

Architecture Studio: 2nd Year Fall

Fall 2012, CMU, Arch #48-200, M/W/F 1:30-4:20

Class Website: www.andrew.cmu.edu/course/48-200

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

(9/5/12)

PROJECT 2 – FEAST SHELTER

PROJECT: Your charge is to collaborate with a team of peers to design and construct one section of a larger structure to shelter 60 people for a communal meal on campus later this fall.

- GOALS:**
- 1) To imagine, build, and inhabit a space you and a group make together out of real construction materials: a hut of your own.
 - 2) To foreground the act of making and construction as a fundamental part of architectural design thinking;
 - 3) To understand architecture as structure made of distinct material components that are assembled to create space and experience.
 - 4) To draw out intuitive and embodied knowledge about materials, space, and assembly through visceral experiences at 1:1 scale
 - 5) To explore the fundamental elements of architecture (e.g. wall, roof, window, threshold, etc.), and highlight how these elements and the materials of which they are made are joined together creatively.
 - 6) To introduce common construction materials & framing techniques
 - 7) To understand tight constraints as positive forces that help shape the design process, solve problems, and enhance creativity.
 - 8) To “unbuild” and de-construct your shelter productively, and to consider reuse, recycling, and lifecycle as design inspirations.
 - 9) To understand the power of group work, collaboration & teamwork.

PHASING: The project will be divided into discrete, choreographed phases and exercises that link closely to each other:

- 1) Each studio (A/B/C/D) will be divided into two teams. Each team will build a specific part of the overall feast structure, each of which will connect to another in a specific sequence (A1-A2-B1-B2-C1...).
- 2) We will begin with individual, exploratory design work, and several exercises to introduce some of the materials and fundamental design and composition problems of this project.
- 3) In coordination with your studio instructor, each team will focus on discrete design objectives that will both distinguish the shelters from each other, and enhance the overall eating experience.
- 5) Research the recycling or reuse of construction materials, work ideas into the design to minimize waste.
- 6) Work collaboratively to finalize designs of a series of shelters, draw precise shop drawings of all components, begin mocking-up portions, and finish construction according to a schedule.
- 7) Celebrate with a feast in our combined shelter.
- 8) “Unbuild” your projects to minimize waste and restore the site.

ASSIGNMENT 2A: (for Fri. Sept. 7, 1:30pm)

- Design at least two well-developed shelter designs within the constraints on p.2, and following your studio instructor’s directions
- Document your process carefully through drawings and models; clearly distinguish the many different ideas you have.
- Create a list of materials, and technical specifications for the walls, floors, and roof, and the connection between the shelters/tables.
- Obtain feedback and critique from at least two classmates, and draw their critiques, as diagrams, or alternative schemes.
- You may represent your shelter design in any medium, 2D or 3D, that you feel most strongly and appropriately represents the strength and richness of your ideas. Be bold.
- Each studio should have all your work pinned up and assembled in an orderly, collective way in your studio space at 1:30.



CONSTRAINTS: PROGRAM

- Each shelter should be a small, memorable space that sits gently on the earth in which to eat, to escape weather, to seek shelter, and to establish community (all fundamental problems of architecture)
- Each shelter must fit in a maximum building envelope of 8ftx8ftx8ft
- Each shelter has at its core a table that is 8ft x 2ft, and 30"high, that sits seat 7-8 people. The eight tables and shelters combined end-to-end should seat 60 for a celebratory meal.
- In order to insure a communal meal, every table must connect to the neighboring tables with at least 24" of width, but also be able to work as a stand-alone table when shelters are separated.
- Teams may make their table wider, or may cut into the table, but there must be at least 24" at the connection point.
- The nature of the space around the table (walls, floor, roof) will be determined in collaboration with each team's studio instructor.
- Collaborate to ensure a coherence or unity to the eight assembled structures. They should create a singular experience, such that the whole is greater than the sum of the parts. They should NOT be just an agglomeration of individual designs.
- Neighbors and the entire class must collaborate on connections and carefully design the spaces in between the individual shelters
- The shelter must be accessible: users/visitors must be able to walk into the space easily (no crawling, climbing...)
- All projects must come apart:
 - to allow for phased construction
 - for ease of transport
 - for ease of setup and demounting
- Your design must enable life for the shelter and its materials after the final review, through exhibitions, adaptive reuse, material reuse, recycling, disassembly, etc. What happens to it after you're done? How can you minimize waste?



CONSTRAINTS: MATERIAL LIMITS

- Shelters will be made exclusively out of:
 - 1/4" plywood for enclosure & covering;
 - 1/2" plywood (comes in 4ftx8ft sheets) for floor & sheer;
 - 2x4's for structure & construction (can be cut any way)
- Canvas for flexible enclosure (can be painted or colored)
- Screws, hinges, bolts, hardware only. NO NAILS
- No glue, paint, caulk, etc.
- Foundation material/technology for leveling site & stability
- ALWAYS minimize waste, and think of future uses for each piece

