



Smithsonian  
National Museum of American History  
Lemelson Center for the Study of Invention and Innovation

## ***Sustainable Shelter***

***Exploring Socially Responsible Innovation in Architecture***

***March 25, 2006***

***Oregon Museum of Science and Industry  
Portland, Oregon***

The Smithsonian's Lemelson Center for the Study of Invention and Innovation invites you to learn how contemporary innovators in architecture are ensuring their designs benefit the common good—from preserving the environment to improving building inhabitants' quality of life. The subject will be discussed at **Sustainable Shelter**, a public program on Saturday, March 25, from 10 a.m. to 5 p.m. at the Oregon Museum of Science and Industry (OMSI). The program is free with OMSI general admission.



Sustainable Shelter explores socially responsible inventions in architecture, explains the history of their development, and examines ways that organizations and individuals put their philosophies on sustainability into practice in the kind of spaces they create for themselves. Participants will also have the opportunity to step inside a temporary relief shelter designed to house people displaced by war or natural disaster.

### **PROGRAM/AGENDA**

#### ***10 a.m.—Welcome***

**Arthur Molella**, Jerome and Dorothy Lemelson Director  
Lemelson Center for the Study of Invention and Innovation, Smithsonian Institution

**Nancy Steuber**, director, Oregon Museum of Science and Industry

#### ***10.15 a.m. —Keynote***

**Sim Van der Ryn**, president, Van der Ryn Architects, Sausalito, CA

Van der Ryn taught architecture and design at the University of California, Berkeley, for over 30 years, inspiring a new generation to create buildings and communities sensitive to place, climate and the flow of human interactions. Appointed California State Architect in the 1970s by then-Governor Jerry Brown, Van der Ryn introduced the nation's first energy-efficient government building projects. His vision and persuasive skills heralded a golden age of ecologically sensitive design and resulted in the adoption of strict energy and disability access standards for all state buildings and parks. As the author of six groundbreaking books

about planning and design, Van der Ryn has inspired architects to see the myriad ways they can apply physical and social ecology to architecture and environmental design.

Van der Ryn's new book, *Design For Life* (Gibbs Smith Publishing), looks at his forty years experimenting with design solutions we now label "sustainable." He believes we are in the early stages of the next big shift in which the designed world becomes truly integrated with the natural world, and will discuss some of the characteristics he sees in this new world.

### ***11 a.m. - 1 p.m. —Innovation for Sustainable Homes***

The symposium's morning session considers the history of "green" building, and ways participants can "green" their homes through innovative building materials and home design.

#### ***Moderator***

**Phillip Mead**, assistant professor, Dept. of Architecture, University of Idaho, Moscow, ID

Mead has taught and practiced architecture in California, Texas and Idaho. He studied and worked under Charles Moore as a graduate student at the University of Texas at Austin from 1989 to 1991. In the late 80's and early 90's, Mead also contributed to works designed by Antoine Predock and Bertram Goodhue. Currently at the University of Idaho, Mead teaches History of Modern Architecture, Environmental Control Systems, Design I and an elective course entitled Wellness and Design. His current research examines health and design issues which encompass a range of disciplines from environmental control systems to architectural history. His research on light, air, views and environment-induced exercise has led to presentations at both scientific and design venues in Europe and the United States.

#### ***Building materials***

**Elaine Marten**, Waste Reduction Partners, Asheville, NC

Marten made her career in the chemical industry with DuPont and Eastman Kodak. She has authored a variety of technical publications and has contributed to a number of industrial patents. After retiring in 1991, she taught as a volunteer instructor at the University of North Carolina Asheville College for Seniors. Her major volunteer activity for the past eight years has been with Waste Reduction Partners, a non-profit group of technical retirees. She works collaboratively with clients at no charge to improve economic competitiveness and to preserve and enhance environmental resources. In addition to their efforts in energy-saving and water conservation, her group has been recognized for conversion of solid wastes into useful products. She holds a Ph.D. in organic chemistry from the University of Rochester.

