

1000X

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When the head and the hand are separate, it is the head that suffers.

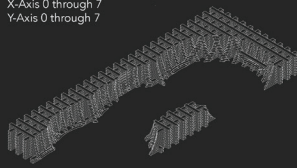
—Richard Sennett, Professor of Sociology

The discipline of architecture, if nothing else, is guilty of allowing the creation of idea to decouple from the construction of the idea. A commitment to the construction of ideas is the physical manifestation of thought through the assembly of parts into a whole; a melding of the hand and mind. As quoted by philosopher Giambattista Vico, “Verum Ipsum Factum - truth lies in achievement.”— within the discipline of architecture, to think and then to make, is to answer to truth. Contrary to the solitary act of thinking, within the act of making, ideas must negotiate the rigor and severity of place. The culmination of architectural thinking is, and should always be an entanglement with environment. The core of design-build pedagogy aims to reconcile an idea from the perspective of materiality and place—it is the negotiation of physical forces: the pull of gravity, material characteristics, the dissipation of energy, and the relentlessness of time.

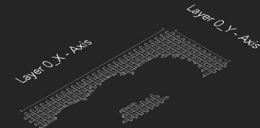
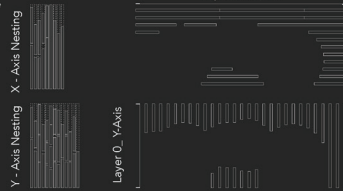
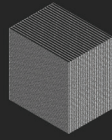
The 2018 summer fabrication program in Boston, Massachusetts brought together high school aged participants from around the world to engage in the fundamental principles of architecture under the pretext of thinking through making. The program culminated in a built project, 1000X, as a means to introduce the, ‘affirmation of the real’ to architecture students through the act of making. The brevity of the design-build pedagogy—working with a four week curriculum—requires a clarity in learning objectives and a preciseness in teaching design techniques. As a result, there was an imposed limitation of the material palette to a single modular material: the standard dimensional lumber SPF-2x4. In addition, the participants were introduced to three design techniques to explore and develop individual design proposals: opacity, translucency, and transparency. The participants spent week one observing Boston’s urban fabric to sketch examples of the three design techniques, while week two introduced digital modeling platforms and the individual fabrication of hand held objects— operating between digital and analogue methods. The final two weeks were production; one group fabricated pieces off-site while the other assembled the pre-fabricated components on-site.

The project 1000X embraces a mass based system leveraging the dense network of members to create a dynamic relationship with light and visual connectivity between the interiority and exteriority. The heavy, mass based system stands as a critique on the contemporary use of dimensional wood members to create increasingly thin frames (walls) masked by ubiquitous sheet good materials with high embodied energies. The standard off-the-shelf SPF dimensional lumber stacked assembly is connected with 2 ½” compressed beech wooden nails. The project was assembled without the use of metal fasteners, rods or brackets with a footprint of 10’-0” in width, 25’-0” in length and 10’-0” in height. The introduction of non-traditional building methods implemented under the auspices of embodied energy and material geographies offers the aspiring architecture students new methods to address the increasing disparity between built artifacts and environment.

Lift 0
X-Axis 0 through 7
Y-Axis 0 through 7

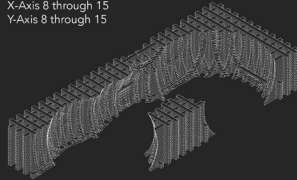


1000 2 x 4 Members
Wood Stack Resource



1000X

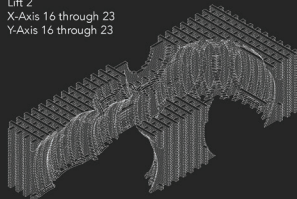
Lift 1
X-Axis 8 through 15
Y-Axis 8 through 15



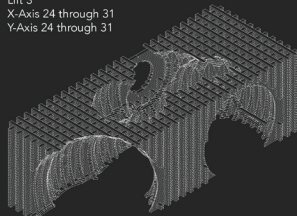
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The dense, heavy, mass-based system stands as a critique on the contemporary use of dimensional wood members to create increasingly thin frames (walls) masked by ubiquitous sheet good materials, often dependent on high embodied energy materials. The standard off-the-shelf SPF dimensional lumber stacked assembly is connected with compressed beech wooden nails resulting in a pure wood assembly.

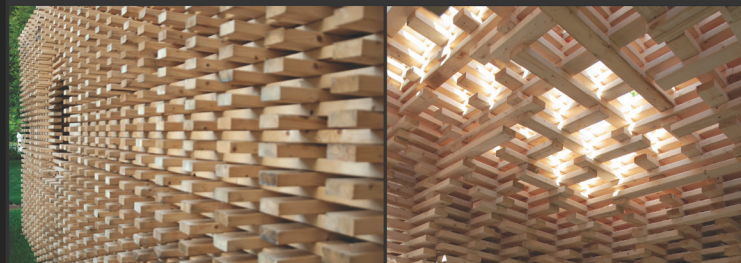
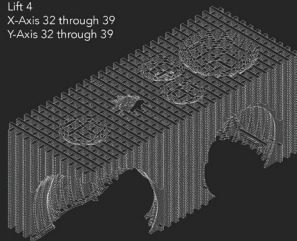
Lift 2
X-Axis 16 through 23
Y-Axis 16 through 23



Lift 3
X-Axis 24 through 31
Y-Axis 24 through 31



Lift 4
X-Axis 32 through 39
Y-Axis 32 through 39



Compressed Beech Wood Nail network
(Extracted from the stacked wood assembly digital model)

