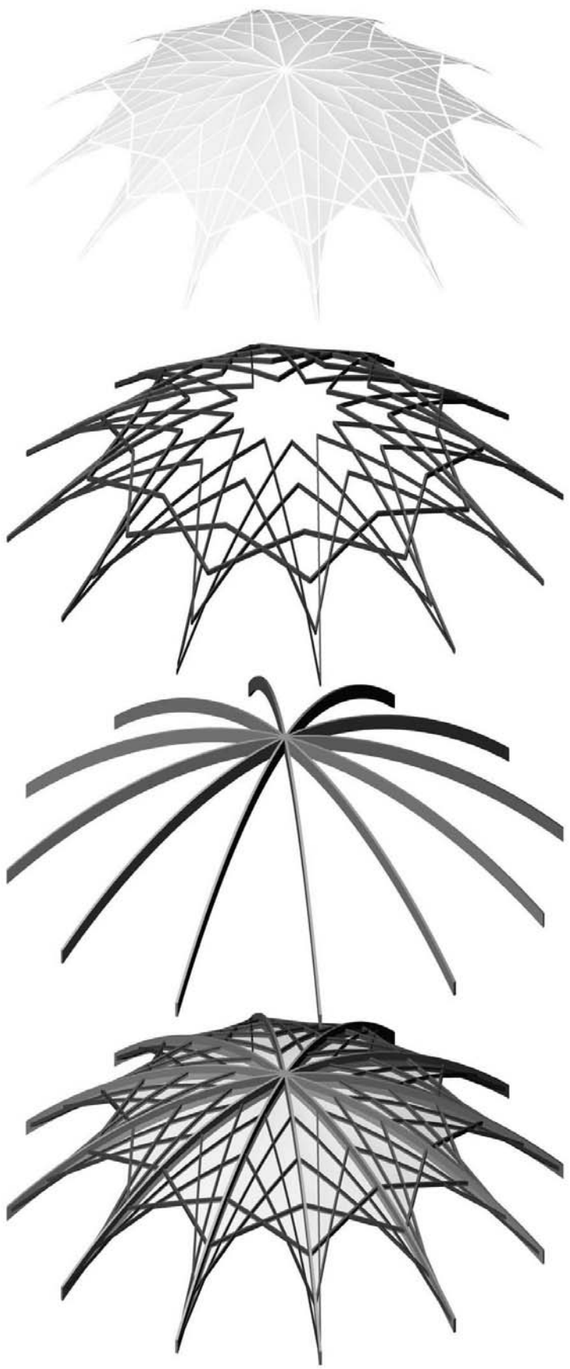
YEAR 3

Annemarie Malbon

Carnegie Mellon School of Architecture
48-305 Third-Year Studio, Spring 2010
Instructor: Jeff Davis

A Lewis and Clark Boat Pavilion, EPIC Metal Competition

This floating pavilion, provides a protected exhibit space for the replica of the 56 foot barge used by Lewis and Clark and built in Pittsburgh and associated canoes and pirogues, indoor and outdoor seating and observation areas to enable viewing back to the land. The roof of the pavilion is constructed from a series of arched glulam beans reminiscent of the ribbing of a ship and covered with metal EPIC decking. The deck is perforated in a gradation pattern along the main exhibition space to let in light.



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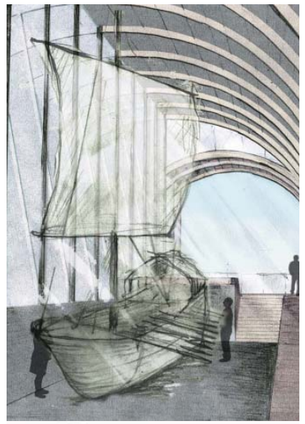

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Annemarie Malbon with Sara Mingle

Roof Study

This roof uses the arch and dome to meet the span requirement of 90 ft. Following an investigation of several long-span roof precedents, the dome created by a series of half arches was chosen for its unique structural characteristics. The primary glulam members are supported by a series of secondary glulam members similar to a lamella form. These secondary pieces support the prefab translucent panels that enclose the roof.

