



OBERLIN COLLEGE



ENVIRONMENTAL STUDIES PROGRAM

Annual Newsletter

Spring 2007



Accounting 101 for the 21st Century

John Petersen

This last year Oberlin introduced a new course, ECON109: Principles of financial and managerial accounting. Accounting will be very important to this generation. Having spent the last four years as consumers of an Oberlin education, our graduating seniors now prepare to become productive members of an increasingly global economy. They face the challenge of pursuing ideals in the context of balancing personal budgets that may already include significant college debt. On a larger scale, our federal government's inability to balance its budget or resolve the trade deficit ensures a political era characterized by national and international budgetary crises. Yet as important as financial accounting may be, this will not be the dominant budgetary issue of the 21st century. The currency and budget that our graduates and their peers across the globe need to be most concerned with relates not to dollars, euros, yen or yuan, but to the element carbon.

Formerly the bailiwick of geologists, biologists and chemists, "carbon budgeting", the accounting of the stocks and flows of this element through the biosphere and economy will increasingly dominate dinner conversations of concerned global citizens. And rightly so – we exchange this currency with each bite of food we ingest, not just because the organic carbon in the food fulfills our body's energetic needs, but because at the dawn of the 21st century, in industrialized countries ten units of fossil fuel carbon are converted to carbon dioxide and released into the atmosphere for each unit of food carbon that enters our mouth.

In our industrial economy, each breath we take, each mile we travel, each email we exchange and each item we purchase entails a conversion of fossil fuel carbon to carbon dioxide. For each dollar we spend 0.37 lbs of carbon dioxide enters the atmosphere. The positive feedback between fossil fuel consumption and extraction that initiated massive growth in the human economy has resulted in an increase in atmospheric carbon dioxide from

260 ppm (0.026%) at the dawn of the Industrial Revolution to greater than 380 ppm today, and the budget goes further out of balance each day.

This generation faces the first truly global scale environmental challenge – balancing the carbon budget in order to ameliorate the negative consequences of global climate change. This will entail transitioning our economy and mindset from one fundamentally premised on the combustion of fossil fuel to one powered by renewable energy. It will also require a parallel transformation from a society characterized by the one-way flow of matter from raw materials to the landfill to one in which the entire concept of 'waste' is eliminated.

The task of balancing the carbon budget is daunting to be sure, but the good news is that the emergence of carbon as a universal environmental currency provides a unique and exciting opportunity to integrate economy, ecology and culture in ways that unify and heal. Indeed, balancing the carbon budget is inextricably linked with solving many vexing environmental, social and cultural problems. Consider the implications:

- *Integrating carbon and financial accounting:* The Stern Report of the British Government and the most recent reports by the Intergovernmental Panel on Climate Change clearly indicate that the economic costs of continuing to run a carbon deficit (in the form of ever increasing atmospheric CO²) are high. These reports are likewise optimistic that economic tools can be brought to bear to help balance the carbon budget. Administrative intransigence notwithstanding, the U.S. will almost certainly be compelled to join with other industrial powers in limiting carbon dioxide emissions. Carbon taxes, "cap and trade" policies and the emergence of entities like the Chicago Climate Exchange (the carbon equivalent of the stock market) provide examples of the policy tools now available for aligning economic interests with the goal of

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Answering the Call for Climate Leadership

Press Release: December 11, 2006

Media Contact: Scott Wargo

With the stroke of a pen, Oberlin took a leadership role in environmental stewardship last month when President Nancy Dye established Oberlin as one of the nation's first institutions of higher education to accept the goal of climate neutrality by signing the American College and University Presidents Climate Commitment (ACUPCC).

As a charter signatory, Oberlin becomes one of four schools in the United States and the first in its peer group to sign the ACUPCC, an environmental initiative developed by Second Nature, the Association for the Advancement of Sustainability in Higher Education, and ecoAmerica to address what they term "the defining challenge of our century—the twin crises of energy sustainability and climate change."

"Addressing climate change in our curriculum and in our campus operations is an urgent and integral part of our mission as educators and in our social obligation to society," says Dye in a letter of intent to Antony D. Cortese, a major figure in the campus sustainability movement, who spearheaded the initiative.

"Higher education plays a critical role in preparing the new workforce and creating the knowledge that will help society create the strategies, technologies, policies, and economic opportunities that will allow humanity to thrive while protecting our life-supporting environment."

As a first signer, Dye also has opted to become a member of ACUPCC's Presidents Leadership Group, a cadre of 10 to 20 presidents and chancellors representing institutions currently at the forefront of sustainability in higher education pledging to build support among college and university administrations across America.

The Presidents Commitment project has set as its goal the participation pledge of at least 200 college and university

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EnviroAlums Activities Promote Sustainability

Carl N. McDaniel '64, EnviroAlums Chair ❖ Rob Stenger '05, EnviroAlums Vice Chair

Climate change is now getting broad-based national coverage with the success of Al Gore's An Inconvenient Truth and most recently with Bill McKibben's Step It Up 2007 events on April 14. Many Obies across the country have done their part to bring attention to the climate change issue.

Over the last year, EnviroAlums (E) has taken its own steps to encourage climate change awareness within the Oberlin community. Last June E purchased 30 copies of Tim Flannery's book, The Weather Makers: How Man Is Changing the Climate and What It Means for Life on Earth and gave them to selected Oberlin administrators, faculty, and staff to stimulate discussion and to educate. Susan Bernat, a member of E's Steering Committee, also coordinated sending DVDs of An Inconvenient Truth to all Oberlin Trustees last November.

E's Steering Committee organized a mock Climate Justice Challenge Campaign (CJCC) last November based upon the belief that it is time for Oberlin's core mission and values of human rights, social justice, and worldly awareness to be fully viewed through the lens of the greatest challenge of the 21st century: climate stabilization and environmental sustainability. The CJCC was used as an alumni poll to gauge the level of new internal financial support that could be expected if Oberlin were to commit to placing environmental sustainability front and center in both the upcoming capital fundraising campaign and the new presidential search.

CJCC was unanimously supported by E's Steering Committee with total pledges of \$35,905. In November, the CJCC was sent to all EnviroAlums and other alums with stated environmental interests. Twenty-seven alumni responded with an additional total pledge of \$22,075 for a grand total of \$57,980. The CJCC statement and the campaign results were provided to President Nancy Dye and Trustees at their December meeting. Oberlin has a grand tradition in leading the way to a more fair, just world. We can make this one of Oberlin's finest hours, if together we seize this opportunity to create a more just world through visionary environmental leadership.

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Environmental Studies Center Installs Solar Powered Water Sculpture

by Betty Gabrielli

An impressive water sculpture now graces the atrium of the Adam Joseph Lewis Center for Environmental Studies (AJLC), but its reason for being is much more than decorative. Powered by solar energy, the installation is also an innovative tool that expands the sensory and educational experiences available to AJLC students, staff, and visitors in several unique ways.

“Environmental studies faculty and student collaborators continuously seek opportunities for enhancing the educational value of the facility,” says John Petersen, director of the College’s environmental studies program, “and for some years we explored the role that a solar-powered water feature might play within the atrium.”

The result is a hundred square-foot water sculpture created by local artist Thomas Shurr, who has considerable experience in designing and building such installations.

“The installation provides a tangible demonstration of passive control technology that does not involve a computer. It is analogous to the design solutions embodied in green plants,” says Petersen, who directed the project.

“It also provides students and visitors with interactive access to photovoltaic technology, enhances their aesthetic and auditory experience in the atrium, and conditions the center’s interior humidity. In addition, it establishes clear connections with natural cycles and fosters a deeper sense of place.”

Flanked by the large expanse of glass overlooking the center’s front and side lawns, the water feature rises to a height of five feet. “It seems to have grown organically out of the southeast corner of the atrium,” says Ben Wisner, who served on the environmental studies faculty last semester.

An artful mix of rock, water, and plants, the sculpture deftly blurs the line between interior and exterior as



Photo by Stephan Alessi '07

The pool is encircled by a long curved wall formed from local river stones and glacial erratics carefully set in place by Tom Shurr, a local artist and stone mason. Hand-chiseled sandstone blocks salvaged from a mid 19th century house recently razed in downtown Oberlin are embedded in the walls of the sculpture to simulate an old foundation.

The sculpture could not have been placed in the atrium without the meticulous attention to details and planning that Leo Evans, assistant director of facilities planning and construction, gave to the entire process.

The donor has also generously contributed funds for additional atrium seating.

gently flowing water cascades into a large pool lined with glacial river stones.

Demonstrating the sculpture’s solar power is an innovative mechanism on the lawn in front of the atrium. In clear view through the glass sits a photovoltaic array mounted on a rack. Over the course of a day, differential heating of liquid on either side of the array causes the rack to passively track the sun.

Immediate light intensity falling on the photovoltaic panels then varies the water’s flow rate, sound and pattern and provides an experience that is soothing as well as aesthetically pleasing.

“The fountain has become a social centerpiece, and the area around it has been transformed into a comfortable place for students to relax and study,” says Wisner.

“In short, it completes the environmental studies building in numerous philosophical, psychological, and pedagogical ways. We are so very grateful for the support that made the installation possible and for the inspired artistry of the builder.”

