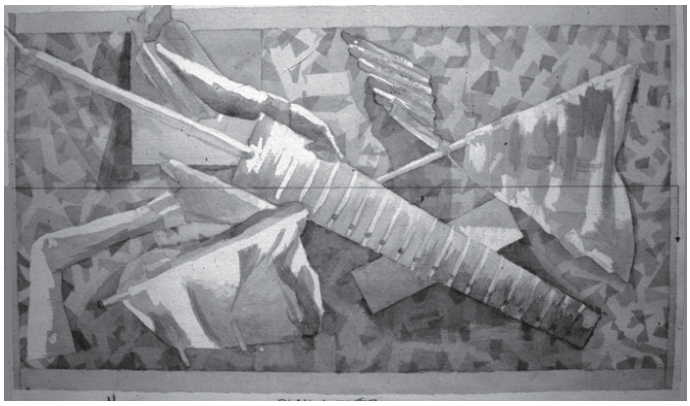
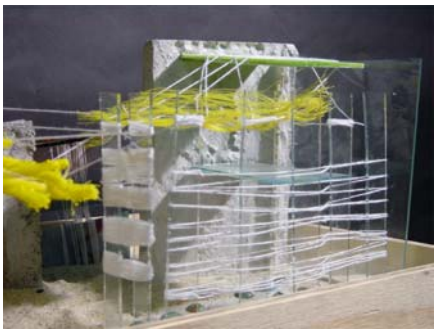
Clockwise from bottom: Wire, metal flashing, and wax / Student HA (2). Cedar shakes, metal flashing, and wax / Student BP (2). Colored bottles, metal rods, and concrete /Student DJ (3).

Opposite page, top row: Vessel II / Student SS. Middle rows: Animal Shelter / Student SS. Bottom row: Animal shelter /Student BJ.



Vessel I. Using three materials -- one rigid, one flexible, and one molten -- capture the space within a 12" x 24" x 18" volume. Create a variety of spatial conditions by manipulating mass and light. Anchor your vessel in 2" of sand with foundations designed to accommodate structural load and forces. Record the spatial/lighting conditions of your vessel at three times of day over three seasons, in plan, section, and perspectival view. Use a different medium to represent the light in each season, choosing from inkwash, color pastels, and charcoal.



The vessel project allows students to understand the potential of varied materials in organizing and defining space. Each material possesses its own structural and spatial logic, and students create space by responding to and challenging the materials' properties. Working with awareness of the materials' sensuous qualities aligns with Maurice Merleau-Ponty's conception of the lived world as a deep intertwining of perceiver and perceived.

Redesigning the vessel to respond to seasonal sun and wind introduces students to the basics of passive climatic design strategies. Transforming the vessel into a simple building (the students' first) introduces them to building design based on spatial quality, material properties, and climatic conditions.

Vessel II. Redesign the vessel for light and shadow to respond to sun and wind conditions for an east-west alignment along the long axis. Adapt as necessary to provide shelter from noon and afternoon summer light and north/northwest winter winds, and to admit winter daylight and south/southwest summer winds.

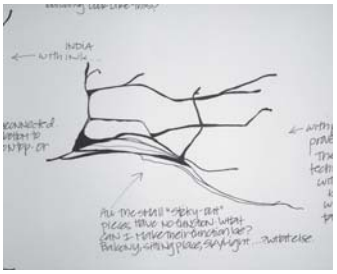
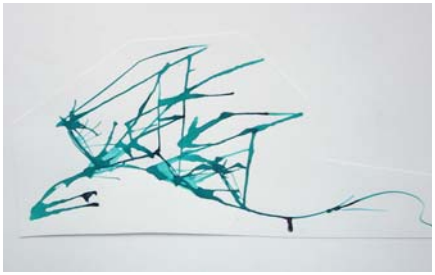
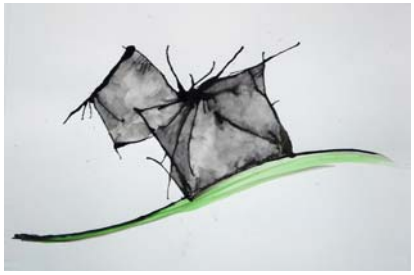
Animal Shelter. Transform the spatial qualities of the vessel to develop a schematic design for an animal shelter. Accommodate intake, care, and housing for dogs and cats along with office space and public reception.

