Sustainable Campus Initiative: MES Students in the Lead

This year a handful of MES students initiated a movement toward more sustainable practices on the College of Charleston campus. In March, Tim Willard, Dave Lansbury, and Jess Barton hosted a two-part seminar entitled “Environment 101.” During the seminars, attendees were educated about how the choices they make as consumers have an impact on the environment. The educational presentation was followed by an open-floor discussion about issues that could be addressed at the College of Charleston. Students became involved, ideas became actions, and the MES students soon became the executive directors of the newly formed organization called the Sustainable Campus Initiative (SCI).

At the beginning of this fall semester, the unaffiliated group began to meet once or twice a month at the Addlestone Library. Many MES students as well as several undergraduate students joined with an interest in promoting the SCI mission, which is “to institutionalize the idea and practice of environmental sustainability throughout the College of Charleston community.” The two primary projects the group planned to undertake this semester were the establishment of the Lug-a-Mug program and the organization and management of a kick-off event. The Lug-a-Mug program promotes waste reduction by encouraging the use of reusable personal travel mugs (the average college student throws away an estimated 500 coffee cups each year). The goal was to create a system in which people toting mugs with SCI logos would receive beverage discounts at participating businesses. Increasing the habit of carrying reusable mugs would reduce the amount of solid waste generated and reduce business’s operational costs.

Meeting attendance fluctuated, but there were always ten or fifteen people present to discuss the organization’s goals. Specifically, the meetings focused on preparation for the kickoff event. The Sustainable Campus Initiative crew decided that a well organized community event would both help the organization get acknowledged and serve as a platform for community outreach. A date was set and tasks were divvied out.

The Community Environmental Event was scheduled for Wednesday, November 1st. Before the event, SCI members canvassed downtown Charleston in search of donations that could be placed in a raffle. Members also visited local coffee shops (and tea shops) to promote the Lug-a-Mug discount program. Other students contacted local environmental organizations, asking them to set up information booths for the event. Musicians were asked to perform. Food donations were requested. The Addlestone Courtyard behind the library was secured as the location of the event. Promotional slots were arranged on the radio station 105 The Bridge. SCI and the upcoming event received coverage in The George Street Observer, The City Paper, as well as The Post and Courier. Even before the event had started, a community action was well underway.

November 1st was a clear and beautiful day. The event officially began at 11 am and by lunchtime the courtyard was teaming with active participants. The event featured a light bulb exchange, where visitors could turn in incandescent bulbs for much more...
It’s time for my annual “State of the Program” address. Let me start off by welcoming the entering (2006) student class. This year’s entering class consists of 19 students (10 men and 9 women), of whom eight students (42%) are from out-of-state. The total number of newly admitted students is down slightly from a year ago. These incoming students have successfully completed a wide range of academic majors. Of the nineteen students, eight students (42%) received their undergraduate degree in Biology; six students (32%) majored in a non-science related discipline (Anthropology, English, History, Marketing, Political Science and Public Affairs); four students (21%) majored in Environmental Studies, and one student (5%) in Geology. The ongoing success of our program can be largely attributed to the diversity of academic disciplines and undergraduate institutions, as well as the interests and personalities amongst the student body. We have also offered admittance into the program to nine additional students for the Spring semester.

Beginning this academic year the Graduate School will be awarding mini-grants to graduate students involved in research. Students, with the approval of their research advisors, must submit a project description that will be reviewed by the Dean of the Graduate School and members of the Research Committee. These grants will be awarded on a competitive basis and will provide up to $500 of support for students. In addition to the mini-grants, the Graduate School will also be awarding $500 travel grants to students who will be making research presentations at professional meetings in the upcoming year. These funds can be used to offset the cost of transportation, food, lodging and conference fees.

The Graduate School will also be sponsoring the First “Annual” Graduate Research Poster Session to be held on January 18, 2007. Abstracts to be included in the poster session are now being accepted. Up to five posters can be submitting from each of the graduate programs. The Ad Hoc Committee on Research and Funding will make the final decisions. Abstracts that have been selected for the poster session will be posted on the Graduate Research and Creative Activities website and also incorporated into a program booklet. The posters will also be judged and awards will be given.

I highly recommend that students, with the encouragement of their advisors, take advantage of these new research initiatives. Applications and additional instructions on how to apply for these funding opportunities can be found on the Graduate School website.

I am also very pleased to announce (at this time) that approximately twelve students will be graduating from the program in December. If all were successful in completing the requirements, then we would have doubled the number of graduates from one year ago. We wish them all the best of luck in the years to come on that long road to success. We hope that all of our graduates will maintain in contact with the program, and we look forward to their alumni support in the future.

