Contents

*Möbius Branch Library* 01  
Library Project

*Hidden Cohabitation* 13  
Two-Scale Dormatory

*Hidden Grounds* 23  
Cafe & Speak-Easy ADU

*Liminal Center* 31  
Visitor Center

*Tube Town* 41  
Group Project, Installation

# Möbius

Branch  
Library

Calvin Mlcek

# Möbius Branch

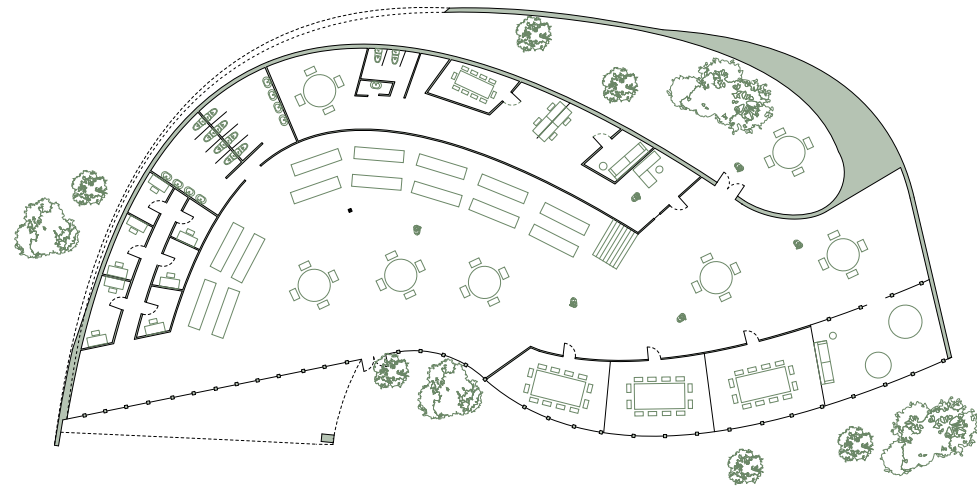
Arch 2420 | Design Studio 2  
Instructor | Cara Berg

The Möbius Branch Library is a library meant for the **Columbus Metropolitan Library (CML) system**. This all in one library provides access to **book storage**, private **study areas**, **public seating areas**, **conference rooms**, **young minds learning area**, bathrooms, staff areas, and **outdoor seating and dining areas**.

The CML project called for designing a space that is **inviting, flexible**, and reflects the library's evolving role **beyond books**. The library's goal is to **support learning**, provide **technology access**, and foster **community gathering**. This project challenges the student to rethink the traditional library, employing **abstraction** and **transformation** to create new civic experiences.

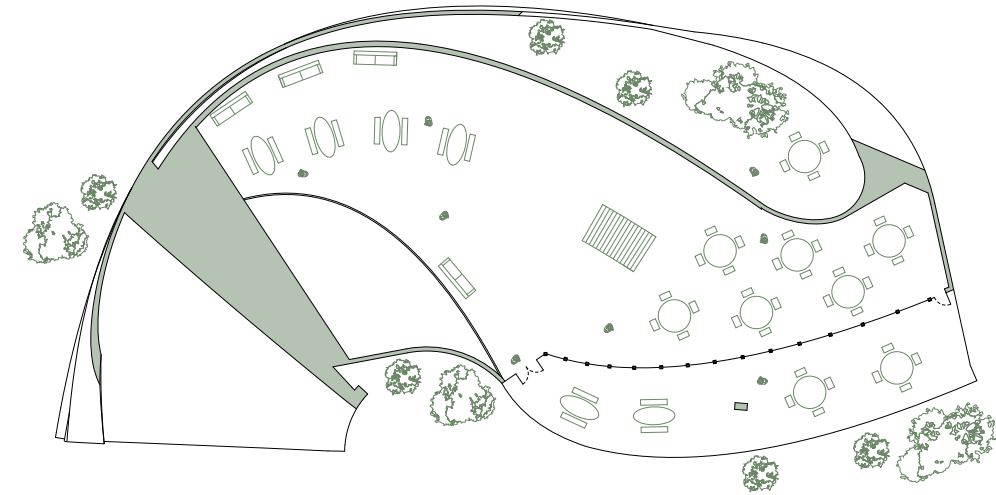
The way the Möbius Branch Library differs from other libraries is in its unique shape. The library is loosely based off of a shape called the **möbius strip**. A möbius strip is a **continuous** surface that joins itself through **twisting**. The library uses this shape to create an unique and inviting space for its visitors thus giving the library its name.





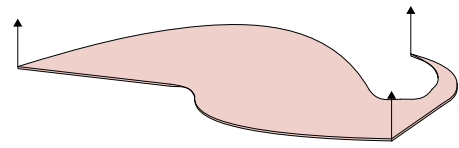
### Ground Plan

First floor consisting of both entrances, **outdoor** and **indoor seating**, staff area, **conference rooms**, private **study rooms**, and **bathrooms**.

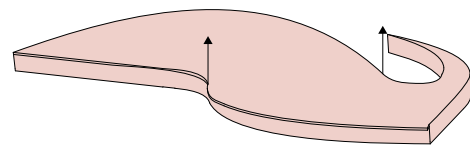


### Second Floor Plan

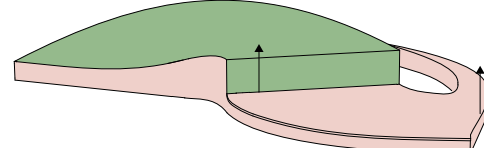
Second floor consisting of a more **quiet** space with larger **seating** and **dining** areas and an **outdoor patio**.



