

Prototype: Wilderness Cabin #1

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Wilderness Cabin #1 is a prototype for an architecture of modular, pre-finished panels.

Taking the form of a single-room residential space, the project consists of 58 coordinated components: 16 floor elements, 10 wall elements, 16 ceiling elements, and 16 roof elements.

Construction of the architectural form is based on a panel-to-panel connection designed to employ a redundant array of pre-drilled pockets that guide concealed fasteners into place. The result is a stable, seated connection that resists twisting and overturning.

The geometry of the structure forms a multi-directional panel truss in which each plane is reinforced by adjacent elements, and all lateral forces are resolved without secondary bracing.

Surfacing of the architectural panels serves multiple functions:

- 1) a visual code that guides the orientation of panels and the order of assembly;
- 2) a pattern that records the dimensional relationship of connection points and the proportion of construction joints within the panel assemblies;
- 3) a functional matrix that allows for diffusion of light, channelling of rain-water, and expression of potential programmatic zones.

The project is realized at one-quarter full scale. It is made with joined and shaped $\frac{3}{4}$ " white pine boards. The boards used on the vertical surfaces are a pre-milled tongue and groove panelling product designed for residential use.

As a demonstration, Wilderness Cabin #1 yields potential to update methods of working towards building. For practitioners and educators committed to the realization of physical architecture, and seeking to reclaim territory and responsibility for design quality, the project seeks to resist normative methods of construction in three discrete ways.

First, by embedding finishes and constructional parts, the project offers resistance to standard sequencing that relies on rough framing and layout, followed by finish layers. This mode also adds a degree of precision that reduces material waste.

Second, the project seeks to add to the diversity of existing channels of architectural realization. Rather than designed by an architect and "worked out by other hands,"¹ the project is part custom built, part artisanal, part pre-fabricated, part kit, part digital, and directly inspired by the literature of an earlier do-it-yourself age.²

Third, the project envisions an architecture which is self-organized, pre-finished, and unmediated. All drawings are tools of production, and all surfaces are acting as structure. This synthetic effort asserts architecture as a cultural act where the practice of drawing has immediate agency: the act of architectural design is not necessarily communication to builders, but rather, an act of communication itself.



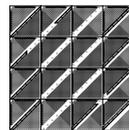
Fabrication



Assembly



Detail



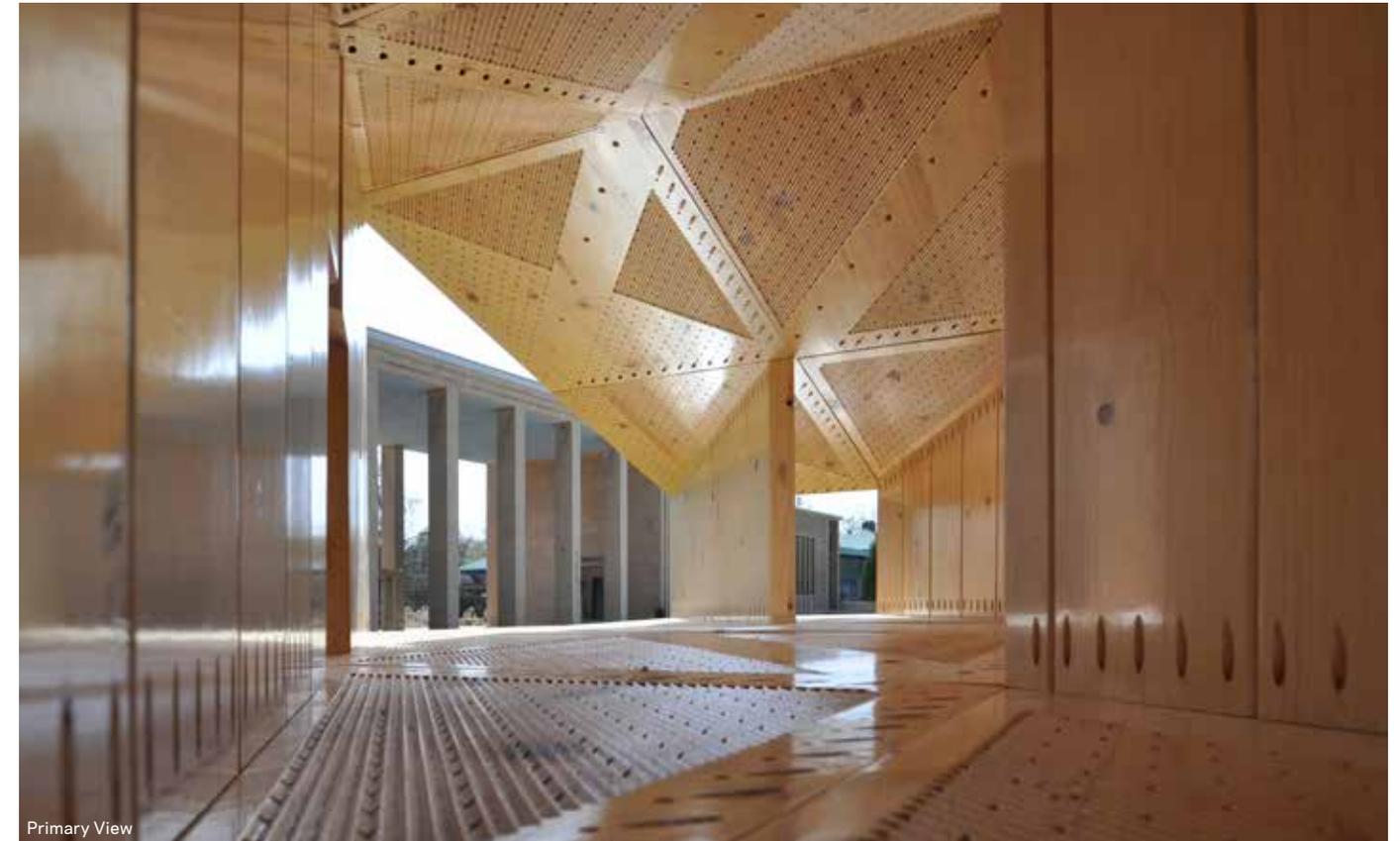
Plan/Template



Integrated Lighting



Gallery Installation



Primary View



Exterior Installation