

2021 FIRST PRIZE

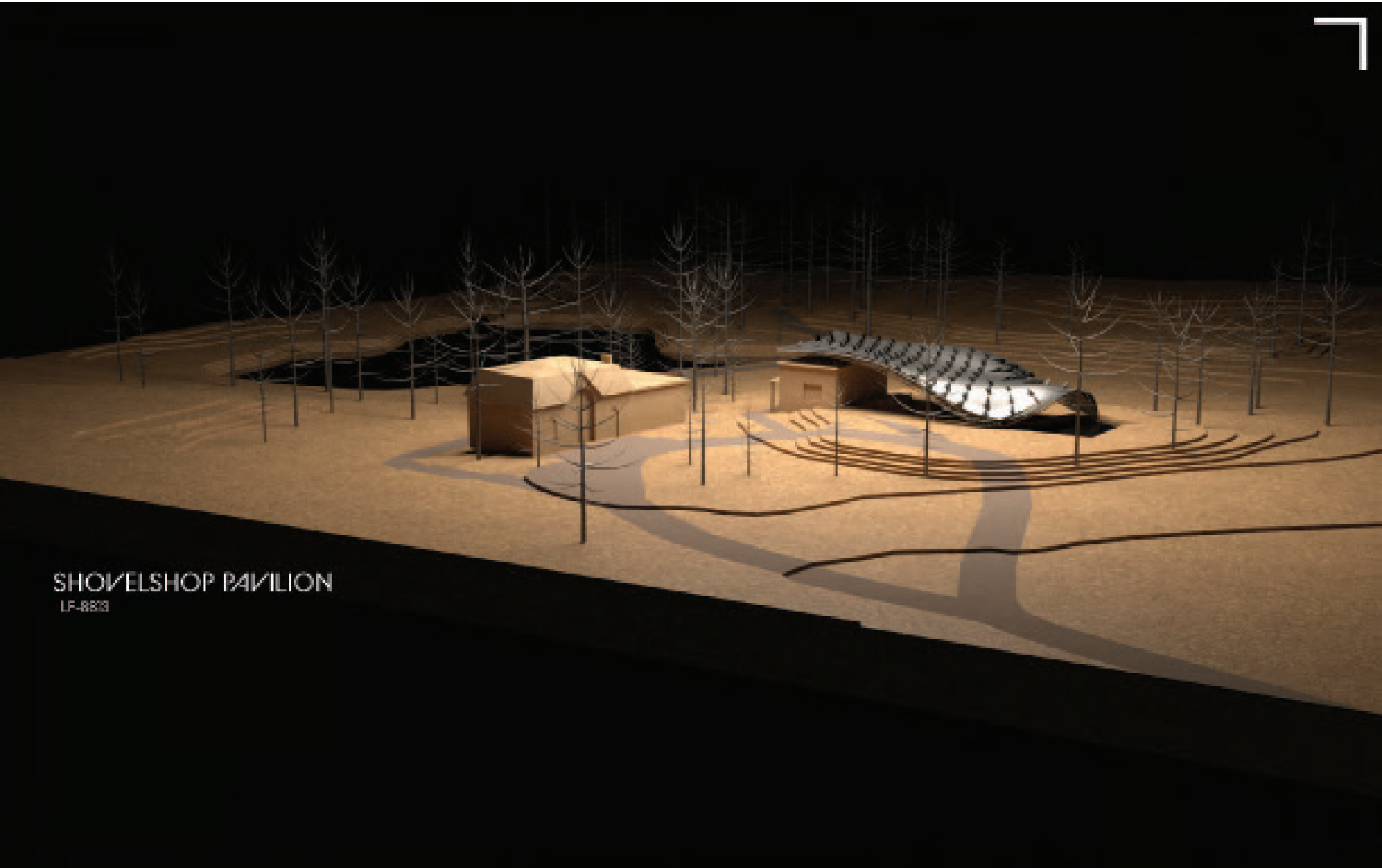
Josiah Kinney

