



The Sustainable Campus

The Newsletter of the Berea College

Sustainability and Environmental Studies Program

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Necessary Discontent

By Mary Bruce Gray, Haley Merrill,
Dr. Sid Brown and Dr. Lucia Dale

Mention peak oil or global warming, and most students will simply shrug their shoulders. In our conversations with student leaders from across the South, it is apparent that their main concern is the apathy of their student bodies.

With its origin in the Greek *apatheia* – not suffering – apathy is the inability or refusal to experience pain. Faced with seemingly intractable problems such as global climate change, destruction of ecosystems, and depletion of fossil fuels, it's natural to want to ignore them, to avoid feeling the pain, to surrender to apathy.

However, eschewing apathy, deciding to feel the pain of environmental problems also means letting yourself feel connected to the environment and other humans working for it. As environmental activists, we're not just asking people to feel the pain associated with the suffering of the earth, we're offering people the opportunity of feeling connected to the earth, to other people, and responding to the warning signals all about us. Discontent is a necessary precursor to action, and action is the antidote to despair.

At Sewanee University, we have developed several programs that provide opportunities and inspiration for action, and have helped us to combat apathy:

An **Environmental Resident** in each dorm works to raise environmental awareness and promote recycling. Environmental Resident projects include

the Eco-Cup, a campus-wide high profile, month-long competition to decrease energy and water consumption, a green newsletter, fraternity/sorority recycling, and a Green Pledge dinner, where graduating seniors pledge to maintain environmentally friendly lifestyles.



Attendees of Sewanee's 2005 Green Pledge dinner.

Waste-Not is a less formal program that enables students to participate short-term in single projects. Waste-Not makes trips to local elementary schools, teaching environmental education and planting trees, and serves as a voice of the green student body to the administration of the University.

The **Eco-House** is a small dorm whose residents actively work to live more sustainably. Eco-House residents act as an example to others by composting food, working in their garden, and doing outreach activities.

SERP (Students for an Environmentally Responsible President) focuses its efforts on political change.

Our goal is to provide every member of our diverse student body with an avenue for environmental activism that meets their particular interests. For example, the math major who volunteered

to develop the math formulas for determining the winner of the Eco-Cup inter-dorm competition. (Although, it was her dorm that won the ping-pong table, so maybe we should have had someone check that math...) Another student's strong point is writing, so she started the

Sewanee Lorax, a newsletter on environmental concerns at Sewanee. It costs money, hundreds of dollars, but we did not let that get in our way or even be seen as an obstacle. We knew we'd get the money somehow, and we did.

As we give students (and faculty, staff, and administration; even members of the Board of

Regents) a variety of ways to actively address the environmental crisis, we encourage a more meaningful engagement in the world. After all, some kind of meaning is as necessary to us as oxygen. Feeling the pain of a planet and then acting to heal it is powerful meaning-making.

Repression of pain deadens us. Apathy isn't fun, it's not enlivening, it's not bright and hard and engaged. To surrender to apathy is to surrender to psychic numbing, and to a life less full.

Our goal? One hundred percent of students, faculty, staff, and administration alive, active and engaged in creating our sustainable future.

Haley Merrill, Mary Bruce Gray, Dr. Lucia K. Dale, and Dr. Sid Brown are the co-chairs and advisors of the Environmental Residents at Sewanee: The University of the South, Sewanee, Tennessee.

Natural Building Workshops Scheduled

Workshops for the public have been scheduled for the months of March and April. These events will center on the new solar shed/natural building lab under construction in the Ecovillage.