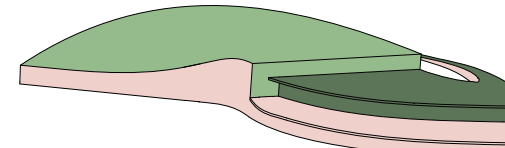
*Pull*



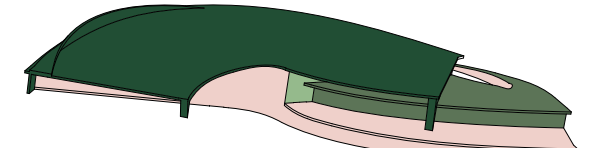
*Stretch*



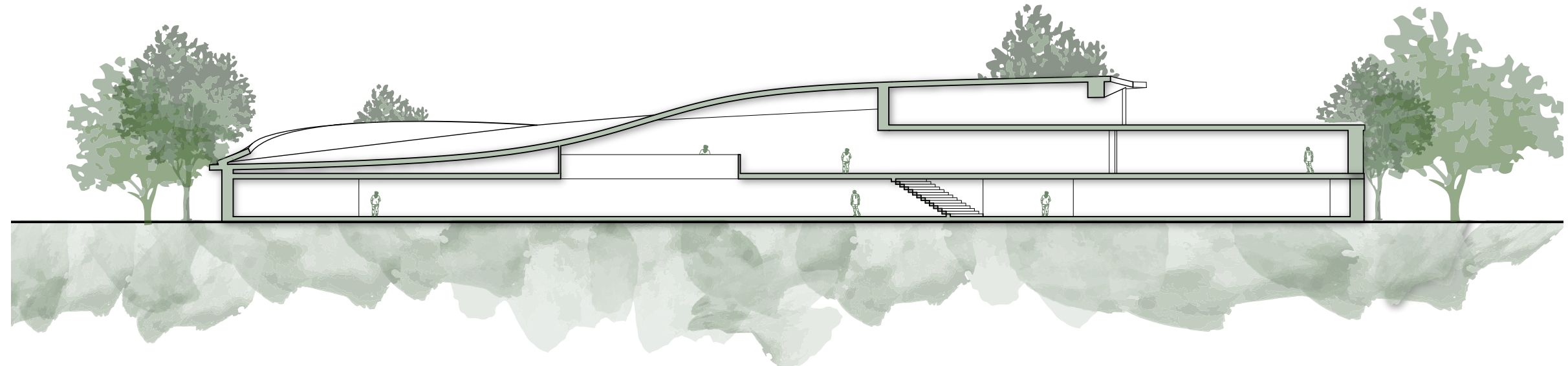
*Pull*



*Roof/Details*



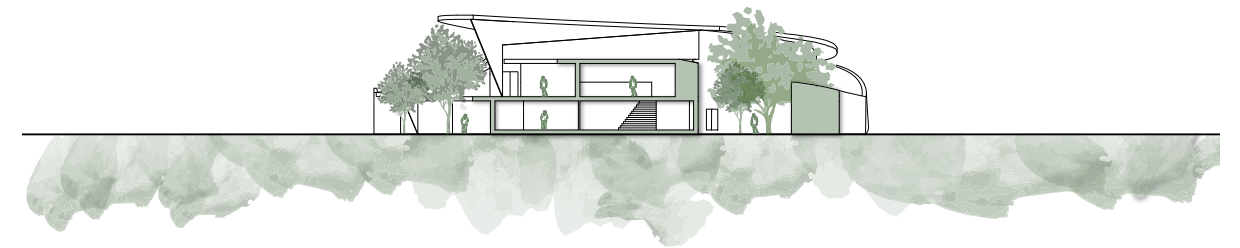
*Final*



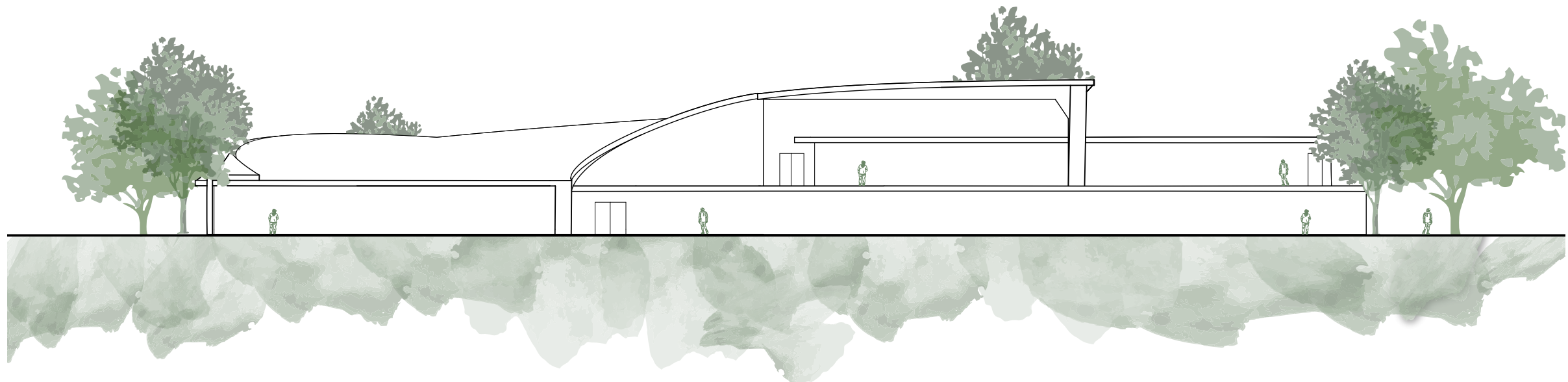
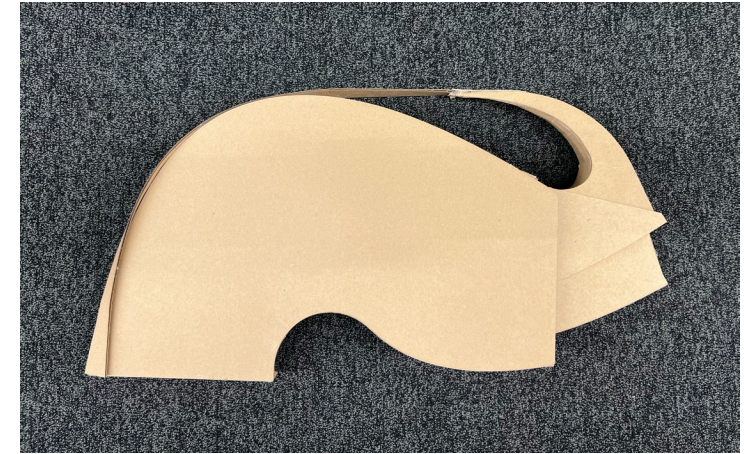
*Section*



Elevation



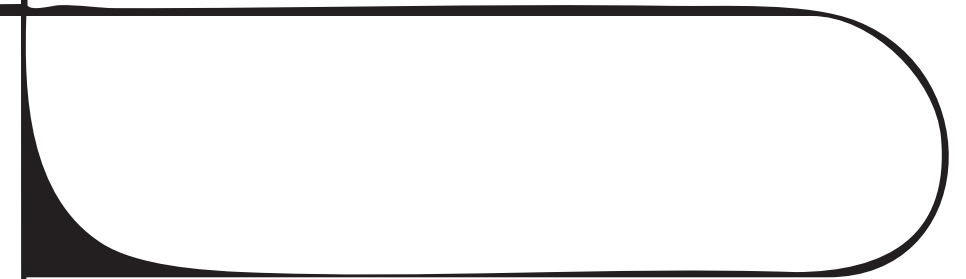
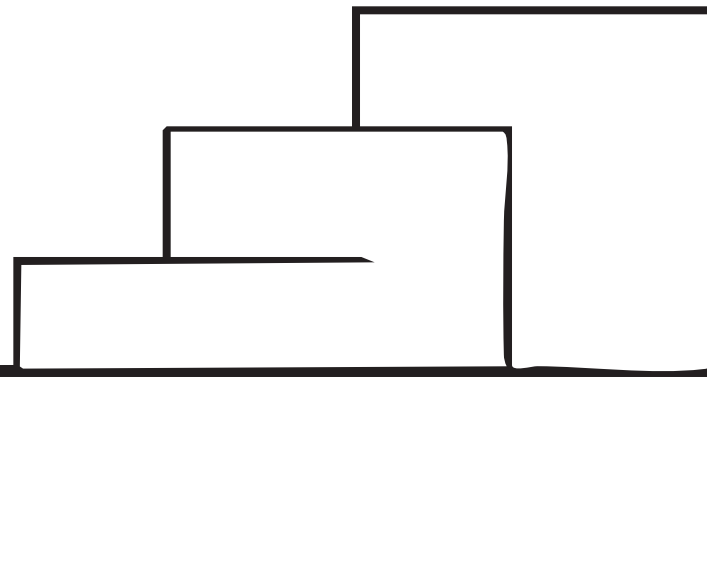
Section



Elevation

# Hidden Cohabitation

*Dormitory*



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# Hidden Cohabitation

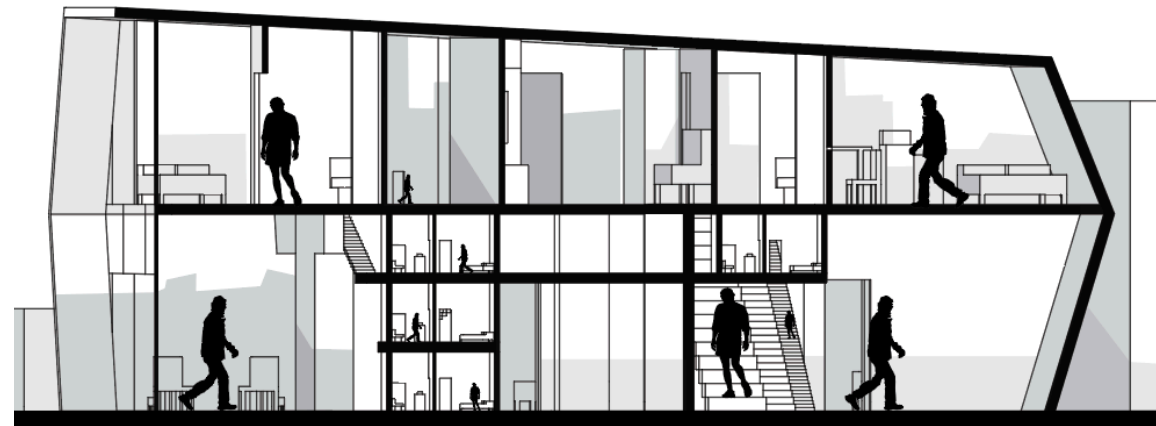
Arch 3410 | Design Studio 3

Instructor | Bart Overly

**Hidden Cohabitation** is a speculative **student housing** project designed for **two scales of inhabitants: half-scale and double-scale** occupants living within the **same architectural system**. The building includes **sleeping areas, shared kitchens, bathrooms, study zones, circulation cores, and communal gathering spaces**, all adapted to support drastically different bodily relationships to space.

