

Architecture Studio: 2nd Year Fall

Fall 2011, CMU, Arch #48-200, M/W/F 1:30-4:20

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

Coordinator: Kai Gutschow

Email: gutschow@andrew.cmu.edu

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

(9/2/11)

PROJECT 1 – BUILDING SHELTER

PROJECT: Your charge is to design and construct a small structure to shelter students overnight and during inclement weather at “The Fence.”

- 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 see 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 introduce common construction materials & framing techniques
 - 6) 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.
 - 7) To understand tight constraints as positive forces that help shape the design process, solve problems, and enhance creativity.
 - 8) To consider reuse, recycling, and lifecycle as design inspirations
 - 9) To understand the power of group work, collaboration & teamwork.
 - 10) To build on, and provide continuity from 1st year studios

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

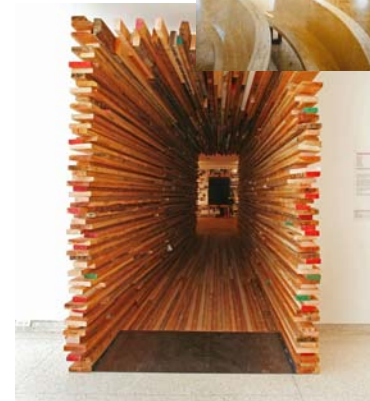
- 1) It will begin with individual, exploratory design work, and several exercises to introduce some of the materials and fundamental design and composition problems of this project.
- 2) We then move on to collaborative teamwork for the final designs of a series of shelters, begin mocking-up portions, and finish construction.
- 3) The shelters will need to be portable and reconfigurable so that they can be set up in various locations and in various arrangements, and thereby live on past the final review.
- 4) Alongside the process of designing, working with real materials, and constructing the shelter, you will be introduced to Revit, a 3D modeling software, through tutorials and professional training sessions
- 5) For Proj.2 this semester, you will use Revit to draw the shelter you made. We will use Revit not as a design tool, but as a tool to help represent and reveal potential in the shelters not possible at 1:1.

ASSIGNMENT 1A: (for Wed. Aug. 31)

- Read Gaston Bachelard's The Poetics of Space
- Read carefully the “constraints” for the Fence Shelter project outlined on p.2 of this handout. Find the opportunities latent in the constraints.
- Design at least one shelter for the Fence within these constraints
- Document your process carefully through drawings; carefully distinguish the many different ideas you have.
- Obtain feedback and critique from at least two classmates, and draw their critiques, as diagrams, or alternative schemes. Avoid words.
- You may represent your shelter design in any medium you feel most strongly and appropriately represents the strength and richness of your ideas. Be sure your presentation works without written or spoken words

ASSIGNMENT 1B: (for Fri. Sept. 2)

- After feedback and discussion in studio, iterate and intensify your process, and present at least two well-developed shelter designs, each with a precise list of materials, and ideas on how to connect to others.



CONSTRAINTS: PROGRAM

- A small, memorable space that sits gently on the earth near the Fence in which to escape weather, to seek shelter, to establish community (all fundamental problems of architecture)
- A dry sleeping space (stretched out & horizontal) for 2 people
- Access: users/visitors must be able to walk into the space easily (no crawling, climbing...)
- Your design must speculate on and enable life for the shelter after the final review, through exhibitions, adaptive reuse, material reuse, recycling, disassembly, etc. What happens to it after you're done?



CONSTRAINTS: COMPOSITION

- All projects must come apart:
 - to allow for phased construction
 - for ease of transport
 - for ease of setup and demounting
 - to allow multiple configurations
- All projects must link up with neighboring projects (like a row house, no stand-alone sculptures)
- Neighbors and the entire class must collaborate on connections and carefully design the spaces in between the individual shelters
- All projects must work in multiple configurations (partially assembled, pairs, groups of 4, or 10 in a row)
- The entire class must collaborate to ensure a coherence or unity to the assembled structures. They must form a coherent whole, such that the whole is greater than the sum of the parts. They should NOT be just an agglomeration of individual designs.



CONSTRAINTS: MATERIAL LIMITS

- A maximum quantity of the following materials will be set (TBA):
 - 1/4" plywood for enclosure
 - 1/2" plywood (comes in 4ftx8ft sheets) for floor, roof & shear
 - 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 on various sites
- NO other materials
- In order to limit scale and waste of materials, and to encourage efficiency, each shelter must fit into a maximum volume of 8ftx8ftx8ft.