Saturday March 18: Earthbag Wall

Earthbag is the tried and true sandbag method of building bunkers and levies converted to use in a building. In this workshop participants will learn how to stack bags so that they are stable and also learn how

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Editor

Wes Lowe
CPO 1015, (859) 985-6060

SENS Program

Dr. Richard Olson, Director
CPO 1921, (859) 985-3593

Dr. James Dontje
CPO 2016, (859) 985-3948

Dr. Paul Smithson
CPO 2064, (859) 985-3716

SENS House

121 Jefferson St
Berea, KY 40404
(859) 985-3340

SENS House Directors

Phil Hawn (Non-Residential)
CPO 698, (859) 985-2431

Alix Heintzman (Non-Residential)
CPO 717, (859) 985-6309

Allison Butts (Non-Residential)
CPO 118, (859) 985-4211

Anita Goodrich
CPO 509, (859) 985-4732

Dan Pray
CPO 1174, (859) 985-6003

Jessica Hasting
CPO 660, (859) 985-4568

Wes Lowe

The Sustainable Campus Online

www.bera.edu/sens/sustainablecampus/default.asp

to apply a first cob plaster coat.

Saturday March 25: Slipstraw Wall

Slipstraw is straw coated with clay slip (much like tossing a salad) that is forced into forms that make up a wall. The forms are removed when full and after a period of drying the wall is ready for plaster. Participants will learn how to build framing to support the slipstraw, how to mix the slipstraw and pack it into forms.



Students in Brad Christensen's TEC 107 (Residential Construction) class work on the frame for the solar shed. All lumber was milled from trees cut from the College forest.

God has made of one blood... : Environmental Justice and Berea College

By Jason Fults

Fall semester "Sustainability & Environmental Studies (SENS) 460: Environmental Justice" offered students an opportunity to explore intersections of environmental degradation and societal oppressions such as racism, classism, and sexism. Since SENS 460 is a newly-developed capstone course for the SENS minor, the five students participated in co-creating the curriculum with instructor Richard Olson, Director of the SENS Program. A primary goal of the course involved coming to a consensus on exactly what is meant by the phrase *environmental justice*. Initial discussions revolved around a tentative definition of environmental justice as:

...the right of all people to their basic needs: clean water, healthy food, non-toxic communi-

Saturday April 15: Cordwood Wall with Clarke Snell

Cordwood is a method of building where equal lengths of wood (new, recycled or cast off) are mortared together with the end grain showing. The final result looks much like a stone wall. Berea College will be hosting the author and green building expert Clarke Snell who will conduct this workshop.

Saturday May 6: Cob Wall

Cob is a very old method of building where clay and sand are mixed with straw to form walls. Very durable, these buildings can last for hundreds or in some cases a thousand years. Participants in the event will learn the cob basics of mixing and building.

All workshops will require a registration fee which will cover the cost of food and miscellaneous materials. The fee will be \$5.00 for students and \$10.00 for all others. Email SENS House Director Phillip Hawn at phillip_hawn@bera.edu for more information.

ties, open space, safe energy, and equitable educational and job opportunities. Environmental justice transcends the realm of economic justice and is based on the deeper principle of equal access to, and equitable sharing of, the Earth's riches. Environmental justice begins with the belief that a healthy economy depends on a healthy environment.

After defining environmental justice, students explored case studies of environmental *injustice* (i.e., the lack of environmental justice) in a diversity of communities across the U.S. and the rest of the world. From the mountains of Appalachia to the sweatshops of India, the residents of these communities have been systematically devalued as human beings and subjected to polluted environments and inhumane living/working conditions. Yet, their stories are also stories of resistance and hope as they fight back against "the powers that be" and work towards environmental sustainability through the eradication of

Continued on Page 4

Oh, Shit! Students Learn Chemistry while Assisting Nutrient Management on the College Farm

By Paul Smithson

Several Berea chemistry majors spent time on the college farm this January, digging soil samples and collecting water from the farm ponds. Under the direction of Chemistry/SENS faculty member Paul Smithson, the students were continuing a multi-year study of the effects on soil and water quality of applying livestock waste to pastureland. Results of the research will help the farm managers to optimize their use of livestock waste, close the farm's nutrient cycles, and increase the sustainability of the farm.

The college farm has a small swine production facility in which the hogs are kept in confinement, and waste from the facility is flushed with water into two waste-treatment lagoons. In years past, the lower lagoon would sometimes overflow during heavy rains, causing concerns about water quality in a nearby stock-watering pond.