The design investigates how **scale, proportion, and daily rituals shape the way people live together**. It explores **coexistence, visibility, and spatial negotiation**, challenging conventional housing norms by asking how architecture can **support communities** with fundamentally **different physical experiences** of the **built environment**.

What sets Hidden Cohabitation apart is its use of **dual-scale spatial strategies**. Elements such as **stairs, furniture, doorways, and thresholds** are reinterpreted to serve **multiple body scales**, creating moments of **overlap, separation, and shared occupation**. Movement through the building becomes an exploration of **relative size**, turning everyday domestic life into an ongoing **spatial dialogue**.



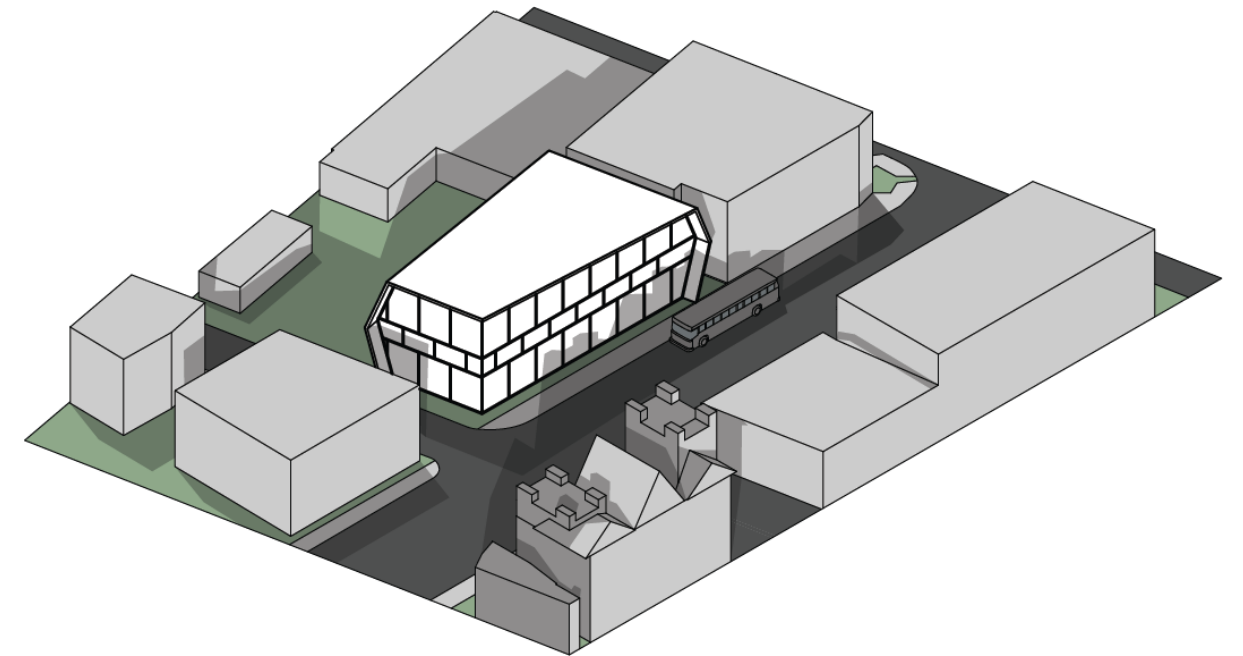
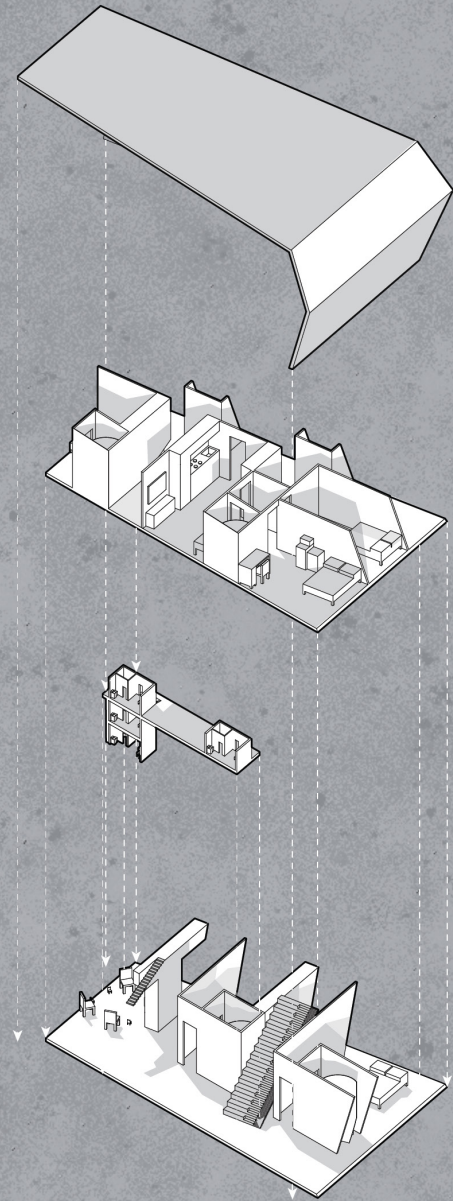
*Front Section*

Front section shows **two floors** displaying **varying scaled spaces**, **movement system**, and **lobby**.



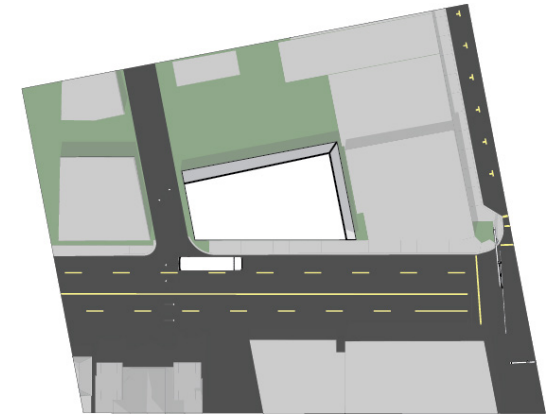
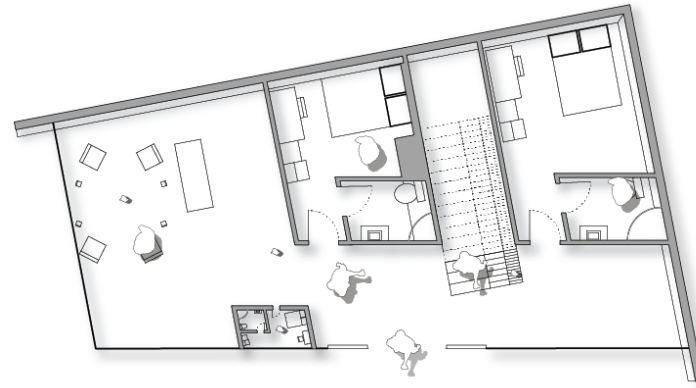
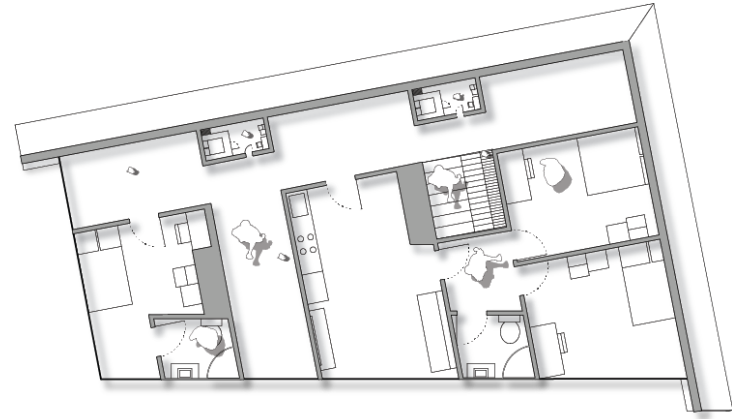
*Right Section*

Right section shows **two floors** displaying **varying scaled spaces**, and **movement system**



### *Hidden Cohabitation Site*

The site for this project is located on the **corner of 5 th avenue and N Wall Street**. The project is bounded by a **service road** on one side (N Wall Street), and **busy urban avenue** on the other (5 th Avenue).



