

Waste not, want not

Building a campus culture of sustainability

By Linda Schmidt

WE ALL LIKE TO THINK that we're saving the environment when we recycle a few soda cans or reuse a grocery bag, but true sustainability demands more than just one or two small actions. It's a way of life and, all across the Mills campus, from the President's office to the waste bins at the Tea Shop, that way of life is being embraced. A comprehensive culture of sustainability has taken root, grown vigorously, and is beginning to flower.

Recognizing the role that institutions of higher education play in leading social change, Mills College is a member of the Association for the Advancement of Sustainability in Higher Education and President Janet L. Holmgren is a charter signatory of the American College and University **Presidents Climate Commitment**, an agreement to develop campus action plans for achieving climate neutrality.

"This initiative provides a nationwide model for addressing critical environmental challenges from global warming," Holmgren says. "For Mills College, this affirms our commitment to responsible environmental stewardship and our strong investment in sustainable practices." Sustainability has also been established as one of the campus' primary strategic goals for the period 2008–2013.

BEHIND THESE LOFTY philosophical drives, numerous small changes in campus life are making a big difference. A Sustainability Committee, comprised of students, faculty, and staff, coordinates and advances efforts to green the campus.

"We're promoting a green lifestyle for students," says Britta Bullard, a member of the Sustainability Committee and manager of the campus **Sustainability Center**. The Sustainability Center is a hub of activity for students involved in any sort of environmental effort, from creating Earth Day activities (now expanded to Earth Week) to running the Reuse Depot, where students can drop



DANA DAVIS



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Don't lose it, reuse it: Free piles in the dorms have found a clean and organized home at the Reuse Depot.



CESAR RUBIO

More than a drop in the bucket: This fountain outside the Moore Natural Sciences Building collects rainwater, which is then used in toilets to offset consumption of municipal water.

off their unwanted goods and clothing—or pick up some new duds for free.

To achieve the goal of zero waste—that is, reusing, recycling, or composting all materials on campus—the College has developed a **recycling infrastructure and awareness campaign**. "The more people know what's recyclable and have a convenient place to put it, the more that's recycled," says Bullard.

Education efforts begin with an orientation session for entering students entitled "Mills Sustainability, Recycling, and Composting." A campus-wide color-coded bin system makes it easy to sort recycling, composting, and garbage; at the Tea Shop, **compostable utensils and packaging** divert garbage otherwise bound for landfills; and every residential room now includes recycling bins to encourage students to consider where their discarded items end up. A year-end drive to collect textbooks and other reusable goods has significantly diverted materials otherwise bound for the trash heap.

Together, these initiatives have led to substantial results. In October 2007, Mills received a Business Recognition Award from StopWaste.org, an Alameda County-wide agency, for diverting a significant percentage of campus waste away from landfills. For the past two years, campus composting efforts have made Mills one of the top four competitors for the RecycleMania Food Service Organics Award, a national competition between colleges and universities, with a first-place finish last year.

IN ADDITION TO RECYCLING and composting, developing a sustainable campus community demands **using less in the first place**. Wise management of scarce water resources has been a driving factor on many fronts, from installing low-flow plumbing fixtures in buildings to eliminating dining trays at Founder's, thus reducing the need for wash water.

This is particularly evident as plantings around campus are converted to drought-tolerant species. Continuing efforts will minimize thirsty lawns and gardens, opting instead for more **native landscape alternatives**. "By propagating and supporting our native plant populations, we are reflecting the natural and inherent beauty specific to our state," says Christina McWhorter, coordinator of the Botanic Garden.

The benefits of native plants are also seen along the banks of Leona Creek, where extensive restoration—including replacing aged and dangerous eucalyptus trees with California native plants propagated at the Botanic Garden—is helping to control damaging water flows. "Eucalyptus have a place on campus, but it's not here," says Brian Harrington, a staff member in the campus architect's office who has spearheaded **work around campus creeks**. Harrington points out that many factors need to be considered in this project, including protecting existing bridges and buildings and the ecology of the creek from its source to San Francisco Bay.

USE OF ENERGY, materials, and resources is also reduced as the College pursues its goal of **meeting LEED energy efficiency standards** of silver or above on new construction projects. The campus' newest structures, the Betty Irene Moore Natural Sciences Building and the soon-to-be-completed building for the Lorry I. Lokey Graduate School of Business, incorporate state-of-the-art green technologies to minimize energy and water consumption while maximizing the health and comfort of occupants. Renovation of existing buildings utilizes salvaged and less-toxic materials.

"When you think about buildings, one of the most important things is energy and water use, especially in California. It becomes very important to put in systems that are more efficient and that use resources that are free, such as rainwater and sunlight," says Campus Architect Karen Fiene. "We also want our new buildings to be teaching tools, so these systems are visible and can be seen as an overt statement about being green."

In the classroom, too, concepts and practices of sustainability have become increasingly common. In departments from biology to public policy, stu-

dents take on projects addressing **real-world applications of sustainability**, such as native habitat restoration and transit policy in the Mills–Maxwell Park neighborhood (see profile of Alysha Nachtigall '07, MPP '08, p. 29). Members of the Sustainability Committee are actively working with faculty to develop opportunities to use campus natural features as teaching tools within the curriculum.