Bangha Genesis Song working in the lab.

In 2004, Smithson's short term class measured levels of phosphorus in the soil downhill from the waste lagoon. Phosphorus is an essential plant nutrient, but in excess it can cause overfertilization (known as *eutrophication*) of surface waters. The students collected soil samples from the area that was receiving waste overflow, and from an adjacent "control" area that

did not. They pinpointed the exact location of each sample by using a hand-held geopositioning unit, allowing them to produce a map of soil phosphorus concentrations in the study area. Phosphorus concentrations were higher in the soils receiving lagoon overflow, confirming the threat to water quality and the loss of a valuable nutrient.

To address this problem, the farm began applying lagoon waste to a pasture that does not drain to the pond. Smithson's 2006 short term class expanded the original study to include soil sampling in the pasture receiving hog waste and water sampling in the stock pond downhill from the lagoon.

Concentrations of phosphorus and ammonia in the stock pond were above desirable levels. Smithson's classes will continue to monitor the farm during the coming years, and hope to document a decline in excess nutrients in the soil and water downhill from the lagoon, and an increase in soil fertility in the pasture being irrigated with lagoon waste. Should nutrient levels in the pasture soil increase to excessive levels, the farm managers will move the irrigation system to another location. Berea chemistry students will provide a valuable service to the farm while learning important skills.

Paul Smithson is a faculty member who divides his time between the Chemistry Department and the SENS Program.

Learning How to Come Out on Top of Mountain Top Removal

By Anita Goodrich

Berea College is located at the edge of the Appalachian coalfields and has historically been committed to serving the educational needs of the region. Berea, in collaboration with environmental agencies such as the Sierra Club and Kentuckians for the Commonwealth, is currently exploring the human, economic and environmental costs of American reliance on coal. Recent media attention has been focused on the mountains of West Virginia as fourteen miners were killed in two separate mine disasters. The environmental costs of increased demand

for coal production are also drawing public awareness. Local authors, including Wendell Berry and Silas House, made their way through Berea College's Ecovillage during their Mountain Top Removal Tour. They looked at examples of alternative living that require less coal consumption. The authors recently published a collective work against Mountain Top Removal entitled *Missing Mountains: We Went to the Mountaintop but it Wasn't There*.

Berea College SENS House Director Anita Goodrich attended the University of Kentucky's first annual "Lost Mountain" Teach In for community awareness concerning mountain top removal, a process of removing the top of the mountain in order to access the layers of coal below. The headlining speaker for the Teach In was educator Judith Hensley of Harlan County's Wallins Elementary. Judy gained national attention in 1998 when her seventh grade class helped save Black Mountain, the highest peak in Kentucky, from mountain top removal. The presentation made by Judith on this effort was entitled, "Combining Science Learning with Social Justice," and was geared toward education majors who want to see their students learn through doing while making a difference.

As part of her seventh grade science curriculum, Hensley allows students to choose a project that incorporates the state mandated curriculum and service learning. Her 1998 class, based on one student suggestion decided independently to try to stop the mountain top removal of the local Black Mountain. The children first signed petitions, made posters and then organized a peaceful protest outside the Department of Surface Mining. In response a department officer came to speak to the children about the positives of mountain top removal and their plans for the mountain. He was met by a truly knowledgeable round of questioning as the children articulated their research into the effects of and alternatives to mountain top removal. The children interviewed local people, educators, and engineers to gain perspective on the issue as they intensified their campaign by making t-shirts in collaboration with Southeast Community College.

Continued on Page 4

Mountain Top Removal...

Continued from Page 3

During their campaign the children had generated media attention. At their initial protest they had been written up in the local newspaper, which led to coverage in the Lexington Herald Leader. This influenced other schools and groups including Berea College to join in the campaign to "Save Black Mountain." The children finally got national attention when ABC News Nightline with Ted Coppel made a visit to Harlan featuring the protest in the "Power of Place" special aired July 6, 1999. In their final effort the kids traveled to Frankfort to meet with the legislature to present their research findings against mountain top removal.