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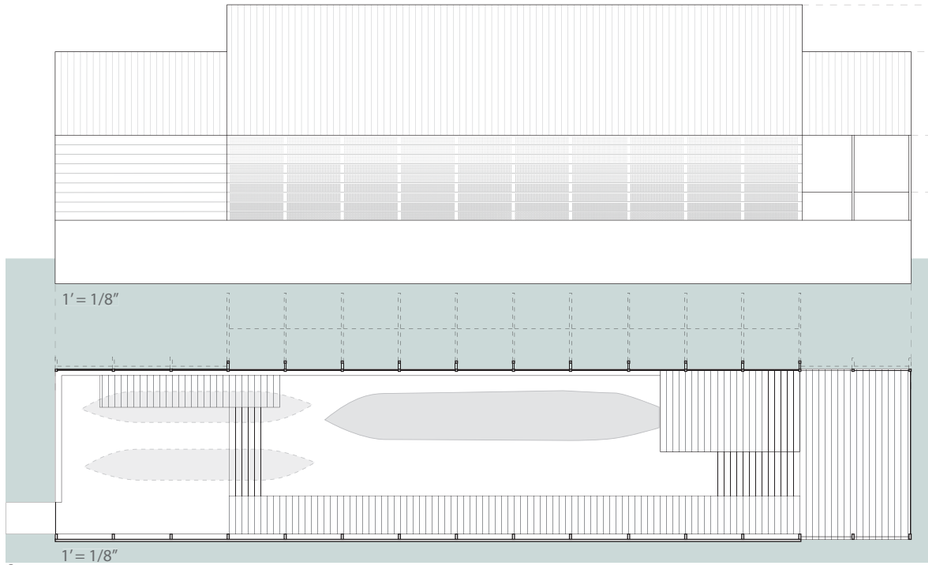

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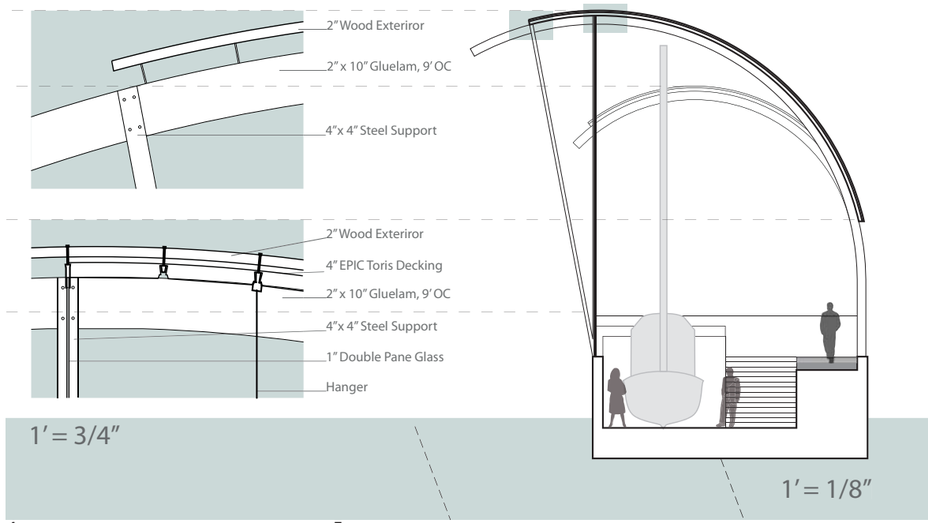

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1. Roof Axon
2. Roof Model
3. EPIC Plan and Section
4. Section with Details
5. Experiential Perspectives
6. Render of Roof Structure