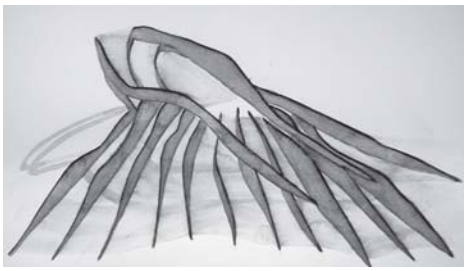


Clockwise from top left: Pastel surface study of Union Methodist Camp / Student BG. Pastel study of Giles Hall / Student MC Pastel study of Union Methodist Camp / Student CC.

Render a 12" square surface at full scale in color pastels, working to understand the subtleties of texture and color. Analyze the surface drawings to identify color systems and perceptual color relationships present within the surfaces.

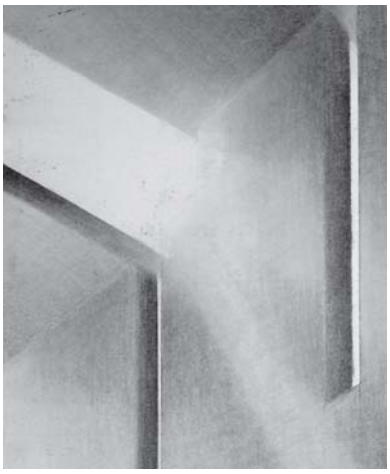
These projects complement studies of Johannes Itten's color systems and Josef Albers's perceptual color relationships.

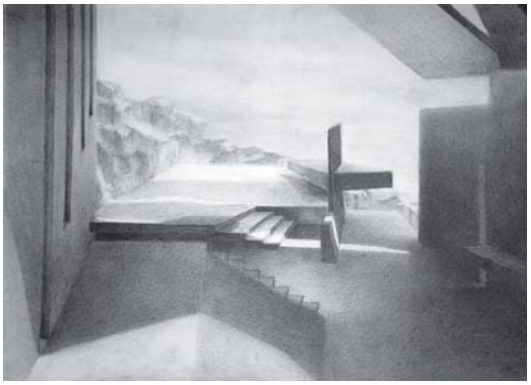




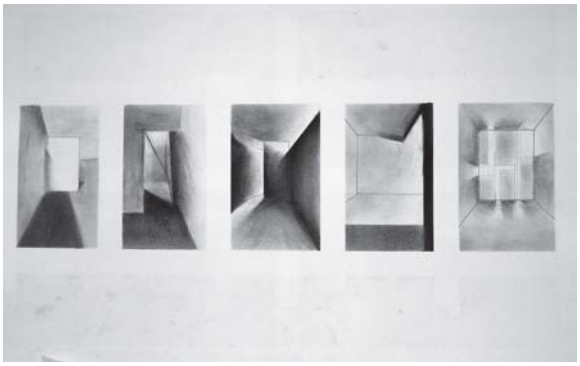



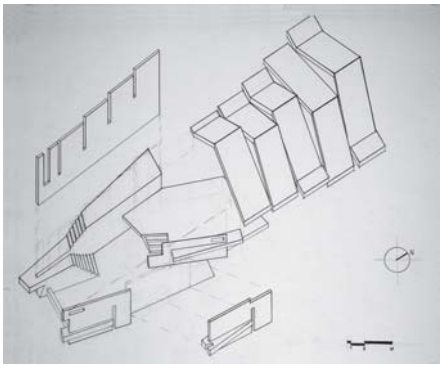
Bottom left: Graphic study of interwoven space / Student CB. Remaining images: spatial studies of a dynamic spatial condition / Student MN.

