Premise(s)

To reclaim authority in the culture that we are operating in architects must become builders … once more.

Witnessing one of your designs materialize as a built thing in the world is likely to be one of the more profound experiences that you have. Participating in its making adds a dimension to this appreciation that is essential for an architect to understand what the traditions and legacies are that they belong to.

Things go rarely as anticipated, particularly when human beings are involved. As a designer and architect it is necessary to develop abilities to productively and creatively navigate between a plan A and a plan B. More often than not there will also be versions of plans C through Z. The capacity to orchestrate this type of flux effectively is a challenge that the architect confronts regularly.

Objectives

The objective of the course, simply stated, is to build an existing design for a gridshell pavilion at the Whitewater Center.

Along the way (secondary objectives) there will be encounters with the following issues and questions:

- What is the relationship between design details in the ideal and as they are constructed?
- In the context of building a project where do the difficulties in the execution of the construction lie?
- How does building (noun and verb) have “presence”?
- To understand how a set of varied materials (wood, steel, fabric, and stone) function as an integrated assembly.
- To understand and appreciate the relationship between building in the ground and building above the ground.

Method and Procedure

The course will work to translate the existing design and details into a built project. An initial period of time will be dedicated to becoming familiar with the design and construction principles of the design and material palette. Prototyping and construction technique workshops will facilitate the development of the skills necessary to participate in the construction process by all participants.

Content and Organization

First, the inauguration: the class will review the design and construction documents in order to become familiar with the extent of the project and to identify where the critical building details exist.

Second, the confirmation of skill and technique: the class will execute prototypes of the details and assembly sequence in the SoA shops.

Third, setting up shop on site: the class will script the staging sequence for the construction process.

Fourth, building the ground: the class will begin the assembly of the ground condition at the Whitewater Center.

Fifth, the weaving of a shell: the class will make the gridshell, which will entail the manipulation and fabrication of wood laths.

Sixth, integrating the cladding: the class will refine the design of the cladding proposal, which factors into the structural performance, and integrate it into the assembly.

Seventh, testing “performance”: the class will be introduced to the methods of monitoring the structural performance of the gridshell and work to identify the methods and metrics to evaluate the qualitative performance of the project.