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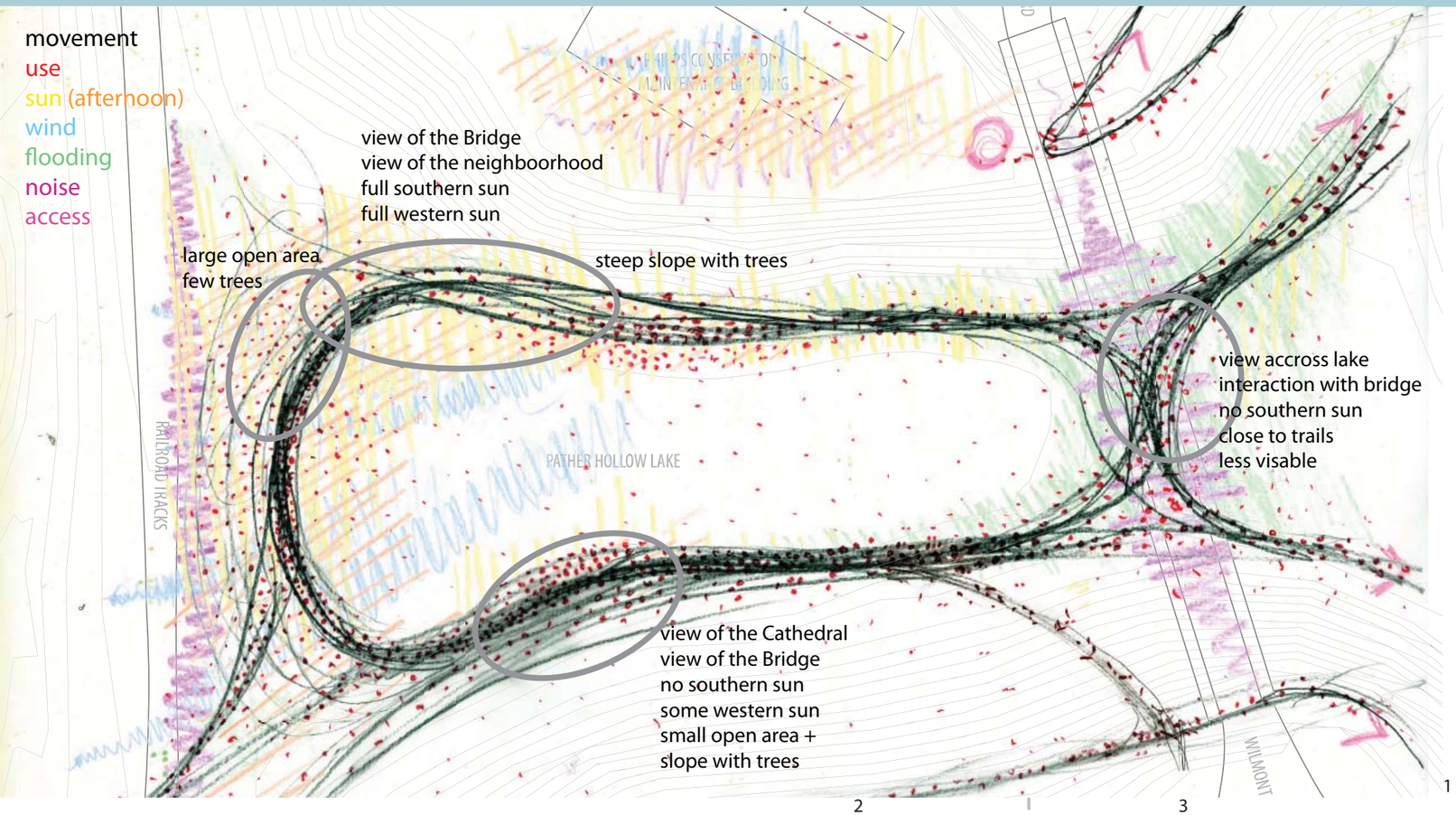

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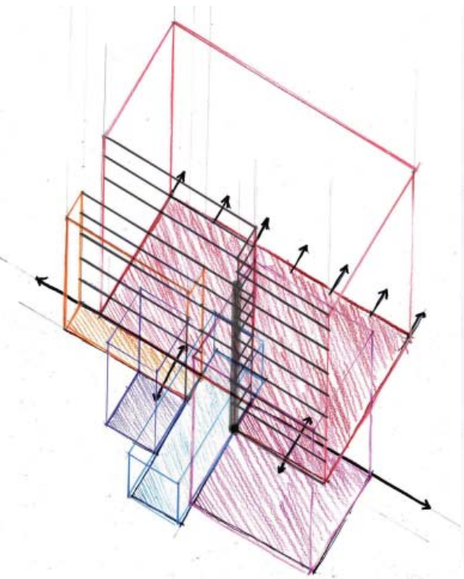

