

Center for Sustainable Urban Environments

2009 Spring Seminar

Fridays, 12:10 PM

3250 Recreation Center

University of Cincinnati West Campus

April 3



Trends in Vegetated Roofs: Policy, Research, and Design

Virginia Russell, FASLA, RLA, LEED AP

Associate Professor of Architecture, UC DAAP

The benefits of green roofs include stormwater runoff reduction, energy conservation, and habitat and biodiversity, and they are included in green infrastructure plans in major cities. The industry has grown 86% since 2005, and the green roof database has registered over 19 million square feet of projects. This presentation will give an overview of trends in green roof policies, research projects, and recently completed, high-profile green roofs in North America.

April 10



Title: The Three D's of Sustainability: Density, Development, and Diet

Daniel Oerther, Ph.D.

Professor and Director, UC Center for Sustainable Urban Environments

Sustainability has been defined as meeting the needs of the present without compromising the ability of future generations to meet their own needs. This presentation will examine how diet, density, and develop are contributing factors to sustainability. Specifically, diet will be examined in relation to climate change and social justice, density will be explored as a means of reducing urban impacts on the environment, and development will be discussed in the context of 'hand up' activities rather than 'hand outs'.

April 17



Garbage Warrior

A Documentary Film

What do beer cans, car tires and water bottles have in common? Not much unless you're renegade architect Michael Reynolds, in which case they are the tools of choice for producing thermal mass and energy-independent housing. For 30 years New Mexico-based Reynolds and his green disciples have devoted their time to advancing the art of "earthship biotecture" by building self-sufficient, off-the-grid communities where design and function converge in eco-harmony. Shot over three years and in four countries, *Garbage Warrior* is a timely portrait of a determined visionary, a hero of the 21st century.

The Center for Sustainable Urban Environments (<http://www.eng.uc.edu/sue/>) sponsors these free seminars for the University and Cincinnati communities. For directions and parking, see <http://www.uc.edu/visitors/>

Feel free to bring your lunch. Refreshments will be served after the seminar, and all are invited to stay for continued discussion.

To receive notices of future seminars and SUE activities, join our listserv at <https://listserv.uc.edu/cgi-bin/wa.exe?A0=UC-SUE-ANNOUNCE> (This is an announce-only list; no spam), or join "University of Cincinnati Sustainability" on Facebook.

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S.E.D.
Earth Day
Seminar,
April 22,
5PM,
DAAP 5401



Earthships

Michael Reynolds

President, Biotecture

Sustainable designer and UC Alum discussing biotecture; earthships; sustainability; integrated systems; garbage warrior.

May 1



A Synthesis of Transportation Emissions Research: Current Status and Future Directions

Lei Yu, Ph.D., P.E., Professor and Chairman, Dept. Transportation Studies, Texas Southern University

Transportation related emissions are one of the dominant contributing sources of air pollutants today. Considering the negative impacts of transportation related emissions on our social and economic environment, extensive efforts have been made by researchers and practitioners attempting to find solutions to reducing emissions. Dr. Yu will discuss a comprehensive review of the research on transportation related recommendations for future research directions.

May 8



Sustainable Hazard Resistant Construction Using Indigenous Materials: Bamboo Construction in Darjeeling and Sikkim

Kent Harries, Ph.D., FACI, P.Eng.

Assistant Professor, Dept. of Civil & Environ. Engr., Univ. of Pittsburg

Interest in sustainable construction materials is growing, with research and construction being initiated worldwide. This presentation will focus on an ambitious effort to develop a methodology for assessing the fragility of non- or marginally engineered residential construction. While the focus is on bamboo construction, the approach applies to a number of materials and construction types. The development of a fracture mechanics-based method of assessing fundamental splitting characteristics of bamboo will also be discussed.

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May 15

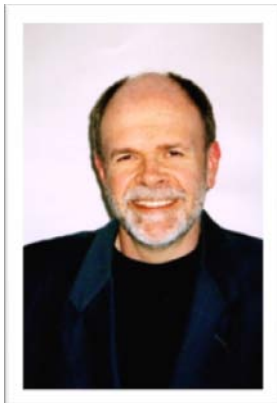


Sustainability and Performance-based Specification of Concrete

Mark F. Chrzanowski, Principal Structural Technologist, Global Water Engineering Design Group, CH2MHill

The movement toward sustainable build is challenging the ready-mixed concrete industry in the United States, to embrace innovation. This presentation will discuss some of the principals of sustainability, and how they are being incorporated in the construction industry. The presentation will touch on sustainability initiatives within the ready mixed concrete industry, and how the concept is pushing for a performance-based alternative for the specification of concrete materials.

May 22



Growth, Development & Sustainability – All at Once? Do We Have To?

Kaid Benfield, Director, Smart Growth Program, National Resources Defense Council, Washington, D.C.

Climate change is not only coming: it's here. And so is rapid population growth. Over half of the homes, shops, schools, and workplaces we will need in 20 years aren't built yet. We had better get it right. And we can. Let's talk about how.

May 29



Solving Spatial Optimization Problems Using Metaheuristic Approaches

Ningchuan Xiao, Asst. Professor, Dept. of Geography, Ohio State Univ.

Spatial optimization problems are critical in many decision making processes. However, these problems are often difficult to solve using exact methods. In this talk, I will discuss how metaheuristic approaches (e.g., evolutionary algorithms) can be used to find high-quality solutions to these problems. I will focus on how to construct a general framework that can be used to address a variety of spatial optimization problems. Many examples such as political redistricting and location-allocation problems will be used.

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June 5



Integrating Sustainability into Business Practices: The Procter & Gamble Experience

Jack McAneny, Assoc. Director, Global Sustainability, Procter & Gamble

Procter & Gamble defines sustainability as “improving the quality of life for everyone, now and for generations to come”. This presentation will provide an opportunity to hear how one local company is trying to integrate sustainability into the rhythm of their business, including operations, products, and philanthropic efforts. Content will include an overview of P&G’s current strategy, goals, and key case studies that help to illustrate their approach.