Architecture Studio: 2nd Year Fall

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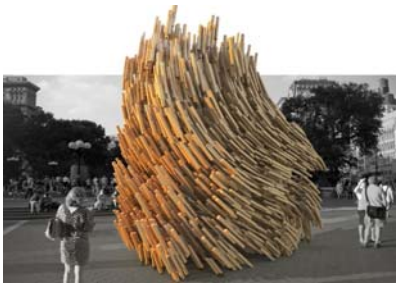
Off. Hr: M/F 12:00-1:00pm & by appt. in MM302

Fall 2011, CMU, Arch #48-200, M/W/F 1:30-4:20
Class Website: www.andrew.cmu.edu/course/48-200

(9/15/11)

PROJECT 1 – BUILDING SHELTER



ASSIGNMENTS 1J: (for Fri. Sept. 16)

1½" MODELS: Every team should create at least one accurate 1½" = 1'-0" structural model of their shelter, showing every construction element.
- Use accurately sized sticks and planes; to-scale components are crucial.
- Do not just rely one what you can buy. Consider planing lumber to proper thickness & height. Remember that 2x4s are actually 1.5" x 3.5".
- Remember to look again at the "standard" platform framing diagram for ideas and common dimensions, such as standard framing at 16" O.C.
- Remember that the maximum length of our studs is 8'-0", and the maximum size of plywood is 4'x8'.
- Focus particular attention to the joinery of the studs to each other.
- Push gently on your model to test where the weak points are, where the joints are likely to break, where the structure is likely to fail.
- Begin to understand your whole shelter as a series of larger discrete parts that can be fabricated separately, then bolted together on site.

COST(S): Create an *accurate* cost estimate for your group shelter (8' studs cost $2; plywood costs $20 per 4'x8' sheet).
- As discussed today, every group must begin to consider the various costs of your project designs, and use them as constraints to inspire creativity.
- Work to reduce all your costs (time, money, ethics, complexity).
- Monetary cost: Work to reduce the $$ cost of your shelter: how much is really necessary to convey the most important idea? How would you reduce your $$ cost by 25%?
- Ethical Cost: The original project statement called for minimizing the waste of material in this exercise, and to consider recycling, reuse, and re-purposing of components. How does your design address this "ethical cost"?
- Time Cost: how complex is your shelter, and how long will it take to build compared to other shelters in the studio? Work to create a more efficient and easy-to-build shelter that embodies the same ideas using less time.
- Aesthetic Cost: impose greater constraints on yourself; reduce your ideas to essentials; purify all convoluted ideas; remove inessential elements.

SITE STRATEGY: The studio as a whole must come up with a fair and inspiring site strategy to bring together all ten teams.
- Create a "system": Is it an "open system" or a "closed system"?
- Every team should be prepared to exhibit their 1½" model in a group site model and discuss how to arrange and configure the site.
- Devise an organizational structure for the sequence of the shelters, both in terms of formal layout, and in terms of sequence of adjacent teams.
- Devise a unified strategy to save materials, cost, effort: A) should there be a maximum $$ cost per shelter? B) should every shelter have the same assigned material quantities? C) should the entire studio be given a set amount of material, to be shared and bartered as deemed appropriate? Etc
- Devise a title or primary quality of the studio's overall project
- Should there be space between the shelters? Or a true "row-house" condition of the 8ft lots?

READING: Each person on their own should explain how the big idea on craft in Richard Sennett's book is, or is not, an ally to your current group project. Think of your shelter as a thesis on "making" that is proven or disproven through the reading. Your response should be thoughtfully articulated in 2 pages (submit to Blackboard blog). Cite the reading. Be descriptive, and remember that good writing requires attention to craft!