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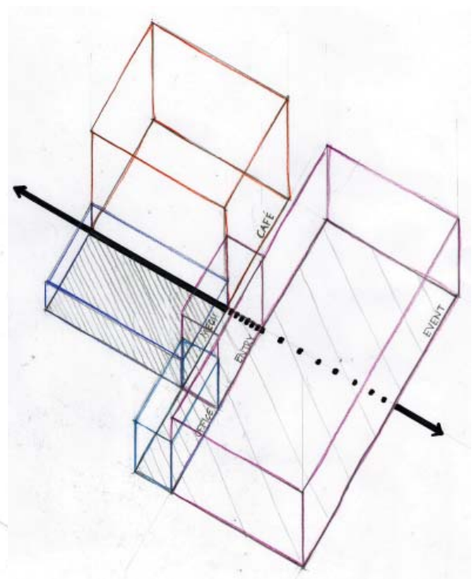

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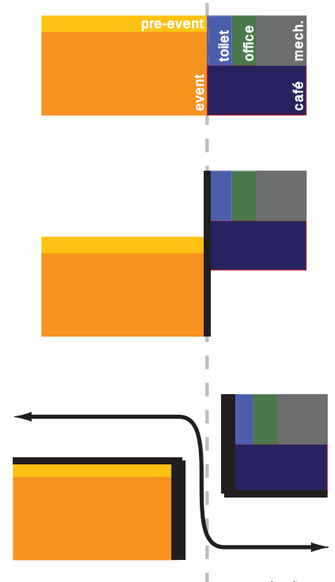

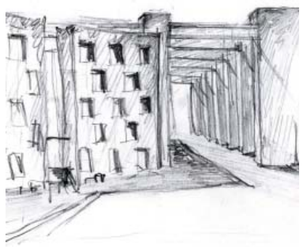

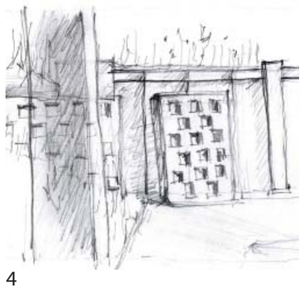

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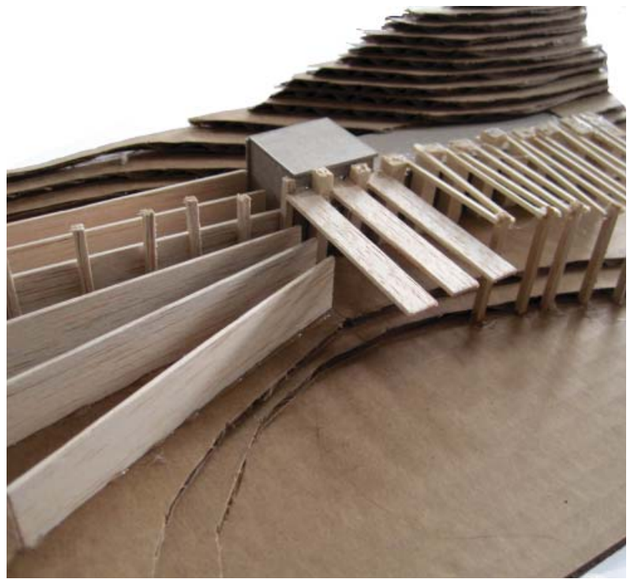

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1. Site Analysis
2. Program Diagrams
3. Study Model
4. Process Sketches
5. Process Watercolor

Panther Hollow Lake Event Center

When first studying the site, I was particularly drawn to the movement around the lake and it is this axis of movement that creates the diagrammatic shift in my conceptual diagrams. The programmatic spaces are divided into two zones, the public event and pre event spaces, and the more private areas including offices, bathrooms, mechanical room, and space for concessions. The event space is pushed up and out into the water while the more private spaces are pulled back into the hillside allowing for continuous motion around the lake. The visitors filter through this axis along the major, visual, structural spine of the project.

Repeated concrete columns supporting wide flanges compose the main structure of the project. The wide flanges are cantilevered from the mass of the private spaces to create a semi-covered outdoor space for concessions and gathering and, in the event space, are supported by cable trusses to meet the required span. The glass façade on the North and South faces of the event space are supported by cable truss systems to maintain a feeling of lightness and openness. The language of the concrete columns is transformed in key points on the site into concrete walls which act as screens, barriers, and visual cues that guide the visitor through the site.

