AASHE is helping to create a brighter future of opportunity for all by advancing sustainability in higher education. By creating a diverse community engaged in sharing ideas and promising practices, AASHE provides administrators, faculty, staff and students, as well as the businesses that serve them, with: thought leadership and essential knowledge resources; outstanding opportunities for professional development; and a unique framework for demonstrating the value and competitive edge created by sustainability initiatives.

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As the AASHE Bulletin editor, I have the privilege of a bird’s eye view of campus sustainability on a weekly basis. Ranging from the savings generated by campus energy overhauls to newly opened campus farmers markets to those who are fighting for low-income and nontraditional student access to higher education, Bulletin story submissions are a testament to the holistic approach by the campus sustainability community.

With this review of campus sustainability efforts in 2010, we aim to give readers—those who are often immersed in the day-to-day particulars of sustainability efforts—the same chance to take a step back and take a broader look at where we stand with sustainability in higher education.

This inaugural 2010 Campus Sustainability Review is a move away from the past AASHE Digest format. The AASHE Bulletin Interactive Archive, which debuted in October 2010, does much of the work of the Digests, eliminating the need for a comprehensive list of stories each year. Now, every published Bulletin story, event, opportunity and job listing is available in one searchable interface. The database can be used to search for specific Bulletin items or to browse all published Bulletin items from 2008 to present. Users can find stories by Bulletin issue date, story topic or date range.

The new Campus Sustainability Review format takes a look at the higher education sustainability movement through Bulletin statistics, stories focused on notable practices, a celebration of sustainability through art, and interviews with champions including Oberlin College’s Paul Sears Distinguished Professor of Environmental Studies and Politics David Orr, who reminds us to think creatively about sustainability.

These pages celebrate achievements, recognize the challenges ahead and reveal new ways of thinking about and incorporating sustainability into campus operations, planning and curriculum. We hope that this publication inspires collaboration, valuable comparisons and interaction, and encourages you to continue the discussion among these pages on our AASHE Forums page.

Sincerely,

Margo Wagner

Margo Wagner
AASHE Bulletin Editor
Dear Colleagues:

On behalf of the AASHE staff, it is my pleasure to provide to you with AASHE’s newest publication, 2010 Campus Sustainability Review. As campus sustainability has evolved so has the scope and scale of information about it increased dramatically. Likewise, our ability to provide better filtering and searching of information has also improved. Although we can use information technology to provide you with a searchable database of AASHE Bulletin stories, nothing replaces thoughtful reflection on higher education sustainability efforts.

It is in this context that, as we reflect upon the stories of the past year, we recognize that AASHE is being asked to help make better sense of the sustainability transformation that is taking place in higher education. Many of us are drawn to the quantitative increases in sustainability activities, whether they be the increase in solar energy installations on campuses (84 in 2010) or the number of new sustainability academic programs (146). But beyond these numbers are the stories themselves that help us understand the energy, passion and commitment that individuals are making to ensure that the sustainability movement on campus does not falter. Indeed, the stories help us understand the motivation that continues to drive us forward.

During 2010, campuses became more energy efficient, larger producers and users of renewable energy, leaders in alternative fuels research and development, models of local food use, and the leading sector for green buildings. Beyond the operations of the campus, higher education has demonstrated that sustainability is an integral part of the curriculum as well as the relationship that campuses have to their host communities. We are also seeing higher education institutions recognize the social and economic responsibilities of a commitment to sustainability as they address issues of diversity, affordability and success.

As you read this review, I hope you will find optimism in the numbers and inspiration in the stories included in this review.

Best regards,

Paul Rowland
AASHE Executive Director
The AASHE Bulletin experienced a healthy increase in stories from 2009. Bulletin stories are collected through individual submissions, Internet searches, list-serve reviews, Google Alerts and Twitter feeds. Since we are only able to include news stories and press releases that are posted online, this analysis is limited to those schools that provide online links to their sustainability efforts. For more information on the types of stories we are able to include, visit our AASHE Bulletin Submission Guidelines, which are updated regularly to accommodate recent trends and initiatives.

The following pages present the findings of an analysis of 2010 Bulletin stories.
AASHE 2010 Bulletin Stories at a glance

- **1,488** individual stories, a 6 percent increase from 2009, which published 1,391 individual stories

- **274** job opportunities specifically focused on improving sustainability on higher education. While there was a dip in sustainability faculty opportunities from 2009 (28 percent), there was a healthy rise in sustainability staff opportunities in 2010 (33 percent).

- **80** new campus sustainability resources, a 28 percent decrease from 2009, which yielded 112 resources. Consistent with last year, AASHE generated or partnered on 38 resources. (2009 tallied 42 AASHE resources.)

- **560** higher education institutions represented; 105 of which appeared for the first time in 2010

- **Harvard University** (Cambridge, Mass.) was the most mentioned institution in AASHE Bulletin stories, appearing in 25. **Unity College** (Unity, Maine) and **Syracuse University** (Syracuse, N.Y.) round out the top three with 16 and 15 stories, respectively. Overall, 61 colleges and universities were included in five or more AASHE Bulletin stories and 16 colleges and universities included in 10 or more stories throughout 2010.

Campus Energy Efficiency Efforts

With 221 stories, the Energy category had by far the most Bulletin stories in 2010, a 21 percent increase from 183 in 2009. 2008 yielded 129 stories in this category. The majority of both Funding and Research category stories were also energy related. Taken together with the Energy category, Bulletin stories in 2010 revealed [For more, see “The Campus Clean Energy Transformation” on page 21]:

- **84** new solar installations
- **32** established or planned clean energy research centers
- **29** completed or planned campus energy overhauls with an estimated savings of up to $50 million each over 10 years
- **25** new wind initiatives
- **9** geothermal based projects
- **8** teaching-oriented renewable energy installations/initiatives

The August 9, 2010 issue of the Bulletin revealed that Ball State University in Muncie, Ind. is working on a campus-wide geothermal system to heat and cool 45 buildings on 660 acres. This new system will save $2 million annually in operating costs and decrease the university’s carbon footprint by 50 percent.
AASHE 2010 Bulletin Stories *at a glance*

**Sustainability in the Curriculum**

The Bulletin had a 29 percent increase in sustainability-focused academic programs compared to 2009. The creation of, or plans for, a total of 146 new programs were captured in 2010, up from 113 in 2009, 66 in 2008 and 27 in 2007. Of these, the largest percentage (45 percent) included new certificates, degree programs or training opportunities in the renewable energy and green job sector. With 66 efforts captured, these opportunities more than doubled what was reported in 2009.

[For more, see “Higher Ed Goes Green Collar” on page 15.]

The Bulletin covered 28 conferences and webinars in 2010 that aimed to help faculty integrate sustainability into their curricula, including a landmark U.S. Department of Education Sustainability Education Summit. Until now, said U.S. Secretary of Education Arne Duncan at the September summit, “we’ve been mostly absent from the movement to educate our children to be stewards of our environment and prepare them to participate in a sustainable economy.” The department promised to be a committed partner in the national effort to build a more environmentally literate and responsible society with a proposal that environmental education be part of the Blueprint for Reform’s commitment to a well-rounded education.

Also of note, AASHE released its “Sustainability Curriculum in Higher Education: A Call to Action” in August 2010, which emerged from a Sustainability Curriculum Summit of 40 higher education sustainability leaders, and has become the basis for numerous discussions about education and sustainability efforts.