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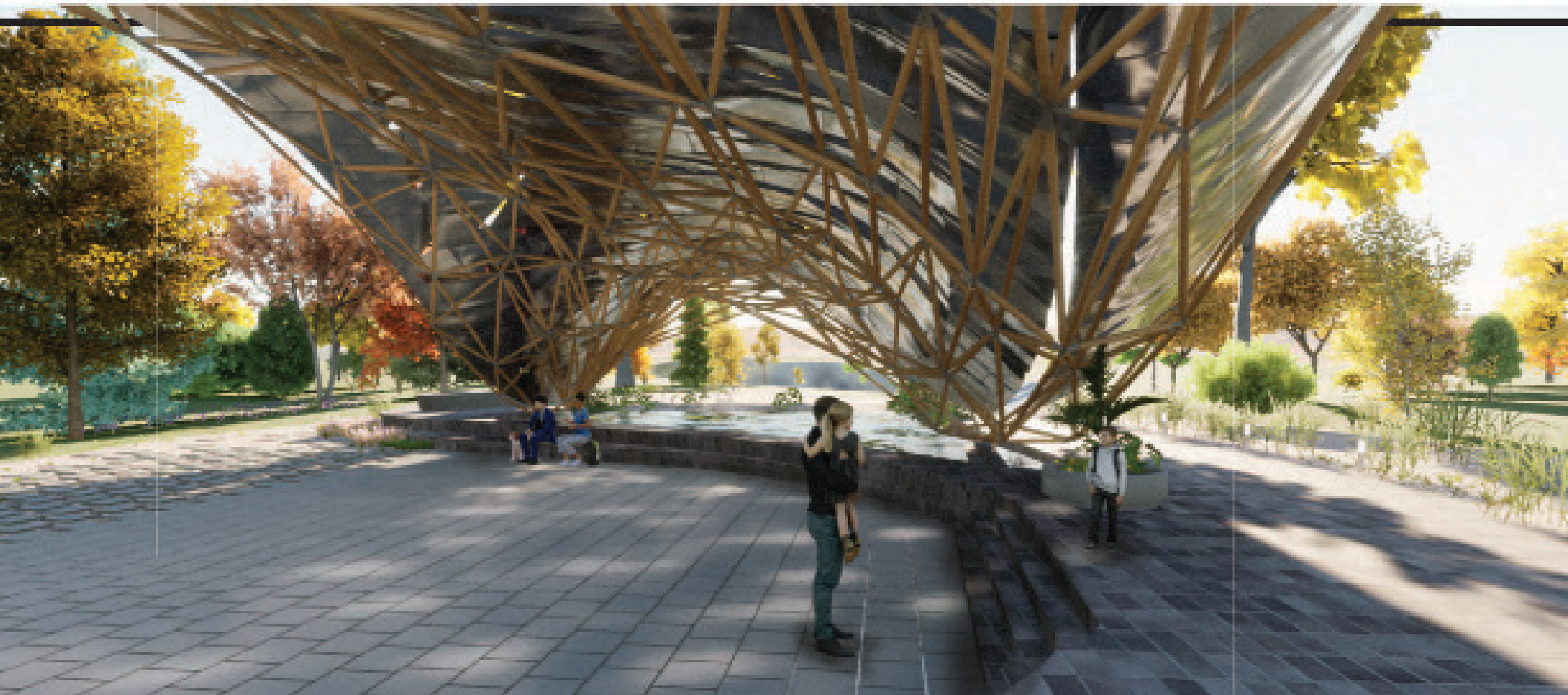
LYCEUM