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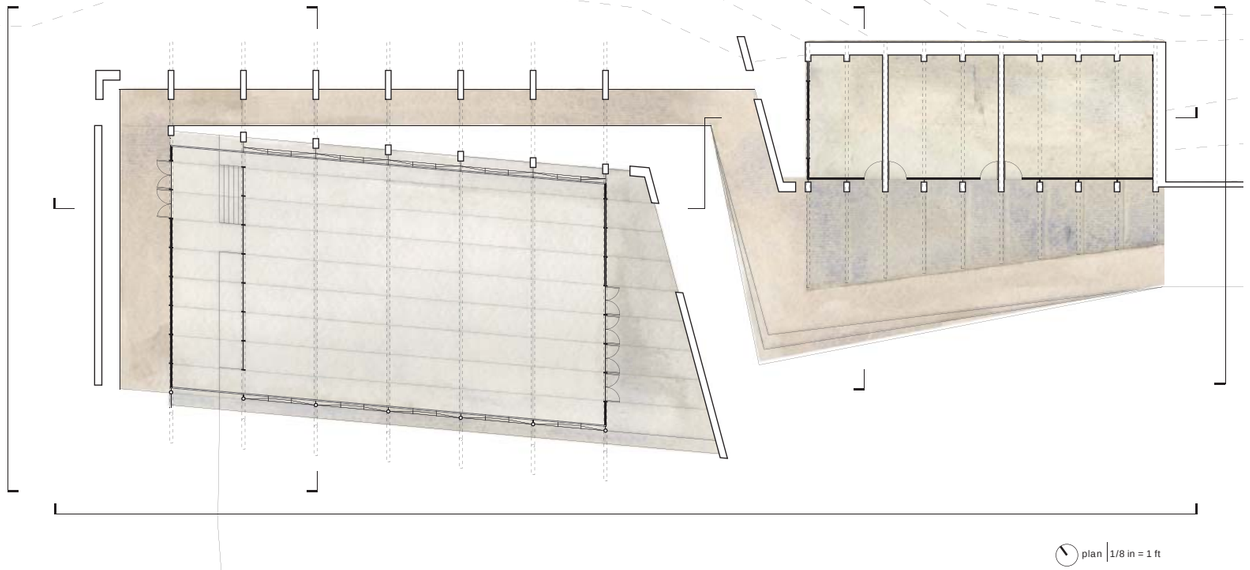

plan | 1/8 in = 1 ft

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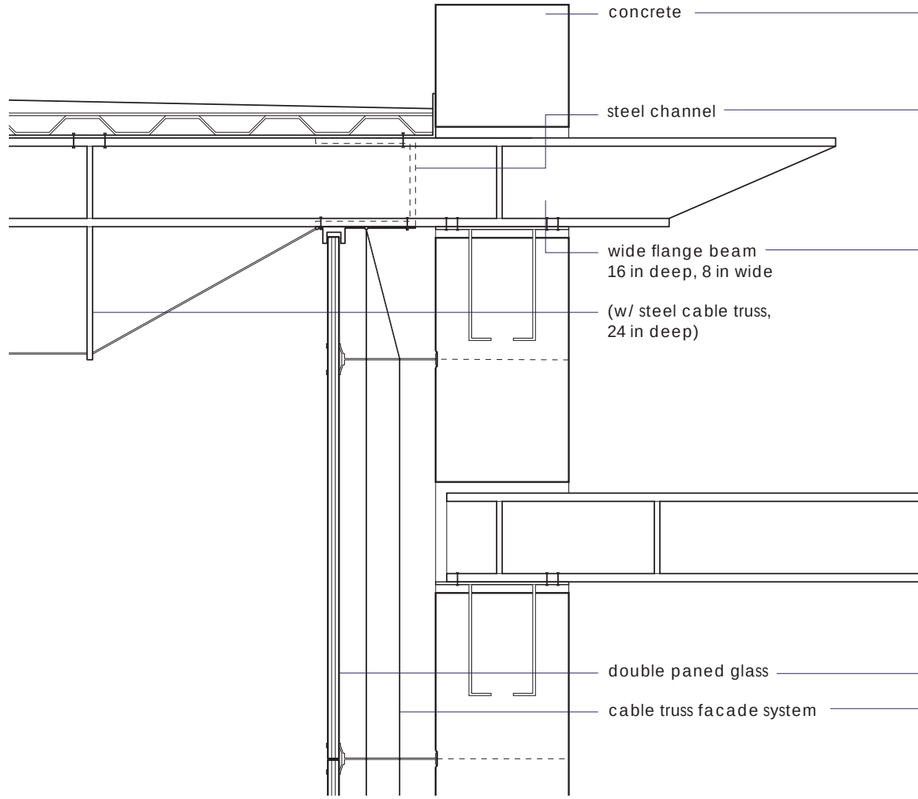