Oberlin College's Environmental Sustainability Coordinator is Nathan Engstrom

I was recently hired as the college's first Environmental Sustainability Coordinator and have been on campus since February 1st. I would like to take this



opportunity to let you know a little about me and my vision for sustainability at Oberlin.

I was born and raised in DeKalb, Illinois; hometown of Cindy Crawford, barbed wire, and seed corn giant DeKalb Agricultural Genetics. I attended a small private liberal arts college in northern Wisconsin, Northland College, where I double majored in environmental studies and sociology. I also have a Masters Degree in sustainable design from the University of Texas School of Architecture.

Before coming to Ohio I lived in Madison, Wisconsin where I ran Wisconsin's residential green building program, Green Built Home. Prior to that I worked for a state energy conservation program for public and private schools and municipal government facilities. I have also been involved in green building as a partner with my brother in a small residential building company.

I applied for this position largely because of the college's reputation as a leader in campus sustainability efforts. I accepted the job because of the enthusiasm and passion I discovered when I came to campus for my interview. I was thoroughly impressed with the people that I met here, their ideas, and the vision that they have for a sustainable world.

Which brings us to the Office of Environmental Sustainability. The Oberlin College Office of Environmental Sustainability provides leadership to the Oberlin community in implementation of the College's comprehensive environmental policy in line with the College's strategic goal of sustainability.

Our vision is that sustainability represents the ultimate liberal art and as such is fundamentally important to the function of Oberlin as a liberal arts college. A community that

recognizes the interconnections between the environment, economics, equity and esthetics is one that understands the dynamic interactions of species and communities over time and during changing ecological conditions. A college that embraces sustainability commits itself to instilling a consciousness of these interrelationships and developing the skills necessary to create new possibilities and extend our ecological imaginations through any discipline, field, endeavor, or area of study.

The Office of Environmental Sustainability interacts with the administration, faculty, staff, and students to focus attention on ways to maximize the environmental performance of Oberlin College and develop the awareness and tools required to respond dynamically to issues affecting them. We also reach out to the wider community and provide a connection between Oberlin and regional and national activities.

Through the development of increasingly strong collaborations, an interconnection of interests can be created. The sustainable college is one that recognizes interconnected mutual interests and creates productive affiliations between them rather than being preoccupied with trying to negotiate and balance perceived competing interests such as social justice, economic growth and environmental protection.

One of my primary goals for the Office of Environmental Sustainability is to make it transparent, accessible, accountable and visionary. Anyone with ideas, concerns, criticisms or suggestions is encouraged to contact us. We'll provide any assistance we can to get things done. Please don't hesitate to call, e-mail, or drop by for a visit.

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Assistant Sustainability Coordinator, Meredith Dowling '06, in the Big Parade

CO² emissions reductions.

- *Linking issues of environment and justice:* There has never been a clearer issue of ecological (in)justice than the industrial carbon economy. Although only 6% of the global population, the U.S. economy is responsible for 25% of the CO² emissions that drive global climate change. All forecasts predict that the negative consequences of this climate change – storms, flooding, droughts, loss of agricultural productivity and increased disease – will be disproportionately born by the poorest countries of the world that are least responsible for emissions and least equipped to deal with these challenges. The injustice is intergenerational as well as intercontinental; the economic benefits from carbon expenditures enjoyed during the last several generations will result in harms and limited opportunities for future generations. Those who are interested in understanding and resolving issues of justice would do well to follow the flows of carbon.

- *Unifying environmental movements:* Environmental concerns have always been disparate, with different constituencies focused on wilderness preservation, species loss, pollution, natural resource depletion, overpopulation and environmental justice. These issues are all now linked by carbon. Ultimately, solutions that address any of these issues tend to help balance the carbon budget. Conversely, thoughtful solutions to the carbon budget tend to resolve other problems. For example: transitioning to renewable energy and increasing material recycling generates jobs; preserving and restoring biological reserves creates a sink for removing atmospheric CO²; and maintaining species diversity enhances the earth's capacity for adaptation.

- *A currency and goal for all scales:* Rene Dubois could have found no more universal metric than carbon to encourage adherence to his admonition to “think globally, act locally”. Carbon is the ultimate in globally recognized currencies; CO² released or trapped at any location on earth affects the climate at every location. “Climate neutrality” is the condition in which the release of CO² and other greenhouse gasses into the atmosphere is completely balanced by their removal. Since CO² is the principle greenhouse gas, achieving climate neutrality in effect means balancing the carbon budget. Individuals, institutions, businesses and governments can all share the goal

of climate neutrality. Balancing the global carbon budget enables and demands an unprecedented level of cooperation among localities, regions and the global community. Solving the global-scale crisis demands an appreciation of the common interests and aspirations of all humanity. This would be a positive development from all rational perspectives.

- *An antidote to the culture of consumption and alienation:* Prior to the industrial revolution, the human economy was inherently constrained by the cycles of matter made possible by flows of recently captured solar energy. Fossil fuels decoupled human society from these constraints leading to the fundamentally changed world we now inhabit. On one hand, the fossil-fuel economy initiated an extraordinary degree of human creativity, improved nutrition, improved human health and an increased standard of living for most of the world's human inhabitants. On the other hand, it enabled the development of a culture of consumption that is largely oblivious to the unsustainable flows of energy and matter that support its temporary existence; most of us do not know the origin or consequences of the food and other products we consume and the waste we dispose. The indices our society currently uses to measure the health of the economy, GDP and GNP are, in fact, no more than measures of the rate of consumption. Indeed, they serve almost as well as measures of rates of natural resource depletion and CO² expenditure. Balancing the carbon budget with a minimum of pain and suffering will necessarily require the rapid development of new technologies for capturing the flow of solar energy, but it will just as certainly require a transition away from our culture of consumption. Survival and success require that we develop new ways of defining human needs and desires, new relationships with each other and a greater consciousness of the natural systems on which all life depends. This transition will certainly be challenging, but if managed well, it is something that we can look forward to.

The beauty of a carbon currency is that if we focus on balancing the budget at all scales, we necessarily address the full scope of environmental challenges and opportunities. For example, on a personal level, the things we can do to bring our own carbon expenditure into balance – riding a bicycle to work, eating locally grown foods, recycling and conserving electricity and water – all help reconnect us with our community and with the natural environment on which we depend. On

a global scale, balancing the carbon budget involves reconciling differences and acknowledging common interests.

The role of academic institutions

One can argue that colleges and universities, as institutions of learning, have a special obligation to ensure that the ways we educate our students, manage our campus and interact with the broader community serve as an example that our students and others might follow. Our campuses can serve as leverage points and laboratories for learning in which we engage, educate, motivate and empower our students and the larger community to experiment with the policies, technologies, attitudes and behaviors that most effectively balance the carbon budget.

In 2004 the trustees of Oberlin College endorsed a comprehensive environmental policy that was forward thinking in addressing energy use, purchasing, building construction and management, food, waste, grounds management and education. Every component of this plan can be viewed through the lens of the carbon budget. Actions that have followed this policy include:

- A unique green energy purchasing agreement with our local utility that simultaneously reduces college greenhouse gas emissions by 25% and generates a “sustainable energy reserve fund” to encourage community-based projects that reduce CO² emissions. Community projects implemented thus far include research on the feasibility of local wind power and a grant to support the development of a gas station that sells only biofuels.
- A building policy that ensures that new campus construction achieves a “LEED Silver” or better rating. The LEED rating system is the nationally accepted benchmark for the design, construction, and operation of buildings that minimize energy use and maximize other environmental benefits.
- “City Wheels”, a car sharing program was initiated to provide access to fuel efficient automobiles so that students are less inclined to bring cars to campus.
- The development of the “Campus Resource Monitoring System”, a technology that provides students with environmentally contextualized real-time feedback on electricity consumption in their

dormitories.

- Completion of the largest solar electric array in Ohio on the parking lot of Oberlin’s Lewis Center for Environmental Studies. With a total rated capacity of 160 kW, solar arrays on the rooftop and parking lot enable the Center to capture more electricity than it uses on an annual basis. Like a tree, the Center results in a net removal of CO² from the atmosphere.
- Adoption of “move towards environmental sustainability” as a core component of Oberlin’s long term strategic plan. A Committee on Environmental Sustainability was formed to review, recommend and facilitate implementation of policies that promote environmental stewardship.
- Hiring of a sustainability coordinator, who oversees and facilitates implementation of Oberlin’s environmental policy.

The commitments and actions taken by Oberlin College illustrate some of the many approaches that need to be taken to balance institutional carbon expenditures. The importance of integrating these approaches was recognized in the fall of ‘06 when Oberlin College became the first of its peer institutions to sign the “American College and University Presidents’ Climate Commitment”. Each signatory of this agreement commits to developing and implementing a plan and a timeline for achieving climate neutrality for their institution.

A key goal of a liberal arts education in the 21st century must be to equip graduates with the broad set of intellectual tools and learning experiences that are necessary to balance the global carbon budget. The resume necessary for tackling this job demands far more than basic financial accounting skills. Our students will need to be able to think and act laterally as well as vertically; they must develop the capacity to work across the traditional academic disciplines and at scales ranging from personal to local to regional to global. Our task as educators is to create a learning environment in which students graduate with the creative problem solving skills, fortitude and gumption commensurate with the task at hand. The challenge that our students and graduates face is daunting. However, should they accept this challenge, our graduates have the opportunity to construct a world and a culture that is a vast improvement on the one they inherit.