**Formal Recognition and Institutionalization Efforts**

AASHE’s Sustainability Tracking, Assessment & Rating System (STARS) awarded its first rating in September 2010, a STARS Silver for Pacific Lutheran University in Tacoma, Wash. The university was the first institution to submit for a STARS rating. Including individual campuses, university districts, community colleges, research universities, and public and private institutions, more than 229 institutions became STARS Charter Participants in 2009 and 2010. The deadline to become a Charter Participant, who are recognized as pioneers of the system, was Aug. 20, 2010. Ongoing registration to become as STARS Participant is open and available to any institution in higher education in the U.S. and Canada.

Colleges and universities continued to formally commit to taking immediate steps to reduce greenhouse gas emissions, setting goals for becoming climate neutral and integrating sustainability into the curriculum by signing the American College & Presidents’ Climate Commitment (ACUPCC), which received 45 new signatories in 2010. In total, 280 signatories submitted 374 greenhouse gas emissions inventories and 226 signatories submitted 226 Climate Action Plans.

Thirty-one announcements of new sustainability staff, committees and task forces were captured in the Bulletin in 2010. Sixteen colleges and universities established a sustainability fee and the Bulletin reported a total of more than $700,000 in sustainability fee-funded campus projects.
The Bulletin reported 180 environmentally friendly higher education structures; a nearly 10 percent increase from 2009, which reported 166 structures. Fifteen LEED Platinum structures were highlighted in 2010 on campuses including Wofford College (Spartanburg, S.C.), Westminster College (Salt Lake City), Cooper Union for the Advancement of Science and Art (New York City), Lakehead University (Thunder Bay, Ontario), University of Arizona (Tucson, Ariz.), University of New Mexico (Albuquerque, N.M.), University of Portland (Portland, Ore.), Beloit College (Beloit, Wis.), Central College (Pella, Iowa), Iowa State University (Ames, Iowa), Yale University (New Haven, Conn.), King Abdullah University of Science and Technology (Saudi Arabia), Rochester Institute of Technology (Rochester, N.Y.) and two at Harvard University (Cambridge, Mass.).

"Higher education is leading in green building,” U.S. Green Building Council Higher Education Sector Manager Jaime Van Mourik told AASHE in August 2010. The sector has the highest number of registered and certified LEED projects in terms of square footage with 3,950 total registered and certified LEED projects as of December 2010. There was a 60 percent increase in LEED-certified campus projects from 2009 to 2010 (248 in 2009 and 398 in 2010).

“What we've been seeing is that the growth is exponential but it's really been focused on new construction up until the collapse of the economy,” said Van Mourik. “With the budgets drying up, we’re starting to see energy retrofits and a focus on green building policies and procedures on campus.” The higher education sector saw a 44 percent increase of campus projects with LEED EBOM (LEED for Existing Buildings: Operations & Maintenance) certifications from 2009 to 2010 (nine in 2009 and 13 in 2010).

[For more, see “Green Building with a STARS Gold University” on page 18.]
Waste Reduction Efforts

With 126 stories, waste reduction initiatives on campus were some of the most widely reported initiatives in 2010. From the switch to single-stream recycling to online office supply swaps to banning the sale of bottled water on campus, more than 50 campuses debuted new or expanded waste reduction efforts in 2010, as recorded in the Bulletin. The creation of campus composting programs was another widely reported topic and thousands of pounds of e-waste was diverted from landfills thanks to the efforts of several campus communities.

Also notable is ESPN’s “College GameDay Goes Green” campaign, shown here at Ohio State University. Kicking off in September 2010 in Tuscaloosa, Ala, the sports media company’s sustainability team worked with environmental club and sustainability volunteers from host institutions to recycle as many bottles and cans as possible from “ESPN College GameDay” venues.

Alternative Transportation

Another popular topic with 119 stories total, green campus transportation efforts were in full swing in 2010. Bike commuting to campus was the most frequent sustainable transportation endeavor reported in the Bulletin with 38 new initiatives. Schools focused on making campuses more bike friendly with bike sharing options, bike maintenance hubs, safe storage and the installation of showers for bike commuters. Several institutions also implemented car sharing programs, and a few including the University of Calgary in Calgary, Alberta adopted policies that prohibit vehicles on campus to be left idling unattended.

Campuses experimented with several materials for alternative fuels including butter, canola seed, camelina, wood and even E.coli. Millions of dollars were awarded to the research of algae as an alternative fuel and the University of Rochester in Rochester, N.Y. was awarded the “Excellence in Innovations for Sustainability Award” by the Association of College Unions International for its biodiesel program that converts old fryer oil from its dining halls into biodiesel. The program produces about 30 gallons of biodiesel a week that is used in a number of campus vehicles.
AASHE 2010 Bulletin Stories at a glance

Students and Local Engagement

The Co-Curricular and Public Engagement categories were new additions to the AASHE Bulletin as of mid-2009. Interestingly, the largest percentage of both the Co-Curricular (33 out of 125 stories) and Public Engagement categories (16 out of 63 stories) were related to sustainable agriculture initiatives, revealing that students are increasingly moved to reach out to their local communities through food. Students at Luther College in Decorah, Iowa, shown here, have grown from seed to spud more than 70 pounds of potatoes in the college garden to donate to a local pantry.

[For more, see “Students Building Community through Agriculture” on page 28.]

Diversity and Affordability in Campus Sustainability

The Chronicle of Higher Education reported in November 2010 that the majority of college trustees are white, male and over 50 years old, according to the results of two surveys released in November by the Association of Governing Boards of Universities and Colleges. Women and minorities have gained little ground in the six years since the association's last survey. At 28.4 percent, the share of women serving on governing boards today is almost 2 percent less than it was in 1997.

In better news, the University of California, Berkeley received a $16 million donation in February 2010 to support diversity initiatives, including five endowed chairs, one of which will be devoted to lesbian, gay, bisexual, and transgender equity, and a new $1.6 million scholarship fund for students who transfer from community colleges and who are more racially and economically diverse than those who enroll as freshman.

In an effort to make higher education accessible to students from socioeconomic backgrounds that wouldn’t typically pursue higher education, Weber State University (Ogden, Utah) launched a program in January 2010 to provide free tuition to Utah residents whose annual household income is equal to or less than $25,000, and who are Pell Grant eligible. Washington & Jefferson College in Washington, Penn. also reached out to economically disadvantaged youth by signing on to the Youth Engaged Service (YES) Prep School IMPACT Partnership program in March 2010. Campuses in the program commit to helping with college expenses through scholarships, work study programs and small student loans.
**In the Media**

The Bulletin noted 16 articles regarding campus sustainability efforts in the mainstream national media. Green graduations and the use of recycled graduation gowns was the most popular topic with six stories in outlets including the Christian Science Monitor, the Associated Press and USA Today. The New York Times spotlighted responsible investing at Stanford University in Palo Alto, Calif.; the University of Oregon's (Eugene, Ore.) Sustainable Cities Initiative; the renewable energy innovations of the Masdar Institute of Science and Technology in Abu Dhabi; a planned EcoDistrict at Portland State University (Portland, Ore.); the U.S. Environmental Protection Agency’s Energy Star label for dorms; the rise of green job training at community colleges; and campus bottled water reduction efforts.

“Higher-education officials contend that the sustainability movement is a new twist on an age-old mission. ‘We’re putting the public back in public university,’ said Robert Young, a University of Oregon planning professor...”

- *The New York Times* on the University of Oregon’s Sustainable Cities Initiative in the August 2010 article, “In Oregon, Students Seek Key to a Sustainable City.”