CONSTRAINTS: MULTIPLE SITES

- Construction occurs off site (in wood shop, Donner ditch, tennis court balcony, studio, etc)
- Final review site is at "The Fence"
- Project must acknowledge solar & site orientation at the Fence, but also function effectively in other orientations and configurations.
- Shelter must work well in various exhibition sites around campus, and around town, and in multiple configurations
- Be sure your project can tolerate sites with varying slopes
- At least one site will allow all projects to be assembled into single, all-studio configuration
- Speculate about a final resting place for your project.



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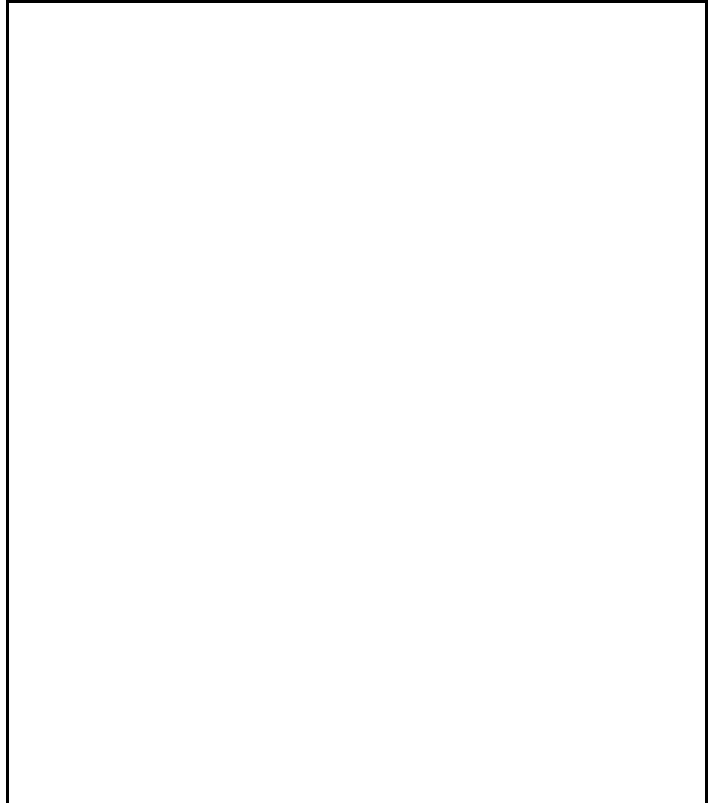
(9/2/11)

PROJECT 1 – BUILDING SHELTER

Name: _____

ASSIGNMENT 1C: (due Fri. Sept. 2, 11:59pm)

- Record the two best schemes for your Fence Shelter here. Create a handsome, carefully drawn sketch for each, in the two boxes below, and under each a precise list of materials for construction.
- Scan this page and upload it to the correct folder within the 48-200 folder of the archpcserver



List of Materials:

_____ # of 2x4s

_____ # of 4'x8' sheets of 1/2" plywood

_____ # of 4'x8' sheets of 1/4" plywood

_____ # sf. of canvas

Other: _____

List of Materials:

_____ # of 2x4s

_____ # of 4'x8' sheets of 1/2" plywood

_____ # of 4'x8' sheets of 1/4" plywood

_____ # sf. of canvas

Other: _____

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PROJECT 1 – BUILDING SHELTER

ASSIGNMENT 1D: (for Wed. Sept. 7)

- Students should divide each studio into two groups of 5 or 6 students to work as a team for the rest of the project, for a total of 10 teams in 2nd yr.
- The aim of the team is to collaborate, to work together to maximize the contribution and learning of every member of the group so that it adds up to be more than the sum of its parts. The team should divide the work, and work on a consensus basis so that every team member feels themselves to be central to the design and construction process. Productive team members inspire each other to do more than they would alone. Good leaders find ways to involve every team member.
- At the end of the Proj.1, students in each team will be required to assign a grade to the other members of their team, confidentially. These grades will be combined with the instructor grades for final project grade.
- After forming the team, and carefully reading these assignments, each team should discuss how to optimize group dynamics, reward leadership and effort, and compensate for weak team members. We realize that collaboration is hard, and often aggravating. Devise strategies to minimize these.
- In order to ensure smooth and efficient teamwork over time, each team must write up a contract that lists the name and contact info for each member, outlines potential working methods and expected behaviors; covers work obligations and consequences for inadequate performance or effort, and organizes how expenses will be shared, deadlines to be met, and meeting times to adhere to.
- After every member of the team has signed and agreed to this document, it should be placed on the appropriate folder on archpcserver.
- The contract may be revised during the process if entire team agrees.