The Day Oberlin Went Climate Neutral

The Day Oberlin Went Climate Neutral was a celebration and culmination of The Light Bulb Brigade and President Dye's signing of the American Colleges and Universities Presidents Climate Change Commitment. Occurring on December 7, 2006, The Day consisted of a series of events with presentations by alumni, including Karen Florini '79, film screenings, and a teleconference with the World Wildlife Fund, all centered on environmental awareness and activism. The Day concluded with a reception, which was attended by approximately 200 people, to discuss climate change and showcase a piece of activism art created by senior studio art major Mika Hayashi Ebbesen. The Day itself was also climate neutral: Student Senate purchased 138 tons of carbon offsets, enough to offset the emissions of an average day of college operations.



Mika Ebbesen's ('07) art displayed in the AJLC Atrium at the Climate Neutrality reception

The Light Bulb Brigade, one of the projects that contributed to the overall event, was a student project initiated by the Environmental

Policy Implementation Group intended to achieve a reduction in College energy usage by switching from incandescent light bulbs to compact fluorescent light bulbs (CFL) in student owned fixtures around campus. Between 20 to 30 student volunteers teamed up and went door to door in student housing distributing CFLs in exchange for incandescent light bulbs. In addition to CFLs students were given literature on climate change, energy production and emissions, and potential energy savings. In addition to actually saving energy, the project was more generally an opportunity to engage students in discussions on energy issues.



Students Erin Morey, Mika Ebbesen, Andrew DeCoriolis and Morgan Pitts at the December 7th Climate Neutrality reception

The central focus of both The Light Bulb Brigade and The Day Oberlin Went Climate Neutral was education. Both of these projects focused on promoting energy efficiency and conservation ethics amongst Oberlin students, and this is the part of the project which stands to have the greatest impact. Hopefully students will use the lessons learned from this project to continue to make environmentally responsible choices for years to come.

EnviroAlums Activities Promote Sustainability Continued

John Petersen, ENVS faculty and member of E's Steering Committee, began an environmental careers seminar series last fall. E, the Alumni Office, and the ENVS program all provided funds to bring to campus five Oberlin alums with environmental careers this academic year. Each alum gave a seminar on his/her particular expertise and had lunch or dinner with interested students. The alums and talk titles were as follows:

- Susan Ubbelohde ('75), Architecture, Energy & Light
- Claire Jahns ('03), Chicago Climate Exchange: Building a U.S. Carbon Market from the Bottom Up
- Sylvia Hood Washington ('80), Ball of Confusion: African Americans and Environmental Engagement in Modern and Postmodern America
- Chris Brown ('79), Managing Water as if People and Science Mattered
- Karen Florini ('79), Tales from the Trenches: Twenty Years as an Environmental Advocacy Lawyer in Washington DC.

We hope to continue the program next year. If you have an environmental career and want to participate, or know an alum who does, email John Petersen with details so he can put you on the list from which students choose participants.

This past year has seen many changes on campus that position Oberlin to move aggressively on the sustainability agenda. President Nancy Dye signed in December the "American College & University Presidents Climate Commitment" that obliges Oberlin to achieve climate neutrality in a timely fashion. Nathan Engstrom, Oberlin's first Sustainability Coordinator, started work in February. The College will make all future buildings at least LEED silver, and the Trustees have committed to making the new jazz center LEED gold. Oberlin's presidential search is well underway and the aforementioned commitments indicate that the successful candidate will have sustainability on her/his agenda.

As you have read in this ENVIS Newsletter and in the Alumni Magazine, environmental sustainability is generating more and more interest within the Oberlin community. E can play an important role in the greening of Oberlin and in advocating for substantive environmental education and actions on campus and in the larger community. The task is unbounded. We need your help! Please join E and become active. See our web site for complete information on E and a membership form (www.oberlin.edu/envs/oeeaa).

Answering the Call Continued

presidents by June 2007. “Presidents who sign are committing their institutions to a series of short-term actions and an institution-specific planning process that is ultimately directed toward climate neutrality,” says John Petersen, associate professor of environmental studies and biology at Oberlin. “Nancy Dye deserves significant credit for this bold initiative, and Oberlin students are to be commended for keeping the issue of climate neutrality in the spotlight.”

Earlier this year, Oberlin’s student-led Environmental Policy Implementation Group introduced the ACUPCC to the Student Senate, which ratified the commitment and presented it to President Dye for consideration.

The commitment document lists the actions needed to achieve climate neutrality, a number of which Oberlin College has already taken, such as the completion of a comprehensive greenhouse gas inventory in 2002 and an agreement with Oberlin Municipal Light and Power in 2004 to purchase approximately 50 percent of its electricity from green energy sources.

Other required commitments that Oberlin has already made include a “LEED” silver certification requirement for all new campus construction projects that was approved by Oberlin’s Board of Trustees over the summer. LEED, which stands for Leadership in Energy and Environmental Design, is an environmental certification program administered by the U.S. Green Building Council. Other actions in keeping with the Climate Commitment include a pending purchasing policy that requires the purchase of Energy Star certified products and a student referendum from several years back that allocates a percentage of the student activity fee to subsidize public transportation.

Petersen points out that Nancy Dye’s decision to sign the ACUPCC is a natural extension of the comprehensive environmental policy adopted by the College in 2004. This policy calls for integrating sustainability into the curriculum, transforming campus management of buildings, food, travel, purchasing, and waste, and

developing mechanisms to track progress.

“The pursuit of climate neutrality, the planning process, the pathway, and the timeline are to be determined by each individual signatory institution,” he adds. “I am confident that we can structure this process to ensure that we make commitments that are realistically optimistic and fiscally sound for Oberlin College. Past experiences demonstrate that environmental leadership generates opportunity as well as hope.”

“Although colleges and universities are responsible for a relatively small fraction of greenhouse gas emissions in the U.S.,” says David Orr, Paul Sears Professor of Environmental Studies, “they are in a powerful position to lead on this issue.” “In addition to educating our students, faculty, and administrators, we can influence changes far beyond. We now know that human survival depends on achieving a rapid worldwide transition from fossil fuels to an era of energy efficiency and solar energy. Oberlin College has a unique opportunity to play a leading role in developing a model of climate neutrality and equip a generation of students for the great work ahead.”

Living Machine student operators participate in Big Parade 2007 with the floral toilet float!



L-R: Associate Professor John Petersen '87 with daughter Lily, Lauren Shuler '09, Kristin Braziunas '08, Kate Ortnier '08, Rose (Lindsey) Allen '09, Alex Chun '08, Mary Notari '07, and Christie Rollinson '08.

Missing from photo: Andrew deCoriolis '07, Zena Grecni '08, Nathaniel Meyer '09, Elyse Perruchon '07, and Louie Weiss '09

Students Learning to EAT – that is, Eat in Action and Thought

Lina Yamashita '08

Eating thoughtfully is something that children are not encouraged to do in schools. However, this is critical, especially in light of the growing concerns of childhood obesity and other health problems. Therefore, this year, I decided to lead a group of college students in teaching students to understand the importance of thinking about the food that they eat.

This group was formerly called The Youth Energy Project (YEP), originally established to teach Oberlin High School students primarily about energy. Last year, I led YEP in teaching two classes of high school students and one class of fourth graders. The lessons for the former revolved around energy and for the latter, around food. However, because the focus of our lesson plans this year has exclusively been on food, environment, and health, I thought that YEP was no longer an apt name, and therefore came up with the acronym, EAT, which stands for Eat in Action and Thought.

Throughout the academic year, meetings were held regularly in planning the lessons for the fourth graders. During the first week of December, we taught Sheila Hicks's fourth grade class at Prospect Elementary School a series of lessons dealing with food, cycles, and the environment. We will also be teaching the same class lessons concerning food and health during the second week of May.

Students involved in teaching fourth graders included Jaimie Harrow '07, Marya Johnston-McIntosh '08, Callen Miracle '08, Nate Moore '08, Erika Oba '08, Addie Ulrey '09, and Maya Walton '07. We created five lessons in total. Lesson 1 focused on trophic levels and the goal was to teach students how different animals, plants, decomposers,



Nate Moore '08 with the fourth graders

and essential elements (which included the sun, water, soil, and air) interact in an ecosystem. Students represented one of the four groups above and essentially created a food web using a yellow ball of yarn, which represented the sun. Students threw the ball of yarn to one another while holding onto the end of the ball such that all students eventually were connected by the web of yarn.

Lesson 2 delved into one of the essential elements above, soil. Students created an edible soil in a cup, using different snacks to represent the different layers and components. For instance, graham crackers represented the bottom layer (bedrock); chocolate pudding, the subsoil; crushed oreos, the topsoil; sprinkles, the microorganisms; chocolate licorice, the woodchips; apple pieces, the organic matter, and animal crackers, the animals that live in or on soil.

Students learned the importance of soil in connection to food production in lesson 3. We emphasized the seasonal processes and cycles of food production on a farm or garden. We created four stations each representing a season. Students went around the classroom, stopping at each station to learn about what can go on at a farm during a particular season.