“From tours of energy-efficient buildings to discussions about recycling rates and solar panels, universities and colleges across the country are increasingly putting on the green to attract students who are serious about environmental issues.”

- *USA Today* in the July 2010 article, “More Colleges Using Green as a Selling Tool.”

“When Rachel Rohatgi dons her black gown Monday to graduate from California Western School of Law, she’ll be reusing the equivalent of about two dozen plastic bottles.”


“Though their backgrounds vary, the students share a desire to get their hands dirty. The biggest attraction of the institute, even beyond its funding, is its integration into the real-world laboratory of Masdar City.”


“...many college students celebrate hard on Earth Day—we are talking planting trees, recycling beer cans, demanding that professors accept papers via e-mail and showering with a friend to save water.”

The Next Frontier
Q&A with Oberlin College’s David Orr
In the late 1990s, David Orr organized the design of the Adam J. Lewis Center at Oberlin College in northeastern Ohio, the first entirely solar-powered building on a U.S. college campus. Today, the author, speaker and Paul Sears Distinguished Professor of Environmental Studies and Politics and Special Assistant to the President at Oberlin College is pioneering the next frontier of campus sustainability with The Oberlin Project. This ambitious green development effort aims to revitalize a 13-acre city block in downtown Oberlin. By combining urban revitalization, green development, sustainable agriculture, sustainable energy, education and arts into a single project, the collaborative effort is at the forefront of a national trend to broaden the scope of the campus sustainability movement. AASHE's Tim Gibbins caught up with David this spring in the midst of a tornado warning in Ohio to learn more about this innovative new project.

Q: Can you give us the background on The Oberlin Project?

A: The Oberlin Project has five goals. One is to transform the local economy in central downtown doing the entire block at USGBC [U.S. Green Building Council] Platinum levels for neighborhood development and use that as a driver for the local economy. This means building the block in a way that ties into local providers for wood materials, energy, food and so forth. The second goal is to move the city and the college to carbon neutrality and reinvent the local energy system in the city. That includes regulation, pricing, incentives for efficiency and deploying different kinds of technology. The third goal is to develop a 20,000-acre greenbelt around the city, primarily for agriculture but also for forestry. The fourth goal is to use the entire project as an educational venture including students from not just the college, but the public schools and vo-tech [vocational technical] schools and a two-year college as well. So we've put together a consortium of different kinds of educational institutions. The fifth goal is to devise ways to replicate this across the country in a variety of different ways.

Q: What are some of those ways?

A: For one, we are part of the Clinton Climate Initiative as one of 19 projects worldwide. Second is the development of an ecological design center that is a bridge between the Oberlin Project and other redevelopment efforts around the upper Midwest. Third, we are developing a national network that propagates the idea of “full-spectrum sustainability,” which means a lot of conversations that cross the boundaries of organizations, bureaucracies and disciplines by which we organized the industrial world.

We have created 10 teams throughout the city and five throughout the northeast Ohio region made up of public citizens, foundations, faculty members and government officials working on community organization, energy issues, economic development, development of green buildings, ecological design and so forth. Full-spectrum sustainability means that any particular issue that comes up is going to involve three or four of the different teams. Citizen engagement in the early stages has been pretty good. We are a very typical upper Midwest city with similar rates of ethnic makeup, income distribution and poverty that characterize this region. We have not had much difficulty in getting people to respond, which reflects the vitality of volunteerism and civic spirit that is often underestimated. One of the objectives of the plan is to develop a civic commons that develops participation and leadership throughout the whole community.

Q: What do you think is one of the major drivers of all the volunteers wanting to get involved?

A: I think there is more activism in the public than we have often assumed. People want to get involved, the problem, typically, is that there is just no good way to do it. In our project we began with five, six, seven different things happening, providing multiple opportunities for engagement. The educational teams, for example, are
going to be working on curriculum asking what kids need to know at the onset of a climate-destabilized world. There are plans for a new green school built much like the Adam J. Lewis center. Other people are working on the local food system and how the cafeteria is provisioned throughout the school year. The point, however, is that there is a lot more desire to get engaged than has often been assumed.

**Q:** Part of The Oberlin Project that seems atypical to what we normally think of as a part of the sustainability movement is the inclusion of the arts, and this Green Arts District. What do you see as the primary role that the arts will play in the sustainability movement in the future?

**A:** The conversation about sustainability has mostly focused on sustainable agriculture or renewable energy or green building, and the list goes on. We’ve brought all of these together into a single pattern where the parts are designed to reinforce the prosperity and resilience of the whole thing. It’s just one big conversation but so far it’s been pretty wonky—full of technical and scientific jargon, a lot of curves going up or down. But such things only appeal to one side of the mind. What it misses is the part of the mind that is creative and artistic. The union between the performing arts, plastic arts, music, drama, literary arts and the sciences may be one of the most vital and powerful things that will come out of The Oberlin Project.

> “The union between the performing arts, plastic arts, music, drama, literary arts and the sciences may be one of the most vital and powerful things that will come out of The Oberlin Project.”

**Q:** I’m curious how you pitch the idea for eliminating carbon emissions to a populace that is potentially skeptical about climate change.

**A:** Well, that’s a good question. With this merger of arts and sciences around the big issues of human survivability, it means that we are calling in reinforcements. We’ve made it a science- and social science-dominated conversation. I think it’s time we enlist the arts and the creative performing side of the campus and the community. So how that actually plays out, I don’t know. I’m not even very good at matching my socks with my ties, but there are people who have thought long and hard about this. If we enlist the arts they will be able to arouse and motivate our common goal to create a sustainable, fair and decent society. Only time will determine what the actual outcome will be.

**Q:** You have the backing by the Clinton Climate Initiative, but for similar colleges and institutions that would want to take part in the discussion that involves the arts in the ways you are speaking of, what are the critical components they could do to implement similar projects for their cities and universities if they have limited resources in which to do so?

**A:** Let me clarify that the Clinton designation carries no financial reward. We’re in a network of 18 other projects. From the point of financing, we have given a fair amount of attention to the network of similar projects, and we want to work on funding strategies—private and corporate—for all the partners of the network but not any particular organization within the network. So the plan is to create dozens or hundreds of similar kinds of projects and then help amplify our reasoning and clarify our purpose and carry out full-spectrum sustainability.
Q: What has been a main challenge and main opportunity while working with this network?

A: For the first time, as far as I know, we are bringing all the parts of the community together: finance, energy development, education, and so forth with other organizations to spur a grassroots revolution. I think this is our version of a “Tea Party Movement;” one that aims towards sustainability, fairness and decency. One of the most exciting challenges is to understand what that requires in terms of education. Once you ask the question, ‘What do we need to know to move our culture towards a more durable civilization?’ it changes everything about education. We must learn consistently to think in systems and patterns and act as if everything is truly related. We must expand our time horizons to a century or millennia into the future. This is an educational challenge and an opportunity.

“I think this is our version of a ‘Tea Party Movement;’ one that aims towards sustainability, fairness and decency.”

Q: What renewable resources do you see as having a significant impact on the sustainability movement?

A: On the energy front, the renewable energy era will be sourced diversely with wind turbines, photovoltaics, landfill gas, biogas, micro-turbines and some things we haven’t imagined. One of the technical challenges will be to integrate those into a reliable local grid. Secondly, the grid itself needs to be a smart grid with better integration between the end use and the end user and the grid itself. As prices go up, the use of electricity at the end-point shifts down. We need ways to promote efficient delivery of this energy while at the same time providing a service that offers customers ways to manage their electricity use. That also opens economic niches for vendors of hyper-efficient equipment, or people who improve installation and other different technologies. I think we’re in a very fertile era for these technologies for energy efficiency and renewable energy that will improve and accelerate the technology in the next 20 years.

