

(AfH) Architecture for Humanity : Shipping Container Studio

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"Architecture for Humanity represents the finest of the new breed of architectural leadership, employing architectural skills and directing them for the larger good. Committed, unapologetically architectural in name and mission, Architecture for Humanity stands up for people in need."

– Robert Ivy, Editor in Chief, Architectural Record

Course Description:

This studio will deal primarily with container-related architecture and modification. The students will be addressing needs identified by Architecture for Humanity (AfH) concerning the development of container-centric approaches to humanitarian shelter issues. This collaboration promises a meaningful and technically-challenging process. Working with the shipping container as salvage module and focusing upon real-world projects that AfH is currently initiating, this studio will provide a hands-on design/build experience with direct humanitarian applications. While the primary topic of the studio will be disaster response, the students will be looking beyond the initial relief action, directly addressing the question, "what happens after the media leaves the disaster zone?" After the design development and modeling phase of the studio, students will work directly with AfH staff and volunteers to produce prototype humanitarian architecture for actual deployment in areas of need. We don't necessarily believe that replicating a design that was successful in one situation will affect another in the same way. However, by encouraging locally inspired designs, one can inspire new solutions that can be shared and freely adapted by all. In a sense, we will be using the container to seed change. Through the power of professional design, we can build safer, sustainable and more innovative structures, structures that become assets to their communities and visual indicators of positive change and recovery. .

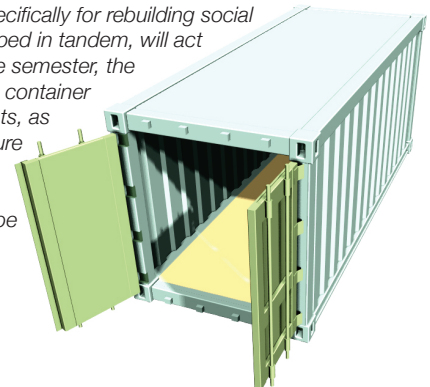
Initial Phase:

Phase one of the studio will be a two-week design charrette with Adventure Ecology's Plastiki expedition. In cooperation with National Geographic's Explorer, AfH has been chosen to collaborate in the design and fabrication of an ocean going catamaran, the Plastiki. The sixty-foot ship is to be constructed with recycled plastic bottles, and post-consumer plastics, for a California to Australia voyage. The purpose of this journey is to raise awareness of ocean pollution and climate change. The main focus of the student's involvement will be the design development of a demountable six-person crew cabin complete with all applicable survival and navigational support systems. Due to the demanding nature of the voyage and the distances involved (over seven-thousand nautical miles), the structural and programmatic considerations of the catamaran's design are quite rigorous. This introductory project will be an exercise in both parametric and sustainable design. That is, to work with pre-defined space envelopes and materials as by defined by Adventure Ecology's naval architects. During the charrette the students will partner up, each team working to develop a cabin design using both physical and digital modeling techniques. Currently, a one-third scale prototype of the Plastiki's hull is undergoing sea trials in San Francisco Bay..

Final Phase:

Upon completion of the Plastiki charrette the students will move into the final project. Applying the insight gained during the first phase students will begin their investigation of the intermodal shipping container as design envelope, structural building block, payload delivery system and humanitarian aid unit. Again working in teams, they will measure and digitally model a standard (ISO) six-meter shipping container. This base model will act as the template for the studio and will give a working knowledge of the unit's structure and fabrication. From this, each team will work toward the realization of a two-part modified container system for deployment to disaster sites around the world. The primary unit will function as a workshop/replicator and physical blueprint. In essence a workshop and model for the construction of additional modules out of empty containers in the field. The second unit will be specifically for rebuilding social infrastructure, by acting as a community hub for communication and education. These units, shipped in tandem, will act as seeders for community redevelopment two to ten years into the future. During the course of the semester, the students will be learning various metal fabrication and construction techniques applying directly to container modification. These practical skills will be necessary for the final studio project in which the students, as a group, will be designing and building two fully functional prototypes for field-testing by Architecture for Humanity.

After the initial charrette, studio will meet off campus at least once per week. The final project will be fabricated at container faciliz in either Compton or Wilmington (Port of Los Angeles) and students will be required to attend. A studio trip to San Francisco to visit the Plastiki workshop and the AfH headquarters is planned as well.



Cameron Sinclair and Nathaniel Corum will be joining the studio several times throughout the semester including mid and final reviews.