# Hidden Grounds

ADU

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# Hidden Grounds

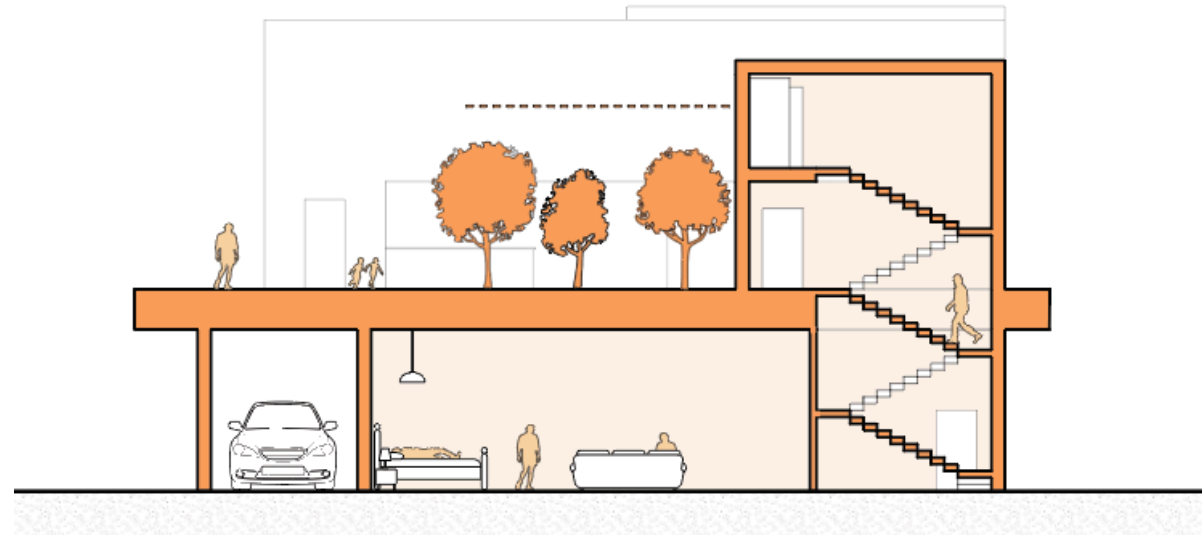
Arch 3410 | Design Studio 3

Instructor | Bart Overly

**Hidden Grounds** is a compact **Accessory Dwelling Unit (ADU)** that combines a **coffee shop** and a **speakeasy** within a small urban footprint. The project provides **bar seating, lounge areas, service spaces, storage, restrooms, and flexible zones** that **shift** in atmosphere from **day to night**, creating a layered **social environment** within a single structure.

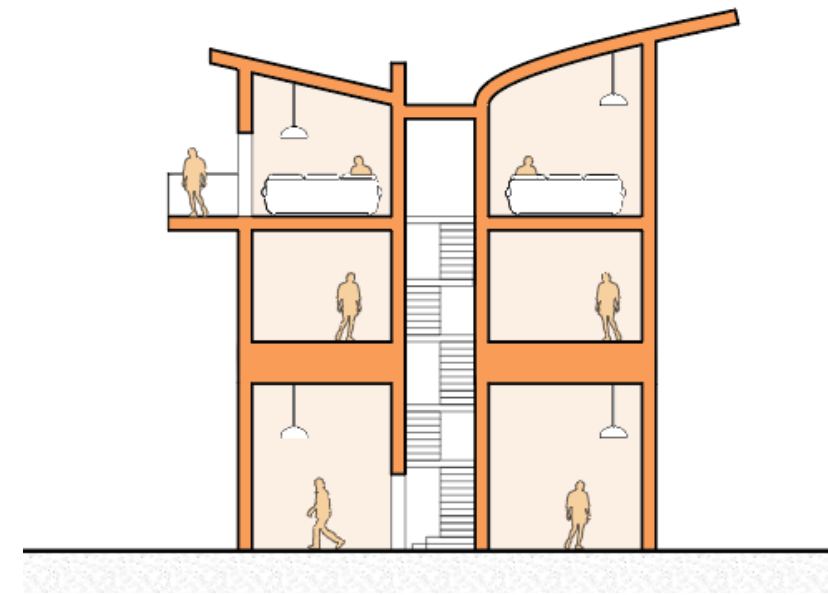
The design explores how **hospitality, privacy, and community** can coexist in tight **spatial conditions**. It supports **casual gathering, quiet retreat, and nightlife culture**, challenging the boundary between **public** and **hidden spaces** while encouraging **social interaction** through **spatial compression and reveal**.

What sets Hidden Grounds apart is its emphasis on **concealment and transition**. The project uses **controlled circulation, changes in light, and material contrast** to guide visitors from an **open, street-facing café** into a more **intimate, concealed speakeasy**, turning **movement** through the building into an **experiential journey** rather than just access.



*Front Section*

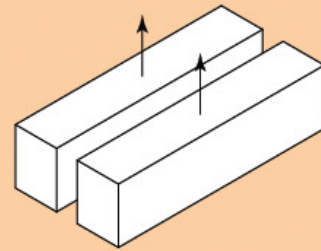
Front section shows the **movement system, living area, garage, and outdoor space** on the second floor.



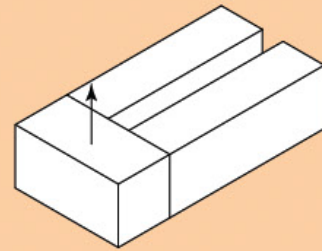
*Right Section*

Right section shows the **movement system, private lounges on third floor, cafe, speakeasy, and private spaces**.

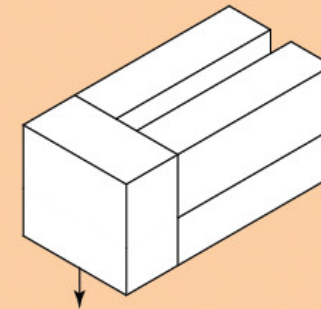
1



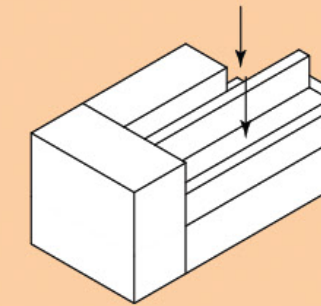
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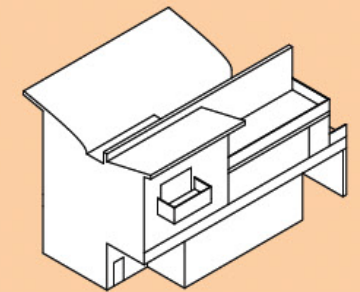
3



4



5



1

### Coffee/Speakeasy

The two rectangles are made in line with each other to make the speakeasy on the left and the coffee shop on the right. A space is left in the middle as poche.

2

### Shared Realm

A rectangle at the end is made that is shared between the two realms along with the soon to come residential realm. this area is what connects the three different worlds.

3

### Residential

The bottom area is brought down from new ground level to original ground level. This space is reserved for the resident's living space.

