Inside this Issue:

- Dow Offers $10K Innovation Awards for Graduate Students
- U-M Launches New Campus Sustainability Website
- A “Community of Scholars”
- And More!
As you may know, due to family reasons, Dick Jackson recently resigned as Director of the Graham Environmental Sustainability Institute and returned to California. While we are disappointed to lose the opportunity to have Dick lead the Graham Institute, I would like to assure you that the University’s commitment to the Graham Institute remains as strong as ever. Donor Donald Graham, who provided the principal investment to establish the Graham Institute, also remains very supportive of the Institute and its role in promoting sustainability expertise and initiatives at the University of Michigan.

During the month of August, the Provost launched an active search for a new Director. While the Provost has ultimate responsibility for appointing this individual, the Deans’ Council of the Graham Institute has agreed to serve as the search advisory committee. Search efforts are primarily focused on candidates internal to the University of Michigan. It is our hope that a new Director will be selected in relatively short order and that this individual will be in place by January 2009.

We are very pleased that Brian Talbot, the David B. Hermelin Professor of Business Administration, has generously agreed to serve as Interim Director as we conduct our search for the next Director of the Graham Institute. Brian was Interim Director of the Graham Institute prior to Dick’s arrival, and we are grateful for his willingness to serve again. During this period of transition, the Institute is working to ensure that programmatic efforts continue to evolve and thrive.

We are also pleased to welcome two new members of the Graham Institute Leadership Team.

Professor Steven J. Wright has become the Graham Institute’s inaugural Faculty Director for Education, through which he oversees sustainability education programs for the Institute. As you may remember, Professor Wright was the lead instructor in the first course offered through the Graham Scholars Program, Sustainable Hydropower Development in South America. Professor Wright is highly respected for his educational skills, and with his help, we will significantly increase sustainability educational activities across campus.

Andrew J. (Drew) Horning was recently appointed as the Managing Director of the Graham Institute. For the past six years, Drew served in a similar capacity with the University’s very successful Erb Institute for Global Sustainable Enterprise. In his new role, Drew will work closely with the Graham External Advisory Board and will be responsible for the general management roles previously handled by Ken Kohrs, who led the original study and creation of the Graham Institute. Ken recently retired from his role as Special Counsel to the Provost but has agreed to continue serving in an advisory capacity until the new Director is in residence.

This will also be the final semester in which Associate Professor Jeremy D. Semrau will be serving as Faculty Director for Research. Jeremy has been with the Institute for the past three years and has played an important role in launching and leading several academic initiatives. During the winter term, Jeremy will take a well-deserved sabbatical to advance his research. The Institute Leadership team is currently working to identify a U-M professor to move into the Research Director role beginning January 1, 2009.

The Graham Institute continues to launch and advance important educational, research, and outreach efforts across campus, as well as to build bridges to a wide range of external organizations. The University of Michigan’s goal is to be a global leader in environmental sustainability education, research, and outreach, and the Graham Institute will continue to play a lead role in helping the University to achieve this goal.
New Student Group to Coordinate Campus-Wide Sustainability Activities

The Graham Institute is pleased to sponsor the University of Michigan Student Sustainability Initiative (SSI), which is designed to help coordinate multiple student organizations with similar or related sustainability goals.

“The creation of SSI was motivated by the belief that student expertise and input can greatly aid U-M’s stated goal of becoming a campus sustainability leader,” says Graham Fellow Melissa Forbes, who was critical in the planning and implementation of this student group, along with two other graduate students Darshan Karwat and Mark Shahinian. “The Student Sustainability Initiative will be an important ingredient for realizing this objective.”

The guiding principle of SSI is to serve as a forum for undergraduate and graduate student leaders from student government and campus environmental organizations to share ideas and create collaborative sustainability projects that benefit the U-M community. One of the unique advantages of SSI is that it brings together student groups from a wide range of disciplines, thus helping to address the spectrum of environmental, social, and ethical concerns related to sustainability.

