

**Urbanite #19 January 06**

By: Julie Gabrielli, AIA

Eco-friendly design is getting to be a popular spectator sport. This past fall, when a “solar village” appeared on the National Mall in Washington, D.C., 120,000 visitors came out to tour the eighteen houses that were designed, built, and transported to the city by student teams from colleges and universities from the United States, Canada, and Spain. For most visitors, this was a rare chance to experience the wide range of eco details—green materials, renewable energy technology, and countless creative ideas for compact spaces. Spectators braved inclement weather, waiting in long lines to get a peak at the innovative designs, like the home created by students from the University of Maryland.

But this was no fluffy “house beautiful” contest. Sponsored by the U.S. Department of Energy Office of Energy Efficiency and Renewable Energy, the Solar Decathlon is a serious competition that tests performance in ten categories, including architecture, energy balance, water heating, and comfort. Top industry judges filed through the homes over the ten-day event, and the solar energy data produced by the structures was closely monitored and analyzed.

Who knew there was this much mainstream interest in modest, but oh-so-coolly designed, sunpowered homes? “Mom, if we installed solar in our house, we could spend a lot less money,” observed one 9-year-old boy in the line for the University of Texas at Austin house.

University of Maryland’s team of more than 100 students spent three years gaining invaluable hands-on experience with sustainable design as they created their own solar-powered entry for the competition. Architecture group leader and graduate student Mike Binder said that the team wanted the house to be impressive, but also comfortable and easy to imagine as a home. In that, they succeeded: Visitors chose it for the “People’s Choice” award, and it placed eighth overall.

An unofficial category revealed itself that rainy week in October—could these houses built for the sun withstand an overabundance of rain? The University of Maryland house was one of the few that didn’t leak, no doubt adding to its appeal to visitors. Its openness, sunny interior, livability, and airy design were also admired. Local vendors and craftspeople helped the students to bring their ideas to fruition. Baltimore-based design-build studio Luke Works helped to create wheatboard and bamboo plywood cabinets and cast the fly-ash concrete countertops for the kitchen. EarthSun Energy Systems, a green residential design/build firm in Hyattsville, supplied the solar hot water tubes. Columbia’s Chesapeake Lighting Associates donated lighting, and Muléh, an upscale boutique in D.C. that blends the organic with the contemporary, loaned the furniture.

Graham Thompson, a superintendent for Whiting-Turner, and Chris Fromherz, a project manager for Whiting-Turner, both offered the students professional and technical advice and also facilitated donations ranging from materials to forklifts.

Once inside the University of Maryland house, visitors asked a wide range of questions, from the technical (How much power do the solar panels produce?) to the material (Where can I get this bamboo flooring? These energy-saving appliances? These recycled glass tiles?). Many people asked if they could buy blueprints of the 800-square-foot house. This was a nice surprise, given that the size of the average American house has doubled to 2,349 square-feet in the last fifty years, according to the National Association of Home Builders. If people can enthusiastically embrace these tiny prototypes, what does that say about the current offerings in the housing industry?

Najahya Chinchilla, a graduate architecture student at the University of Maryland who served as co-project manager, was impressed by the level of training and technical knowledge that goes into a special project such as this. Her undergraduate degree in environmental policy helped her to see, for example, how installation expertise can drive local pricing of renewable energy and efficiency technologies. Her take-away from the experience was an appreciation for how complex projects get implemented in real life. She was up to the challenge of interacting with many different trades, making sure that everyone was on the same page, even "selling" them on the ideas behind the house and its unusual technologies.

Today, the University of Maryland house has been relocated to Red Wiggler Community Farm in Montgomery County, where it will provide an affordable housing opportunity for a Red Wiggler staff member. The students partnered with Farm Director Woody Woodroof in June 2005, who acted as the "client" and also scouted potential donors to fund the house's construction.

"We will offer scheduled interpretive tours where participants can view the outside of the house and learn about its history, and hear how it is performing and how it relates to broader sustainability issues," Woodroof says. He will also monitor the efficiency of the house, which may help future solar decathletes as they design the next generation of solar homes.

Just as Olympic athletes begin training for the next competition soon after the games close, the next University of Maryland Solar Decathlon team is already in formation for the 2007 competition. With a lot of hard work and community support, this group will once again put Maryland on the renewable energy map.

Copyright 2007 Urbanite Baltimore // [contact@urbanitebaltimore.com](mailto:contact@urbanitebaltimore.com)  
Created & Powered by [Mission Media](#)