

Competing in the Solar Decathlon A U of M student builds his first solar house

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As I look around my Tuesday night class in the University of Maryland's School of Architecture, Preservation, and Planning, I am overwhelmed by the volume and diversity of activity. People and ideas flow rapidly throughout the room. At a bulletin board, several students take turns explaining and exploring an innovative cooling system. In another corner, a student shows several professors the progress he has made on a website. In the opposite corner, another group is engaged in a discussion with a project management expert about cost analysis.

This is an example of the thinly controlled chaos of a typical meeting of LEAFHouse, the Maryland entrant in the 2007 Solar Decathlon. The Solar Decathlon is a competition run by the U.S. Department of Energy in which universities from around the country and around the world display completely solar-powered houses on the National Mall in Washington. These houses are then judged in ten contests, ranging from architecture and engineering to market viability and energy balance.

Maryland has participated in both the inaugural decathlon, in 2002, and the second, in 2005, and is one of twenty teams selected to compete in the fall of 2007. This fall, the University offered two classes for students involved in the project, which meet simultaneously on Tuesday nights in the Architecture building. These classes are focused on learning about the sustainable design process and solar technology used in the house, and then employing that knowledge to help prepare for the construction of the actual house, which is slated to begin this coming January.

My own participation in the Maryland Solar Decathlon team began this past January. Although I hadn't attended the previous Solar Decathlon competitions, a relative who had worked on the 2005 Rhode Island School of Design house had told me what a great experience it had been for him. When I heard about the first meeting of the 2007 team on a listserv, I decided to attend, even though, not being an engineering or architecture student, I was unsure about how I would be able to contribute.

Coming from a humanities and social science background, I was also used to more reserved discussions and staid lectures, and therefore completely unprepared and thoroughly enthralled by the creative chaos of that first meeting, which consisted of everyone present, students, faculty, and professional mentors, taking turns shouting out hopes they had for the house, which were then recorded on several large sheets of paper. These hopes ranged from the general to the specific, from the achievable to the absurd, but what was truly established was a sense of equality of ideas. Everyone's opinion was respected, and everyone's input mattered.

The inclusive collaboration of this first day cemented my commitment to the project. I was quickly assimilated into the fundraising and outreach team, which concerns itself with spreading the word about our project in the community so that we can raise our construction budget. One of the team's major accomplishments so far was our Solar Equinox Event, held at Community Forklift in Edmonston, Maryland, where team members unveiled the house design before a crowd of over a hundred invited guests. Another task in which we were intimately involved was the development of our team name, LEAFHouse.

LEAF stands for "Leading Everyone to an Abundant Future," something we, and the entire Solar Decathlon competition, hope to accomplish through the demonstration of environmentally sound and sustainable design. The leaf is also the ultimate solar panel, naturally collecting sunlight and converting it into energy. Having a leaf as a metaphor for our home then also emphasizes our objective of looking to nature for inspiration.

The idea for this name came out of the kind of frenzied, passionate discussions that define the class and distinguish my participation in LEAFHouse among my other collegiate experiences. As I pack up my laptop, dispose of the several soda cans I've gone through (in the recycling, of course), and head back to my apartment at the end of a typical class, I'm completely exhausted. And yet my exhaustion is balanced by my excitement, not only by what we have accomplished that day, but also by what we plan to accomplish in the coming days, and by the prospect of a new day in energy independence that we are working together to bring about.

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