Through drawing and modeling, study selected spatial conditions and propose abstract constructions that manifest the conditions.









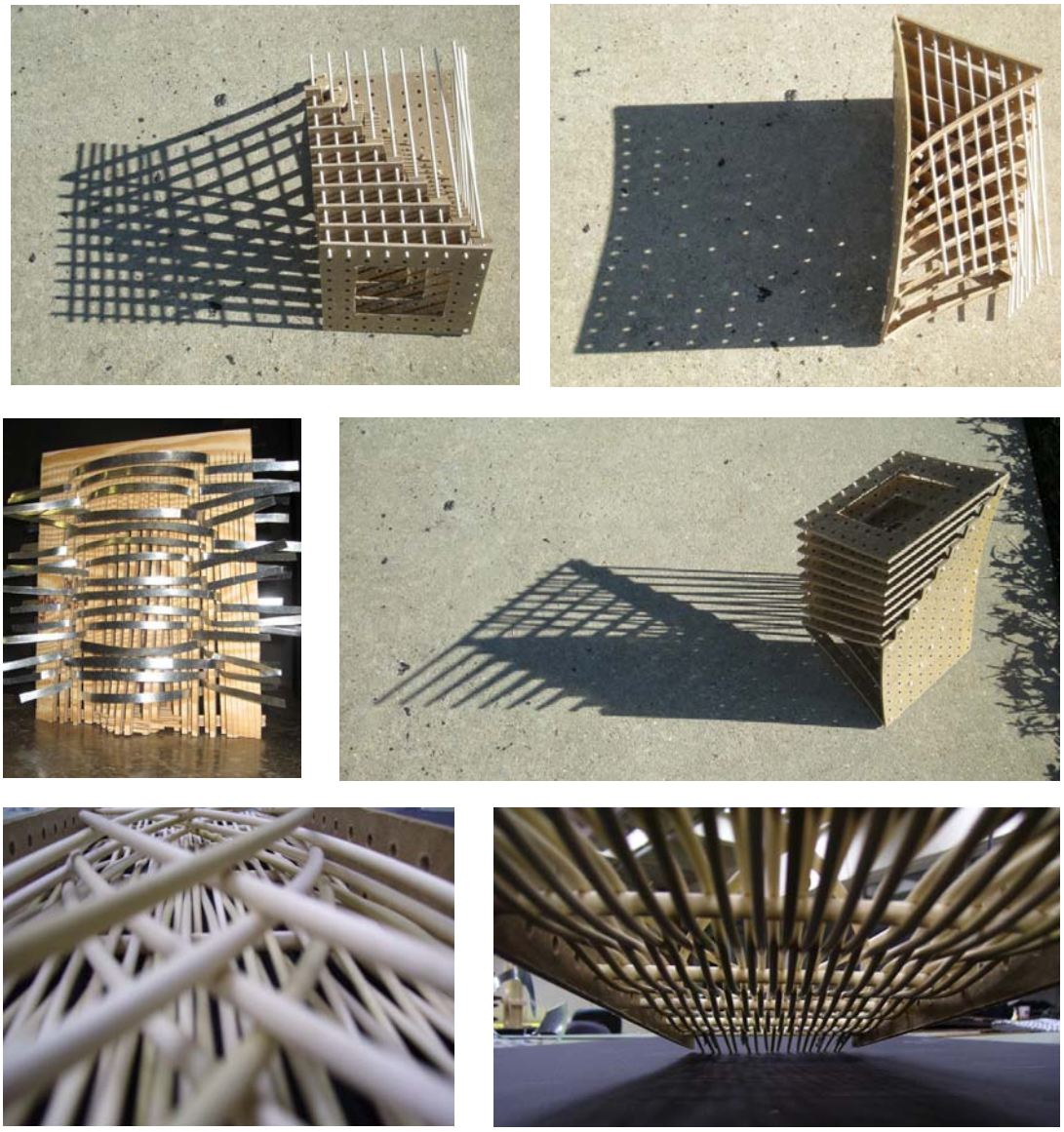
Left column: study of filtered and indirect light in a switchback spatial sequence / Student AB. Right column: study of gap lighting in a segmented space / Student MT.