The next lesson was about food distribution, and focused on the concept of food miles, which refers to the number of miles that foods travel from origin to destination. In order to teach this concept, we split the class into several groups and established a "grocery store" in the middle of the classroom. Each group was given a sheet of the foods sold at the grocery store with their corresponding approximate food miles. All groups were given 100 "Food Mile Dollars" and they were to purchase foods based on that budget.



Finally, the culminating lesson ended with a baking session at Donna Shurr's Oberlin High School classroom. The students baked pumpkin cookies and pumpkin bread. We wanted the students to participate in making food, and

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SEED Program Launches Green Housing

Amanda Medress '09

Despite Oberlin's reputation as an environmentally progressive school, our campus currently lacks the green housing options offered by many peer institutions. Come fall, the Student Experiment in Ecological Design (SEED), a sustainable living theme house located in a duplex at 20 and 22 East Lorain St., will fill this void.

The idea for the SEED house began last spring, when sophomores Lucas Brown, Kathleen Keating and myself recognized the need for and interest in a sustainable living option on campus. We spent the summer researching green housing at other schools, and eventually identified core goals of the SEED program: to serve as a resource center for green retrofits, to model ecological lifestyle choices, and to inspire interest in sustainability, for students and community members alike.

In the fall, we met with Assoc. Director of ResEd Facilities Keith Watkins and Director of ResEd Molly Tyson to pin down a site for the program. After deliberating many options, we identified 20 and 22 East Lorain as most ideal. Its location borders a residential area and campus, which sends a welcoming message to both communities. Because the house is a duplex, it holds twice the number of students as a traditional College house, thus benefiting more students. The house's two identical halves allow the opportunity to compare energy and resource savings between the two sides. This experimental aspect of the program is innovative, and sets the house apart from sustainable residences at other schools.

This spring, we took David Orr's Ecological Design class, which collectively chose SEED house as its central research project. Over the semester, teams of students researched renovation choices for the building's structure, water, insulation, fenestration, landscape, energy, and heating and cooling. The class appointed a finance committee to research a loan program to fund community green renovations, and a committee to research strategies for the program's long-term sustainability.

The class sought advice from experienced consultants: Nathan Engstrom (Oberlin College's Sustainability Coordinator) and Nick Zachos (a local green builder) gave advice on retrofit options, Doug McMillan (Director of Oberlin Municipal Light and Power) performed an energy audit of the property, Leo Evans (OC's Assistant Director of Facilities Planning & Construction) assessed the house's current condition, and John Petersen (chair of

the Environmental Studies program) evaluated the house's wiring and potential for monitoring. After a semester's worth of research, the class produced an integrated design proposal that applies the building philosophies of leaders in the green building field, such as William McDonough, Avery Lovins, and John Lyle.

The College has allotted \$40,000 from its Capital Maintenance Budget to perform renovations on the house this summer, and we're also pursuing additional funding. Current plans to retrofit the house include installing wool insulation, double-paned low-e windows, a biodiesel furnace, and low flush toilets. The house, which is in neglected condition, also needs structural improvements such as re-supporting the staircase and sistering joists. Lucid Design Group is designing an energy monitoring system that tracks the water consumption, carbon emissions, and electricity use for each side of the duplex.

In the fall, eight residents will be moving into the house, including Kathleen, Lucas and I. The five other residents were chosen via an application that sought commitment to house goals, ability to function well with other residents, and diversity brought to the group. The house includes students who aren't environmental studies majors, but who are enthusiastic about learning about sustainability. Unfortunately, more qualified students applied than the available number of spaces (over 20 students for five available spots). Hopefully the program can grow in order to meet the student demand for sustainable housing. We're looking into incorporating a green living option in campus Phase II housing plans.

At the beginning of the year the eight residents will write and sign a public mission statement, which will foster individual commitment to the project. Each house resident will have a job, such as Facilitator, Fundraiser, Footprint Monitor, and Systems Manager. Additionally, the house as a whole will organize two community outreach events on green building per semester.

The SEED program will benefit more students than the eight residents, by serving as a research vehicle for honors theses, ENV5 101 projects, and possibly EXCOS. Opportunities to evaluate SEED's community outreach programs and research opportunities will be available on the house's website.

This program seeks continuous improvement—in reducing the house's carbon emissions, lowering resident's

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A Retrospective on Student Engagement

Andrew DeCoriolis '07, Erin Morey '07, & Morgan Pitts '07

“Never doubt that a small group of thoughtful, committed citizens can change the world.”

-Margaret Mead

Nine years ago, Oberlin College built the first largely sustainable building on a U.S. college campus. In recent years, the college has taken steps to ensure that the College's performance as a whole matches that standard. The 2006-2007 school year was a defining moment: First, Oberlin made headlines as a top green energy purchaser according to the EPA, and second, President Dye agreed to sign the American Colleges and Universities Presidents Climate Change Commitment. Over the course of this school year, the Oberlin community, too, affirmed that environmental sustainability was one of its core values. This kind of progress in terms of our community's environmental stewardship would not have been possible without students, faculty and staff from departments across campus coming together and deciding that it was time to make progress.

The Environmental Policy Implementation Group (EPIG), a large and active student environmental group on campus, continued this progress by providing a forum for students to speak about on-campus sustainability with a unified voice. EPIG coordinated The Day Oberlin Went Climate Neutral, which was the culmination of another project, The Light Bulb Brigade, where student volunteers went door to door to student housing and exchanged incandescent light bulbs for more energy efficient compact fluorescent light bulbs. While this project resulted in an energy and carbon savings for the college, the most important value gained was engaging students in dialogue about energy issues. In addition to this project, EPIG members were instrumental last year in starting the first car sharing program in Ohio, based in Oberlin.

These are projects that EPIG recently accomplished. However, the momentum needed to bring sustainability to Oberlin has not come from EPIG alone. Other students and organizations on campus have been actively involved in planning new eco-friendly purchasing procedures, running the Recycled Products Co-op and an on-campus composting and recycling program, participating actively in committees ranging from housing design and master planning to the newly formed Committee on Environmental Sustainability, and planning a new environmentally-themed house, scheduled to open during the 2007-2008

school year. Additionally, Student Senate has consistently advocated for sustainable measures, including purchasing 138 tons of carbon offsets for The Day Oberlin Went Climate Neutral.

As mentioned earlier, the strength of recent initiatives has been the result of a broad range of departments, showing that passion about environmental issues is not confined to the Environmental Studies department. While many leaders of EPIG are Environmental Studies majors, there are other very active participants from departments as varied as Economics, East Asian Studies and Studio Art. These students in turn engage faculty members in their departments in discussions about sustainability, and help to build the kind of broad community-based movement that has so successfully supported the kind of change that has taken place.

This movement is the result of a new kind of activism. Classic activism, which conjures up images of petitions being signed on street corners and students organizing protests intended to provoke and confront, is typically adversarial in its approach and is only sometimes a valuable method for enacting change. Few, if any, individuals in Oberlin's administration are actively against sustainability, and thus an adversarial approach to engaging administration would not be beneficial. There are, however, valid concerns raised about sustainability, concerning costs, long term benefits, utilizing new technologies, and the ability for college staff members to research and develop sustainable alternatives, in addition to completing their day to day responsibilities. However, many Oberlin students, faculty, administrators and community members feel that whatever the cost, sustainability is vitally important for Oberlin as an institution.

Students in EPIG and other groups would be best described as “engaged citizens,” rather than activists. By building partnerships with other student groups, faculty, staff and administrators, we were able to have productive discussions this year, in which all constituencies were able to voice concerns and thoughts. In addition, opportunities were given to students to pursue topics further and research concerns held by administrators and other individuals.

While EPIG members are not “classic activists,” we do hope that students will continue to engage administration, staff and students in active discussion, focusing on educating -- not agitating -- and on forming cooperative partnerships that ensure holistic solutions to the challenges we have yet to face.

Careers in the Environment Speaker Series

Kate Boyd '07, Lora Difranco '08

Every May, many seniors find themselves in a situation where they are not entirely sure of what the future holds. The Oberlin College Alumni Speaker Series on Careers in the Environment brings a sense of ease to students, reassuring them that there ARE jobs out there and that one person CAN change the world. It also provides a great opportunity to network, discuss career options with a seasoned professional, and gain some insight to what can be done with an environmental studies degree. The series serves to bring in OC alumni who have pursued non-academic careers in the environment for a lecture and a luncheon with students. A spectrum of potential careers was presented including those involving water resource management, urban environmental justice, environmental policy, and green lighting design.

Chris Brown ('79), based in Texas, spoke on water management and consulting. His career path has led him to nonprofit advocacy, environmental consulting, the formation of the San Antonio Water System Conservation program, and back to consulting. Senior attorney for Environmental Defense, Karen Florini ('79), enlightened us with an interesting tale that led her through her 20



Karen Florini ('79)

year career as an attorney with Environmental Defense who has testified before congress numerous times. Claire Jahns ('03), a recent graduate, has been working for the Chicago Climate Exchange which is North America's only voluntary, legally binding rules-based green house gas emission reduction and trading system. Majora Carter and Sylvia Hood Washington ('80) were brought in conjunction with the African American Studies Department. The founder and executive director of Sustainable South Bronx, Carter has been working tirelessly to provide jobs while creating a healthier environment for the South Bronx community.