Q: From everything I hear you saying it sounds like your ideas of sustainability are to produce, to grow and to really drive the economy more than harping on reductions, or curbing emissions, or restricting industries. Is that your vision for The Oberlin Project moving forward, and for the sustainability movement; to promote growth?

A: Well, yes, but I need to put that in a larger context. We are in a period of incredible gridlock in Washington. This is coming after decades of tens of billions of energy subsidies for coal, oil and nuclear every year. So the top-down strategy hasn’t really worked. Every president since Richard Nixon has promised to lead us to energy independence and nothing yet on a significant scale has happened. So we’re pioneering a grassroots revolution along with lots of other folks. The other caveat is that we will have to do this work anyway; by which I mean homeowners making smarter energy decisions, people changing habits, organizations and businesses shifting to renewable energy. I’m hoping that we can accelerate this process and affect a national change without having to rely on Washington.

Q: It sounds like your vision is to have sustainability prosper on the campus, and then have the campus bring that to the cities, and then once cities and states tackle sustainability on a meaningful scale, that
will in effect drive policy change in Washington.

A: Right, but colleges and universities are not always the fastest moving institutions, but they do have the advantage of being well respected and often times have great faculty and administrators. So this network would include cities, communities, military facilities and other networks that share similar purposes.

Q: Where do you imagine the future of campus sustainability is headed?

A: I think the movement on campus has changed a good bit. In the beginning we focused on improving the operational side more than changing the educational side. The idea that is implicit in the concept of sustainability is that it calls for a full-spectrum approach where we integrate parts with the whole. As an illustration, our aim to restore agriculture in the 20,000 acres surrounding the city of Oberlin requires first a meeting with the educational team because we’re not turning out kids that are learning anything about farming anymore.

Second, I’ve got to talk to the economic development team because we need to develop markets for local farmers. I’ve got to talk to the finance team to figure out how we get low-interest or zero-interest capital in the hands of young people who want to get back into farming. Finally, we have to overcome policy barriers involving sanitation that work against the small-scale farmer because we’ve traded germs for poisons. That is a complicated conversation. But we still educate as a kind of pigeonhole system.

The upshot is a challenge to educators to master systems thinking and how it can be integrated into the standard curriculum. I want to use The Oberlin Project and the larger network as an educational laboratory that will eventually transform how we think and how we think about the connection to things and the Earth itself. Imagine people routinely leaving colleges and universities with the capacity and default mentality of connecting dots, and seeing themselves as part of the web of life.

“Imagine people routinely leaving colleges and universities with the capacity and default mentality of connecting dots, and seeing themselves as part of the web of life.”
Higher Education Goes ‘Green Collar’
By Margo Wagner & Seann Sweeney

An environmental technology course examines solar panels at Santa Clara University in Calif. Photo by Lindsey Cromwell Kalkbrenner.

Five years later, this fledgling idea has resulted in $500 million for green job training nationally under the Obama administration and given Van Jones—a civil rights lawyer who has since become senior fellow at the Center For American Progress and author of “The Green-Collar Economy”—nicknames like the green jobs “guru” and “czar.”

The green jobs movement, which began with training recruits in Oakland, Calif. in fields like installing solar panels, weatherizing buildings and laying green roofs, is now at the forefront of higher education sustainability efforts. Community colleges to Ivy League institutions are debuting programs that provide students with training opportunities in green energy-related fields.

In 2010, the AASHE Bulletin captured 146 new sustainability-focused academic programs in the U.S. and Canada. The largest percentage (45 percent) included new certificates, degree programs or training opportunities for the renewable energy and green job sector. Bulletin stories in 2011 reveal continued momentum on four-year and two-year college campuses.

While four-year institutions like the Durham-based University of New Hampshire—which partnered with the state in 2010 to create the Green Launching Pad, an initiative to bring new green technologies to the marketplace and support the creation of green economy jobs in New Hampshire—are implementing green job training programs, much of the focus of the movement has been on community college campuses.

The new Green Center at Bristol Community College in Attleboro, Mass. is one of 52 community college programs reported in the Bulletin in 2010 that aims to prepare students to take advantage of the green economy. The new facility trains a Massachusetts workforce for jobs in weatherization, energy auditing, solar power and other environmentally friendly occupations. The center includes replicas of different parts of a home, including exterior siding, an interior wall and the cross-section of an attic.

Another notable initiative announced in 2010 is a new renewable energy regional center at the College of the Canyons in Santa Clarita, Calif. The college received a four-year grant totaling $3 million from the National Science Foundation to establish a center for the creation and expansion of courses and workforce training programs to help address the high demand for renewable energy technicians throughout the state. Funding is also allotted to developing renewable energy programs and workforce training at the consortium’s partner colleges.

The rise of green job training opportunities at community colleges was profiled in an August 2010 article in The New York Times. The article highlights the growing need for a new generation of environmentally smart managers as the “sector devoted to energy efficiency is estimated to grow as much as fourfold in the next decade, to some 1.3 million people,” according to a March 2010 report by the Lawrence Berkeley National Laboratory.

In October 2010, the American Association of Community Colleges, together with ecoAmerica, launched the SEED Center (Sustainability Education & Economic Development). This joint effort, supported by The Kresge Foundation, is both a leadership initiative and resource for community colleges to reduce campus pollution and prepare students for careers in the emerging green economy. Initially, the SEED Center is providing resources to community colleges in the areas of solar, wind, green building and energy efficiency.

With approximately 1,200 U.S. community colleges representing almost 12 million students, the SEED Center
aims to provide this large audience with information needed for program development and implementation in clean energy and the green economy. Over time, the SEED Center plans to address other job growth areas such as sustainable agriculture, geothermal, smart grid technology, water and wastewater, and alternative fuels.

In September 2010, the National Wildlife Federation announced the promotion of community college green job education and training through the Greenforce Initiative: Advancing Greener Careers and Campuses. In partnership with Jobs for the Future, the project provides support to community colleges in the U.S. toward implementing green career programs. Funded by the Bank of America Charitable Foundation, the initiative grew out of research that shows that clean energy investments at the level of about $150 billion per year can generate around 1.7 million net new jobs throughout the economy including nearly half that are accessible to workers with relatively low formal educational credentials.

An emerging success, says NWF Campus Outreach Director Lisa Madry, is “the growing trend for community colleges to utilize their campus or even outreach to the community as a learning laboratory. As they make investments in greening their operations, they can also incorporate what they are doing on campus into their curriculum.”

Madry points to Grand Rapids Community College in Michigan, which has partnered with its local Habitat for Humanity organization to have students build the first LEED Platinum Habitat home in the country. This is just one example of schools that are creating “exciting, new ‘hands on’ learning opportunities for students in sustainable careers,” says Madry.

An emerging success, says NWF Campus Outreach Director Lisa Madry, is “the growing trend for community colleges to utilize their campus or even outreach to the community as a learning laboratory.”

Hype aside,” a June 2011 CNBC article proclaims, “green jobs are for real.” The article is one of several lately that have declared that green jobs are here to stay. A June 2011 story from Grist Magazine says that the U.S. solar industry “now employs about 20,000 more workers than the U.S. steel production sector.” Taking advantage of available grants for training in the renewable energy and energy efficiency fields, recognizing and helping others recognize the host of benefits (job creation, monetary, environmental and social) of energy efficiency and renewable energy projects, and establishing strategic partnerships on job training initiatives will be key to ensuring the growth of this vital sector.