4

### Outdoor Spaces

A corner at the far end of the speakeasy side is cut out to make an outdoor space on the ground level. The second floor of the coffee shop is cutout to make an elevated outdoor space.

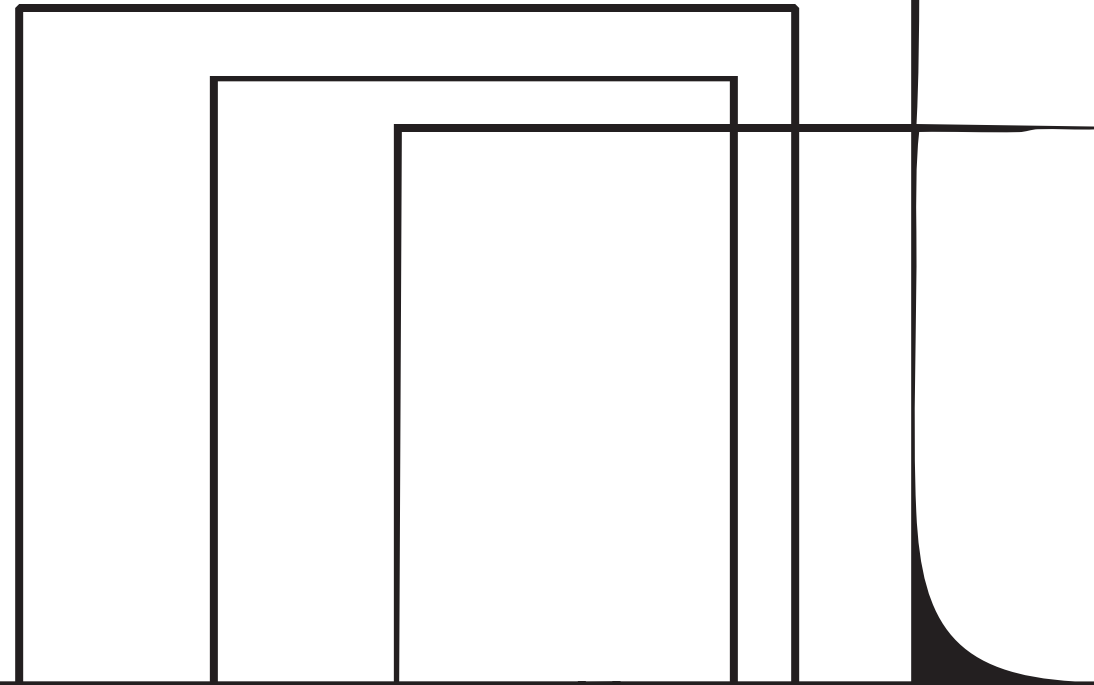
5

### Stylize

The more artistic elements of the building are added. Curved and angled roofs are added, windows and balconys are added, and railings and overhangs are added.

# Liminal Center

Visitor Center



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# *Liminal Center*

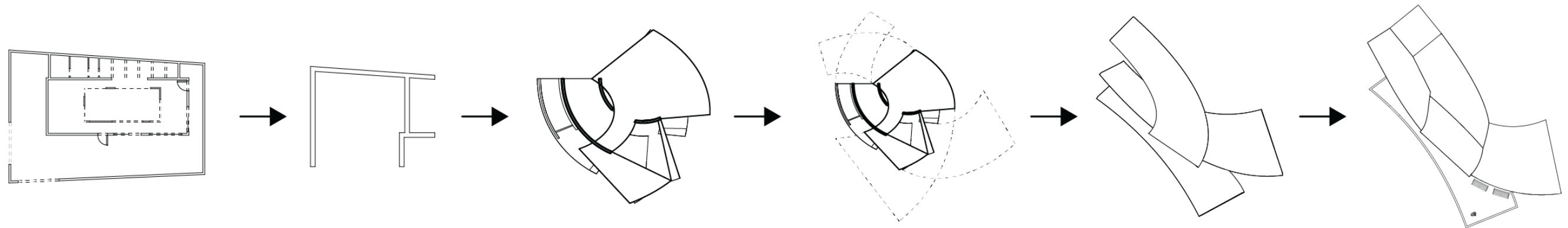
Arch 2410 | Design Studio 1

Instructor | Maverick Ordonez

Liminal Center is a **visitor center** situated along a **hiking path overlooking water**, designed as a **threshold** between **landscape** and **enclosure**, **movement** and **pause**, **exterior** and **interior**. The project began with a **formal study** of **House N by Sou Fujimoto**, extracting a corner **fragment** of the house and subjecting it to a series of **operations** including **shifting, rotation, mirroring, extrusion, and reflection**. The final form emerged through this process of **transformation** rather than **direct imitation**.

The building explores the idea of **liminality** through **layered thresholds** and **nested spatial zones**. From the **outside**, the structure **appears controlled** and **almost closed**, but the **interior reveals** a sequence of **porous edges, filtered light conditions, and compressed-to-expanded transitions** that guide visitors through **moments of discovery**.

What defines the Liminal Center is its emphasis on **perception** and **transition**. As hikers move from the open trail into the structure, they experience subtle **shifts in scale, material density, and visual framing** of the water, turning the visitor center into a **spatial mediator** between the **natural landscape** and the **constructed environment**.





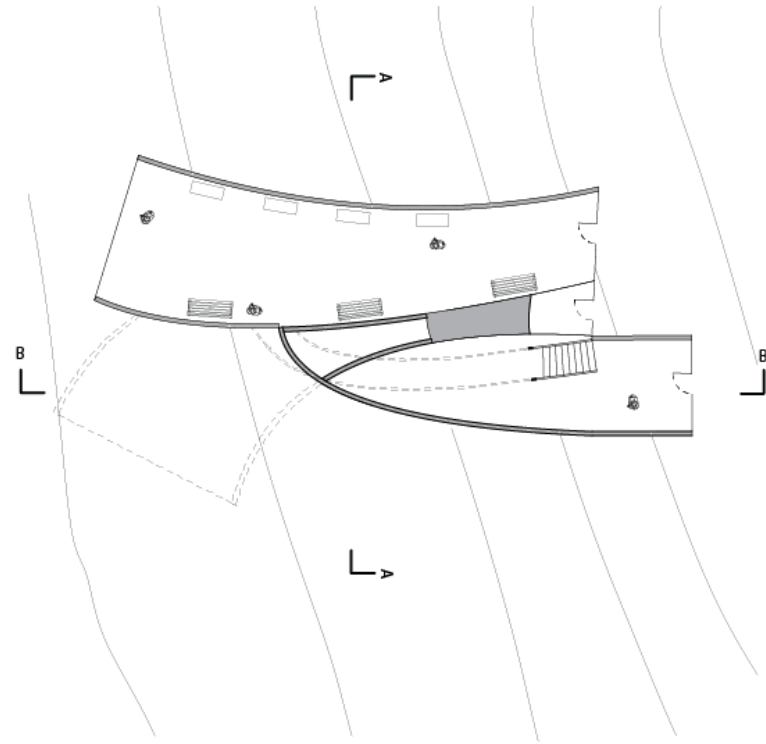
### Interior Rendering

A view of the **inside** of the visitor center. **First floor** and **half floor** shown. **Ramp to second floor** can be seen as well.