Two critical areas where SSI hopes to make significant gains at U-M include: 1) helping students, administrators, faculty, and staff to incorporate sustainability principles into the campus infrastructure and 2) contributing toward academic curriculum decisions (as more and more sustainability courses are offered at the university).

“Dozens of U-M student groups have Sustainability as a central organizing principle, with each addressing the issue from a unique perspective,” says Graham Institute Managing Director Drew Horning. “Drawing on their passion and energy, these student groups are already a powerful force for positive progress on campus. We hope the centralized Student Sustainability Institute will help them to have an even greater impact, both individually and collectively.”

SSI is funded by the Graham Environmental Sustainability Institute but operates as an independent student roundtable.

You can find more information about the Student Sustainability Initiative on the Graham Institute website at www.graham.umich.edu, as well as an on the new Campus Sustainability Website at www.sustainable.umich.edu.

U-M Launches New Campus Sustainability Website

In an effort to develop a shared and centralized source of sustainability information at the University of Michigan, the Office of Occupational Safety and Environmental Health and the Graham Environmental Sustainability Institute recently joined forces to plan and launch a new Campus Sustainability Website (CSW).

This new tool, which is available online at www.sustainable.umich.edu, serves as a valuable portal for campus-wide information in the following topic areas:

- Energy & Resource Management
- Purchasing, Waste Reduction, & Recycling
- Health & Safety
- Buildings, Grounds, & Preserves
- Research, Education & Outreach
- Campus Life

The planning committee for the project included representatives from 13 different departments at U-M. The Graham Institute will be managing the site during its first year.

“This new website will give people one-stop access to virtually everything that’s happening in the realm of environmental sustainability at the University of Michigan,” says Brian Talbot, Interim Director for the Graham Institute. “That will be a huge time-saver and advantage for everyone involved.”
Each year, the Graham Environmental Sustainability Institute grants a limited number of fellowships to doctoral students whose Ph.D. research focuses on sustainability from an interdisciplinary perspective.

The 2008 “Graham Fellows” were selected from a pool of nearly 40 applicants. Fellows receive $25,000 per year in funding. They are selected based on their exceptional, cross-disciplinary research related to one of these six key research areas supported by the Graham Institute:

- Energy
- Freshwater and Marine Resources
- Human Health and Environment
- Biodiversity and Global Change
- Sustainable Infrastructure, Built Environment, and Manufacturing
- Environmental Policymaking and Human Behavior

Congratulations to the 2008 Graham Fellows:

**Katie Cychosz**
Chemistry, College of Literature, Sciences, & the Arts
“Enabling Cleaner Fuels for Fuel Cell Applications: Removal of Organosulfur Compounds by Absorption”

**Jeremy Guest**
Civil & Environmental Engineering, College of Engineering
“Development of a Predictive Lifecycle Assessment for the Evaluation of Innovative Alternatives in Sanitation Infrastructure & Wastewater Management”

**Eun-Hee Kim**
International Business/Business Economics, Ross School of Business
“So Market Forces or Politics Drive Electric Utilities to Go Green?”

**Melissa Smiley**
Department of Epidemiology, School of Public Health
“Linking Urban Planning and Public Health: How the Built Environment Shapes Patterns of Health Resources and Healthy Behaviors” (See profile at right.)

**Esra Suel**
Mechanical Engineering, College of Engineering & Design Science Program
“A Game Theoretic Meta-Systems Approach to Sustainability, Engineering Design and Technology Adoption”

**R. Andrew Swartz**
Civil Engineering (Structures), College of Engineering
“Enhancing Energy Sustainability by Performance Monitoring of Wind Turbine Energy Generators”

**Qing Tian**
Resource Ecology & Management, School of Natural Resources & Environment
“From Vulnerability to Sustainability: A Study of Vulnerability and Sustainable Development in the Context of Climatic and Institutional Changes in Rural China”

2009 Graham Fellows to Be Announced in January 2009
A Community of Scholars

Retreat Helps Bond Graham Fellows

The Graham Institute recently held at Fellows Retreat at the Matthaei Botanical Gardens. The purpose of the retreat was to help build a sense of collaboration and community among the fellows.