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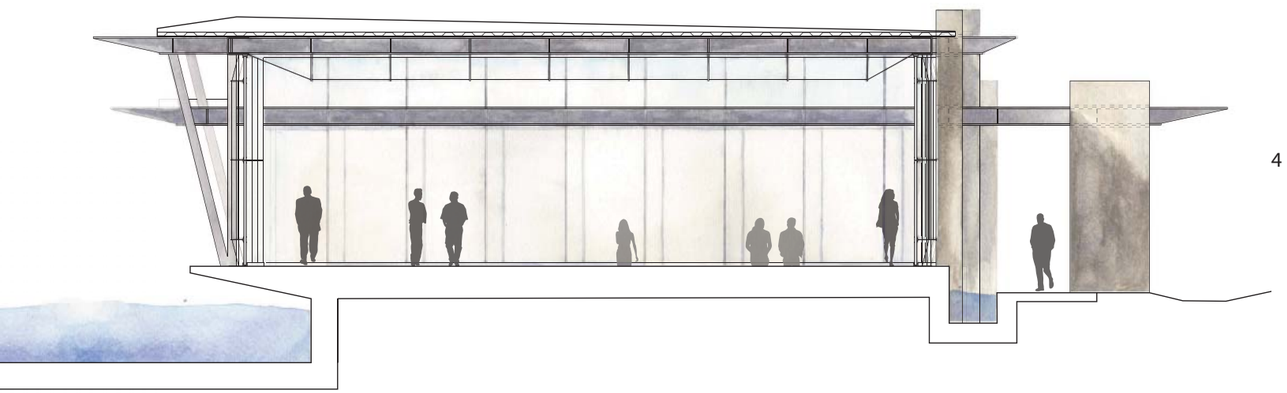
1. Plan
2. Experiential Perspectives
3. Model
4. Sections
5. Detail



latitudianl section | 1/4 in = 1 ft

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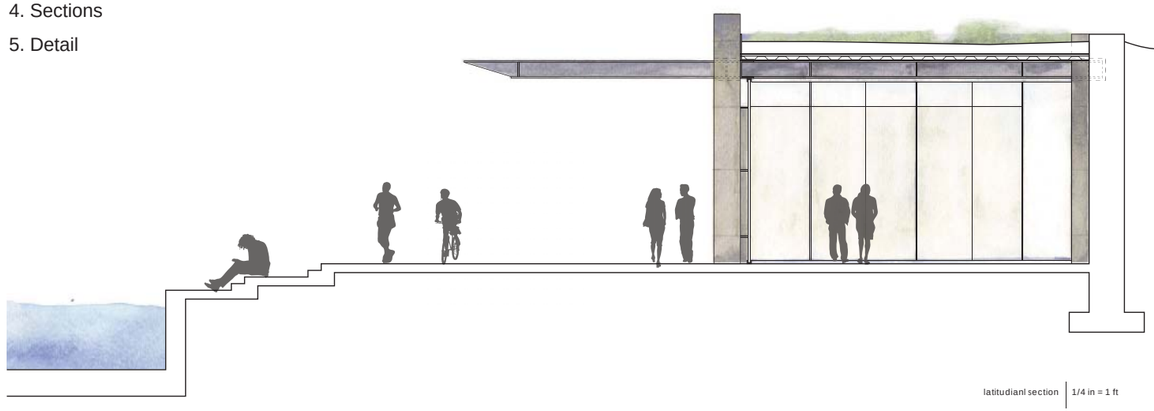

latitudianl section | 1/4 in = 1 ft

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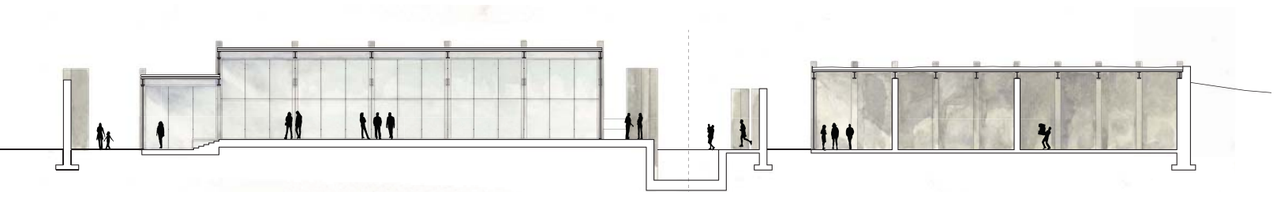