ASSIGNMENT 1E: (for Wed. Sept. 7)

- It is essential that you begin with shared goals. After forming the teams and creating the Contract, all teams should discuss and come to a general consensus to the question of "What is architecture?" and how it might apply to giving "meaning" to your shelter project(s).
- Each team should document its response to this question in a short, 3-minute video clip that must follow the guidelines of, and be submitted to the CADSF "Architecture is..." competition.
- The competition website and instructions can be found at:
http://cadsf.org/Programs/Architecture_Is.htm
- Create ideas, scripts, and story-boards to represent your ideas clearly
- Create videos using editing software such as JayCut or YouTube Video Editor, or other software and equipment available on web or campus.
- Follow all competition guidelines, and all legal advice, including copyright issues on songs and images.
- Follow the instructions at "How to Submit your Entry" in order to have your team's film considered. See:
<http://aiasf.org/images/ArchIs/HowToSubmitYourEntry.pdf>
- Create a YouTube account, and upload your team's film to YouTube and tag it with "architectureis"
- Register your team's entry at: <http://architectureis.eventbrite.com>.
- Subscribe to the "Architecture Is..." YouTube channel
<http://youtube.com/architectureis>
- Also upload all videos to studio blog <http://cmuarch2015.wordpress.com/> for easy review by peers and faculty. Be sure blog versions of video have proper credits (student names, video title, date, instructor).

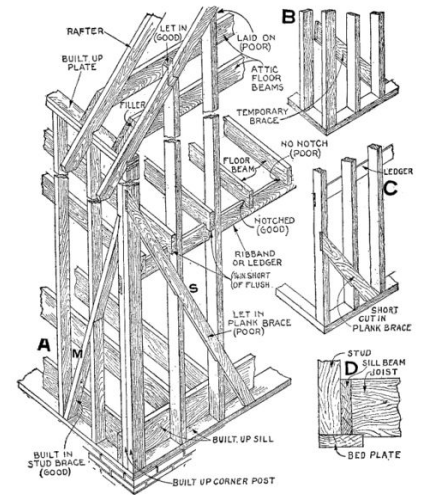


ASSIGNMENT 1F: (for Wed. Sept. 7)

As stated in the syllabus and in the first handout, one of the goals of this project (and the studio) is to understand tight constraints, including materials, as positive forces that help shape the design process, solve problems, and enhance creativity. In contrast to several of your 1st year projects where you derived the early form of your projects in large part from other forms that were assigned or given to you (three planes, a dancer's movement, or a knot), in this project you should seek to derive the early form from the given constraints (materials, program, group composition, and sites). In the next two assignments we will begin to focus on the dominant materials of the shelters: plywood and 2x4 studs, by far the most common construction materials in the U.S. for the last 150 years.

- It is important for an architect to understand materials through research. Research should always be a significant component of an architect's process. Listed below are a series of questions about the role of plywood and 2x4's in our building tradition and construction industry. In order for us to be ecologically minded about materials, each studio (two teams) is asked to collaborate to find answers and prepare a 4pp. report to answer the following questions (roughly one page per group of questions). Although the "facts" will be similar for each studio, each studio should work on a uniquely clear presentation about their answers.

- What is a conventional 2x4? What are its typical dimensions? What is it typically made of? How is a 2x4 made (diagram the process)?
- What is plywood? What are the most typical sizes and thicknesses of plywood used in house construction in the U.S.? What is this plywood made of? How is plywood made (diagram the process)?
- When and why did plywood and 2x4s come into our building tradition? What is "platform framing" and how is it different than "balloon framing"? Why are plywood and 2x4s still such a prevalent and important element in making buildings in this country? What are the pros and cons of continuing to use these materials so pervasively?
- What does the term embodied energy mean? How much embodied energy does it take to make a single 2x4? How much embodied energy does it take to make a single sheet of 4'x8', 1/2" plywood? Compare the embodied energy of a 2x4 and plywood to some other item you know.



ASSIGNMENT 1G: (for Fri. Sept. 9)

- It is important for an architect to understand materials through hands-on experience. Hands-on experimentation and testing at 1:1 scale is an essential part of designing and constructing buildings. With the increased complexity of buildings and systems today, architects are more frequently building full-scale mockups or prototypes of walls and even entire parts of buildings in order to understand their designs more fully.

- Each team should create TWO DESIGNS that each combine up to 50 2x4s using any of the following terms to define a self-structured volume: mirror, lap, overlap, weave, extend, proportion, orthogonal, repetition, linear, grid, rhythm, datum, open, closed, interlocking, hierarchy, layering, interlock, rotate, align.
- The two designs should be remarkably different, given the simplicity and similarity of the materials used in each.
- Test out your ideas using real 2x4s. When assembling, the individual 2x4s cannot be altered in any way. They cannot be cut, glued, nailed, etc. in making the assembly.
- Use freehand drawings (plans, sections, elevations, and three dimensional drawings) and scale study models to explore a whole series of ideas.
- Choose what you consider to be your two best and final designs and draft a plan, section, elevation, and axo of each. Consider carefully when laying out the drawing, how each view fits together to read as a whole.
- Be ready to reconstruct either of your designs in studio on Wednesday.