Jane Dutton, Robert L. Kahn Distinguished University Professor of Business Administration and Psychology, kicked off the gathering by teaching the concept of high-quality connections, after which she led exercises to help build a sense of connectedness, trust, and understanding among participants. The fellows then broke into break-out sessions to brainstorm ways they could support each other in their research, collaborate on various projects, and develop a cohesive “Community of Scholars.”

The fellows not only enjoyed the chance to meet and interact with one another, but they also generated a myriad of ideas for collaborating during their time at the University of Michigan. Ideas included a joint research paper, team-taught courses, social outings, and community service projects.

Following a garden-side dinner, Janet Weiss, Vice Provost and Dean of the Rackham Graduate School, delivered a keynote address stressing the value of the fellows’ work to the university—and to the academic community as a whole.

Meet Graham Fellow Melissa J. Smiley

New Graham Fellow Melissa J. Smiley focuses her research on measuring the impact of the built environment on public health.

Melissa first became interested in city planning at Bryn Mawr College near Philadelphia, where she graduated with a Bachelor’s in “Growth and Structure of Cities” in 1999.

Melissa was working as a transportation planner in Chicago when she realized she wanted to focus on how urban planning decisions directly impact people’s health.

“I would go to conferences and meet two different kinds of people,” Melissa says. “There would be the urban planners talking about the engineering of cities and the public health professionals talking about exercise and health. Both spoke their own language, and they didn’t communicate very well with each other. That’s when I started thinking about a master’s to look at urban planning from a different perspective. I wanted to be able to speak the language of both groups.”

Melissa then packed her bags and came to the University of Michigan, where she earned dual master’s degrees in Urban Planning and Public Health in 2006. She’s now in her second year of the Ph.D. program in Epidemiology, where her research explores the built environment as a modifiable predictor of healthy behaviors.

A current research project involves quantifying geographic patterning of access to a combination of what she calls “health resources,” including supermarkets with healthy food, recreational facilities, parks or open spaces, and retail outlets or other mixed land-use destinations. This access is then linked to healthy behaviors like physical activity.

Melissa’s overall goal for her research is to produce useful data for policy makers and to help create sustainable, health-oriented policies in arenas not traditionally considered “health” related, including urban planning, development, and zoning.

“This is integral to sustainability,” Melissa says, “because we now have the ability to quantify health opportunities in different geographical areas, and see where we can do a better job going forward.”
“If it can’t be measured, then it doesn’t exist.”

That’s the underlying premise and challenge that Professor Jonathan Levine, Chair of Urban and Regional Development at U-M, is striving to overcome—at least in terms of measuring the value of transportation based on accessibility (and not just mobility).

Professor Levine received an Environmental Sustainability Multidisciplinary Research Team (ESMRT) Grant from the Graham Environmental Institute in 2007. This funding provided the seed money necessary to launch a transportation research project to develop and analyze accessibility metrics for 10 to 15 metropolitan areas. The project quickly expanded, and his funding expanded with it.

Today, Professor Levine is principal investigator of an EPA-funded project looking into transportation patterns in mid- to large-sized metropolitan areas nationwide, including Detroit. The title of the project is Metropolitan Accessibility and Transportation Sustainability: Comparative Indicators for Policy Reform. Co-principal investigators from U-M include Joe Grengs, Carl Simon, and Susan Zielinski. A faculty member from the University of Maryland is also involved.

“Transportation policy, a prime shaper of the built environment in metropolitan areas, has historically been guided by the idea of ensuring and improving mobility,” Professor Levine says. “But it is accessibility, the capacity to reach destinations, that is the service people seek in a transportation system. We argue that sustainability in transportation and the built environment is furthered by a policy shift from mobility to accessibility as an overarching evaluative framework.”

To date, Levine and his research colleagues have collected data from more than 30 Metropolitan Planning Organizations. They are combining this data with new information to examine how easy or hard it is to reach one’s destinations in each of those areas. Essentially, they are analyzing transportation as a means (movement) to an end (access) and the value it provides.