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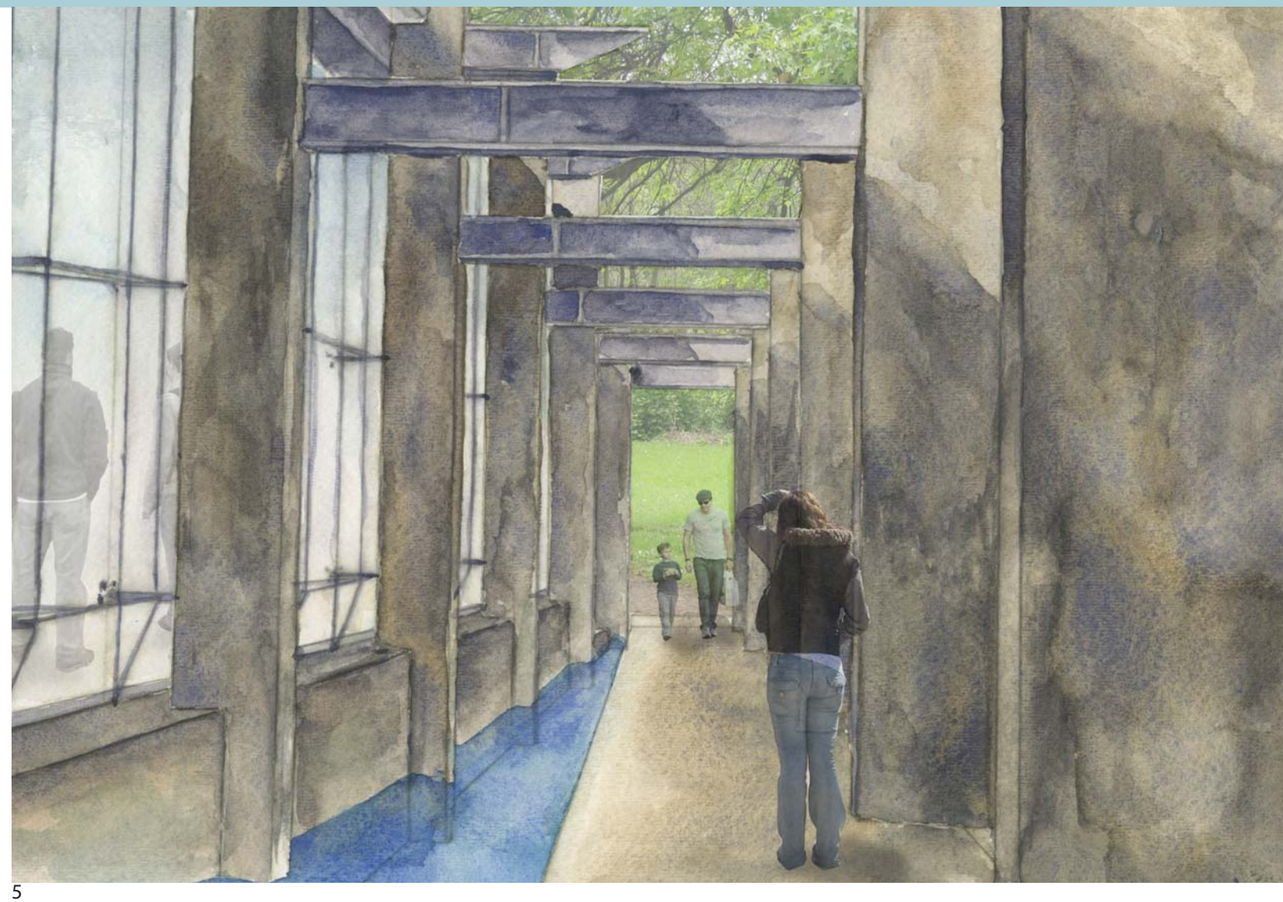

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1. South Elevation
2. Section
3. Elevations
4. Experiential Perspective