

first year: assignment four

spatial definition of a 2x4, part A

Issued	Monday, September 8, 2008 @ 4.00 p.m.
Objective	This project is an exploration of how a single building material can be used to define a volume. As part of the first shop seminar, you are to make a 2x4 (due on Wednesday, September 10th). This 2x4 is to be used throughout the semester for this as well as another project. Do NOT lose it or modify it in any way during this assignment.
Method / Process	<p>It is important for an architect to understand materials; research is a significant component of an architect's process in understanding materials. Listed below is a series of questions about the 2x4's role in our building tradition. In order for us to be ecologically minded about materials, you are asked to find answers to the following questions.</p> <ol style="list-style-type: none">1. What is a conventional 2x4?2. What are its typical dimensions?3. What is it typically made of?4. How is a 2x4 made?5. When did a 2x4 come into our building tradition?6. Why is a 2x4 an important element in making?7. What does the term embodied energy mean?8. How much embodied energy does it take to make a single 2x4?9. Compare the embodied energy of a 2x4 to some other item you know.
Project & Presentation Requirements	<ol style="list-style-type: none">1. Prepare a minimum one page (typed) written statement which answers the above questions. Use the web to help research these questions.2. Disassemble Assignment 3 before Wednesday's class. Use great care in removing the tape from the floor, walls, etc. Do NOT peel the paint when removing the tape.
Due	Wednesday, September 10, 2008 @ 1.30 p.m.

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spatial definition of a 2x4, part B

Issued	Wednesday, September 10, 2008 @ 4.00 p.m.
Objective	Using all of the 2x4's contained within your studio, combine them to define a volume utilizing any of the action words provided. When assembling, the individual 2x4s cannot be altered in any way. They cannot be cut, glued, nailed, etc. in making the assembly.
Action Words	Mirror, lap, overlap, extend, proportion, orthogonal, repetition, linear, grid, rhythm, datum, open, closed, interlocking, hierarchy, layering, interlock, rotate, align You should research what these terms mean before using them as part of your design process.
Method / Process	Prepare a series of freehand drawings (plans, sections, elevations, and three dimensional drawings) and 1/2" scale study models which show your ideas. You will need to laminate two pieces of chipboard together to make the two-ply chipboard in order to achieve the correct thickness. By sharing the 2x4s with your classmates, each one of you can test your ideas at actual scale (1:1) by building your design out of the 2x4s for stability and actual material properties.
Site	Your Studio
Materials	Wood pencils Tracing paper (12" x 24" sheets) Two-ply chipboard Xacto blades and holder Elmer's glue
Project & Presentation Requirements	<ol style="list-style-type: none">1. Prepare a series of freehand drawings as outlined above.2. Prepare a series of chipboard models of your designs at 1/2" = 1'-0". Use only chipboard when making these models.3. Be prepared to construct your design using the 2x4s during the studio time in a location of your instructor's choosing.
Due	Friday, September 12, 2008 @ 1.30 p.m.

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spatial definition of a 2x4, part C

Issued	Friday, September 12, 2008 @ 4.00 p.m.
Objective	Using all of the 2x4s contained within <u>all three studios</u> , combine the 2x4s to define a minimum of TWO volumes utilizing any of the action words previously provided, which can be loosely based on one of your previous designs. Remember when assembling, the individual 2x4s cannot be altered in any way. They cannot be cut, glued, nailed, etc. in making the assembly.
Action Words	Mirror, lap, overlap, extend, proportion, orthogonal, repetition, linear, grid, rhythm, datum, open, closed, interlocking, hierarchy, layering, interlock, rotate, align
Method / Process	Prepare a series of freehand drawings (plans, sections, elevations, and three dimensional drawings) and 1/2" scale study model to explore your ideas. Choose what you consider to be your final design and draft a plan, section and elevation of it. Consider when laying out your drawing how the plan, section and elevation can relate to each other on the sheet. In addition, make a chipboard model of your final design.
Materials	Lead holder (with 3 suggested leads 2H (light), H or F (medium), HB (dark)) 24" x 36" sheet of vellum Two-ply chipboard Xacto blades and holder
Project & Presentation Requirements	<ol style="list-style-type: none">Using (3) three line weights, describe your design in one drawing Line weight one (light): Construction lines Line weight two (medium): Elevation (front view) or plan (plan view) Line weight three (dark): section cut or plan cutFinal chipboard model at 1/2" = 1'-0" (include a scale figure made of chipboard. Figure should be a simple outline -- no stick figures, cartoon characters, etc.)During class time on Monday, the faculty will select one design from each of the studios to be built by you and your classmates at 1:1 scale in the Margaret Morrison Oval. Every studio will help in assembling each of the 3 selected designs.
Due	Monday, September 15, 2008 @ 1.30 p.m.