*A traveling fellowship in Architecture*



SHOVELSHOP PAVILION

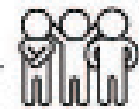
LF-8833



Digital Fabrication



Natural Views



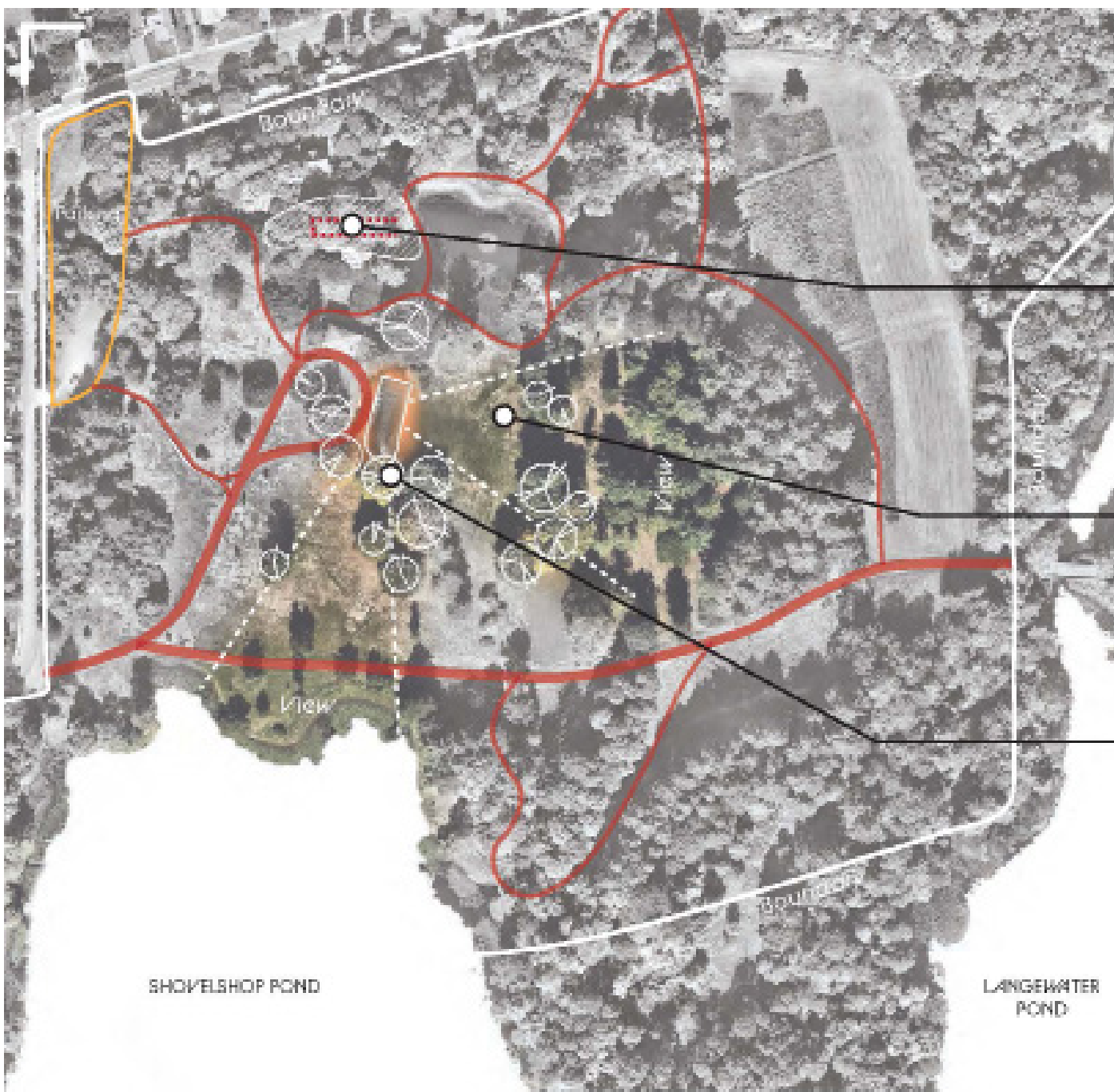
Community Space



Shovelshop pavilion

## Project Overview

The Shovelshop pavilion is an innovative approach to creating a community space that celebrates the rich beauty of the surrounding landscape and develops new ways of creating forms using digital tools.



Forest Garden



Meadow Garden



Wetland Garden

### Site

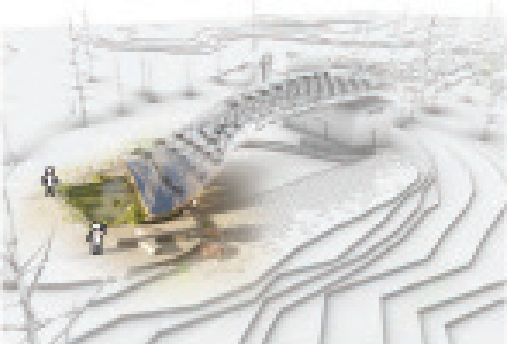
The pavilion is located in the center of the Ames Estate in Exeter, MA. This central location and rich surrounding biodiversity provides ample natural opportunities to enjoy, but also to learn from. The pavilion site design creates small gardens that serve as a microcosm of local habitats. These gardens are located along the pathways of the estate and form a large educational experience of the surrounding ecosystem. The Greenhouse ruins to the north will be converted into a forest garden, the collecting pool to the south of the pavilion will serve as a wetland garden, and the stage built in the east hill will be a meadow-themed garden.