On Wednesday April 21, 1999 for the first time in state history a tentative agreement was reached between environmentalists and the coal companies. The government reimbursed the companies for the 22,000 acres that were saved and only the lower portions of the mountain were mined.

Judith Hensley, who faced some opposition from school administration, coal executives, politicians and local people, maintained the personal and collective integrity of her students. The project included studying the mixed Mesophytic forest of the Appalachians and the unique plants and animals contained there. The children used English, arts, humanities and science, as well as studies of ecosystems, geology, and endangered species. One of Hensley's goals was to allow students to form their own opinions. There were several students who participated by justifying the opposition and they were supported by Hensley and their fellow classmates. Hensley stated that she believed the most important part of the educational process is to teach children how to think. "You can never know everything but you can teach children how to think for themselves and express respectfully their thoughts and opinions. They have a right for you to teach them and to let them decide for themselves," said Hensley.

Environmental legislation is easily overturned, corporations crusade for their best interest and impoverished areas rarely find a strong voice. It is up to

institutions like Berea and UK to stop these social, economic and environmentally degrading practices. Judith Hensley knows the first step; education. Judith Hensley is an example of the powerful voice that can be found in children and through education.

Anita Goodrich is a sophomore SENS House Director.

Environmental Justice...

Continued from Page 2

social inequity.

In this spirit of resistance to environmental injustice, the class turned its analysis inwards and examined Berea College's historic commitment to environmental justice as proclaimed by its motto ("God has made of one blood all people's of the Earth") and long-standing commitments to undoing racism and classism. Through examining the College's admissions policies, hiring practices, consumption, curriculum, and finances, the students found that, as with any large and complex institution, Berea has a mixed record in regards to environmental justice. For example:

- Berea's program to reduce energy use by 45% by 2015 will greatly reduce its contributions to the environmental destruction associated with the extraction and burning of fossil fuels. However, the college will continue to use large amounts of electricity generated by coal-fired power plants. Berea needs to develop a plan for a transition to electricity from renewable energy sources. While it develops and implements that plan, the college could follow the lead of the College of the Atlantic which off-sets its entire non-renewable electrical energy use through the purchase of Renewable Energy Certificates, also known as "green tags."
- While the college bookstore will not purchase apparel from companies that do not implement a rigid code of conduct regarding workers' rights, the absence of a college-wide policy means that many student groups and athletic teams wear t-shirts and uniforms made in sweatshops. More than 140 colleges and universities seek to avoid this through membership in the Workers

Rights Consortium.

- The college's endowment of more than \$800 million includes investments in Abercrombie and Fitch (sweatshop abuses on Saipan), Boyd Gaming Corporation (one of America's largest casino operators), Exxon Mobil (pollution of New York State waters with benzene), United Defense Industries (weapons manufacturer), Wal-Mart (employee rights abuses and sweatshop exploitation), and many other corporations that are responsible for environmental injustices. If social and environmental screening of the college's investments is not possible, then an aggressive shareholder advocacy program such as that of Swarthmore College that seeks to influence the behavior of corporations would be an alternative to divestment.

In an era of budget overruns due to soaring energy prices, it is difficult to consider environmental justice actions that would cost more or reduce the college's income. However, to derive our affluence and well-being even in part through the exploitation and degradation of other people and communities erodes the moral foundations of the institution. Loretta Reynolds of Campus Ministry said "If our motto is more than just a motto: 'God has made of one blood all people of the earth' then it seems difficult to believe that we can invest in things that destroy or inflict harm on some of 'those people of the earth'. It is not only that we care about being socially correct, but social responsibility should be an intrinsic part of who we are because of our foundational commitments."

Next fall, the SENS 460 class will interact closely with classes in the African-American and Womens' Studies Programs in a collaborative effort that will culminate in a campus-wide symposium on environmental justice. Environmental Justice will continue to be a main theme within SENS and other academic programs. If nothing else, SENS 460 made it clear that a world in which societal oppression thrives will never achieve environmental sustainability.

Jason Fults is a 2005 Berea graduate.