Sylvia Hood Washington ('80)

Dr. Washington focused on African American's experience with the environment and how her journey from Oberlin to an employee at NASA to holding faculty positions at University of Maryland (history) and University of Illinois (School of Public Health) have led her to exploring the health impacts of environmental injustice on African American communities. The last speaker of the series this year was Susan Ubbelohde ('75). Susan's architectural design firm Loisos + Ubbelohde Associates has designed the daylighting for the AJLC as well as many other green buildings. She spoke about her research regarding natural daylighting, solar access, building performance, and energy analysis.



Susan Ubbelohde ('75)

The Oberlin College Alumni Speaker Series on Careers in the Environment was a success in its first year. Students had the opportunity to interact with Oberlin alumni while learning about environmental jobs available in the non-academic sector. The possibilities are truly limitless for Oberlin graduates with environmental studies degrees. The series exemplified the character and success of Oberlin College graduates and their ability to affect environmental change.

SEED Continued

footprints, serving as a community green building resource, and promoting green housing on campus. Hopefully, data from the energy monitoring system on the house's energy savings and lowered utility bills will influence the College to use green building techniques in renovations and new construction.

SEED house has been designed collaboratively. Under the guidance of Professor Orr, Ecological Design class members spent many late nights deliberating over ideal window choices and landscaping designs. Molly Tyson and Keith Watkins have been instrumental in implementing the project, garnering administrative support, and securing funding. The student-led nature of SEED house has involved students in practically applying classroom principles of sustainability in the physical spaces we inhabit.

Visiting Professor Trevor Birkenholtz



Trevor Birkenholtz joined the Environmental Studies staff for spring semester. Trevor received his Ph. D. in the Department of Geography at Ohio State University in Columbus, Ohio. He researches the links between technological and environmental change and social and political institutions, the politics of resource use and control, and the livelihoods of rural producers and other working people. Trevor's dissertation was entitled, "The Politics of Groundwater Scarcity: Irrigation Technology, Institutions, and Governance in Rajasthan, India."

Here at Oberlin, Trevor led a private reading with multiple students on Intentional Communities. Further, he taught a section of Environment and Society, the introductory course for majors and Water and Social Power, an upper level course, which examined the ecological, social, political and economic dimensions of water-supply development and scarcity. It addressed these issues through the following interrelated questions: In light of the global water-scarcity problem and given the fact that the flow of water is imbued with social power relations, the question is who is actually facing water scarcity? Is water scarcity a natural or social phenomenon? Or both? Why does water often flow uphill towards power and wealth? And what can be done to rectify this situation? The course examined these broad questions in three interrelated parts. The first part included an introduction to the physical aspects of water, including the hydrologic cycle. Also in this section, the class established the de jure and de facto management institutions for water, the social character of water, and its relationship to social power relations. In Part two, these concepts were applied to the examination of water development in the western United States, where water is intensely managed

and heavily contested. This part of the course relied on case-study readings, films, and field trips, such as a daytrip to the City of Cleveland Water Division's Crown Plant. Trevor and the students took two college vans to tour this impressive facility which is capable of treating 130 million gallons per day for the greater Cleveland area. The third section of the course shifted focus to the international arena of interstate water disputes, global water scarcity, global warming and the privatization of water resources. This part of the course took on these considerable issues, but rather than leaving the course in a sense of despair they examined global examples of effective water management that do not include placing the control of water into the hands of elite corporate managers.

This fall, Trevor will begin a tenure-track position as Assistant Professor of Geography at Rutgers University, New Brunswick, New Jersey.

"Changes underfoot in the Environmental Studies Major"

Roger Laushman, Associate Professor of Biology

The Program underwent a long overdue review in 2006. We received lots of valuable input from the three outside reviewers, with some of the feedback providing support for curricular improvements we hope to achieve in the near future. The 'big picture' goals are 1) to improve the verticality in the major, 2) provide more intermediate-level courses, and 3) provide capstone experiences.

With three full-time faculty members in place, we are now able to require that all students take at least six hours of upper-level coursework taught by the core faculty members. As strange as it may seem, students could complete the major with Environment and Society as their only course within the Program. Also, no more than nine hours of upper-level credits can be transferred toward the major, which will involve students in more upper-level courses on campus.

A critical component to meeting the above goals will be to increase faculty size from the current three to four or five full-time members of the program core. This increase will allow for additional sections of ENV 101, implementation of new 200-300-level courses, senior seminars, and expanded research and honors opportunities. We are currently discussing proposals for new faculty members who would bring international expertise on social and urban issues plus new humanities perspectives on communication of contemporary environmental problems.

Weaving a Local Food Web in Northeast Ohio: Emergence of the New Agrarian Center at Jones Farm

Brad Masi '93

Generous support from Judith ('62) and James ('61) Scoville in memory of his parents will make possible the development of two intermediate Environmental Studies courses on applied sustainable agriculture and the installation of critical educational enhancements at Jones Farm. The classes will be taught in the 2007-2008 academic year and will use Jones Farm as an extension of a learning curriculum on community agriculture. A youth learning garden providing an interactive learning space that will offer growing space for high school apprentices as well as handicapped-accessible growing beds for elders and young children will be installed. A native plant nursery will also be established for the propagation of plant material for use on the farm or distribution to the wider community.

Life moves in circles. As we confront the challenges of climate change, species loss, fossil fuel depletion, and prospects of perpetual war, we can quickly realize that our current ways of going about things will inevitably have to change. Part of the process of evolving out of our current predicament involves developing whole new ways of providing our basic needs of food, energy, and shelter. But as much as the process is about inventing, it is also about remembering. The process cycles back and, like good compost, we can look to the past to provide the fertile bed for a sustainable future.

Before the wide-spread availability of cheap fossil fuels which unleashed the wicked power of the industrial revolution, we had agrarianism. Agrarianism worked with simple principles of thrift, making due, finding security in community, connecting with the land, working at nature's pace, and making progress through countless small inventions and unique adaptations to the particulars of each local place.

The agrarian ideal formed the basis of early notions of American democracy. It also provided the foundation for early education and work at Oberlin College, as depicted in its emblem which consists of a college building and a field of wheat shocks, representing the two ideas of learning and labor. For Oberlin's early founders, physical engagement with the world was essential to honest intellectual engagement. Pockets of this tradition persist to this day, as embodied by the college's strong commitment to social issues which continually challenge the relevance of education.

It is appropriate, then, that the town of Oberlin is also home to the New Agrarian Center, popularly known as The NAC. The NAC is a regional organization that works to build a just and sustainable food system in Northeast Ohio.

The NAC is based at the George Jones Farm and Nature Preserve just one mile east of campus. The NAC office is a simple building fashioned with lumber sustainably harvested from the 22 acre wooded preserve on the farm. Strawbales from a local farm provide high-performance and completely bio-degradable insulation. And earth plasters from Ohio glacial till clay seal the building from the elements. The building itself embodies all aspects of the agrarian ideal. It was built by over 250 students and community volunteers. It uses almost all locally grown or locally salvaged materials. It will build soil fertility after its useful life as a building has passed. It was designed as a part of an upper-level seminar taught by David Orr, who also helped to harvest the lumber for the frame one cold January morning.

Surrounding the NAC office is the 70 acre Jones Farm and Nature Preserve. The farm has evolved into a cooperative agrarian enterprise which provides high school students, college students, recent graduates, and community residents with opportunities to grow food for local consumption. Some of the activities include a market garden which grows food for the college dining halls and an inner-city food distribution program, free-range hogs and chickens, apiaries, herb gardens, greenhouses, and even wildcrafting (cultivating local and native crops). The farm has recently partnered with Heifer International over the past several years to raise its capacity to serve as an education, skill, and training center.

The farm offers numerous educational opportunities for local youth and college students. Professors David Benzing, John Petersen, Dennis Hubbard, Bruce Simonson, Keith Tarvin, Mary Garvin, Johnny Coleman, and Nanette Yannuzzi-Macias all utilize the farm for applied research and learning, from art and biology, to geology and applied systems ecology.

Through recent support from the Scoville Family, we will be establishing a native plant nursery and youth learning garden at the farm. This space will provide a place to propagate native plants for use on the farm or distribution to the wider community. The learning garden will provide an interactive youth learning space that will offer growing space for high school apprentices as well as handicapped-accessible growing beds for elders and young children. The donation from the Scoville family will also support the development of two intermediate Environmental Studies courses on applied sustainable agriculture which will use the farm as an extension

of a learning curriculum on community agriculture.

In addition to its use by local schools and homeschool families, the Jones Farm recently formed a series of hands-on learning workshops for the City Fresh program which trains inner-city market gardeners to utilize small vacant lots to grow food for local markets in the city.

The City Fresh program was initiated in 2004 by the NAC in cooperation with Ohio State University Cooperative Extension and about 14 other community partners, including the Ohio Farmers Union, the City of Cleveland Department of Public Health, and area-wide Community Development Corporations. The City Fresh program grows out of an increasing need for connecting local farmers and city residents. As the poorest city in the United States, Cleveland, not unlike many large American cities, has a lot of food deserts. These are neighborhoods where residents lack basic access to the foods needed to support a healthy diet. The food options for many of these neighborhoods include fast food establishments and old corner stores that now survive on cigarettes, wonder bread, and beer. Not surprisingly, these same neighborhoods also suffer from large outbreaks of diabetes, heart disease, and other diet-related ailments.