Best and Happy Holidays

Dr. Michael Katuna
On October 5th, MESSA co-sponsored a forum entitled “The Great Charleston Earthquake – Are We Prepared for Another One?” Local author Dick Côté gave a presentation outlining the impact of the great 1886 earthquake. The earthquake roared out of the night at 9:51pm on August 31, 1886, bringing devastation to Charleston and the surrounding area. The event took place before any seismological instrumentation was available, so the magnitude of the event had to be deduced from the destruction that was left behind. It is estimated the shock would have registered as a magnitude of 7.3 on the modern Richter scale. It was by far the most powerful earthquake experienced east of the Mississippi. 

The quake lasted less than one minute, but was felt over 2.5 million square miles - as far north as Toronto and as far south as Cuba. The next morning, forty thousand of Charleston’s sixty thousand residents were living on the streets. Mr. Côté listed the tremendous damages that were suffered in and around Charleston: all three medical facilities were destroyed, three simultaneous train wrecks occurred, at least half of the fire stations were put out of service, 67% of the brick structures were badly damaged or destroyed, and 124 people died. Mr. Côté referred to the rebuilding effort that followed this tragedy, which is portrayed in his book A City of Heroes as the greatest recovery effort in American history. By November of 1887, merely fourteen months after the earthquake, Gala Week was held to celebrate the successful rebuilding of Charleston. The success of the rebuild rests not solely in the speed in which it happened, but also in the total humanity and honesty that took place in the process. Aid was provided equally (across race and gender) to those in most need; every penny of donation could be tracked to the benefit it provided. In fact, at one point donations had to be declined due to an excess of funds. Mr. Côté has now taken up the torch for earthquake education. Visit www.scearthquakes.com to learn how to prepare for and react to an earthquake. This year, on the 120 year anniversary of the tragedy, Charleston’s Mayor Joseph P. Riley, Jr. dedicated August 31st as Earthquake Memorial Day.

After Mr. Côté’s presentation, a panel of experts, including representatives from state and federal emergency management offices and earthquake scientist, fielded questions relative to South Carolina’s seismic history and the future outlook. The scientists pointed out that South Carolina has a long history of seismic activity. Since 1886, there have been more than 2000 shocks and earthquakes generated by the Middleton Place-Summerville Seismic Zone, which was the epicenter of the 1886 event. Most of these have been of relatively small magnitude, but the frequency of the events has increased. It is just a matter of time before the next “big one” hits. Dr. Pradeep Talwani of USC stated that research indicates a cycle of large earthquakes every 500-550 years. College of Charleston’s own earthquake expert, Dr. Steve Jaumé, pointed out that much of the man-made land that was created around Charleston, through the filling of wetlands, intensifies the earthquake effects. The land can virtually liquefy, allowing structures above it to sink. Both state (SCemd) and federal (Fema) emergency management offices assured the audience that measures have been taken to prepare for another major earthquake. However, it was stressed that preparedness on an individual level is the best precaution.
The Sustainable Charleston Awards

The Sustainable Charleston Award is the result of a partnership between the Charleston Metro Chamber of Commerce’s Developers Council, the College of Charleston’s Master of Environmental Studies Student Association, and the Sustainability Institute. The program grants awards to organizations that promote “a new, sustainable economic model that’s accountable to a financial, social and environmental bottom line.” The winners of the 2006 series of awards are outlined below.

Small Business - Brentwood Homes Inc.

This year, Brentwood Homes began building entirely EarthCraft homes, the most recognizable green building program in the Southeast. EarthCraft homes are healthier to live in and are substantially more resource and energy-efficient than homes constructed using standard methods and materials.

Business Partnership - LS3P Associates Ltd. and Just Fresh Bakery Café & Market

The new Just Fresh Café and Market was designed with sustainability in mind. LS3P Associates Ltd. ensured the building achieved LEED-CI certification by the US Green Building Council. The building maximizes natural light, uses energy-efficient technologies, and is build with a large percentage of regionally-manufactured materials. Also, half of the waste generated from demolition and construction was diverted to reuse rather than becoming landfill debris.

Non-Profit - South Carolina Aquarium

The South Carolina Aquarium spearheads the Sustainable Seafood Initiative, which works to support local sustainable seafood and fishermen by highlighting sustainable choices to local chefs. The Aquarium also promotes conservation through family-based educational programs.

Visionary - Half-Moon Outfitters

Half-Moon Outfitters is converting a 60 year old building in North Charleston into the most efficient building in the state of South Carolina. The building, which will function as the new distribution center for the local outdoor apparel and equipment retailer, will achieve the US Green Building Council’s platinum LEED certification. The platinum LEED certification is the highest certified level of efficiency; no other building in South Carolina has attained this level of efficiency.