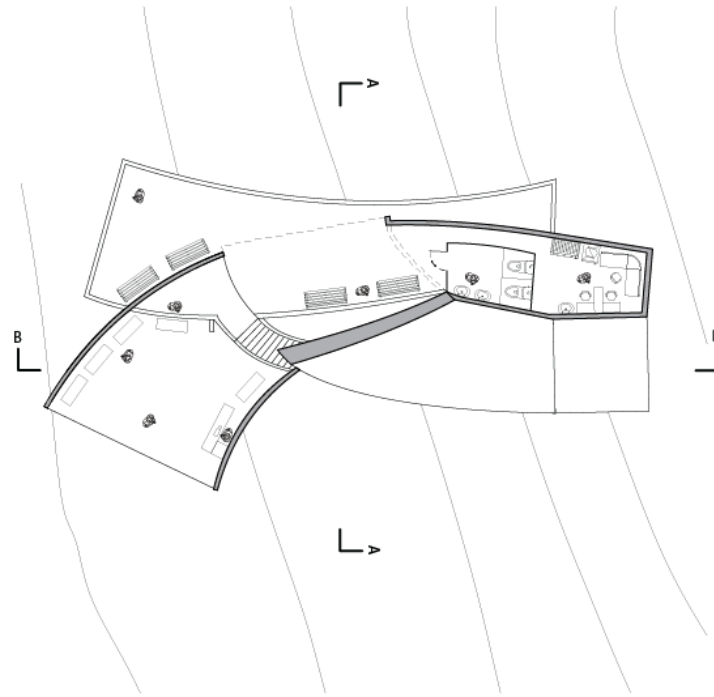


### Exterior Rendering

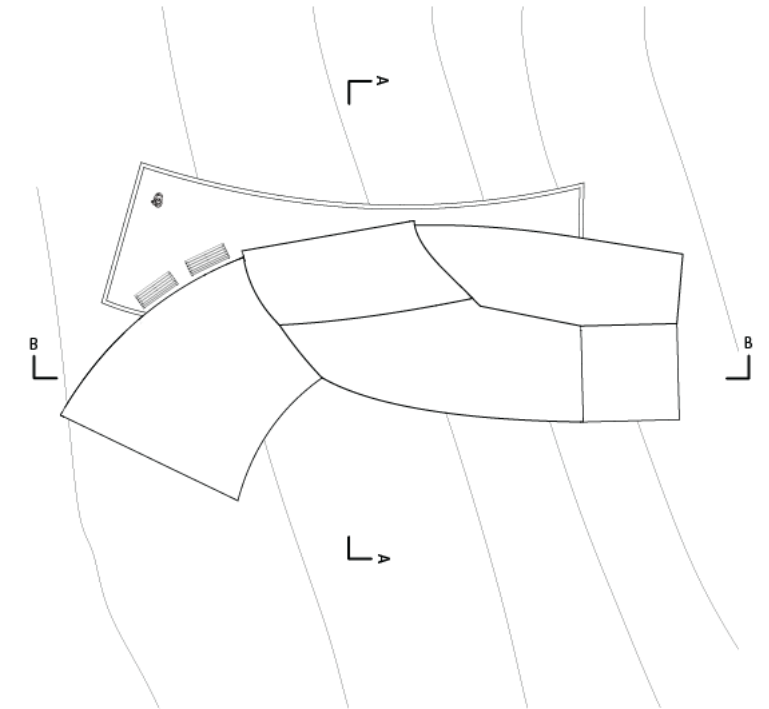
A view of the **outdoor balcony**. **Seating** and **site overlook** can be seen.