A proven strategy for developing job training programs has been the creation of partnerships between the campus and the community and/or government. Since each campus is unique, the location, type of institution and culture will continue to help determine the best model for success in contributing to this sector, while benefitting their campus and community at the same time.

While the need for job growth in the U.S. continues, the green job sector is primed to continue its growth and benefit not only the environment but also the economy and our workforce.
Green Building with a STARS Gold University

Q&A with University of South Florida Office of Sustainability Director Christian Wells

In the short two years that the University of South Florida’s Office of Sustainability has been in operation, it has helped lead successful energy conservation programs, implemented a student-based Green Energy Fund and advocated for numerous LEED-certified buildings on campus. These efforts earned the university a Gold rating through AASHE’s Sustainability, Tracking, Assessment & Rating System (STARS) with a higher score in the Building Operations and Maintenance (OP credit 1) area than any other institution to date. Christian Wells, director of the university’s Office of Sustainability, talks to AASHE’s Tim Gibbins about the university’s focus on the renovation of existing buildings, and shares details about an innovative Campus Metabolism Mapping project to track the energy, water and people flows around campus to better understand how the university lives and breathes.

Q: In the past, the focus in higher education has been on new green buildings and less on renovating existing ones. What is the university’s outlook on new building versus the reuse and renovation of existing buildings and materials?

A: Our Facilities Management is updating our Master Plan right now, and the new Master Plan is strongly infused with sustainable buildings and operations management. And many of the new policies that are in this update will require the actions that LEED requires for their certification. Because we’re a state-funded school and the economy isn’t doing so well, the PECO Fund—Public Education Capital Outlay Fund—that we might use to build new buildings is not available to us, so in the future we are going to have to take a strong look at existing buildings, and what we can do to get them up to LEED standards.

Our university infrastructure is aging rapidly under the Florida sun and, since most of our buildings were erected decades ago, they collectively make a significant contribution to our overall greenhouse gas emissions. Getting them up to LEED—or better—standards will be a challenge, because we will have to rely on existing infrastructure. This means finding new and creative ways to reuse and recycle what we already have. To aid in this effort, the students recently approved a Student Green Energy Fee, which will provide roughly one million dollars in annually recurring revenue. This student tuition-generated fund is specifically targeted to improve energy efficiency on campus and to advance renewable energy technologies being developed at USF. Together with our administration’s unwavering commitment to creating a cleaner, greener campus environment, this fund will help us move ahead quickly and in the right direction.
Q: How do sustainability projects impact student learning or provide community engagement opportunities?

A: The greatest example is our new LEED Gold building, the Patel Center for Global Solutions, which also houses the Office of Sustainability and the School of Global Sustainability. That’s been a real curiosity for so many people on campus and in the community because it’s perched on the edge of campus overlooking a busy road. People are really interested to get inside and see what makes the building sustainable. Facilities Management has used that as an opportunity for community engagement. Right now we are working on a “Campus Metabolism Mapping Project” to map the energy and waste flows on campus so we can make better informed decisions about where to invest our limited resources over the next few years. It will help us make more informed decisions about energy efficiency and water efficiency and so on. That project is one of the important ways that we engage facilities planning with students and faculty research.

Q: So are you setting up sensors to create a sort of dashboard to monitor all these things?

A: Yes, right now we have most of the buildings separately monitored for electricity and some of them separately monitored for water. The goal over the next year is to separate everything and feed these into a geographic information systems tool, like a university dashboard. We want to make that real time data available to students and faculty for research so they can see how the university breathes, how it lives.

Q: What specific renewable technologies is the Patel Center using to meet the LEED Gold standard?

A: It’s interesting because the design is according to the Greek elements. So all of the features and design on the first floor have to do with Earth. The second floor is all about water. The third floor is about air and the fourth floor is about energy, so things are really integrated to emphasize those different elements. The building’s more interesting features are that before they built it, they buried the 30,000-gallon tank that would collect rainwater and air-conditioning condensate. We recycle that throughout the building in toilet fixtures and urinals. The top of the building is covered with solar panels to heat the water, and all of the materials inside are made from rapidly renewable resources, or they are recycled materials, from the concrete to the flooring to the countertops—everything. It all gives the building a unique look and feel.

“More and more with the growth of the social media industry young people are beginning to understand how their activities have global significance and how the things they do here interconnect all over the world, and that’s what sustainability is about...”

Q: What aspect of sustainable operations do you think most campuses need to focus on?
**A:** For us, it’s energy, energy conservation, and energy savings particularly in this economy, which is not kind to public higher education. We’ve seen our funding cut $100 million over the past few years. We need to start coming up with other sources of revenue or really look at how we are spending. Energy conservation really stands to save the university a great deal of money, and that certainly attracts the attention of people in the administration and people in finance and they get excited about it. So it’s also a great way to engage people.

**Q:** What do you see as the future for campus sustainability as we move into a more digitalized age?

**A:** I would hope that the future involves much less travel, and that people take advantage of being able to be interconnected online, and are able to do more of their research and more of their learning in online environments, and that emphasis on moving around will have a really big impact on carbon dioxide emissions.

More and more with the growth of the social media industry young people are beginning to understand how their activities have global significance and how the things they do here interconnect all over the world, and that’s what sustainability is about; it’s about realizing your connection to the biophysical environment, but also to other people and communities around the world, and I think students are quickly understanding that.

**Q:** What advice do you have for other institutions trying to advance sustainability on their campus grounds and operations?

**A:** The best place to start is with people who are already excited, committed and engaged, and get them meeting regularly. Don’t shy away from including people from all over the university. Don’t shy away from including staff and students. Sometimes those are the most helpful and energetic proponents for sustainability. So get people together who are like-minded and then move forward together. Sustainability is meant to be shared.

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A 30,000-gallon rainwater harvesting system that was installed under the Patel Center to collect and store rainwater and air conditioning condensate.
The Campus Clean Energy Transformation

By Niles Barnes

Campus energy initiatives were the predominant topic covered in the AASHE Bulletin in 2010. The Energy category of the Bulletin included the most stories (221) of any category, while the majority of both Funding and Research category stories were energy related. From energy efficiency and conservation programs to on-campus renewable energy installations, campuses are carrying out innovative energy programs that serve as models for other higher education institutions, their local communities and beyond.

MIT Efficiency Forward, a partnership launched in 2010 between the Cambridge-based Massachusetts Institute of Technology and Boston-based utility NSTAR, aims to cut MIT’s electricity use by 15 percent over the course of three years. With energy reductions resulting from behavior change programs and changes in lighting, heating, ventilation and air conditioning systems, the joint program was expected to save MIT $50 million in energy costs over the next decade. Just a year into the initiative, however, the program has exceeded the first-year energy savings goal by 30 percent.

Another important energy efficiency initiative announced in 2010 is from the University of Illinois, Chicago. The campus received $848,000 to fund a campus-wide energy initiative that is expected to save $1 million per year in energy costs. The funding is for the installation of energy wheels to stop warm air from leaving new and renovated buildings; insulation on steam pipes; heating, ventilation and air conditioning controls; exhaust controls; and geothermal systems. While the project will significantly reduce emissions and energy costs, the retention and creation of new construction and installation jobs on campus is another notable benefit.
2010 also saw a growth in on-campus renewable energy installations. An important trend, as “conservation and efficiency can’t take us all the way to the promised land of very deep cuts in greenhouse gas emissions or climate neutrality,” says Walter Simpson, former energy manager at the University at Buffalo. “Even after we have reduced our energy load to a bare minimum through conservation, we will still need to meet that load with something. As much as possible that ‘something’ should be clean renewable energy—either from purchased green power or on-campus renewables.”