Develop a proposition for a single space that has a way in, a way out, and a level change. Do the research necessary to fully understand the proposal, through precedent study and original modeling and drawing that test and analyze the success of the propositions.

This design studio emphasizing self-motivation and self-direction won an ACSA Creative Achievement Award. Students developed a spatial agenda for a single room and approached the term as a continuous spatial research project. With no intermediate due dates, students were responsible for putting a proposed number of hours per week toward their designs and were given critiques when they chose to sign up for them. They engaged a given set of supporting exercises in materials, color, and representation as needed to advance their work and set the agenda for their own critiques, which began with peer review. Students were also responsible for keeping a semester-long journal that documented their design inquiries and analyzed the work through annotated perspective drawings, color studies, and photographs of material studies.

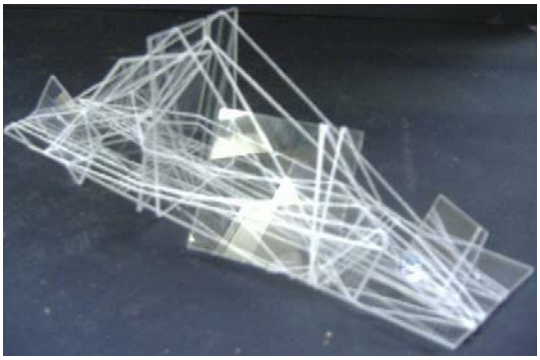
Spatial Propositions

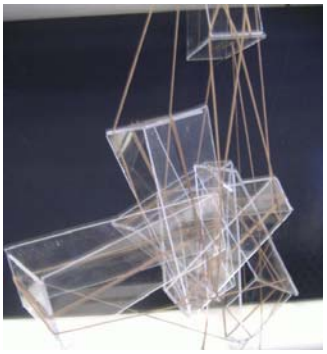
ARC 1546 Architectural Design I-B Spring 2006

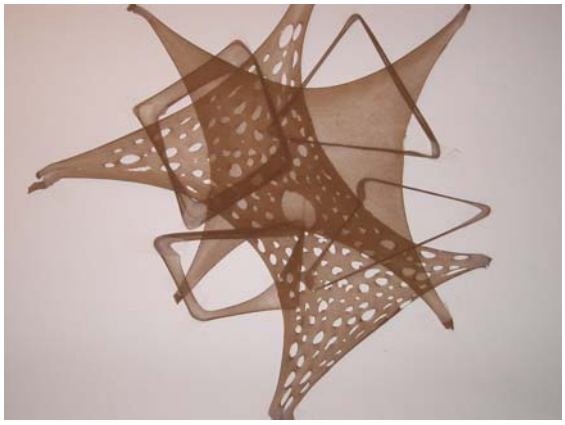


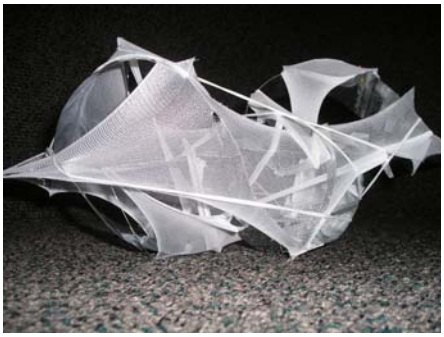
Middle row left: plywood and metal flashing material studies / Student BW. Remaining images: wood dowel and pegboard studies / Student SA. Opposite page, top row: nylon and plexiglass studies /Student KC. Middle and bottom rows: nylon and metal flashing studies / Student JC.

Using a flexible and a rigid material, carefully study each material's structural and surface properties and its potential for making joints and defining space. Bring the two materials together in a series of spatial constructions that explore the materials' potential for patterning surface and for defining, ordering, and structuring space.