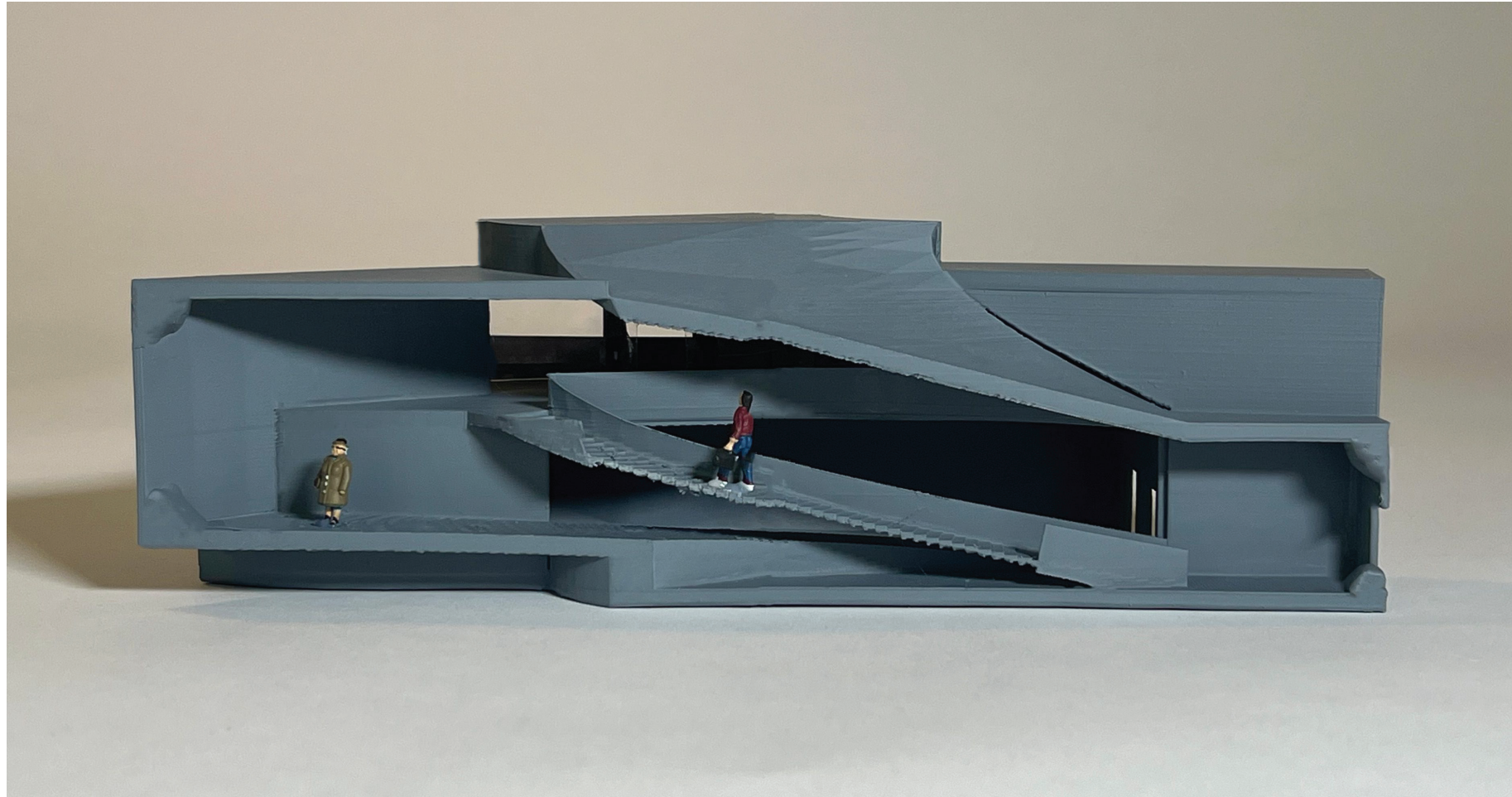
Floor 1



Floor 2

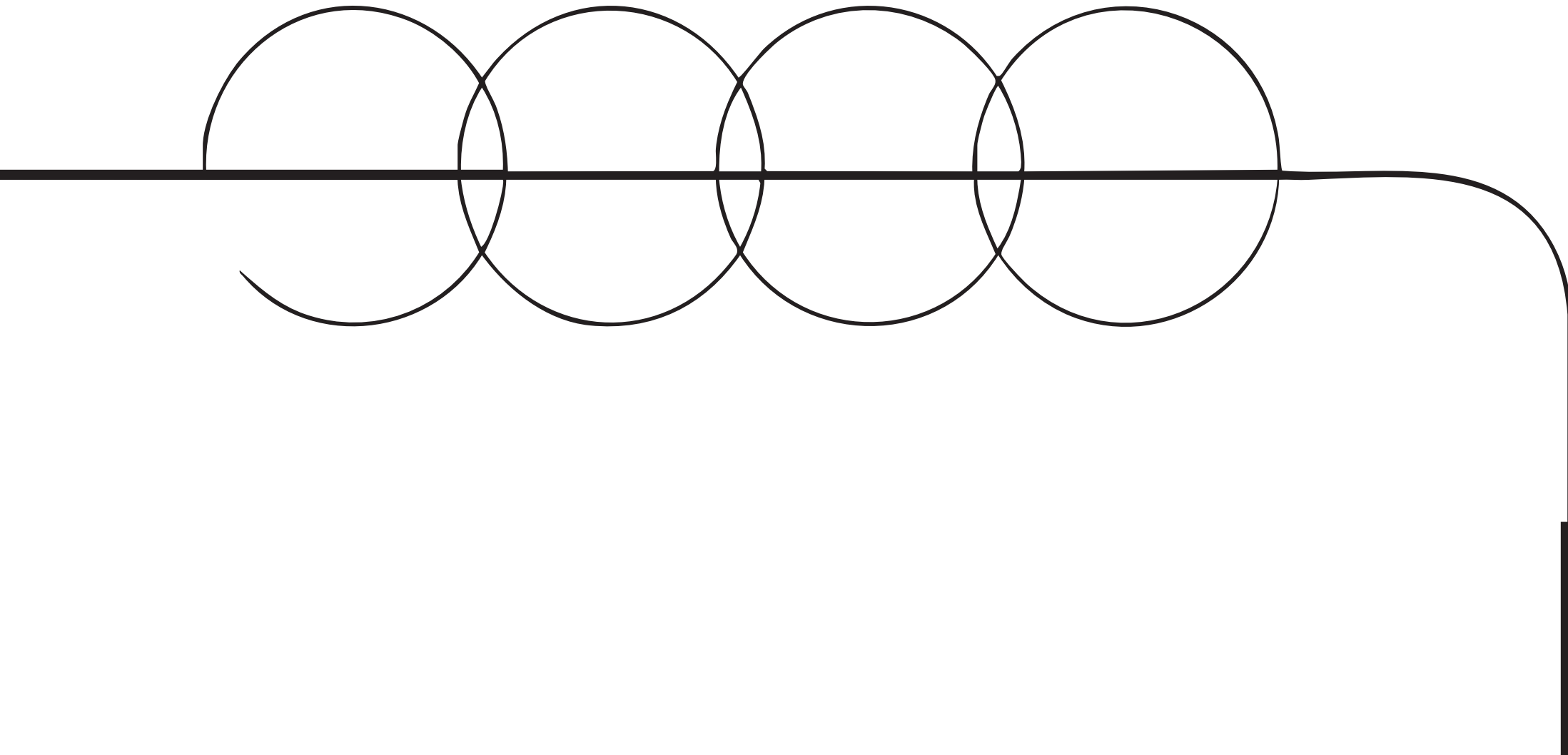


Roof



# Tube Town

*Group Installation*



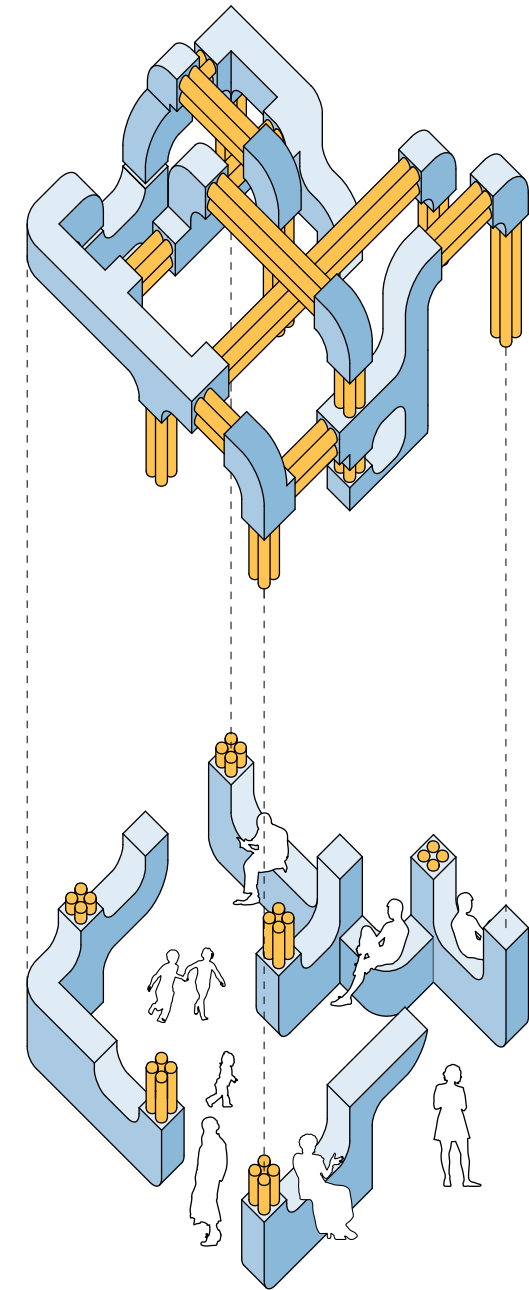
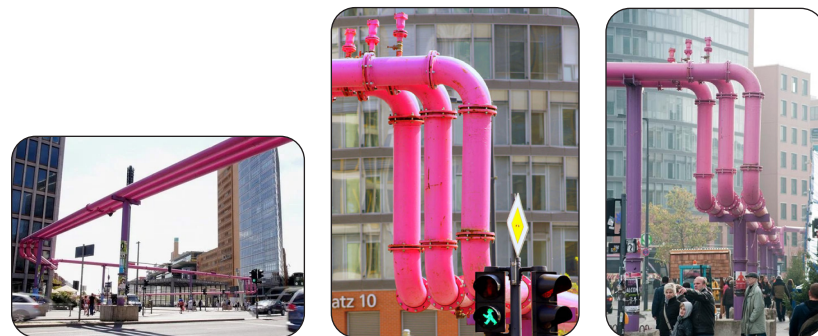
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# Real life inspiration

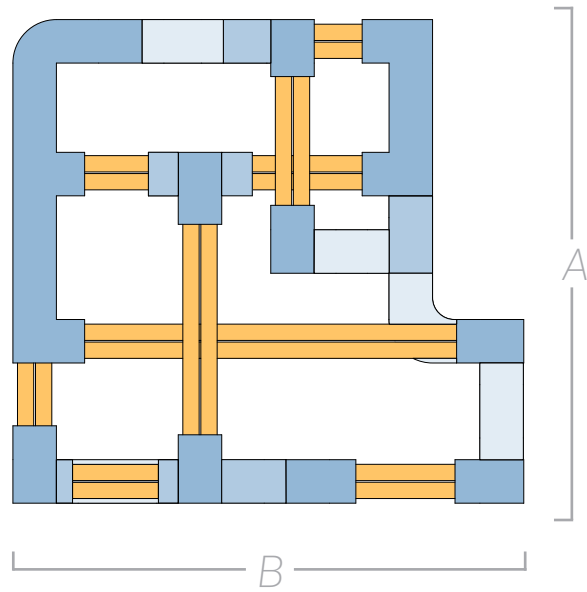
The Tube Town pavillion was originally inspired by Berlin's pink pipes. Berlin brought these pipes above ground to show how water circulation takes place throughout the city. These pipes act almost as a piece of artwork for visitors to enjoy.

When designing the pavillion, the team took inspiration from the pink pipes and incorporated interactive features such as seating and book displays just for your satisfaction! Adding these features, the pavillion got transformed from a visual artpiece to an interactive piece of architecture.

