

The FORM/work studio offers a unique opportunity for students interested in a comprehensive, project-based, hands-on approach to architectural education that is engaged in a diverse spectrum of issues related to the act of making Architecture. In contrast to traditional design education and conventional building practices that rigidly separate design and construction, FORM/work attempts to combine these areas of expertise in order to expose students to a complete educational experience that addresses both the art and craft of Architecture. The emphasis on engaging architecture as an integrated endeavor provides the basis for a wide range of explorations into tectonic materiality, formal gymnastics, spatial landscapes, sustainable technologies, and community outreach.

Architectural education has, historically focused on developing a student's design ability through abstract methods of representation; primarily drawings and models. Very often these abstractions take on a language of their own, divorcing the student from the realities of materiality, spatial character, and building methods to which their drawings presumably refer. Further, this abstract language serves to divorce the architectural profession from the allied construction + engineering professions by separating the design of architecture from the act of making.

Immersed in the complexity of a specific place/project, participants in the FORM/work studio explore environmental design as an act of engagement influenced by variables that resist reductive codification and abstract delineation.

Specifically, the goal is to augment traditional design education with a curriculum based on collaborative, firsthand, full-scale, tactile immersion in a specific, cultural environment. The program utilizes a cross-disciplinary, research/design/build model designed to teach civic responsibility through culturally specific, environmentally responsible, and socially empowering lessons that engage underserved communities.

Objectives:

- 1) to expand the scope of design education beyond the limitations of traditional, drawing-based curriculum through the integration of direct, hands-on exposure to the historical, environmental, and cultural specificity of a particular place.
- 2) to prepare students for the complex realities of the design professions through collaboration with the diverse spectrum of clients, contractors, construction experts, material suppliers, craftsmen, and consultants whose expertise are integral to the making of physical environments.
- 3) to expose students to the three-dimensional experience of space/place in an effort to clarify the relationship between what they imagine in drawing and what is required, physically, to make that drawing a reality.
- 4) to produce architecture of exquisite intellectual, tactile, spatial, and formal beauty.

TrailerWrap:

TrailerWrap addresses issues of affordable housing and sustainability through the adaptive reuse of ubiquitous, existing mobile home infrastructures commonly found in both urban and rural contexts. Specifically, the project will explore the potential for reutilizing the core structural, mechanical, and septic components of aging trailers in combination with sustainable, energy efficient, straw bale construction technologies.

Working from initial schematics developed in the Spring 2005 students will push the project through the design and implementation of details for the foundation, the straw bale wall, and the roof. Project development will require students to coordinate conceptual intentions with the realities imposed city building codes, structural requirements, and budget constraints.

The studio will focus on direct encounter with the material, logistical, and technical realities of full-scale construction from the standpoint of critical, architectural, design practice. In addition to learning the pragmatics of craftsmanship and building techniques, we will look at the role of making as an integral extension of the design process. Working in the field, meeting with the city, working with contractors, and learning to confront/overcome logistical hurdles in real time, students in this course will encounter both the agony and ecstasy of making, and sometimes re-making, architecture. This context provides us with an opportunity to explore the act of construction as a fundamental component of design. Ultimately, the goal is to occupy the gap between design and making while challenging the conventions of contemporary practice.

Community Outreach:

This project aims to foster campus connections to the community and promote social justice through the construction of a home for a low-income household. The home will also serve as a demonstration model pivotal to the success of planned applications for external funding to support future projects.

The project involves collaboration between the University of Colorado and the Affordable Housing Alliance, Thistle Community Housing and the Mapleton Mobile Home Owner's Association as community partners.

This project will introduce and engage architecture students in an exercise that promotes civic responsibility and community involvement as a viable, exciting, and worthwhile use of their design education. The project will provide students with a better understanding of the pressing housing needs of low-income households. Through the project, students will also gain hands-on experience in the construction of an affordable housing unit using sustainable building technology that combines straw bales with a mobile home core.

A tangible outcome will be a completed housing unit, meeting local codes and standards, which will be made available to a low-income household. We also expect that this course will increase students' awareness of unmet basic needs among the clients they serve and strengthen their sense of social responsibility, deepening their motivation for further civic engagement in their future professional development.

Background. Housing affordability is a serious problem for low-income households in the state of Colorado and locally. In the last decade, average rent in Colorado increased 103% and the median price of single-family homes rose by 131%. In contrast, wages grew by only 71%. The Housing Wage in Colorado is \$16.29. This is the amount a full-time worker (40 hours per week) must earn per hour in order to afford a two-bedroom unit at the area's Fair Market rent. This is 316% of the minimum wage (\$5.15 per hour). In 2003, 50% of Boulder County renters were unable to afford a two-bedroom apartment at the Fair Market Value (FMV) established by the U.S. Department of Housing and Urban Development. To afford a two-bedroom apartment at FMV, someone would have to work 147 hours p/wk. at minimum wage or 40 hours at \$18.90/hour.

Organization:

The very nature of the FORM/work studio demands that you participate fully, engage the team format enthusiastically, communicate your ideas with passion AND respect for others, struggle to reach agreement, and above all WORK. Please be aware that expectations in terms of your time, participation, and commitment are high. The workloads required in this class are extreme, as are the potential rewards. Day to day this class will operate much like a small, professional office, as opposed to a typical studio. Anticipate that both group and individual success in this endeavor will require your intense commitment over the course of the entire semester.

Liability:

All students participating in on-site construction will be required to sign a volunteer waiver form and carry their own health insurance.

Recommended Reading:

Good Deeds, Good Design: Community Service Through Architecture, ed Bryan Bell
Rural Studio: Samuel Mockbee and an Architecture of Decency, A. Openheimer Dean
Learning by Building: Design and Construction in Architectural Education, W. Carpenter
immaterial | ultramaterial: architecture, design, and materials, ed. Toshiko Mori
Graphic Standards, 8th edition. Ramsey/Sleeper, (as necessary)

Recommended Training:

The University of Colorado offers training in metal working through the Physics Trades Teaching Lab. Currently there are two classes to choose from Machine Shop Technology Course and Beginning Welding Course. These classes are small, (6 students per week-long class), offer real hands-on experience, and open to students, faculty and staff. These courses, the only ones that the Department of Risk Management has given a stamp of approval to, are being taught by the talented, accomplished, and award winning machinist/Master Welder Sid Gustafson. Completing these courses gives you full access to the fantastic machine shop for no additional cost.

For information on class availability please contact: Sid Gustafson at sid.gustafson@colorado.edu or call 303-492-8545.

Instructor Information:

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