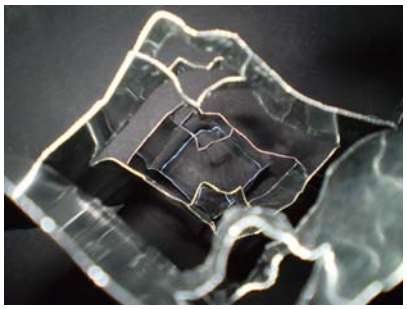


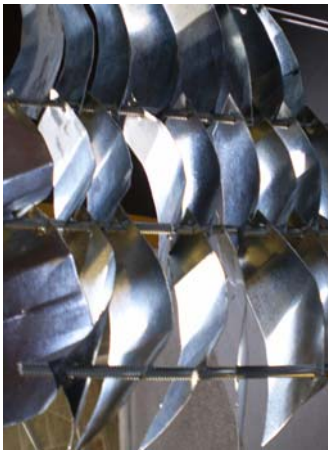


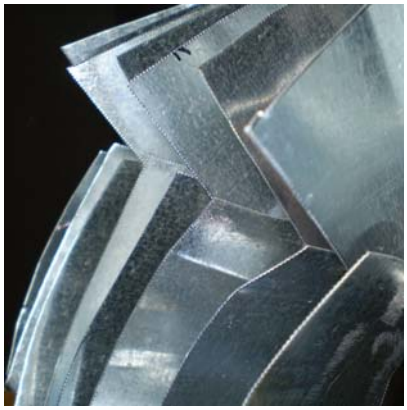




As students experiment to gain knowledge of the materials' potential for structuring, ordering, and enclosing space, they develop habits of inquiry that balance breadth (wide-ranging, open-ended questioning) and depth (discarding some initial directions and following up others that hold more promise). The materials' potential for joining generates particular patterns and repetitive moves with potential for defining space. Working in partnership with materials to generate permeable, patterned surfaces with structural depth and to develop structured yet variable systems of space, they learn that attunement to materials enriches spatial design.



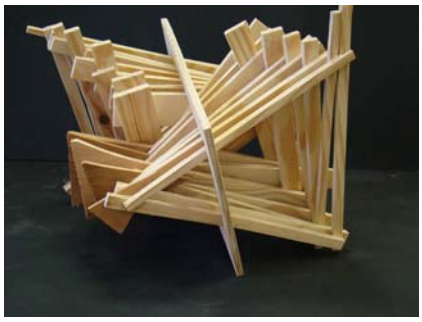


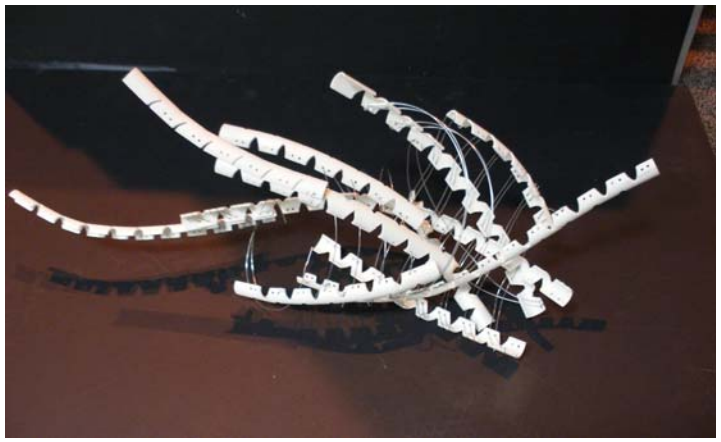


This page: Sheet aluminum and metal rod material studies / Jessica Harkins.

Opposite page, bottom right: PVC tube and wire study / Student TS. Remaining images: plywood studies / Student AB.