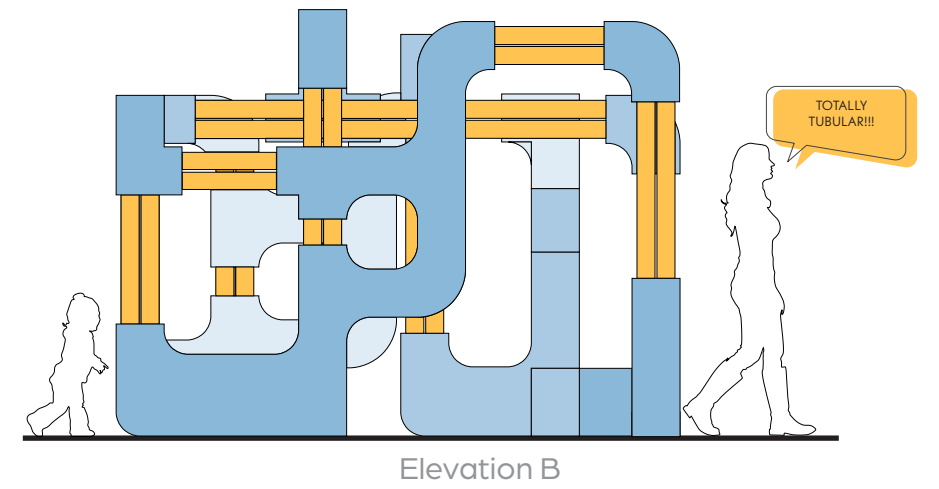
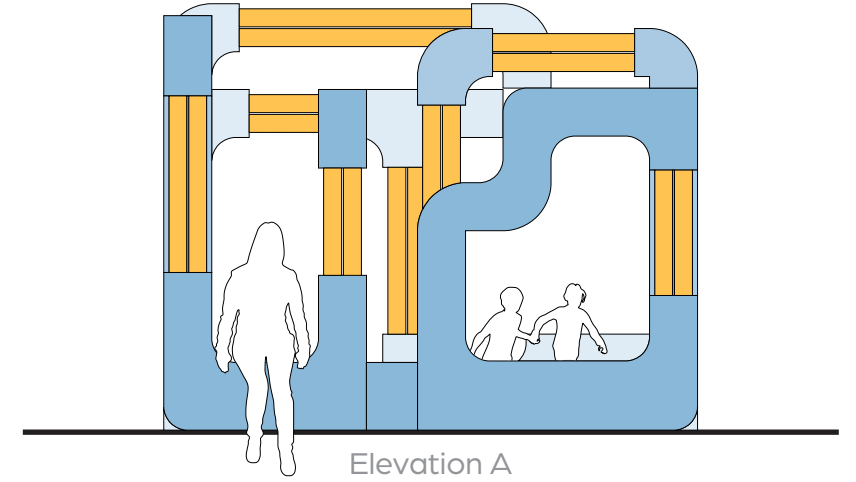
The invisioned circulation of the Tube Town pavillion is a mix of seating, standing, and wandering throughout the space. No matter which way you use the space it's guaranteed to be a great time! Because there are many different ways to use the space, the space becomes a place that can be enjoyed by all types of people.



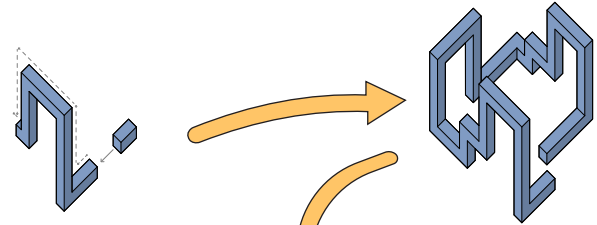
# Elevations



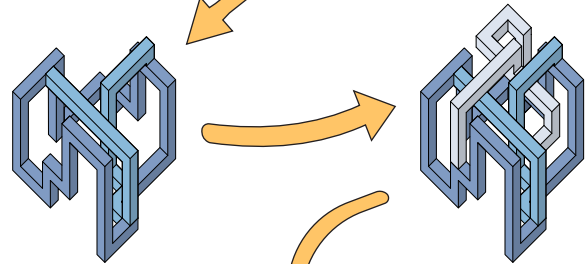
■ = Elevation  
 ■ = Elevation



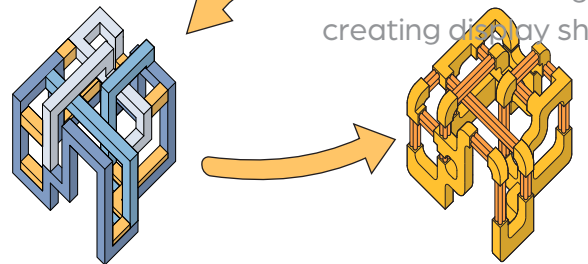
# Concept Diagram



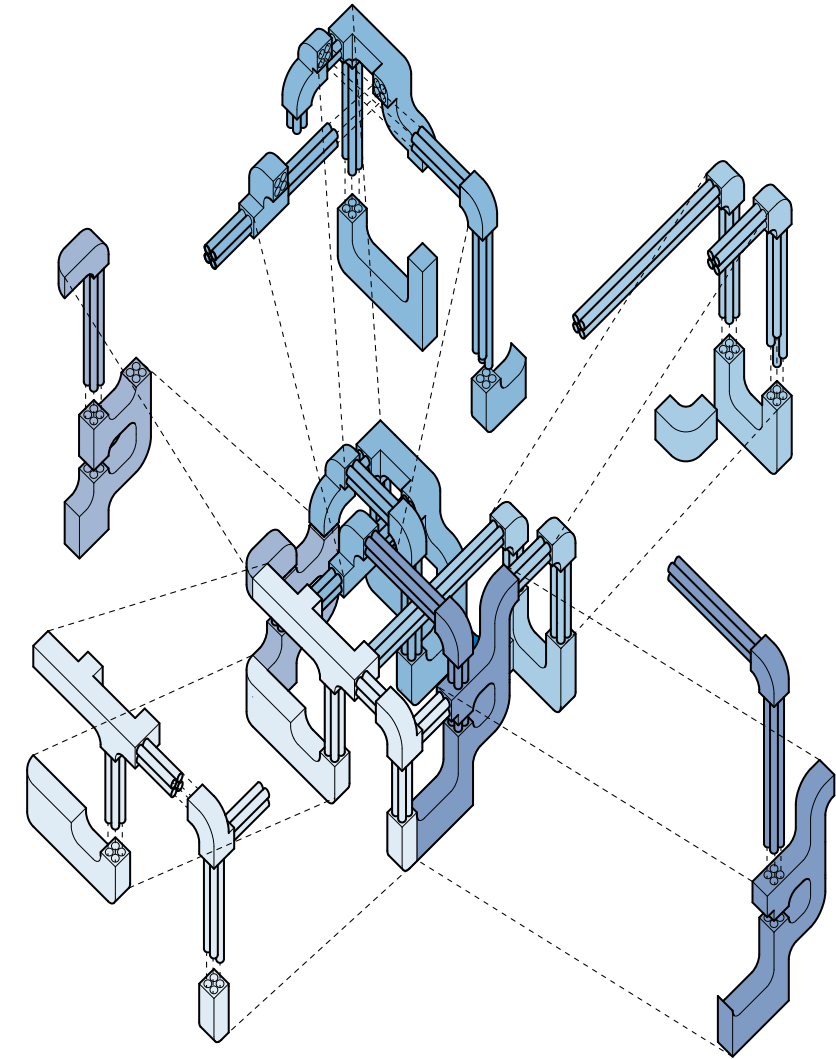
We extruded a pipe from a cube to create a path to guide how people can walk in and sit down, The first pipe opens up spaces for people to walk in and sit down,



The second pipe is added, giving more places to sit and add The last pipe overlaps with the other two, adding even more overhead coverage and creating display shelves.



All the pipe are connected to create a more unified form. The seating is also lifted to The final pavillion is created from the overlapping pipes. Tubes and curved corners are



Assembly diagram shows the five pieces that the pavillion was split into two in order to transport it to the library. We put the pavillion back together using these five seperate pieces once we arrived at the library.

# Action Shots



*A project in collaboration with Columbus Metropolitan Library System*

*UG 2 Spring Studio Knowlton School of Architecture*

*Credit to Pari Panchal & Adam Tenerowicz for general concept*

*Credit to DJ Clark, Anne Plunkett, Adam Tenerowicz, & Cameron Willis for construction*

*Credit to Calvin Mlcek, Pari Panchal, & Natalie Pistone for graphics*

*Under the guidance of Cara Berg*

*Thank you.*