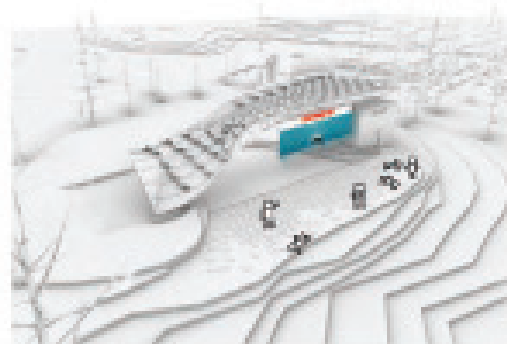
## Site Connection

Contrary to a scripted experience, the Showshop pavilion is built around the idea of creating meaningful meandering. The design funnels visitors from the entrance into a site without clear paths forward, rather an open field invites them to indulge into a promenade. As visitors walk the estate, the pavilion's central position and distinct form acts as an anchor from which to return and embark.

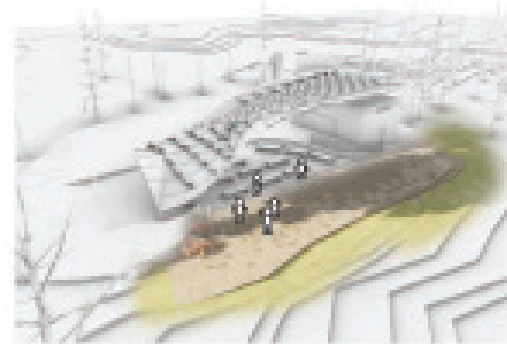




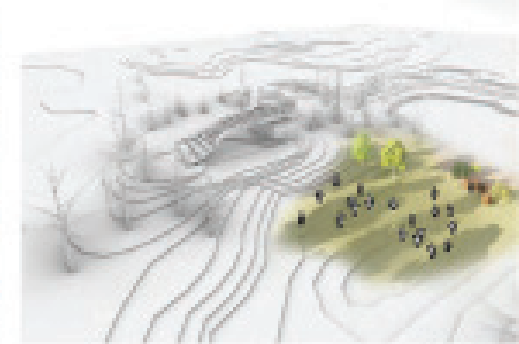
Nature Walks