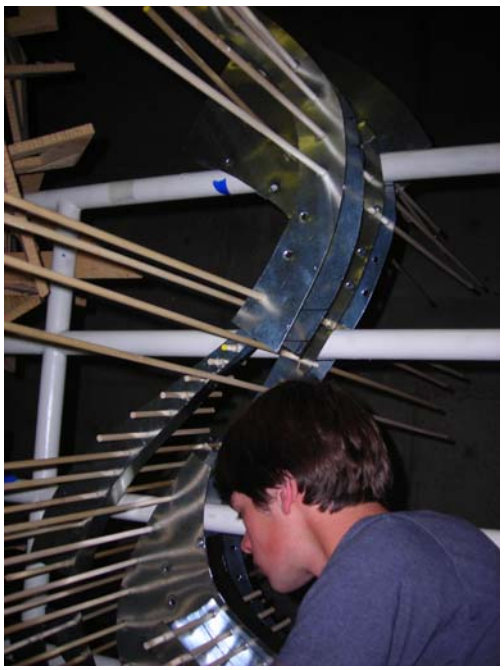




In complementary work, students draw cuts and views of the developing constructions to further understand their emerging spaces. They also come to understand that the way drawings relate to each other and to the sheet's negative space parallels the logic of the constructions they represent.

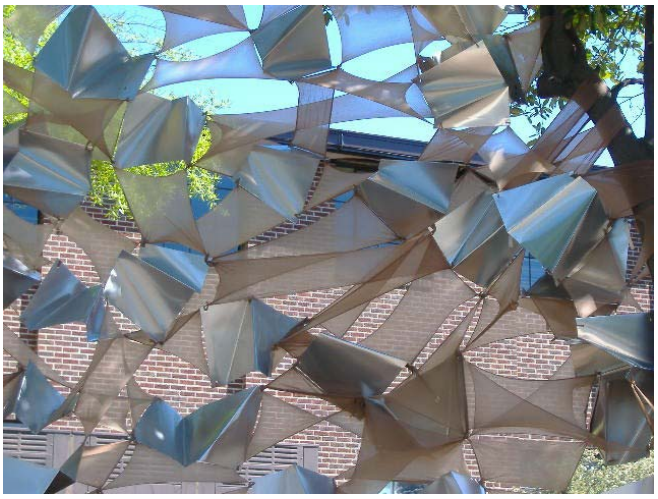
They also keep a daily design journals that record the design process, set goals and criteria for judgment, and evaluate the work.



Clockwise from top left: Wood dowel and metal flashing rail construction / Student CH. Wood dowel and metal flashing rail construction / Student NJ. Sheet alminum and metal rod rail construction (2) / Student JH.

Develop the preceding set of material-spatial propositions to adapt to a specific site along the studio railing. The study should be full human height, limited to 16" wide, attached to the railing with a clearly identified structural strategy, and held several inches above the floor.

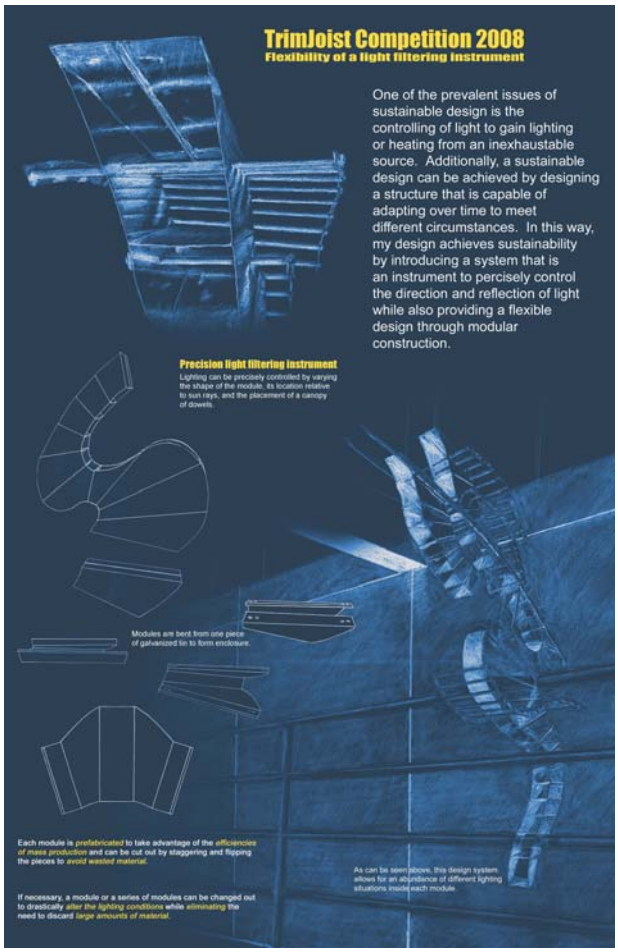
The rail project challenges students to adapt the space and structure of their material constructions to the logic of a site with existing spatial structure. Its structural dependence on the rail further manifests the interdependence of creative design and pre-existing conditions.



