Cornell University Sustainable Design utilizes an interdisciplinary, research-based approach in design and innovation to create resilient structures in the built environment and realize a future of ecological, social, and economic sustainability.
CUSD promotes education through action, empowerment, and innovation. Students and professors from departments and majors all over campus collaborate to transform the classroom into a real-life interdisciplinary studio. Our goal is to apply the collective creative capital of our students in a unique situation to develop long-term sustainable solutions.
Our students come from a multitude of backgrounds and represent each of the seven undergraduate colleges at Cornell, as well as several graduate programs. The professors we work with are involved in various fields of study, and present a diverse range of opinions and perspectives on our work.
Most diverse project team on campus
Members from all undergraduate colleges
Over 400 interested students
Formerly the Cornell University Solar Decathlon, CUSD participated in three US Dept. of Energy Solar Decathlon Competitions. In October of 2009, the organization rebranded itself to reflect a new focus on a comprehensive understanding of social and environmental sustainability. Since restructuring, CUSD has partnered with two organizations, Education Africa and the Institute for Computational Sustainability and is pursuing two projects simultaneously.
Schoolhouse South Africa is an interdisciplinary student-led design-build project and research endeavor orchestrated by Cornell University Sustainable Design (CUSD). The aims to integrate social responsibility into the vision of sustainable design. We have partnered with Education Africa, a non-profit organization that focuses on counter poverty measures through education.
Education Africa partners with universities to build schools in South Africa and run education programs. CUSD is partnering with Education Africa to finance, design and build a 6,000 square foot pre-school and teacher training center, known locally as a crèche, which will be constructed by August 1, 2011 in Cosmo City, South Africa.
PROJECT TIMELINE

- **RESEARCH**
  - Students collect and analyze data & compile research into a publication to inform the design. Several students will conduct a site visit.
  - **August - December 2010**

- **DESIGN**
  - Sixty architecture students design and develop the crèche alongside students in a lecture seminar and construction workshop course.
  - **January - May 2011**

- **CONSTRUCT**
  - Volunteer students travel to Cosmo City to build the crèche with help from our partners in South Africa and local construction workers.
  - **June - August 2011**
To culminate our intensive research phase, we produced a 206-page graphic research book about sustainable design in South Africa which is now available in university libraries. The book informed the studio architects who competed to produce the most sustainable, appropriate design in the next phase.
CUSD worked closely with studio architects to make design recommendations. Our clients, partner engineering firms, and guest critics provided valuable feedback. In addition, we used models to assess the thermal performance, embodied energy, daylighting performance and constructibility of the various designs. Over the semester, we narrowed 62 designs down to 1.
In May, our local partners broke ground and began grading the site of our pre-school. Our team of 27 volunteers will arrive on site June 15 to begin construction. We will work with local laborers, who will receive a certificate of skills transfer after our 2-month construction process.
In 2010, Cornell University received a $10 million grant for computational sustainability from the National Science Foundation. CUSD will use part of these funds to design and build a living laboratory of sustainable technologies call Sustainable Research Facility (SRF) on Cornell campus.
To learn more, see our videos at vimeo.com/user5966193
And visit our website at www.cusd.cornell.edu/ssa/