Overall Achievement - Fisher Recycling Company

Fisher Recycling Company provides full service recycling of products ranging from glass and plastic to electronics and food waste. Many of the materials are converted into interesting marketable products. For example, glass is processed to produce custom counter tops, tiles, and landscape gravel; wooden pallets are used to create interior hardwood flooring. In addition to these innovative recycled designs, the company fuels its vehicles with bio-diesel produced on-site from recycled restaurant oil.
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efficient and longer lasting compact florescent bulbs. Hundreds of high quality insulated mugs were placed along a table that also had fresh brewed coffee on tap (both the mugs and the coffee were donated by Charlestowne Coffee). The coffee mugs, which were available for a $1 donation, sported the SCI logo and could be used to redeem the Lug-a-Mug discounts from participating businesses. Visitors could also support SCI by purchasing raffle tickets, which allowed them a chance to win one of the 15 items that were donated by local businesses. Tables were set up along the perimeter of the courtyard; 15 local environmental organizations set up information booths. There was a recycle toss, which involved a friendly competition of throwing recyclables into a proper recycling bin. Two petitions were located at the SCI information booth—one demanding the establishment of a fulltime sustainable coordinator position on campus (which several other South Carolina campuses have) and another that proposed adding a $20 optional charge to tuition fees, which would help to cover the cost of completely offsetting College of Charleston’s energy use with clean wind-generated energy ($200,000 annually). Music was provided by local performers and the 105 The Bridge van.

The event was a booming success. Over the duration of the event hundreds of visitors stopped in to participate. More than 300 signatures were collected on the petitions. The raffle table sold 163 tickets; combined with mug donations to total more than $400. Over 100 SCI luggable mugs were toted away and a total of 12 local coffee shops agreed to participate in the Lug-a-Mug program. The light bulb exchange handed out 227 new compact florescent bulbs. Considering each compact florescent bulb eliminates 450 pounds of power plant emissions during its lifetime, the event has potentially eliminated more than 100,000 pounds of emissions. The SCI Community Environmental Event made an impression on the campus and in the community that cannot be ignored. It is safe to say that the twin goals of gaining recognition of the organization as well as raising community awareness were both achieved.

The SCI crew now sets its sights on the horizon. One of the primary goals for the near future is to have a fulltime sustainable coordinator position created along with an environmental committee that has the power to initiate action. The sustainable coordinator position is one that has been developed on many other university campuses in South Carolina. This individual, along with an environmental committee, would coordinate forums where the student body could introduce and discuss ideas which could, in turn, be promoted to the administrative body. Other goals for the future include the establishment of green building standards (LEED certified) for all future buildings constructed on College of Charleston’s campus and the purchase of annual green energy credits, which would offset College of Charleston’s energy use with clean, wind-generated energy.

For more information send an email to sustainablecofc@yahoo.com or visit the SCI webpage at www.cofcsci.com.
MES Students Explore Environmental Issues on the West Coast

This past summer Dr. Patrick Hurley led a two week Maymester course entitled “Environmental Management in the American West.” Five MES students (Jessi Rowland, Andrew Ray, Dave Lansbury, Brian Grabbatin, and Suzanne Whitney) enrolled in the course and joined Dr. Hurley on the May 14 flight to Portland, Oregon. The group picked up a rental van in Portland and traveled to several different settings in both Oregon and California. Locations of study included the Willamette Valley, the Cascade Mountains, Oregon’s Coastal Range, the Sierra Nevada Mountains, California’s Central Valley, and Napa Valley. At each site the group met practitioners of environmental management who provided insight into the issues they had encountered. The environmental management issues ranged in scale from very site-specific issues, such as endangered species habitat restoration, to much larger regional issues, such as water rights. Students were exposed to a variety of perspectives as they met stakeholders from federal, state, and county government agencies, as well as private landowners and public non-profit organizations. The course focused on social aspects, or human dimensions, of environmental management, as well as the development of public-private partnerships for the purpose of environmental management. Brain Grabbatin had high praise for the trip, saying that “with Dr. Hurley as our guide, the West became a shining example of the promises and realities of environmental conservation.” Dr. Hurley hopes to offer the course again in 2008. Keep this educational adventure in mind as you look forward to future class credits.

MESSA Oyster Roast at Dixie Plantation

On Saturday, November 19, the Master of Environmental Studies Student Association (MESSA) held its annual oyster roast at Dixie Plantation. Students, faculty, alumni, and friends gathered beneath the old oak trees to enjoy fresh Folly River oysters. The skies were clear and the air was warm; perfect for leisurely walks on the old plantation grounds or Frisbee throwing in a sunny field. The oyster roast is an annual tradition in the MES Program that allows students and faculty to interact in a relaxed social setting. All of the oyster shells left over from the roast are donated to the South Carolina Oyster Restoration and Enhancement (SCORE) project so they can be placed back on oyster beds, where new oysters can attach to them.