“It’s not just a matter of how fast travel is, because if destinations are nearby, access can be great even if travel is slow,” Professor Levine explains. “And if destinations are remote, they will require a lot of time and money to reach, even if travel is fast.”

“We’re looking at work and non-work travel, and the percentage of trips people take for various purposes,” Professor Levine continues. “Then we’re putting weights on different destinations based on their importance.”

In this way, Professor Levine and his colleagues are doing what has not been done before: comparing multiple metropolitan areas based on how well they give people access to the destinations they need.

To further this research, Professors Levine and Grengs have also secured funding from FWHA (the Federal Highway Association) and M-CASTL (the Michigan Center for Advancing Safe Transportation throughout the Lifespan). These grants are helping them to examine the socio-demographic dimensions involved in accessibility. Professor Levine expects to complete this project by January 2010, with the hope that his research findings will ultimately help to shape policy and practice in the metropolitan areas studied.

“In urban planning, we seek legitimacy in our research in its usability,” he says. “So I really hope the information will be used.”

Professor Levine has published numerous research articles related to transportation policy. One of the most recent peer-reviewed journal articles is titled “Transportation and Land-Use Preferences and Residents’ Neighborhood Choices: The Sufficiency of Compact Development in the Atlanta Region,” which was published in Transportation in 2007 (and co-authored by Lawrence Frank).

In 2006, Professor Levine also authored a book titled “Zoned Out.” Published by Resources for the Future in Washington, D.C., the book looks at regulation, markets, and choices in transportation land use. Those interested can find it on Amazon.com.
Graduate Students Can Win $10,000 for Sustainability Innovation

As part of its 2015 sustainability commitments, the Dow Chemical Company recently established the Dow Sustainability Innovation Student Challenge to recognize innovations and academic excellence in pursuit of sustainability. The University of Michigan is one of six universities on four continents selected to participate in the program, which will award a total of $30,000 to three Challenge winners annually.

All graduate students at the University of Michigan are eligible to apply for this new award. Individual and team submissions are being accepted.

A review panel selected by leaders of the Graham Institute, which is managing the Challenge on behalf of Dow, will determine the winners based on how well it directly meets a wide range of criteria.

The key component of the Challenge is that submissions must be interdisciplinary in nature and directly relate to two or more of Dow’s 2015 Sustainability Goals, which are listed below.

- Sustainable Chemistry
- Breakthrough Solutions to Global Sustainability Challenges
- Energy Efficiency and Conservation
- Adapting to or Reducing Climate Change Impact
- Contributions to Community Sustainability Success
- Life Cycle Product Safety Leadership
- Human Health and the Environment
- Sustainable Freshwater Supply and Distribution
- Environmental Policy Development and Human Behavior Change
- Sustainable Infrastructure

The application is available on the Graham Institute website at www.graham.umich.edu/funding.

The deadline for submission is November 15, 2008.

Graham Fellow Begins Career at Argonne National Labs

The Graham Environmental Sustainability Institute congratulates Graham Fellow Corrie J. Clark, who recently accepted a position with the Argonne National Laboratory in Washington, D.C.

Corrie was one of the first doctoral students with the Graham Interdisciplinary Research Fellowship Program when it was launched in 2006.

The title of Corrie’s dissertation was “Energy Emissions Mitigation Using Green Roofs: Probabilistic Analysis and Integration in Market-Based Clean Air Policies.”

Graham Institute Launches New Logo

The Graham Environmental Sustainability Institute recently launched a new logo (as shown above).

“The new brand mark prominently features the University of Michigan’s ‘block M’ and maize-and-blue color palate to emphasize the University of Michigan,” says Marketing Communications Specialist Lisa Pappas, who joined the Institute from the Biological Station in July.

“It also spells our name out in full to help people better understand and communicate who we are, as well as to give appropriate recognition to our founding donor Donald C. Graham and his family.”
Former Graham Scholars Program Student Lukas Bell-Dereske hosts the Graham Institute’s display table at the EnergyFest on the U-M Diag in August. Lukas spoke to students about his learning experience in Chile as part of the GSP course last year.