City Fresh works to improve food access in the inner-city through three primary areas of impact. First, City Fresh trains inner-city neighborhoods to operate neighborhood “Fresh Stops” which include share bags of local produce and nutrition information. Second, City Fresh has trained fifty residents over two years to grow food on vacant urban land to increase opportunity and the supply of local produce. Third, City Fresh helps to connect neighborhood businesses and institutions with locally grown food.

City Fresh has grown from one small neighborhood food project in 2005 to a regional initiative that includes seven neighborhoods in Cleveland, three neighborhoods in Lorain County (including Oberlin), and outreach efforts to other rust belt cities such as Youngstown. The Jones Farm was one of the three original farms supplying the City Fresh network in 2005. Aaron Englander and Rachel Weinstein, two summer interns, worked a ¾ acre market garden which supplied fresh food to City Fresh. Today, the City Fresh farmer network includes 22 producers (including Aaron Englander who graduated from Oberlin and now serves as one of the farm managers for the Jones Farm). Eight of the farmers in the City Fresh network started urban market gardens in Cleveland in 2006. City Fresh will operate 12 neighborhood Fresh Stops (including two that will serve clients for the YWCA or Recovery Resources, a community mental health center).

City Fresh was also recently bolstered by three equal donations from Oberlin College, Case Western Reserve University, and Bon Appetite. Bon Appetite operates the dining services for Oberlin and Case and facilitated the purchase of a diesel box truck which will be used to distribute local food to the two institutions as well as to the neighborhood Fresh Stops. Sam Merrett, an Oberlin graduate who started Full Circle Fuels, installed a straight vegetable oil converter on the truck that will enable it to run off of waste oil collected from Oberlin and Case. Bon Appetite also invested in a production greenhouse with a waste oil furnace to grow seedlings and lettuce greens for Oberlin College dining halls and for City Fresh distribution.

City Fresh in many ways represents a “new agrarian initiative”. It brings the agrarian ideals of community support, ecological stewardship, local economy, and health to the city, an area often thought of as irrelevant to agrarian concerns. As we look to grow a sustainable local food system that is free of fossil fuel energy inputs, we will find cities to become an important catalyst for strengthening regional food networks by innovating intensive farming techniques and opening up new markets for area farmers.

A final initiative of the NAC is the Agrarian Learning Network. This network includes a cross-learning effort that provides training and production support for alternative media initiatives. You can view several short videos that highlight different NAC initiatives across the region at www.gotthenac.org/multimedia.html The NAC recently produced Real Low Calorie Diet too, a one hour documentary that highlights the power of grassroots initiative in the local food system.

A recent new initiative of the learning network also focuses on creating a learning network among Oberlin alums who work far and wide to support local food initiatives across the United States. If you are interested in joining a growing (literally) network of agrarian alumni, please e-mail me at brad@gotthenac.org

We did not so long ago survive without fossil fuel energy. It is hard to predict if the specter of climate change or the prospect of peak oil will dictate change sooner. But this much we do know. Change is inevitable. And change can begin most easily when we check out what’s on our plates.

Brad Masi graduated from Oberlin in 1993 and received a MS in Urban Studies from Cleveland State University in 2002. He founded the NAC and serves as its Executive Director. You can find out more about the NAC at www.gotthenac.org.

Environmental Studies Honors Program

Harlan Wilson, ENVS Honors Subcommittee Chair, Professor of Politics

The Environmental Studies Program has participated in the College's honors program ever since it began offering a major in the mid-eighties. Honors in Environmental Studies is an opportunity for students who have records of academic excellence to spend part of their senior year completing a substantial research project culminating in an honors thesis under the supervision of several faculty members from different disciplines. A subcommittee consisting of Karla Hubbard, T.S. McMillin, J.E. Petersen, and Harlan Wilson oversees the honors program.

In 2003, the ESP strengthened the honors program by clarifying the guidelines and requirements for entering honors and completing projects. EnvS majors with grade-point averages of at least 3.2 in both Environmental Studies work and in College work are invited to apply to do honors research during the spring of their junior year. If the application is approved by the honors subcommittee, students may begin research over the summer, though formal honors research begins in the fall and goes through the student's senior year. At year's end the student defends her or his thesis in an hour-long oral exam. Students may receive Honors, High Honors, or Highest Honors in Environmental Studies at graduation.

The number of students who do honors work in Environmental Studies fluctuates from year to year. In 2004-05, for example, four students completed honors research. Their projects were as follows:

- Shoshana Friedman, ideas about environmental education in American Transcendentalist literature. Her primary supervisor was T.S. McMillin from the English Department.
- Ting Lee, the history of water issues in the boundary between Hong Kong and mainland China. Her primary supervisor was Michael Fisher in History.
- Stephen (Sam) Merrett, the provision of community-scale biodiesel fuel. His main supervisor was Katy Janda, Environmental Studies.
- Finally, Vladislav Shunturov, monitoring of

energy use and feedback of energy consumption in OC residence halls. J.E. Petersen was his main supervisor.

- In 2005-06, there was only one senior honors thesis: that by Daisy Allen, on energy consumption feedback. She did a field study in the city of Oberlin to investigate the probable effects of income and environmental attitudes on conservation behaviors.

This year, 2006-07, we have two honors participants, as follows:

- Claire Cheney, who researched the "wild" blueberry industry in Maine and its general significance for marketing and agriculture. Her lead supervisors were R.H. Laushman, Biology, and Jan Cooper, Rhetoric.
- Erin Morey, who studied history and policy relating to the automobile industry and its impact on the environment. Her work was supervised by D.W. Orr, Environmental Studies, and Carl Zimring, History.

As can be seen, our honors program has sponsored research subjects ranging from environmental science and building performance to the social sciences, history, and literature, and in most cases, interdisciplinary combinations of these fields. In addition to the supervisors listed, many additional faculty members from various fields have participated in advising honors students.

Present indications are that we will have more honors participants next year than ever, which is a testament to the strength of our honors program and its role in providing a true "capstone" research experience for students. As the program continues to grow and develop a reputation for academic excellence, I expect that the honors program will flourish as well.



Gorn Prize Recipients

The Environmental Studies Program Committee is pleased to announce that seniors Andrew deCoriolis, Erin Morey, and Morgan (James M.) Pitts share the Joyce Gorn Prize for 2007. The Gorn Prize was established as a memorial to Joyce Gorn, Oberlin College graduate of 1973, who had been active in environmental pursuits at Oberlin and Cornell University where she attended graduate school prior to her death from cancer in December of 1978. The fund was established by her parents and friends to recognize meritorious work in projects related to Environmental Studies.

DeCoriolis, Morey, and Pitts were all nominated for their leadership roles in the Environmental Policy Implementation Group (EPIG). EPIG's work has included successfully mobilizing a student senate referendum to create a LEED Silver policy for new college buildings (LEED =Leadership in Energy and Environmental Design), successfully mobilizing for a senate resolution to encourage Nancy Dye to adopt the "American College and University President's Climate Commitment", Organizing the "Light Bulb Brigade" last fall and the "Day Oberlin went Climate Neutral" celebration.

Andrew deCoriolis was also nominated for his work in initiating the "City Wheels" car share program. Andrew participated in the search for the Sustainability Coordinator and served as a student representative on the Committee on Environmental Sustainability. Familiar with the AJLC through coursework and his work in the Living Machine, Andrew often provided tours of the AJLC for visitors.

Erin Morey served as a member of the Environmental Studies Program Committee and on the AJLC furniture advisory committee. In addition to her leadership role in EPIG, Erin has been on student senate and in this capacity was a tireless advocate for environmental causes.

Also a leader in EPIG, **Morgan Pitts** served as a student representative on the Strategic Planning Committee on Environmental Sustainability. He has been a tireless organizer and mentor for budding activists. Additionally, he assisted in the organization of tours for AJLC visitors this year.

2007 Compton Mentor Fellowship Awarded to Andrew deCoriolis

Andrew deCoriolis '07, an Environmental Studies Major, has been named as one of the recipients of the prestigious Compton Mentor Fellowships for 2007. These fellowships are given annually by the California-based Compton Foundation. The \$35,000 award will allow Andrew to develop a program in Chicago called "Bridging the Gap" that will provide low carbon emissions distribution services to small farmers in an effort to increase their economic sustainability and link them with consumers who are underserved by traditional food networks.

The specific goals of this project are to:

- 1) Develop a distribution network which would supply healthy, affordable, and desirable foods to low income neighborhoods in Chicago.
- 2) Support alternative transportation options using high efficiency and alternatively fueled vehicles to green the supply chain.
- 3) Provide distribution services to family farms in the Chicago land area, and deliver produce to established consumer partners, bolstering economic viability of their farming operations.
- 4) Build relationships with local restaurants, grocery stores, bodegas, and markets interested in purchasing local foods.
- 5) Create "Fresh Stops" at community centers which will be used for the direct sale of produce in community support agriculture arrangements.
- 6) Initiate farm to table food education to increase awareness of local farming, and guides to eating fresh including recipes for preparing seasonal foods.

Peter Nicholson, Executive Director and Co-founder of Foresight Design Initiative will serve as Andrew's mentor.

Congratulations, Andrew!