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PROJECT 1 – BUILDING SHELTER

ASSIGNMENT 1E: (for Wed. Sept. 7)

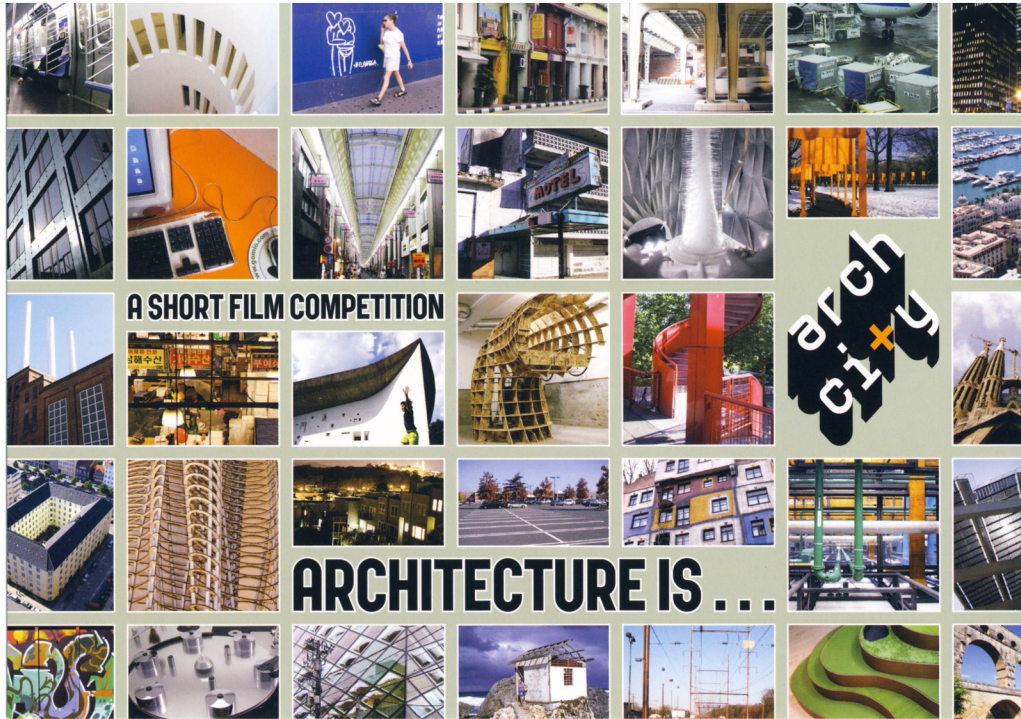
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- Follow all competition guidelines, and all legal advice, including copyright issues on songs and images.
- Follow the instructions at "How to Submit your Entry" in order to have your team's film considered. See: <http://aiasf.org/images/ArchIs/HowToSubmitYourEntry.pdf>
- Create a YouTube account, and upload your team's film to YouTube and tag it with “architectureis”
- Register your team's entry at: <http://architectureis.eventbrite.com>.
- Subscribe to the “Architecture Is...” YouTube channel <http://youtube.com/architectureis>
- Also upload all videos to studio blog <http://cmuarch2015.wordpress.com/> for easy review by peers and faculty. Be sure blog versions of video have proper credits (student names, video title, date, instructor).



Info at: http://cadsf.org/Programs/Architecture_Is.htm

Register at: <http://architectureis.eventbrite.com>.

YouTube at: <http://youtube.com/architectureis>




CENTER for ARCHITECTURE + DESIGN
130 Sutter Street, Suite 600
San Francisco CA 94104
t. 415 362 7397

CALL FOR ENTRIES
www.cadsf.org

ENTRY DEADLINE
September 8 at 1:00 pm

CATEGORIES
Youth [13-18 years]
Adult [19+ years]

QUESTIONS?
Rebecca Kennedy
Awards Intern
rkennedy@aiasf.org
415 874 2623

The Center for Architecture + Design invites you to enter Architecture Is... our first short film competition. Young or old, architect or accountant, architecture means something different to each of us. We want to hear your unique perspective on what architecture means to you. All films will be featured on the Architecture Is... YouTube channel.

HOW TO ENTER

Register at www.architectureis.eventbrite.com.
Create a short film telling your story of what architecture is to you and post it on YouTube. Additional details can be found at www.cadsf.org.
This competition is free to enter. Separate registration required for each film. Limit 3.

RECOGNITION AND PRIZES

The top film from each category will be shown during the 2011 Architecture and the City festival film series this September. In addition, winners will receive an iPad 2. Second place winners will receive a Kodak PlaySport Cameras.