One inspiring example of a renewable energy initiative comes from Butte College, which rests on a 928-acre wildlife refuge in Oroville, Calif. The college is the first university in the U.S. to go grid positive, producing more clean energy from sustainable on-site solar power than it uses. The college announced its intention in August 2010, when its Board of Trustees approved the installation of 15,000 solar photovoltaic panels, adding to its existing 10,000 solar panels for a system total of 4.5 solar megawatts. The $17 million project, funded in part by federal Clean Renewable Energy Bonds, was completed in June 2011.

“As educators,” writes Butte College President Diana Van Der Ploeg in a recent AASHE guest blog, “we are well positioned to demonstrate how we can better manage our use of the earth’s limited resources so that they’ll continue to be available for future generations and how we can reduce carbon emissions in the face of mounting evidence of the threat of global climate change.”

Another innovative example of on-campus renewable energy is from Maharishi University of Management in Fairfield, Iowa, which in 2010 announced the use of renewable energy to power the construction of its Sustainable Living Center. All energy will be provided from solar panels on the building and an outside wind turbine. The building will have many other sustainability features including a rainwater catchment that will be the sole source of the building’s water (with a drinking water purification process through ultraviolet technology).

Institutions have recognized that sustainable solutions to energy challenges will often require them to work together. A great example of such collaboration was announced in 2010: the Center for Energy Efficient Electronics Science, or E3S, one of five multi-institutional Science and Technology Centers to be established in 2010. The center aims to reduce power consumption by electronics. The University of California, Berkeley was awarded $24.5 million (over five years) by the National Science Foundation to establish and fund the center. UC Berkeley researchers will team up with colleagues at the Massachusetts Institute of Technology, Stanford University, Contra Costa College (San Pablo, Calif.), Los Angeles Trade Technical College and the Tuskegee Institute in Tuskegee, Ala. to dramatically dampen the appetite for power by electronic devices.

Although different from other sectors of our society in many ways, higher education is continuing to demonstrate openness to experimentation and implementation of new technologies. The sector is sometimes chided for moving slowly, but it is evident from the statistics and examples that colleges and universities are working hard to lead a clean energy transformation.

Conservation and efficiency can’t take us all the way to the promised land of very deep cuts in greenhouse gas emissions or climate neutrality,” says Walter Simpson, former energy manager at the University at Buffalo.
The Student Push for Clean Water Access
Q&A with Portland State University “Take Back the Tap” Coordinators

From left to right: Jacob Sherman, Honore Depew, Lisa Meersman, Jacob Coppola and Andy Eiden at the PSU Walk for Water event. Photo by Taryn Ralph.

The Washington Post highlighted it as a “total faux pas on many college campuses.” Getting rid of it is students’ “new green cause,” said The New York Times. Rallying against bottled water on campus has become a popular and widespread effort among higher education students. In the past few years, the AASHE Bulletin has noted the bottled water reduction efforts of almost 30 different institutions. AASHE’s Margo Wagner visited Portland State University junior Lisa Meersman and sophomore Jacob Coppola, campus coordinators of the “Take Back the Tap” campaign, to understand why this issue in particular motivates students into action.

Q: How did “Take Back the Tap” begin on the PSU campus?

Lisa: It started through the Environmental Club, and I was a freshman at the time. We were interested in doing a waste reduction campaign and we found out about Take Back the Tap, which is a nationwide campaign [through Food and Water Watch], and thought that would be a really useful campaign to implement at PSU. At the same time, we heard about the $25 million Miller grant, which gives $70,000 for student sustainability projects, and thought it would be a perfect time to apply. We did a survey just to figure out what the barriers were to drinking tap water for students and found out the main reasons were that they thought tap water was impure at PSU, or that they didn’t have a reusable bottle, or that they didn’t have a place to fill up. So [with the Miller grant] we decided to purchase about 600 Kleen Kanteens and sell them at 40 percent off the wholesale cost, and with that money we installed a filtered water station.

Q: How long was this process?

Lisa: We applied for the grant in January 2009 and we installed the first station in June of the same year.
We did an education campaign around it with a Water Awareness week and different events. We showed movies like “Flow” and tried to raise awareness of the issue and get it in the hands of as many students as we could. That was the main goal.

Q: How have the main goals evolved since then?

Jacob: I would say the main goal has always been to provide the public with access to clean, safe water. The main things that have changed are our approaches. The primary focus of the campaign used to be very visible, with multiple tabling events a week and surveys, taste-testings. It was very out in the open. Most recently, this term, we’ve also decided to approach it from a different point of view and instead of working directly with the general public, we’ve started going through student groups more and using their resources for more of a social diffusion; a larger outreach.

Lisa: We’ve been trying to adopt strategies that work more towards student leaders and utilizing social diffusion methods where they talk to their student groups. We’ve also tried to work with administrators to get their support. We gathered over 1,600 petitions of support from students and faculty, but we need that support from the administrative side as well.

Q: Are you looking for a bottled water ban, or just more access to filtered water?

Jacob: Generally more access. Since we are such a large, urban university, the focus has always been on the more positive. Access to quality tap water.

Lisa: We talked about doing a ban, but it is difficult at a larger university and not necessarily the best strategy I think. We are trying to reduce bottled water consumption, so that paired with access are the two main goals. But when we educate students about the benefits of using filtered tap water and that it is available, people don’t want to buy bottled water anymore anyway.

Jacob: Currently, a prong of our campaign is focused on reducing bottled water at campus events. So we are getting student groups to sign on their support to say ‘yeah, bottled water free events are in line with our mission statement and our culture at PSU.’ We’ve held focus groups, and many have expressed interest in learning how to hold bottled water free events.

Q: How many different campus departments does this issue affect and involve, and how successful have your efforts been at uniting efforts?

Jacob and Lisa: A lot.

Lisa: One thing that we’re trying to ban are the five-gallon jugs of water in offices. So probably most departments on campus have five–gallon jugs, so that affects all the faculty, staff.

Jacob: Almost everyone is behind it. It’s just a matter of carrying that into actual movement and change. It’s an issue that affects everything from athletics to faculty, so how do you unite all of that and get it to go somewhere? And that has definitely been a challenge.

Lisa: One thing we’re working on now to increase that unity is creating a Sustainable Drinking Water Task Force…and bring core people together to create change together. If one task force can problem-solve together, that will create a standard infrastructure for our campaign, because when we leave, we want it to be sustained.
Editor’s Note: In a follow-up interview, Andy Eiden, sustainable purchasing specialist at PSU, noted that the university president has approved a task force that will be made up of the campus purchasing director, event services coordinator, lead architect for facilities and planning and auxiliary services manager. The team will be charting data on campus store outlet sales, event catering usage and office purchases of five-gallon water coolers. They plan to track data on both amounts sold and dollar amounts saved as a result of the efforts of the task force.

Jacob: As far as these ideals being implemented after we leave, currently, right now, hydration stations are being installed as a standard operating procedure in new buildings. And what we’re working on now is working language into standards so if there is a remodel project, and it involves water fountains, that they’ll actually be replaced with water refilling stations.