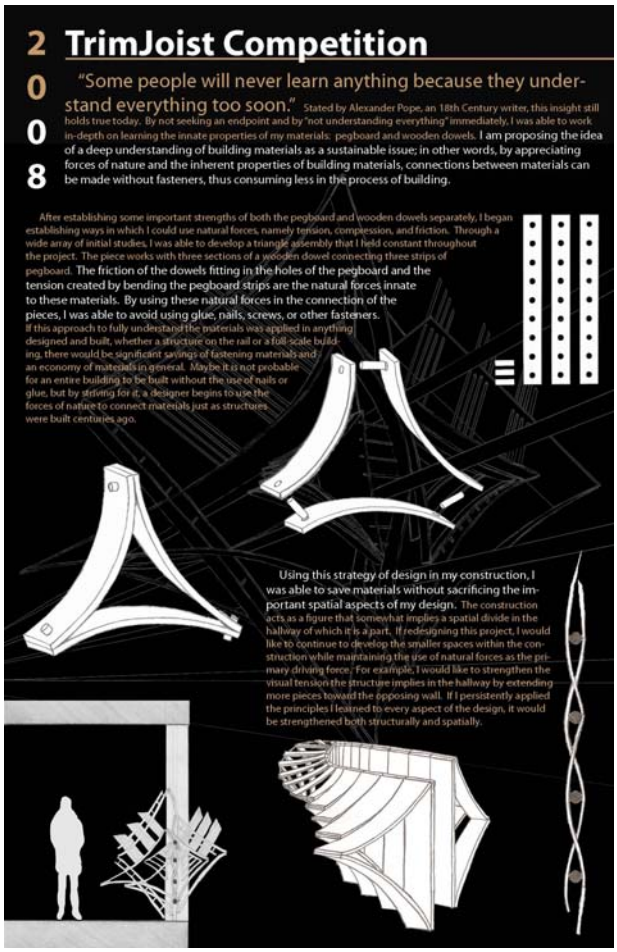
Clockwise from top left: Canvas canopy with metal rod structure / Students AS and SA. Nylon and metal screen wall / Student KC. Canvas canopy construc-tion process / Students AS and SA. Aluminum and cable tree enclosure (under construction) / Students BW, TD, and RM.

In teams, based on an experiential analysis of a chosen site around the architecture building, propose and construct an installation that responds to qualities already present in the site.

This team project allows students to develop organizational and communication skills as they work together to craft a clear set of design intentions and a strategy for realizing them. The project investigates structural principles, the potential of materials for making pattern and defining space, construction techniques, and construction sequencing. It also makes students aware of the need to adapt designs to reflect a growing understanding of material capabillities and limitations. A complementary drawing assignment records the design-construction process and the spatial character and organization of the finished work.