Architecture Is... is made possible thanks to the support of the National Endowment for the Arts, American Architectural Foundation, CNA Insurance, Victor Schinnerer & Company, Inc., and The San Francisco Public Library. This program is presented as part of the 2011 Architecture and the City Festival and co-sponsored by AIA San Francisco.



WHO WE ARE
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Architecture Is...
Exhibitions
Tours
SUPPORT US
CONTACT US



The Center for Architecture + Design invites you to enter *Architecture Is...* our first short film competition. Young or old, architect or accountant, architecture means something different to each of us, and we want to hear what it means to you! Is it the beams and columns that hold up your home? Is it the way a skyscraper makes you feel like an ant in the city? Or is it how the built environment makes you move through space?

HOW TO ENTER

- Register at <http://architectureis.eventbrite.com>.
- Entries due by **Thursday September 8 at 1:00 PM (PST)**.
- This competition is free to enter
- Separate registration required for each film. Limit three.
- Upload your film to YouTube and tag it "architectureis".
- Entrants must follow the instructions at "How to Submit your Entry" in order to have your film considered.

CATEGORIES

- Youth [13-18 years]
- Adult [19+ years]

RECOGNITION + PRIZES

- Each filmmaker is only eligible to win one award.
- The top film in each category will be shown during the 2011 Architecture and the City Festival Film Series on September 28th, 5:30 PM at the San Francisco Public Library, 100 Larkin Street. In addition, these winners will receive an iPad 2.
- Second place winners will receive a Kodak PlaySport camera.
- All films will be featured on the Architecture Is... YouTube channel.

CRITERIA

- Each film should be **no longer than 3 minutes** in length.
- Each film must be written, directed, and produced by the entrant.
- Films will be judged based on originality, creativity, and ability to convince others of the importance of architecture.
- Production value will only be considered to the extent that it affects the viewers' ability to understand the film.

RULES + ELIGIBILITY

- Entrants must be 13 years or older. Entrants age 13-17 must have permission to submit from a parent or legal guardian. Entrants age 18 and under are also encouraged to list an adult contact (i.e. parent, guardian, school mentor).
- All copyrighted material must either have the permission of the artist or be available through a Creative Commons license (see [here](#) for a list of legal music for videos).
- Videos with content deemed offensive or otherwise inappropriate will be removed from the contest by Center for Architecture + Design.
- Entries created by more than one person must list a primary contact person. If films with more than one creator receive awards, Center for Architecture + Design takes no responsibility for determining how to distribute prizes.
- By entering Architecture Is... participants agree to allow Center for Architecture + Design and AIA San Francisco permission to use and distribute film entries and participant information in any social media or otherwise. Participants also agree that their video may be shown publicly.
- All decisions made by the jury will be considered final.

JURY:

Ila Berman, Director of Architecture, California College of the Arts
Clark Manus, FAIA, President, American Institute of Architects
Chris Gee, Filmmaker, Architect
Jenny Bolario and Luis Flores (Youth Jurors), Youth Radio

Architecture Is... was made possible thanks to the support of the National Endowment for the Arts, The American Architectural Foundation, CNA Insurance, Victor O. Schinnerer & Company, Inc., and the San Francisco Public Library.

HOW TO SUBMIT YOUR ENTRY:

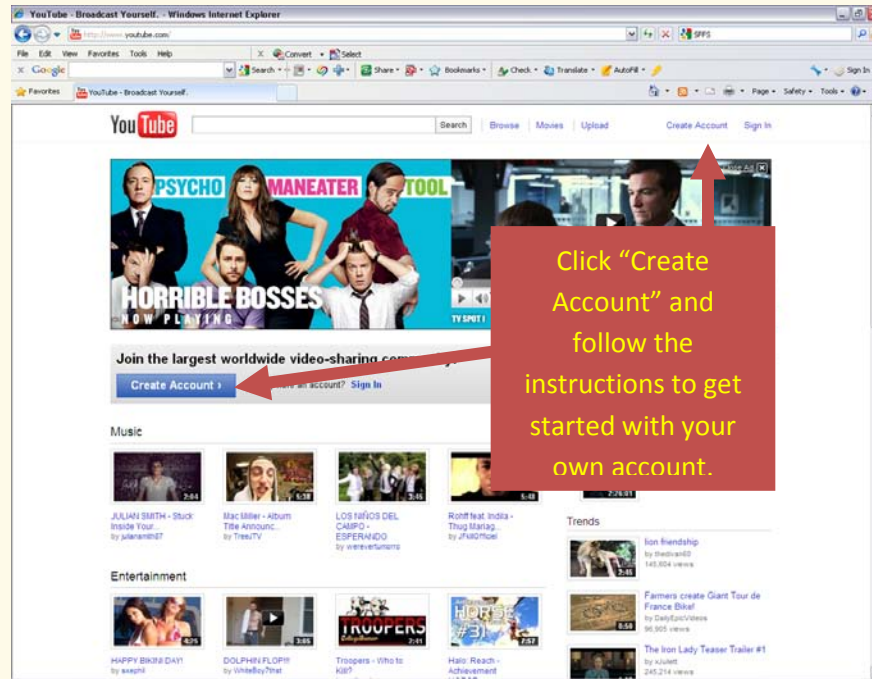
http://aiasf.org/images/_ArchIs/HowToSubmitYourEntry.pdf

