U.Va.'s Learning Barge Project Wins $75,000 EPA P3 Award for Sustainable Design

May 7, 2007 -- A team of University of Virginia architecture and engineering students won the EPA's prestigious Third Annual P3 (People, Prosperity and the Planet) Award in the National Sustainable Design Expo, a student design contest for sustainability, held on the Washington, D.C. Mall on April 24 and 25. U.Va.'s entry, "The Learning Barge: Environmental + Cultural Ecologies on the Elizabeth River," was one of six projects to be recognized with Sustainability Design Awards of $75,000.

In addition, the project is the winner of the 2007 Youth Council for Sustainable Science and Technology P3 Design Award from the American Institute of Chemical Engineers.

"Challenges are especially intense in places like the Elizabeth River, where fragile ecosystems, chemical contamination, industrial activity and human inhabitation attempt to co-exist. The natural environment and urban settlement are often considered incompatible, but this simplistic dichotomy is unsustainable if we wish to restore a healthy environment for inhabitation by all species," said Phoebe Crisman, assistant professor of architecture and faculty leader of the project.

The Learning Barge is a collaborative design and fabrication initiative of students from the School of Architecture and School of Engineering and Applied Science that incorporates research and sustainable design principles to promote environmental education on the Elizabeth River, one of the most polluted estuaries of the Chesapeake Bay. The floating field station is powered by solar and wind energy, collects rainwater, filters gray water with native plants and utilizes recycled and renewable materials.

The integrated educational component for K-12 school children offers opportunities to experience the river firsthand and engage in hands-on exploration and learning. The project is a collaboration with the Elizabeth River Project in southeastern Virginia.

"The Learning Barge initiative represents the effectiveness of architectural strategies to operate at multiple scales, reach out to diverse communities, demonstrate the didactic value of design for public environmental education and make positive change in the world," Crisman said.

The U.Va. team of architecture and engineering students includes Erin Binney, Andrew Daley, Elizabeth Davis, Kevin Day, Adam Donovan, Erin Dorr, Ayman El-barasi, Katharine Lafsky, Kelly McConnaha, Molly...

"For an educator this project has a double payoff. It’s a valuable design experience for the U.Va. students, and it will teach thousands of K-12 students about green technologies, such as solar and wind energy, as well as the Elizabeth River ecosystem," Marshall said.

The Learning Barge recently won a $7,500 2007 NCARB Prize for Creative Integration of Practice and Education in the Academy from the National Council of Architectural Registration Boards and received a $125,000 grant from the Lowe’s Charitable and Educational Foundation. It also has received a $30,500 grant from the Virginia Environmental Foundation, a $10,000 EPA P3 Phase 1 grant, $10,000 from the School of Architecture's Public Service Fellowship Program and $2,500 from the School of Architecture Foundation. In addition, the project also garnered a 2007 Virginia Go Green Honor Award by the James River Green Building Council.

"The Learning Barge has generated national interest and recognition as an extraordinary model for architectural education, engagement between the University and local communities and cross-disciplinary collaboration. The project represents the Department of Architecture and Landscape Architecture's commitment to design strategies that bring disciplines together to address critical needs, said department chair Bill Sherman.

The School of Architecture also ranked first among the nation's graduate architecture programs for sustainable design practices and principles in the eighth annual "America's Best Architecture Design Schools" study conducted by the Design Futures Council.

Information and images of the Learning Barge project are available at: www.arch.virginia.edu/learningbarge/.

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