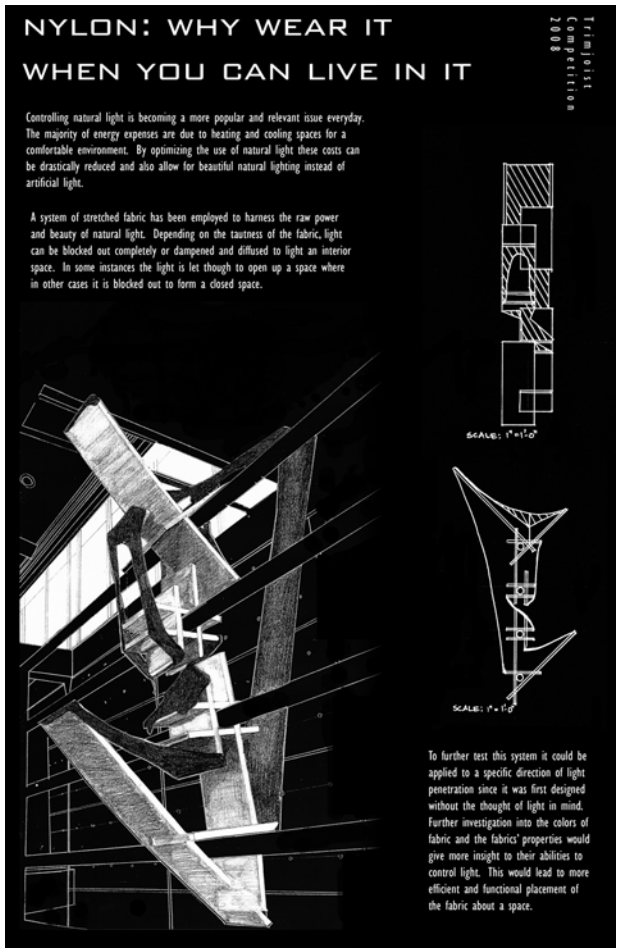


Poster of sheet metal and wooden dowel construction / Student RF.

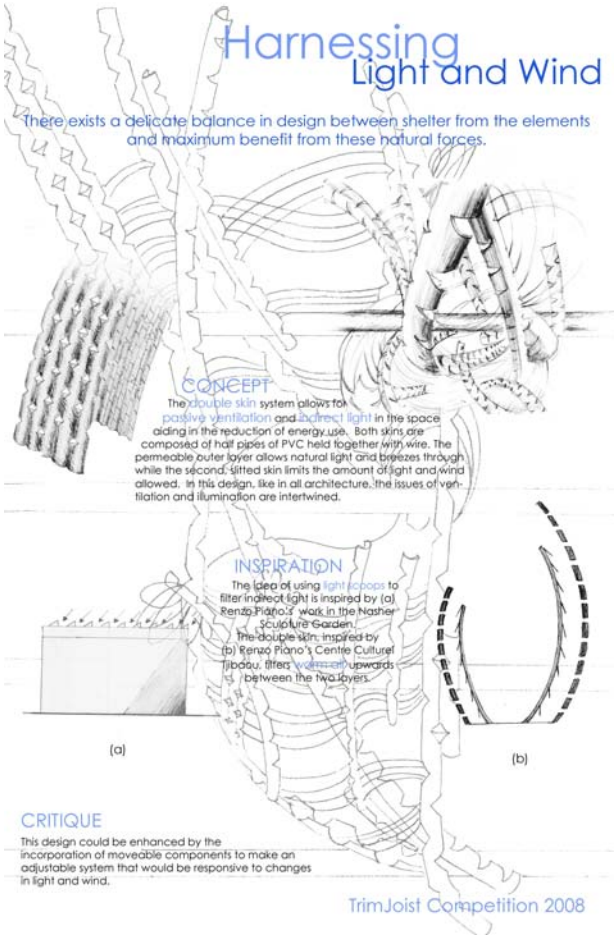


Poster of wooden dowel and pegboard construction / Student SA.

Compose a poster that communicates the potential of your rail construction for promoting sustainability. (Theme set by the competition.)



Poster of nylon and plywood rail construction / Student AG.



Poster of PVC pipe and wire rail construction / Student TS.

The poster design challenges students to communicate the spatial and constructive underpinnings of their rail constructions in conjunction with developing a clear statement of principle about sustainability. Principles of visual hierarchy and order in the graphic elements parallel principles of informational hierarchy and clarity in the written work. Several written drafts allow students to increase the clarity of the text, which intertwines with drawings as an additional graphic element on the page. 2 of 4 school-wide awards went to the first-year studio.