To enter *Architecture Is...* create a short film, upload your film to YouTube following the special guidelines below, and register for the competition online. *Be sure to follow our instructions when uploading your film to YouTube to ensure it is added to the Architecture Is... channel.*

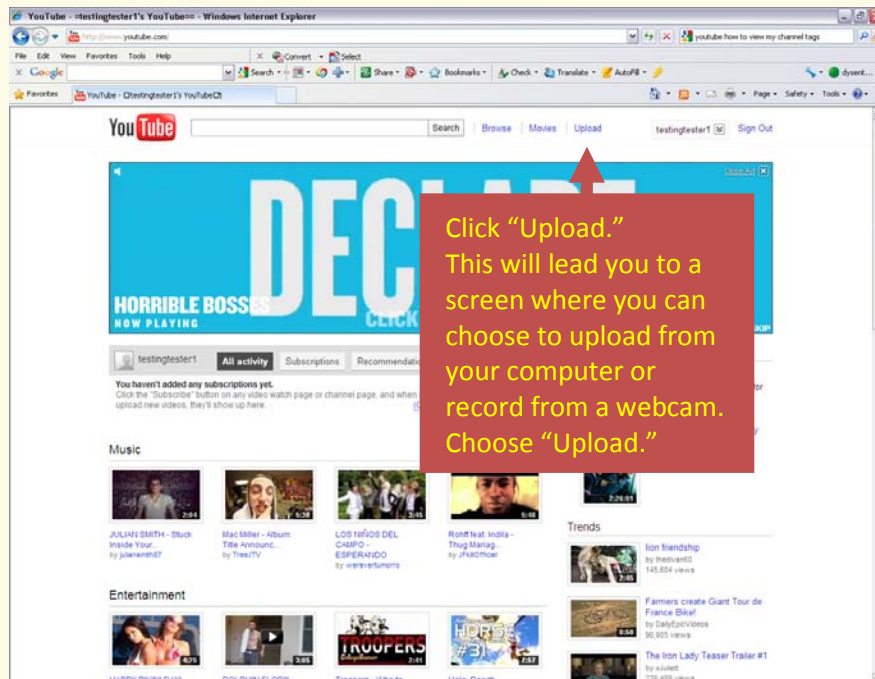
Step 1: Create your Video.

Create a film expressing what *Architecture Is...* to you. Maybe you will tell us about the way the built environment influences your daily routines, or about your passion for one of your favorite spaces. Free online video editing software such as [JayCut](#) or [YouTube Video Editor](#) can help you edit your video and sound easily.

Step 2: Create a YouTube account (if you don't have one already).



Step 3: Upload your film to YouTube and tag it with "architectureis"



This is where you can enter a Title and Description for your video.

Remember to type "architectureis" into the Tags field. This is an important step that will ensure your film is entered in the contest.

Click "Save Changes" when you are done.

Step 4: Fill out the online registration for *Architecture Is...*

Entrants that do not register for the competition will not be considered by the jury and are not eligible to win awards. To register for the competition, go to <http://architectureis.eventbrite.com>.

Step 5: Subscribe to the *Architecture Is...* YouTube channel (<http://youtube.com/architectureis>) and show your film off to friends and family. Check back often to see entries as they come in.

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PROJECT 1 – BUILDING SHELTER

ASSIGNMENTS 1H: (for Mon. Sept. 12)

REVIT: Finish all 9 Revit tutorials and deposit to folder on archpcserver. Watch all 9 accompanying videos. They are all on the archpcserver at: \archpcserver\Studios\F11_48_200\R2_Revit_Tutorials_Conceptual_Design
- Divide your group in half so that approx. 28 people go to the Revit workshop on Monday, and an equal number go Wed. during studio. Collaborate with the entire studio to ensure equal numbers. Please go to Wean 5202 on Mon. at 1:30, OR to studio to continue work on your group's design. Collaborate!

READING: Please read Richard Sennett, The Craftsman, chs. 4,8. Files are available on Blackboard!