Editor’s Note: The main hydration station on the first floor of the student union has dispensed the equivalent of 83,000 16-ounce plastic water bottles since it was installed during the summer of 2009.

Lisa: One thing that still concerns me is having the education and outreach to students. Even if we get all these stations and people don’t necessarily know the benefits of drinking tap water, then we won’t necessarily have as much use of them. People will still be buying bottled water, so education is really important too. I see it as needing strong leadership development, which we continue to work on.

Jacob: One really great thing that’s happened is there are a lot of sustainably-minded student groups like Eco Reps and Sustainability Volunteer Program, so there is this network that knows about us and we know about them, and they take these issues wherever they go, so there is a culture of education. Every event they hold will contain these ideals, so it is a part of PSU.

“I just felt a real sense of urgency, and generally it’s perceived that you wait until you’re a professional to get involved, but it just wasn’t working for me. I needed to do something.” - Jacob Coppola, PSU Student

Q: What are some of the main successes of this campaign?

Lisa: I think it started with our first grant; that was what got us going. And the following year we got another $37,000 to install 14 more stations. Nine is a great number, but getting 14 more was a big success for us. We also just passed a resolution to the Senate to discontinue the use of PSU funds for the purchase of bottled water. That just happened and that was really exciting.

Jacob: Personally, and this isn’t a success on paper, but I thought that it was great that the Student Health Center was pursuing putting in their own hydration stations, and it was obviously taking ahold. They were pursuing this on their own. We didn’t do anything and they approached us.

Lisa: A smaller-scale achievement is walking around campus and seeing ‘Take Back the Tap’ stickers and they’re people that I didn’t specifically reach out to. I see that support all over. I see it on people’s computers, on their bikes, and that’s an exciting thing, to see it spread.

Q: Students involved in Take Back the Tap campaigns nationwide has been widely covered in the media in the past year or so. What do you think it is about this issue that is intriguing to students in particular?
Lisa: The whole environmental movement and push toward sustainability is sort of like a trend, and doing something like reducing your bottled water consumption is really a fairly easy thing to do. It’s something that can reach a lot of people and is a behavior change that people can do easily. So it ends up having a lot of success.

Jacob: I think it’s a mix of that and just how integral water is to everybody. It’s just such a pivotal part of everyone’s daily life. Since it is daily, they can have a daily impact and you can see it. One of the new models at the refilling stations has a counter for how many bottles saved and people can see how meaningful their choice is.

Lisa: We touched on the environmental impact. But the economic impact, as far as saving money; tap water is way cheaper than bottled water so it’s a money saving change. Also, water is something we all need on a daily basis and when you see that there are people around the world who don’t have access to clean drinking water and how lucky we are to have that, and the importance of investing in our water system rather than these corporations that are taking water from different regions in the world…It’s not something that is a commodity that should be bought and sold. It should be a basic human right.

Lisa Meersman at PSU’s 2010 Earth Day festival. Photo by Lauriel Schuman.
Q: Can you both address why taking an active role in campus sustainability is important to you?

Jacob: I guess I just felt a real sense of urgency and generally it’s perceived that you wait until you’re a professional to get involved, but it just wasn’t working for me. I needed to do something. Sustainable activism is satisfying to me, knowing—or at least believing—that I’m making a difference is fulfilling to me.

Lisa: I started doing environmental activism work in high school, and I had that same sense of urgency and deep sense of hopelessness, and feeling really, really sad. I think my roommate thought I was crazy because I’d come home just crying so many times because it was so hard to deal with it and think about all these issues that we’re facing in our world, and the only thing we can do with that knowledge is to take action. In my mind, that’s the only answer; you don’t like something, then you take action. If you’re worried about something, then you try to change it. So for me, it’s been a really empowering experience to be involved and feel like I’m making change on a small scale and also helping other people feel like they’re doing the same thing.

People do want to be able to make change. Helping people realize that they can be part of this too and we can all work together to make this change is a really empowering feeling, and I like being able to express that to other people too.

“People do want to be able to make change. Helping people realize that they can be part of this too and we can all work together to make this change is a really empowering feeling.” - Lisa Meersman, PSU Student

Q: What advice do you have for students who would like to be involved in sustainability issues on campus but aren’t sure how to get started?

Jacob: Find out what’s out there first. See what people are doing. Remember that it doesn’t have to be a full-blown commitment and don’t get discouraged if the first one doesn’t live up to what you expect it to be.

Lisa: I think it can be intimidating. The idea of installing refilling stations—I don’t know how to do that, and that’s not something that I would think that I would ever know how to do. But, just knowing that if you have a vision and a goal, you can get people to work with you.

Q: What strengths do you think students bring the campus sustainability movement that are unique to students?

Jacob: Perspective. Our ideas and energy. We do need the guidance from faculty and people who have actually done it, but I think one of our strengths is that we are really motivated and have a lot of ideas.

Lisa: Peer interaction has a lot of value. It’s one thing to have our teachers tell us things, but it’s cool to be able to interact with your peers.

Editor’s Note: Check out AASHE’s Sustainability Student Diary series for more student perspectives on campus sustainability efforts.
Students Building Community through Agriculture

By Ashwini Srinivasamohan

Garlic sprouts in front of the newly renovated hoop house at Unity College in Maine indicate the arrival of spring. Photo by Catherine Van Amburgh.
The year 2010 was one of community gardens, farmers markets and the redefinition of boundaries around campuses to include the surrounding community through food. More than ever, campus food and farming initiatives are capturing the attention and imagination of students, who are extending these efforts into a more active medium for community engagement.

The large majority of both the Co-Curricular and Public Engagement categories of the AASHE Bulletin were related to sustainable agriculture initiatives. The notable interest in the production side of the movement, agriculture, may as well be an indication of the posterity of what ostensibly began as a movement focused on the demand-side—specifically, the consumption of food.

Several campuses have launched farmers markets, including Tufts University (Boston), Wesleyan University (Middletown, Conn.) and the University of Tennessee in Knoxville. Duke University’s (Durham, N.C.) Winter Mobile market has in particular focused on ensuring that cold weather does not have to mean a slump in fresh foods. Students, faculty and staff prepay for a share of their harvest, provided by local vendors.

Supporting local farmers and vendors is one way students and universities are engaging the campus community in sustainable food. Others have focused on creating community gardens, either as heuristic tools for educating youth and other community members about agriculture, or as ways to grow fresh food to donate to deserving communities.

Students at Luther College in Decorah, Iowa, for instance, have grown from seed to spud more than 70 pounds of potatoes in the college garden. The potatoes, specifically chosen because of their high shelf life compared to other vegetables, were then donated to a local food pantry. Further east in Lexington, Va., volunteers at the Washington and Lee University Campus Kitchen provide fresh, local food for local youth while also leading a camp where kids can see and learn how to grow their own food.

Sustainable food production has also paved the way for innovation and creativity among students, as seen by the myriad articles submitted to the Co-Curricular category. Savvy students at Swarthmore College in Swarthmore, Penn. built a hydroponic window farm through the Good Food Project, initially producing lettuce with plans to grow tomatoes as well. Window farms have low ecological impact while supporting edible produce and can operate year-round indoors with enough sunlight. Furthermore, the esteemed Edson Student Entrepreneur Initiative grant was presented to Phoenix-based Arizona State University students who proposed the creation of organic fertilizer from algae.

So, why the affinity of students to the farming and food milieu?