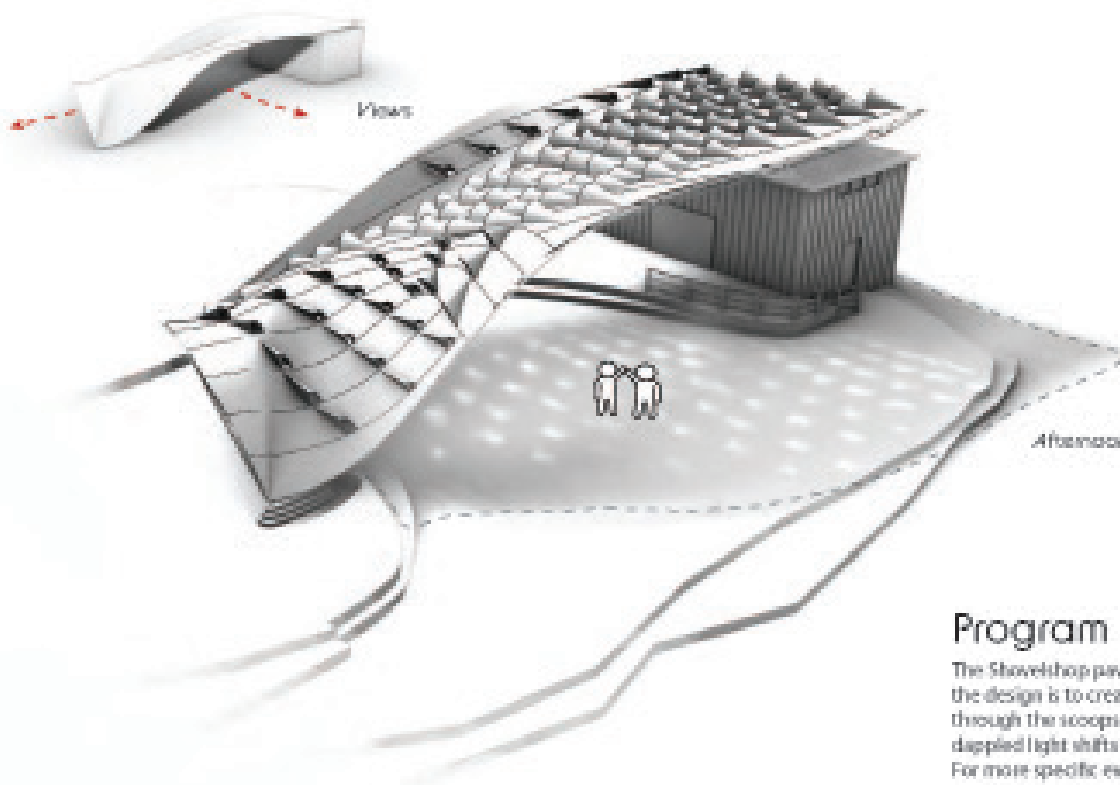
Educational Events



Weddings

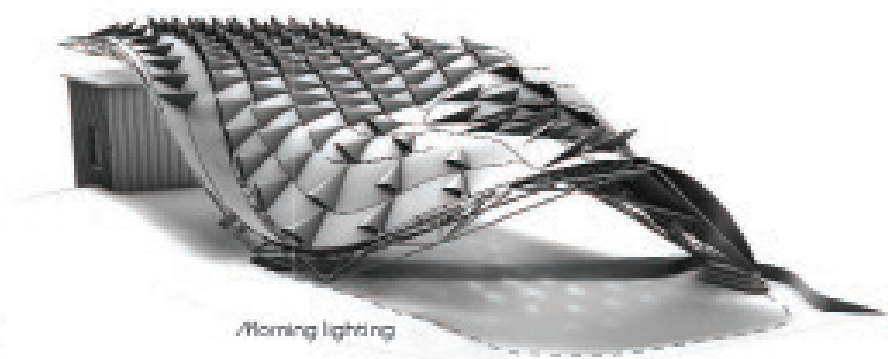


Concerts



Views

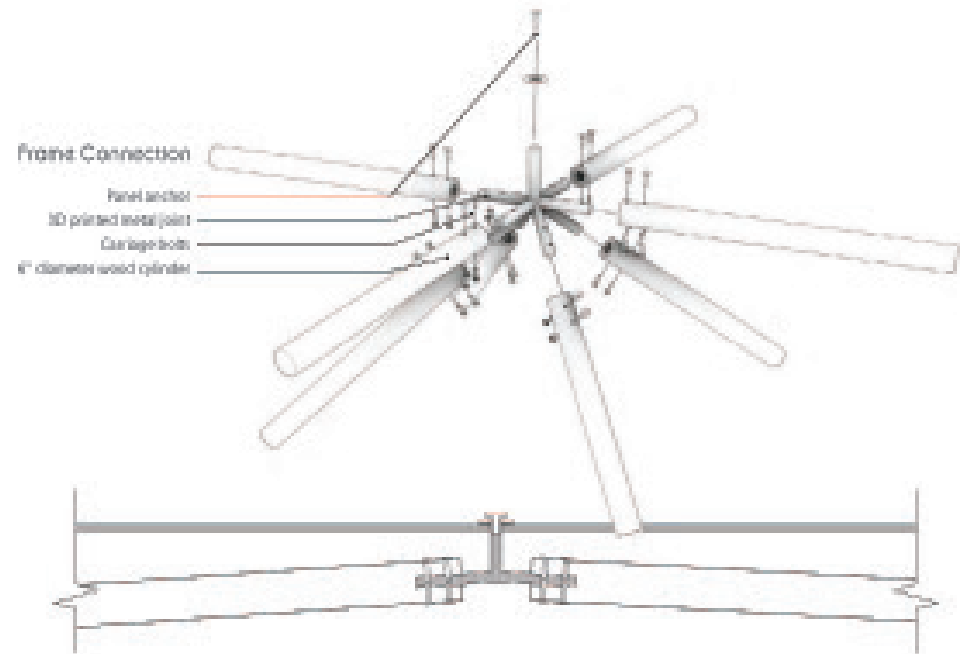
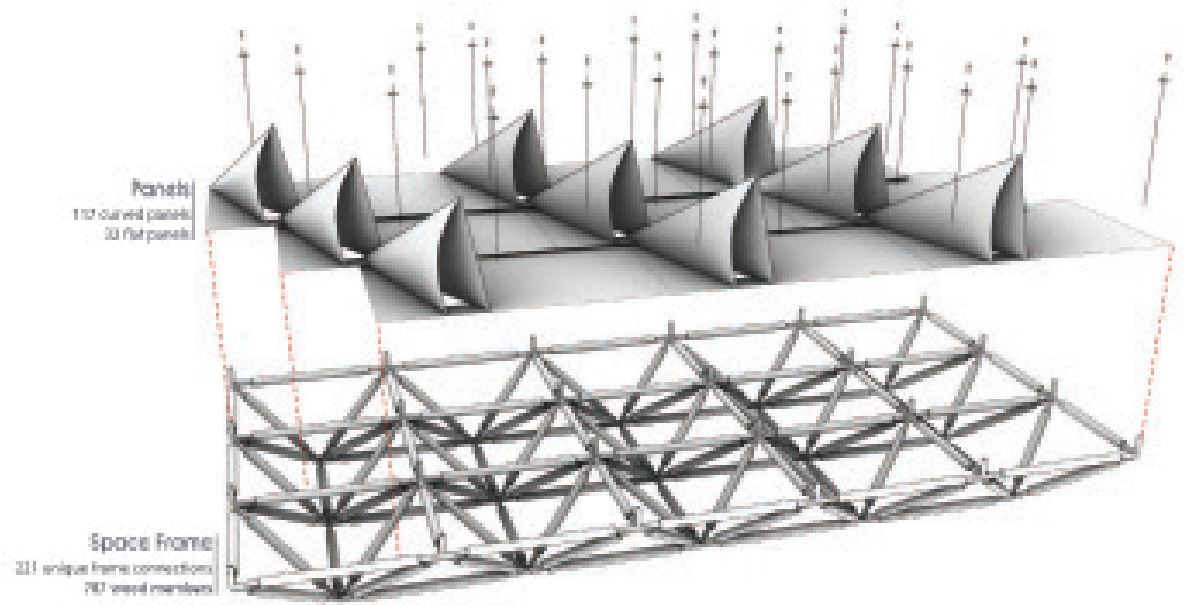
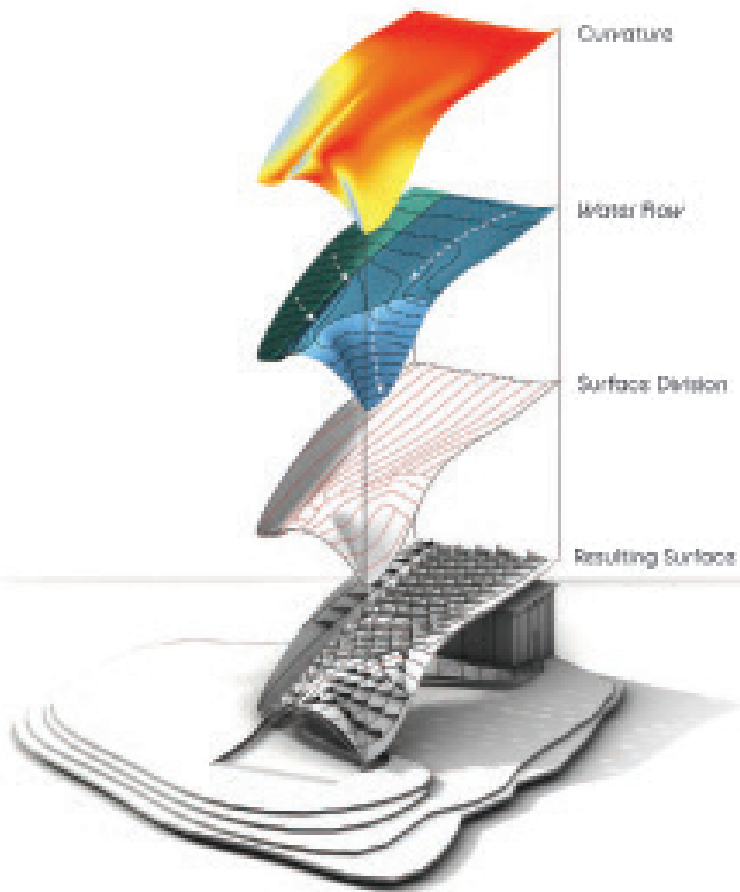
Afternoon lighting