Environmental Studies Department Guest Speakers and Events 2006-2007

10/4/06 *Field Notes from a Catastrophe: Man, Nature and Climate Change*- New Yorker staff political writer and former New York Times reporter Elizabeth Kolbert spoke about her latest book as part of the Convocation Series. In *Field Notes*, she approached global warming from every possible angle by traveling to the Arctic, northern England, Holland and Puerto Rico to interview researchers and environmentalists. Kolbert drew frightening parallels to lost ancient civilizations, cut through the politics, and presented personal tales of those being affected most – the people who make their homes near the poles and who are watching their surroundings deteriorate. “By the end of the century, the world will probably be hotter than it’s been in the last two million years, with sweeping consequences for future generations,” Kolbert writes. She believes that the world’s countries, especially the U.S., must face up to the realities of global warming to secure our future.

11/2/06 *Dr. Ramachandra Guha “The Past and Present of Environmentalism in India”*- Dr. Ramachandra Guha, an historian and biographer based in Bangalore, currently holds a visiting professorship at Yale University’s School of Forestry and Environmental Studies. Dr. Guha’s first book *The Unquiet Woods* (1989) presented a social history of the Himalayan forests, from the nineteenth century down to the celebrated Chipko movement. Dr. Guha’s other books include: *Savaging the Civilized: Verrier Elwin, His Tribals and India* (1999); *Environmentalism: A Global History* (2000); *This Fissured Land* (1992); *Ecology and Equity* (1995) and *How much Should a Person Consume?* (2006). Aside from his scholarly work, Dr. Guha writes regularly on social and political issues for the general public. Co-sponsored by the History Dept. and Oberlin Shansi.

The Day Oberlin Went Climate Neutral: Event Schedule: Thursday, December 7, 2006

Karen Florini (OC ‘79) “*Tales From the Trenches: Twenty Years as an Environmental Advocacy Lawyer in Washington, DC*”; 12:00 noon, Hallock Auditorium. Co-sponsors: Alumni Association, EnviroAlums, Career Services, Office of Sustainability, EPIG, Politics Dept., & Law and Society. Karen Florini has spent nearly 20 years at Environmental Defense, one of the nation’s largest environmental advocacy organizations, working primarily on human health and more recently on climate change. Along the way, she has testified dozens of times before the U.S. Congress, participated in numerous regulatory proceedings, and served as co-counsel in a successful case in the U.S. Supreme Court. On top of that, Karen moonlights as an Oberlin College Trustee.

2:00 p.m. National Wildlife Federation Teleconference Campus Ecology Teleconference Series: “Greenhouse Gas Inventories and other Energy Tracking Strategies”
Jennifer Schroeder, “Clean Air Cool Plant –Greenhouse Gas Inventories: What, Why and How”
Pete Sandberg, Vice President for Facilities, Saint Olaf College: “On Campus Wind Power”
Lynda Boomer, Michigan State: “Getting Bang for the Buck with Campus Energy Savings”
John Petersen, Director of ENVS, Oberlin College: “Developing a Comprehensive Approach to Greenhouse Gas Reductions”

4:30 p.m. “People Organized and Protecting Themselves: The Role of Civil Society and Communication in Mexico City, Caracas, and New Orleans” by Kris Petersen, Pastor, Bayou Blue Presbyterian Church & PHD candidate New Orleans University, and Greg Berger, Mexico-based investigative journalist and film maker.

7:30 p.m. Climate Neutral Day Reception and Art Exhibition by senior studio art major Mika Hayashi Ebbesen. Sponsored by Environmental Policy Implementation Group

3/1/07 *Majora Carter, Green the Ghetto, 7:00 PM Hallock Auditorium*- MacArthur award winning founder and Executive Director of Sustainable South Bronx, Majora Carter is a graduate of Wesleyan University and holds an MFA from New York University. Her numerous works include *The Green Roofs Project* which entails designing self-sustaining green roofs for Bronx city buildings to help reduce the Urban Heat Island Effect and provide jobs for community members. For more information, visit <http://www.ssbx.org>. Cosponsors: African American Studies and Multicultural Center.

3/5/07 Students presented their research and experiences on their environmental Winter Term projects. Issues presented: climate change, Federal Farm bill, cap-and-trade, City of Chicago, and eco-tourism.

3/13/07 *A Gardener’s Weavings*- Nationally known gardener, author, and weaver Rita Shuster Buchanan (OC ‘71) presented an exhibition opening/book signing and a talk in conjunction with a show of her work entitled “A Gardener’s Weavings.” Buchanan combines her passions for botany and horticulture with her artistic skills to create woven pieces out of the multi-colored grasses, branches and other plant materials which she grows herself. An exhibit of her work, including wall hangings, decorative boxes and books, has been on display at the Ginko Gallery this spring.

3/20/07 Dave Cooper gave a presentation on “The Hidden Destruction of the Appalachian Mountains”, 11:00 am and 1:00 pm Hallock Auditorium (duplicate presentations). In West Virginia and eastern Kentucky, coal companies blast as much as 600 feet off the top of the mountains, then dump the rock and debris into mountain streams. Over 300,000 acres of the most beautiful and productive hardwood forests in America have already been turned into barren grasslands. Mountaintop removal mining increases flooding, contaminates drinking water supplies, cracks foundations of nearby homes, and showers towns with dust and noise from blasting. Dave is a member of the Sierra Club and Kentuckians for the Commonwealth, and worked for a year as a coalfield organizer for the Ohio Valley Environmental Coalition. He is currently on a national speaking tour to educate communities across America about Mountaintop Removal.

4/3/07 *Film: Who Killed the Electric Car? 7:00 PM, Hallock Auditorium*- In 1996, electric cars began to appear across California. They were quiet and fast, produced no exhaust and ran without gasoline. Those who leased the cars fell in love with them. Ten years later, every one of these vehicles was intentionally crushed and shredded. This documentary investigates the birth and death of General Motors' "EV1". The film has been widely hailed as a brilliant work of muckraking journalism.

4/12/07 Round table discussion of spirituality, religion and the environment. Participants included Beth Blissman, (Director, Center for Service and Learning) Sister Mary and Andy Barnett, student.

4/18/07 *CHILL OUT! Featuring Oberlin College!!!* A live Earth Day broadcast and witness to how colleges are creating positive solutions to global warming. Heard about students and staff who are dealing with this issue. Listened to a special message from former Vice President Al Gore. Interacted with leading climate experts.

4/12/07 *Oil, War, and Geopolitics: The Implications of American Dependence on Imported Petroleum*- Michael T. Klare, the Five College program director and professor of Peace and World Security Studies in Western Massachusetts, has written widely on U.S. defense policy, the arms trade, and world security affairs. He is the author, most recently, of *Blood and Oil: The Dangers and Consequences of America's Growing Dependency on Imported Petroleum*. Klare is also the defense correspondent of *The Nation* magazine, and serves on the board of the Arms Control Association and the National Priorities Project. Klare spoke about the need to change the "American way of life," which depends on exorbitant energy use, as a key to a peaceful and sustainable future, highlighting the increasing world conflicts over oil.

4/24/07 "*Beyond Oil: Solar Energy for a Sustainable Future*"- Andy Lau, Associate Director of the Penn State Center for Sustainability and Associate Professor of Engineering Design addressed the question: What are the most viable solar energy technologies for a sustainable future? In answering the question Dr. Lau discussed activities at the Center for Sustainability at Penn State, and examined our current energy situation from the perspective of sustainability by considering current and future energy needs. With this as a background, he went on to lay out promising technologies to meet these needs, including photovoltaic electricity, solar water heating, day-lighting, passive solar heating, and biofuels. Lau bring over 30 years of experience working in solar energy applications to his recent work in sustainable design. He is a founder of the Green Building Association of Central PA, as well as a partner in the7group, one of the leading U.S. green building consultant firms. Co-sponsored by Office of Environmental Sustainability, EPIG and Ohio Public Interest Research Group.

Blank Research Assistantships

The Blank Research Assistantships fund was established through a generous grant from the Arthur M. Blank Foundation to enable Oberlin students to undertake research and educational opportunities relating to the environment in collaboration with core Environmental Studies Program faculty. Blank Assistantship funds are intended to primarily support research projects involving maintenance of the Adam Joseph Lewis Center, the Living Machine, the data monitoring/display system, and the landscape. Assistantships are also available for research projects that do not involve facility or landscape maintenance.

Blank Foundation Research Assistant Fellowships Awarded for 2007

Projects supervised by David Benzing, Emeritus Professor of Biology

AJLC landscape management/design: Tristan Jones '07, Krista McKinnon '08, and Ayla Zeimer '09

Project supervised by John Petersen, Associate Professor of Environmental Studies/Biology and David Benzing, Emeritus Professor of Biology

Jones Farm Wetland Restoration: Jacob Grossman '08

Projects supervised by John Petersen, Associate Professor of Environmental Studies/Biology

Revise, Expand and Develop Documentation for the AJLC Data Monitoring System &
Campus Resource Monitoring System: Adam Hull '10 and Alex Totoui '10

Projects supervised by John Petersen Associate Professor of Environmental Studies/Biology and Brad Masi, Director of the George Jones Farm

Youth Education and Sustainable Agriculture: Liz Fabis '09 and Ben Purdon '07

Winter Term 2007 Projects

Sponsored by the Ann Marie Schaening '87 Memorial Fund

The Ann Marie Schaening '87 Memorial Fund is a fund established by the family and friends of Ann Marie Schaening '87. The fund is used to provide support for students pursuing Winter Term studies related to the Environmental Studies Program. The following is a list of student recipients and titles of their projects.