GROUP WORK: Start group design work in earnest. Set up consensus-building processes such as: electing a leader, devising a voting process, inventing rules to achieve compromise and break deadlocks, creating mini-competitions or charettes to start over or reinvent a particular piece of your design. Be ready to put your ego aside to work with the group's ideas; avoid taking "ownership" of design ideas, etc. Create a TEAM spirit!
- Invent a name or title for each design you create: give each design an identity, know WHY they look the way they do!

STRUCTURAL MODELS: Create at least one large scale, accurate, well-crafted "stick model" that shows every structural member of your shelter as it is currently designed. Use accurate-scale wood members. Avoid hot glue.

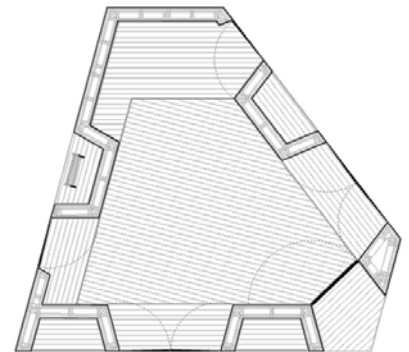
- Focus especially on the JOINERY. Devise strategies for joining the individual members, especially at non-orthogonal angles. Understand how the pieces need to be cut and screwed together. Consider making larger-scale (or FULL-scale) models of individual joints!
- Use basswood or other micro-cut lumber such as pine for the overall models. If they run out at the CMU Art Store, you will need to go further afield to buy it: Top Notch on Craig, Utrecht on Carson (Southside), or A.B. Charles on Banksville (South Hills). Consider also "making your own" mini-2x4s using the saws and planers in the shop... No balsa wood!!!
- If your team is still considering multiple design proposals, please make a separate model for each. Retain and bring to class all sketches and study models for "discarded" group themes. Save this process work!

SITE/SYSTEM DESIGN: Create at least one scenario for linking your shelter to your neighbors'. Work with the other group in your studio (or more groups) to show how they fit closely together. Be prepared to join together or show both models next to each other in reviews.

- Generate a conceptual "structure" for all the groups to collaborate in creating a unified assembly of individual shelters. Collaborate!
- This should involve creating a "site plan" and or a overall elevation of all the shelters so that they can create a "system." Is it an "open system" or a "closed system"?

INDIVIDUAL SHELTERS: Continue work on individual shelter designs as desired. How could you change or redesign your individual scheme to have it "fit" into a unified class "system" more easily?

- Be sure all work is recorded in digital form. Remember the assignment to submit a 50-frame file of your design process for each project.



2x4 WORK: We will build ALL the remaining 2x4 project in studio next week. They have been great so far! Please retain the enthusiasm and remember your building techniques.

- Every studio should submit drawings and a compilation of photos of their designs to the designated archpcserver folder
- Every group should also upload photos to Flickr of your drawings, models, and design process.
- Consider uploading the most interesting schemes to the Classof2015 blog, along with some WRITTEN explanation.

FLICKR: Upload individual designs to Flickr. Rules for uploading F'11 pics:

- Each student should create a new set for Project 1. Title it:
Lastname Firstname F11 Project 1
(Please follow this format with the same capitalization & spacing)
- Then, tag your photographs as follows:
lastnamefirstname, f11project1 (stick to this format!)
- (Done after uploading photos and clicking "Add a description")

RESEARCH: Continue to do research on huts, on construction ideas, on other design-build projects in schools and around the world.

- Contribute ideas to the class blog, and WRITE a few lines about why it is significant or interesting.



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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 on 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.

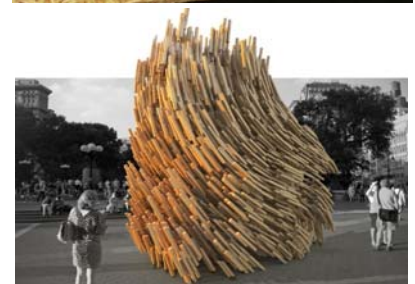
COST(S): Create an *accurate* cost estimate for your group shelter (8' studs cost \$2; plywood costs \$20 per 4'x8' sheet).

- 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!