The group on the Oregon Coast. (L to R: Dave Lansbury, Brian Grabbatin, Jessi Rowland, Andrew Ray, Suzanne Whitney, and Dr. Patrick Hurley. Photo courtesy of Dr. Patrick Hurley

Conversation came to a halt once the freshly steamed oysters hit the table. Photo courtesy of Al Plan
Oh, the Places You’ll Go!

The interdisciplinary nature of the MES program exposes students to a broad range of environmentally-related subjects. MES students are relatively free to direct their focus along any of the many disciplines incorporated within our program. As a result, our alumni have gone on to a wide variety of professional positions. Our alumni body is a valuable resource for insight and guidance both in our program and beyond. A sampling of MES alums provided a few answers and advice for current and future MES students...

Questions:
1. What is your current occupation?
2. How did the MES degree, and the experiences it entailed, help you with your professional pursuits?
3. What advice do you have for current and future MES students?

Stephen Schabel, Jr. Spring 2003 (Policy focus, Thesis Defense)
1) **Director of Education** at the **International Center for Birds of Prey**
2) The public speaking and "scientific translation" skills that I honed during my MES days have proven very helpful in my current position. Also, my knowledge of the policy process has allowed me to lend some perspective to the scientists and others that I work with.
3) Don’t let your past dictate your track in the program unless you want it to. Find someone with a similar research area ASAP. Make connections in the community as they will get you jobs. Have fun in school.

Sarah Falkowski Spring 2005 (Policy focus, Thesis Defense)
1) **Program Coordinator** at **Rookery Bay National Estuarine Research Reserve**
2) I learned a lot of different skills from my experiences in the MES program that led me to a great job - one that echoes the reason that I went to grad school in the first place.
3) Gain as much experience as you can, through internships, volunteering, etc., because it really makes a difference in the real world!

Hansje Gold-Krueck Fall 2001 (Science focus, Thesis Defense)
1) **Human Dimensions Specialist and Technical Program Leader** at the **NOAA Coastal Services Center**
2) The interdisciplinary nature of the program. A regular science masters would not have exposed me to policy and economics, both of which play a large role in my work. Even if I was in a more scientific field, I think an understanding of those subjects would be very important.
3) Get lots of work experience related to your interests while you are in school. It makes a huge difference when looking for jobs. Also, take a variety of classes; in the real world an understanding of a variety of topics is extremely helpful.

Amy Scaroni August 2006 (Policy/Science Blend, Internship Defense)
1) **PhD Candidate** in **Wildlife and Fisheries Science at LSU**. I’m studying Wetlands Biogeochemistry focusing on the nitrogen cycle in the Atchafalaya River Basin.
2) I have a great understanding of the political and cultural implications of my research, which seems to be lacking in the other PhD students in my department. I do not plan to go into academia, so the MES program (and the numerous field trips I took) exposed me to a wide range of potential jobs and helped to create numerous contacts.
3) If you are interested in a course--take it immediately!! More than likely, it will never be offered again. Also - go to as many seminars as you can--it really helps to spark an interest in new topics

Sara Windjue (Saksewski) Spring 2003 (Science focus, Internship Defense)
1) Energy Education Specialist with the Wisconsin K-12 Energy Education Program within the Wisconsin Center for Environmental Education at the University of Wisconsin-Stevens Point
2) Because of the many opportunities through my internship, I gained experience in many areas including curriculum development, web site development, and the development of displays. In any educational career, these skills will benefit those who take advantage of your services.
3) Think big, involve many people/organizations in your Plan of Study/Internship/Thesis, and continue to work on those projects and nurture those relationships even after you graduate.
New Faculty Spotlight: Dr. Vijay Vulava

Dr. Vijay Vulava must have engineering in his blood - he is one of three brothers who have all advanced into the field of engineering. He grew up in Hyderabad, India, where he lived with his family until he completed his undergraduate degree in civil engineering. In 1992, academic pursuits brought him to America, where he earned a Master's degree in Environmental Engineering at the University of Maryland. His thesis focused on heavy metal interactions in contaminated soil. After completing the Master’s program, he maintained the academic momentum and went straight into a doctoral program at the Swiss Federal Institute of Technology in Zurich, Switzerland. His PhD work also focused on heavy metals in contaminated soils, particularly modeling how heavy metal ions bond and are transported. After completing his PhD, Dr. Vulava returned to America and worked at the Savannah River Ecology Lab for a few years. Later he moved to Knoxville, Tennessee, where he was a research assistant at the University of Tennessee. For five years he worked on a project cleaning up large-scale contamination from coal processing in Chattanooga. He moved to Charleston in August of this year, while his wife and 4 month old son remained in Knoxville. He has been making long weekend commutes between Charleston and Knoxville, but hopes to have the family in the new house by Thanksgiving. Looking ahead, Dr. Vulava hopes to teach Environmental Geochemistry and will be teaching Biogeochemistry of Wetlands next semester.