Claire Cheney
Zoe Dash
Adam Levine
Shraddha Ramani
Maria Stamas

Perspectives on Food Journalism: An Interview with Michael Pollan
Conservation in Chile with Ancient Forests International
Altropico (meaning high tropics)
Petroleum and Sustainable Development in Ecuador
Market Solutions to Global Warming

Andrew Barnett '08 Awarded Udall Scholarship

Double degree environmental studies major Andrew Barnett of Minnesota has been awarded a 2007 Udall Scholarship. Established by Congress in 1992 to honor Representative Morris K. Udall's thirty years of service, the Udall Foundation awards approximately 80 scholarships each year on the basis of merit to college sophomores and juniors demonstrating a commitment to careers related to the environment, Native American health, or tribal public policy. The foundation also promotes the principles and practices of environmental conflict resolution.

After graduation from Oberlin, Andy plans to attend seminary and forestry school. Working within the Church, he will offer environmental stewardship opportunities to his community, and work to mitigate the global problem of climate change. Music will be an integral part of this ministry.

Students elected to the Phi Beta Kappa Honors Society

Seniors:

*Kimberly Buzdygon
Michael Rose*

Juniors:

*Jacob Grossman
Lina Yamashita*

RECENT FACULTY PUBLICATIONS

Trevor Birkenholtz:

“‘Environmentality’ in Rajasthan’s Groundwater Sector: Divergent Environmental Knowledges and Subjectivities” for Contentious Geographies: Environment, Meaning and Scale. Edited by M. Boykoff, M. Goodman & K. Evered, Ashgate Press. In Press.

“Groundwater” for The Encyclopedia of Environment and Society. Sage Publications. In Press.

“Murky Waters: Mediating Local Institutions for Demand Side Solutions in Rajasthani Irrigation” for Institute of Rajasthan Studies conference proceedings, yet to be titled. In press.

“Contesting Expertise: The Politics of Meaning and the Production of Environmental Knowledge in Northern Indian Groundwater Practices” for Geoforum. Accepted April 2007.

“The Capacity of Irrigation Technology in Recursive Socioecological Change: Irrigated

Landscapes, Produced Scarcity, and Adaptive Social Institutions in Rajasthan, India” for The Annals of the Association of American Geographers. Submitted January 2007.

2007. Oberlin College. Grant-In-Aid. Project Title: “The Urbanization of Water: Private Wells, Water Markets, and Regulatory Reform in Rajasthan, India.” \$2,000.

Kathryn Janda:

Janda, K. 2007. “Turning Solar Consumers into Solar Citizens: Strategies for Wise Energy Use.” Forthcoming in Solar 2007, Proceedings of the American Solar Energy Society (ASES) Annual Conference, July 7-12, 2007 (Cleveland, OH).

Janda, K. 2007. “The Aesthetics of Energy: Art, Public

Participation, and Education.” Forum accepted for presentation at Solar 2007, American Solar Energy Society (ASES) Annual Conference, July 7-12, 2007 (Cleveland, OH).

Janda, K., K. Scheuer, L. Lutzenhiser, P. Stern. 2007. “Expanding the Comfort Zone: Increasing Green Building Through Social and Behavioral Change.” Session accepted for presentation at Greenbuild 2007, annual meetings of the U.S. Green Building Council, Nov. 7-9 (Chicago, IL).

Petersen, J. E., Shunturov, V., Janda, K., Platt, G., & Weinberger, K. 2007. “Dormitory residents reduce electricity consumption when exposed to real-time visual feedback and incentives.” *International Journal of Sustainability in Higher Education*, 8(1), 16-33.

Janda, K. 2006. “The Eleventh Event: Public Perceptions of the Solar Decathlon.” In *Solar 2006, Proceedings of the American Solar Energy Society (ASES)*, July 8-13, 2006 (Denver, CO).

Allen, D. (OC ‘06) and K. Janda. 2006. “The Effects of Household Characteristics and Energy Use Consciousness on the Effectiveness of Real-Time Energy Use Feedback: A Pilot Study.” In *Proceedings of the American Council for an Energy-Efficient Economy 2006 Summer Study. Volume 7, “Human and Social Dimensions of Energy Use” ACEEE: Washington DC.*

Janda, K. 2006. Three lessons published in *147 Tips for Teaching Sustainability: Integrating Environmental, Economic, and Social Dimensions*. William M. Timpson, Brian Dunbar, Gailmarie Kimmel, Brett Bruyere, Peter Newman, and Richard Gilliland (eds). Atwood Publishing: Madison, WI.

Janda, K., T. Lopez, 2006. Led \$8,000 Oberlin College Cross-Divisional, Team-Taught Course Curriculum Development Grant to create ENVS 212: “Making Solar Music: Electronic and Unplugged” with Tom Lopez (TIMARA), John Petersen (ENVS), and Bruce Richards (Physics).

Note: Underlined names represent undergraduate student contributions.

David Orr:

Awards:

2007 Visiting Scholar, James Madison University

2007 Green Cross Millennium Award for Individual Leadership

Publications:

“One Hundred Days of Climate Action,” *Conservation Biology* (August, 2007).

“Place-Making” An introduction to Daniel Williams, *Sustainable Design*, 2007.

“Introduction,” Lynn Margulis (ed), in *Dwelling in Nature: The Legacy of Ian McHarg*, (Princeton: Princeton Architectural Press, 2007).

“Ecological Design and Education,” in Pretty, et al., *Sage Handbook of Environment and Society*. (Beverly Hills: Sage

Publications, 2007).

“Architecture, Ecological Design, and Human Ecology,” in Kim Tanzer (ed) *Collegiate Schools of Architecture* (London: Routledge Press, 2007).

“The Extinction of Experience,” with Robert Pyle, in Stephen Kellert et al. (eds), *Biophilic Design* (Wiley, 2007).

“The Carbon Connection,” *Conservation Biology* (April, 2007).

“The Trial,” *Conservation Biology* (December, 2006).

“A Meditation on Building,” Cover story in the /Chronicle Review/ section of the *Chronicle of Higher Education*, (October 20, 2006).

“The Dirt on Coal” a review of *Lost Mountain* by Erik Reece, *American Scientist*, November/December, 2006.

John Petersen:

Kemp, editors. *Enclosed experimental ecosystems and scale: Tools for understanding and managing coastal ecosystems*. Springer-Verlag, New York.

Petersen, J., V. Kennedy, W. C. Dennison, and W. M. Kemp, editors. In Press. *Enclosed experimental ecosystems and scale: Tools for understanding and managing coastal ecosystems*. Springer-Verlag, New York.

Petersen, J. E. 2006. Definitive data: Choosing a performance monitoring and display system to maximize the value of your green building. *Environmental Design and Construction* May issue:78-80.

Petersen, J. E. 2007. Production and consumption of electricity in Oberlin College’s Lewis Center for Environmental Studies: Realizing the goal of a net zero building. in *Proceedings of the American Solar Energy Society (ASES) Annual Conference*, Cleveland, OH.

Petersen, J. E., and W. M. Kemp. In Press. The role of enclosed experimental ecosystems (“mesocosms”) in ocean science research. in J. H. Steele, S. A. Thorpe, and K. K. Turekian, editors. *Encyclopedia of Ocean Sciences*. Elsevier, Oxford (UK).

Petersen, J. E., V. Shunturov, K. Janda, G. Platt, and K. Weinberger. 2007. Dormitory residents reduce electricity consumption when exposed to real-time visual feedback and incentives. *International Journal of Sustainability in Higher Education* 8:16-33.

Sanford, L., W. M. Kemp, J. Petersen, E. Houde, E. Porter, S. Suttles, C. Stevenson, J. Cornwell, and L. Murray. In Press. Introduction and Background. Pages 40-124 in J. Petersen, V. Kennedy, W. C. Dennison, and W. M. Kemp, editors. *Enclosed experimental ecosystems and scale: Tools for understanding and managing coastal ecosystems*. Springer-Verlag, New York.

Note: Underlined names represent undergraduate student contributions.

Congratulations 2007 ENVS Grads!

May '07 Major Graduates

Sophie Alexander	Claire Landgren
Samina Ali	Adam Levine
Stephanie Blanchard	Claire Miller
Katherine Boyd	Erin Morey
Lenore Braford	Elyse Perruchon
Kimberly Buzdygon	James (Morgan) Pitts
Claire Cheney	Benjamin Purdon
Molly Danielsson	Michael Rose
Andrew DeCoriolis	Elisa Saltet
Matthew Ferris-Smith	Rowan Shafer-Rickles
James (Whit) Forrester	Jennifer Soong
Samuel Goodman	Emily Stuart
Julia Howells	Talor Walsh
Cara Kritikos	Michael Wasserman
Samuel Krulewitch	Anne Watson

May '07 Minor Graduates

Noah Cecil
Margaret Grove
Jaimie Harrow
Maria Stama
Jennifer Wilkinson

December '06 Major Graduates

Sally Kintner

December '06 Minor Graduates

Tamara White