#### ***Home design***

**Angela Dean**, AIA, principal, AMD Architecture, Salt Lake City, UT

Dean specializes in environmentally responsible designs to create healthy, comfortable buildings that are in harmony with the environment. Her projects span single-family remodels and new homes to commercial and retail buildings. For more than a decade, she has worked to educate the public as well as design professionals about sustainable design through presentations, workshops, and higher education courses. She is the author of *Green by Design*, published in 2003.

#### ***Discussion***

## ***Lunch***

### ***2.30 - 4.30 p.m.—Innovation for Disaster Relief***

The symposium's afternoon session presents examples of socially responsible innovations for sustainable shelter that aid those in need, whether due to economics, natural or manmade disasters.

#### ***Moderator***

**Howard Decker**, FAIA, project director, Ehrenkrantz Eckstut & Kuhn Architects, Washington, DC

Prior to joining his firm, Decker served as chief curator of the National Building Museum in Washington, D.C., producing about 40 exhibitions and five books in his four-year tenure there. Among his exhibition credits are *Big & Green: Toward Sustainable Architecture in the 21st Century* and *Affordable Housing: Designing an American Asset*. Decker came to the Building Museum from Chicago, where he was a founding principal of DLK Architecture, a firm that designed award-winning buildings and also took part in large-scale urban infrastructure and transportation projects. Decker has won numerous awards for his professional achievements and his architectural drawings have been exhibited and published internationally.

#### ***Speakers***

**Cynthia Bankey**, AIA, principal, Cynthia Bankey Architect Inc., Portland, OR

Bankey has designed several green building projects in Oregon and Tennessee, including Cascadia Commons Cohousing, Alpha Apartments and the Zenger Farm Master Plan, with the goal of providing uniquely aesthetic and ecological designs for living and working. She graduated from the University of Cincinnati with a Bachelors of Architecture in 1976, and has many residential and commercial projects in her portfolio. Her urban planning experience includes the Portland Liveable Cities Division Street Project, the North Downtown Vancouver Design Guidelines and work through the Storefront Improvement and Lighting Program of the Portland Development Commission. Bankey regularly works with Human Solutions in Portland, whose mission is to help low income families and individuals attain self sufficiency by providing affordable housing, skill development and family support services. She recently served as team leader for the Hurricane Katrina Response Mission sponsored by Architects Without Borders, Oregon.

**Markus Robinson**, CEO and COO, Icosa Village, Redmond, WA

Robinson is co-founder of Icosa Village, a company whose mission is the provision of such basic human needs as high value, low cost housing. Icosa Village Pods are semi-permanent shelters suitable for a variety of recreational, promotional, entertainment, and humanitarian purposes. In December 2005, 50 Pods were deployed to Kashmir as field hospitals and personnel shelters in the wake of the devastating earthquake there. Icosa Village solutions embody respect for customers and employees, an intention to build community, and a responsibility for healing the planet. Robinson has overall responsibility for all Icosa Village business activities. He holds a Masters degree in electrical engineering from McGill

University, is co-inventor for two patents, and has authored nine technical publications. Prior to joining Icosa Village, Robinson was vice president of engineering for the Tokyo-based high-tech engineering consulting company Knowledge Edge Inc. Icosa Village is Robinson's third start-up company. He was co-founder and former president of Sytrex Systems (1991), and Infiniscape (1999).

### *Discussion*

#### *4.30—Wrap-Up*

##### *All Day Demonstration - Global Village Shelter*

Step inside a sustainable shelter designed to be delivered and constructed quickly in most any location. The Global Village Shelter was designed by Daniel Ferrara and his daughter Mia Ferrara. Made of a corrugated paper product that is both fire-resistant and waterproof, it provides secure and environmentally friendly housing to those coping with the loss of their homes due to disaster. Joined together, they form larger structures, such as field hospitals. Shelters cost about \$600, ship flat, and can be assembled by two people in about 20 minutes. They have been used in Afghanistan, Grenada, and Pakistan.