Architecture Studio: 2nd Year Fall

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

Coordinator: Kai Gutschow
Email: gutschow@andrew.cmu.edu
Off. Hr: M/F 12:00-1:00pm & by appt. in MM302

(9/17/11)

PROJECT 1 – BUILDING SHELTER

ASSIGNMENTS 1K: (for Mon. Sept. 19)

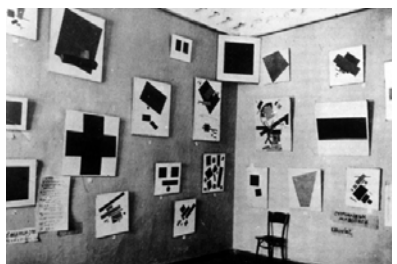
PROJECT CONSTRAINTS: Please review carefully again the project description, the program, and other constraints to be sure your project fully meets the intent and details of the assignment, including:

- 1) Shelter: your shelter must shelter, at night and against inclement weather (by which we mean rain and wind). It should provide a sense of privacy and security amidst the public campus (every real shelter at the Fence seems to meet those criteria). Review Bachelard with regard the requisite psychological and philosophical ideals of shelter.
- 2) Access: the primary space of all projects must be accessible while standing; not climbing or crouching.
- 3) Structure & Frame Construction: your shelter should explore frame construction and be structurally stable enough to withstand unsupervised climbing and weather, as well as be “radically temporary” in its ability to be assembled and moved quickly and easily.
- 4) Cost: Work to reduce ALL your costs: a) reduce overall cost of materials (several teams should radically reduce); b) reduce the waste generated by your project, both in the construction process (how many scraps will your design create?), and the life of the materials; c) reduce the time needed to construct the project, as well as make it moveable; d) reduce the aesthetic excess, the over-ly complex, the over-wrought. Consider instead the *incomplete* and the *implied*!

SITE STRATEGY: Collaborate again with the other teams to create a more unified overall site strategy. The overall project must be more than simply the “default” solution of a sequence of shelters in the order of your studio number. DESIGN and COMPOSE the interaction and collaboration to create a more intention-based system and overall structure. Collaborate to create an overall studio identity that is more than the sum of parts. Compose site plans and group elevations that demonstrate the unifying tactics that go beyond merely being made of the same materials and have the same maximum size. Consider design tools such as a more detailed structural bay rhythm (not just 8ft spacing); a shared datum such as a unified base or cornice line; reaching out to a common property line or “front facade” for all projects; defining a clear path through all the structures, defining some geometric element that repeats, etc. Think of the row-house analogy. (This part of the assignment was already assigned for Mon. AND Fri. last week, but in my opinion has not been addressed with serious commitment yet).

MODEL: Much as you did when you went from individual design to team design, ****REDESIGN**** your project to acknowledge the collaborative nature of the project, as well as the program review. Build a new 3" = 1'-0" model of your redesigned project that accurately shows framing member size as well as connections. Create the mini 2x4 elements out of real 2x4s, and use cardboard to simulate plywood. Do NOT simply expand the scale of your existing design.

ARCHITECTURE IS COLLABORATIVE AND COMMUNAL: True creativity and the most thought-provoking ideas come from working together, with both outside-imposed constraints, and self-imposed constraints. Architecture must be more than individual buildings dropped on a site. Architecture should grow out of the site, the context, the surroundings, AND the social ideals inherent in the place. It derives meaning and substance when it serves and represents community.



Architecture Studio: 2nd Year Fall

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(9/20/11)

PROJECT 1 – BUILDING SHELTER

ASSIGNMENTS 1L: (for Wed. Sept. 21)

Fill out the “Group Collaboration Assessment” form confidentially.

PRESENT: Each group should present their project to the whole studio. Use the opportunity to critique each other’s work, work together to distill each down to a “diagram” (we’ll talk about that term later, but do NOT merely think of it as simplification... a better word might be essence), or set of “non-negotiables.” Avoid the words “we want.” Question and interrogate each group about what they might give up, how they might be willing to “adjust” their project if it had to connect to a larger group identity more closely than now. How are they willing to compromise or explore creatively some of their main ideas within the group context?

SYSTEM: After having listened to all the other groups, each team should create a single, unified scenario for all 10 shelters. Allow yourself to rethink “The Fence”: promote a new vision, create a new place, demonstrate what your class wants to show the campus. What is the architecture school’s equivalent of “booth” or “buggy”? Work to “adjust” your own project, as well as all other projects to fit into a single coherent vision. Be sure there are concrete and definable connections between buildings, including physical connections, visual connections, experiential connections, and more intentionally designed “spaces in between.” Reach out and join with another project, or a group of projects to create larger ensembles. Force connections between projects. Create a system.

SITE MODEL: Each team should create a 1/4" scale site model in chipboard of all projects. Make models of all the other team’s shelters, feel free to “adjust” all projects so they form a systematic group. The change in scale should promote a radical rethinking of the whole.

SITE PLAN: Create a richly informative, presentation quality site plan on 24"x36" paper of all shelters. The scale of the drawing will depend on how big an area your team proposes to use to exhibit all shelters. Consider adding shadows, lines of movement, or other experiential elements to the drawing. Consider showing change over time, both how individual shelters change, and how the configuration of the shelters grows or changes over time. Add information to the site plan that explains HOW all the shelters “adjust” and WHY they go together.