Morning lighting

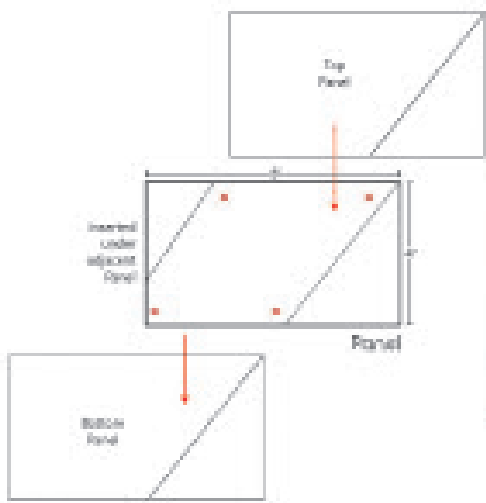
### Program

The Showshop pavilion aims to create a multi-functional space that serves the community throughout the year. The heart of the design is to create a space that transforms throughout the day with the movement of light. In the morning, lighting coming through the scoops reflect off the wetland pool and the metal panels to draw visitors into the pavilion. As the day progresses, the dappled light shifts visitors outside onto the patio to enjoy the views and breeze. For more specific events the surrounding buildings have been converted into support spaces. The adjacent 'Cube' has been converted to contain the restrooms, catering kitchen, and rd lounge area. The Carriage house has been designed to house the educational and interpretive spaces to serve as the dedicated learning building.

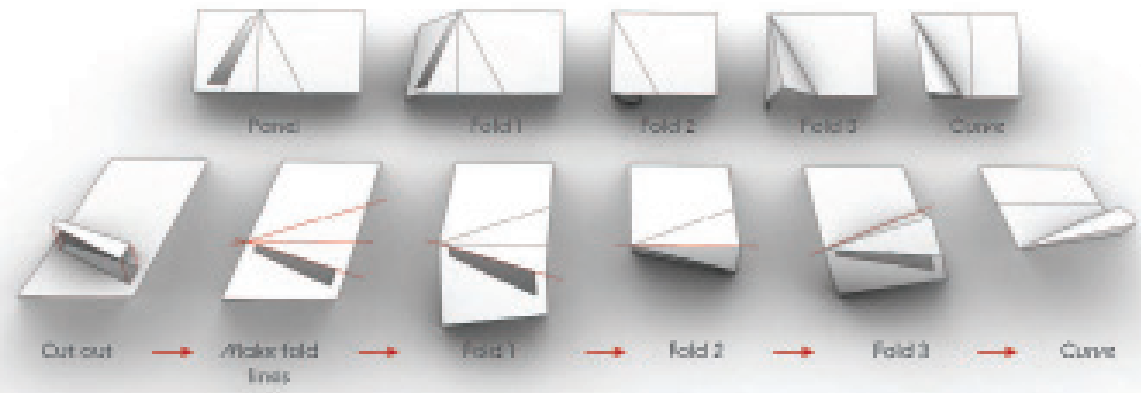


## Roof System

The unique form of the roof comes from a desire to capture views, natural light, and yet still shed water effectively. After numerous iterations, the answer came with a organic form that could be divided and parallelized into the form you see above. This roof is covered with curved panels with a protruding light scoop that captures light and prevents water leakage. To span the 90 foot length of the roof, a truss system was developed that could anchor the metal panels and be constructed without significant manufacturing.



View from HoloLens during construction



## Panel Assembly

The metal panels that comprise the roof are made by using standard 4' x 8' sheet metal and various folds and bends to achieve a curved form. This process, which traditionally involves costly manufacturing, was made accessible by using the Microsoft HoloLens - an AR headset that projects model data into realtime space. This allows simple tools, such as a metal buckle, and the common craftsman to create unique forms that were previously inaccessible without heavy machinery.