“What makes food and agriculture issues so powerful on college campuses are their accessibility and capacity to empower individuals,” says Kayla Santosuosso, a final-year student at New York University and a long-time advocate of farming and sustainable food production. “We eat (hopefully) three times a day, so we have three daily opportunities to harness our purchasing power. And since eating is a shared habit, it’s easy to reach out and try to impact everyone else on campus.”

What students and campuses across North America have been demonstrating over the past year is that agriculture not only is a way of producing local and fresh foods, but also involving, educating and serving the community. Agriculture is serving as a point of confluence for students whose interests may lie in more niche areas (e.g. health, environment, workers’ rights) of sustainability. With authors and advocates such as Michael Pollan, Curt Ellis, and Anna Lappé calling for a fundamental shift in the way in which we conceptualize our food system to be more environmentally, economically and socially sound, students across the country are taking charge on their campuses.
In 2010, the AASHE Bulletin noted the creation of, or plans for, a total of 146 new sustainability-focused academic programs in 2010, up from 113 in 2009, 66 in 2008 and 27 in 2007. While it’s a good sign that introducing sustainability into higher education curriculum isn’t a new concept anymore, the sector still has a ways to go toward ensuring that every student understand at least basic sustainability concepts. Last year, San Francisco State University became an early pioneer of this endeavor when President Robert Corrigan approved a measure requiring all graduating students to complete three units of classwork that examines an aspect of sustainability. AASHE’s Tim Gibbins recently spoke with the chair of the environmental studies department, Carlos Davidson, to learn why the university incorporated sustainability into the general education requirements, and how they effectively made this monumental change.

Q: How did this decision to incorporate sustainability into the general education requirements come about?

A: We have a Campus Sustainability Committee that is made of faculty, staff, students and administrators. The faculty got together and realized that the graduation requirements on campus were up for review and that’s a rare occurrence. The last time they were up for revision was 20 years ago. So we recognized the opportunity, and decided that we needed to try to install sustainability into the graduation requirements.
A: The four of us that were on the subcommittee decided to take it on as our project to get sustainability into the graduation requirements. The first step was to have a petition. We strongly believed that sustainability was a key thing for students to know about, but in order to get it in the requirements we needed to demonstrate that a significant chunk of the faculty on campus supported that plan. The petition was directed at the Graduation Requirements Task Force, which was working on the new graduation requirements. So we did an online petition and we ended up getting 94 faculty members to sign from 40 different departments on campus. With the petition, we then wrote a letter to the Task Force asking them to consider incorporating sustainability into the graduation requirements.

We had some suggestions on how that could be done, and there were a number of different options, but our goal was simply to get that discussion on the table. We also spoke to individual members of the Task Force trying to find people who would be willing to carry this idea forward.

Ultimately, the Task Force did not decide to integrate sustainability into the graduation requirements, so we went to the Academic Senate. In the Senate approval process, we amended the proposal to include sustainability and that’s actually where the decision was made.

Q: Were there different aspects of sustainability that your committee decided were the most important to include in the graduation requirements?

A: We were very clear from the start that we wanted to use a broad conception of sustainability, and so we said in our proposal that the course must examine some aspect of environmental sustainability. The perspective can be from the social sciences, natural sciences, the arts, humanities, and et cetera. We were open to a wide view in our definition of sustainability.

Q: Did you already have those classes in place or did you begin to develop classes to meet these specific requirements?

A: Both. We had a large number of classes on campus that could meet the requirement. And those were all over the college in many different disciplines. Some examples are American Indian studies, broadcasting and communication arts with a focus on environmental communication in the digital media, courses in biology, principles of ecology, conservation biology, bioethics, or environmental chemistry, and a course in cinema on ecology and film, and I could go on and on.

Q: That list really touches on fields that we don’t normally think of as being part of the sustainability movement.

A: Exactly. We wanted to integrate sustainability into the curriculum virtually anywhere on campus, and I think that was key for getting support from faculty and that it was something everyone could participate in. We wanted to be really clear that a few departments did not own it. That’s key for the long-term impacts because people in all different disciplines will be thinking and educating students about these issues.

Q: Was there any resistance to this proposal?
A: There really wasn’t. We were surprised, but pleased that no opposition came forward. And I think that is in part because of the structure of the requirement. We call it an overlay, but that just means it doesn’t have to be a stand-alone course from your other course requirements. You can satisfy this requirement by a major course, a general education course, by an elective course, or any course that is certified as meeting the sustainability requirements. That meant that it does not ask students to take additional units, and that’s where the struggle with general education is. There’s so much we want students to know, but there’s limited time and resources, but by making it an overlay, we sidestepped those issues.

Q: It sounds like weaving sustainability throughout the entire curriculum, and making it open to interpretation is what led to the success of integrating it.

A: Yeah, and as this goes forward there’s an incentive for all majors to develop sustainability courses within their major so that it does not require students to take an additional course just to meet the graduation requirements. And the precedent is set to infuse sustainability into many more courses than we have it currently. Again, that will make it easier for students to meet the requirements. It will take a couple years to establish all the courses. So all the current students are grandfathered into graduating with the existing requirements, but it will be a long process before we have enough courses available for all students to meet the new sustainability requirements.

Q: What advice would you have for other institutions that are trying to make similar changes?

A: I would say three things stand out as the most important. Take a broad view of sustainability, so you can be as inclusive as possible with faculty in different disciplines. They all need a sense of how they can participate and how this can benefit them. Demonstrate faculty support if you’re going to convince an administrative body to approve this. And third, is consider the overlay, where the sustainability requirement can be met by other courses so that it doesn’t add to the additional units that students have to take.

Q: What do you hope that students will gain having sustainability integrated throughout the curriculum?

A: The faculty on the sustainability committee believes that sustainability is one of the most important issues facing us in the 21st century. Our graduates are going to be making personal and broader social decisions that will have a big impact on society. We felt strongly that they should be educated to make decisions in those areas. There are big social and political decisions to be made about how we address climate change, pollution, and these issues will increasingly be on the ballot and a part of the debate and we need students and faculty to be informed about how to make these decisions. This is not just for the folks that are studying something that is already closely related to sustainability. We want sustainability for everyone on campus.
the tired beast
Sculpture by Johnson County Community College student Katie Dallam

sustainability art
SHOWCASE
In spring 2011, AASHE held an art contest for the 2010 Campus Sustainability Review. We received several inspiring submissions including “The Tired Beast,” shown on the previous page. Constructed almost entirely from tire treads that were discarded from a tire retreading factory, this sculpture is one of five sustainability-themed student sculptures installed on the Johnson County Community College campus in Overland Park, Kansas in spring 2011. Inspired by a desire to actively find a creative use for unused tire pieces after learning about the waste and environmental harm that comes from the improper disposal of old tires, “The Tired Beast” is a compelling and aesthetic example of students contributing their resources and talents to creating a campus culture of sustainability. This page showcases two more examples.

The story begins 10 years ago, says Carmen Schlamb of Seneca College in King City, Ontario, when the campus installed osprey nesting platforms near the lake in hopes of attracting the raptors. A few years later, a pair known as Ernest and Ruby by the local children began to call the campus home, but bypassed the constructed platforms in favor of the light standard shown above. Every spring for the past five years, the pair of osprey have returned to the campus to build their nest on one of the light standards in the student parking lot. Two years ago, the nesting platforms initially constructed by the college fell down in a high wind storm but the light standard remained, giving credit to the bird’s intuitive choice. The best sustainability initiative, says Schlamb, is sometimes no initiative at all, but instead the gift of space and allowances for nature to decide how it will best be served.

**the osprey of Seneca College**

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