KATIE JOHNSON '09 created and filled the position of ASMC sustainability senator this year to integrate student government in sustainability initiatives. It made sense to dedicate a position to the effort, she says. "We set policies for students—our goal is to get everyone involved and really transform the Mills campus."

Johnson has spearheaded an effort to secure **subsidized bus passes** for Mills students, which would provide a full year of unlimited local and transbay bus rides for a \$96 fee. The program was endorsed by a student vote in April and the College aims to make passes available starting in fall 2009. Additional efforts to help students rely less on cars include increasing the number of seats on the **campus shuttle service**, making the campus more pedestrian-friendly, and cooperating with neighborhood groups to create safe and convenient bike access to the Laurel District.

"We have the power and responsibility to choose a lifestyle that promotes a new, more equitable path," Johnson says. "Mills has a history of social progress, and sustainability is another chapter in that."

For more about campus sustainability initiatives and activities, see www.mills.edu/green.

Another one rides the bus: ASMC Sustainability Senator Katie Johnson hopes subsidized bus passes will encourage students to adopt public transit as a cost-effective option to cars.



DANA DAVIS

Bonnie banks: Volunteers gather on the banks of Leona Creek to plant native shrubs and trees, which were propagated at the nearby Botanic Garden.



BRIAN HARRINGTON



Getting down and dirty: Community gardeners transplant vegetables on a sunny afternoon.



How does your garden grow?

By Linda Schmidt

“WHY ARE PLANTS IMPORTANT?” asks Christina McWhorter, coordinator of the Botanic Garden at Mills College. It’s a rhetorical question. As we talk on a warm spring day in the garden, surrounded by exuberant masses of flowers and foliage, McWhorter quickly points out that the plant world provides us with oxygen, food, medicine, clothing, buildings, and beauty. “Plants are essential to the sustainability of the human race,” she says. “They’re an intrinsically critical part of the ecosystem.”

Located just east of the Betty Irene Moore Natural Sciences Building, the garden carries on a long tradition of botanical studies on campus. Cyrus Mills, the College’s namesake and first president, was an avid collector of exotic plant species and established orchards and crops to supply food for the campus; in the 20th century, botanist and professor Howard McMinn promoted the benefits of native species.

Today, under the direction of biology professor Bruce Pavlik and the guidance of McWhorter—and with the help of a \$37,085 60th Reunion gift from the Class of 1948—the garden fulfills a number of functions, serving as a gathering place for community gardeners, as a supplier of extremely local food, and, of course, as an academic teaching tool. The garden is home to more than 500 different species of plants and, with areas that exemplify various plant communities from the coastal redwood forest to California chaparral and oak woodland, it plays a critical role in supporting the life science curriculum at Mills.

Biology students perform lab work on seedlings grown on site and also carry out projects in the greenhouse; ecology and environmental science students benefit from the garden as well. This experiential learning provides an essential supplement to textbooks. “If you just use slides or images from a

To strengthen the Botanic Garden's functions as a learning center and gathering place, plans are being developed to construct a new facility that will provide a space for student and faculty research in biology and restoration ecology, house a permanent office for the Botanic Garden coordinator, and serve as a staging area for fieldwork off campus, storing camping gear, measuring and monitoring tools, and other necessary equipment.

The Barrett Foundation, headed by Mills Trustee Richard W. Barrett and his wife, Elaine, has pledged \$100,000 to support construction of the building, to be known as Gaia House.

"It'll be a green building, of course," Christina McWhorter says. The modest building of less than 1,000 square feet will sit lightly on the land. "Building the garden as an educational resource for the campus as well as for the community has been one of our basic tenets all along, and this space will really help us expand our offerings. The facility will provide a much needed link between lab, garden, fieldwork, and the community."

"I think it's really important to empower young women to get in touch with the earth," McWhorter says. "I don't want to sound too hippy-dippy but, as women, we can find our own special connection and know that this is a vital force, a life-supporting system."

Growing interest in the local and organic food movement has contributed greatly to the popularity of the community garden. Fronds of asparagus, artichokes, chard, and turnips now burst from a series of hand-built raised beds and, in mid-April, the campus food vendor Bon Appetit purchased 13 pounds of greens grown here. "I have to take my hat off to them," says McWhorter. "They advocate getting their produce from local farms and, though we're not a farm, we are darn local."

She explains the necessity of exposing people to plants and earth in this practical, hands-on manner. "We have this concept that nature is 'out there' and there's such a separation—like this campus isn't nature," she says. "The truth of the matter is, you and I are nature, we're part of it."

book, you lose a big part of the picture," says McWhorter. "Rather than relating to a two-dimensional representation, students interact with the plant as a whole, living organism."

The garden also provides an opportunity for upper division students to pursue independent study projects. In recent years, senior students have developed beds of plantings that are important to women's physical and spiritual healing, explored companion planting—that is, growing different species of plants in close proximity to attempt to increase the yield of each—and propagated native plants.

Wandering along the garden's pathways, the striking diversity of the plant world is apparent. There is a section of plants that date back to the Mesozoic era, other areas showcase cacti and suc-

culents, ferns and orchids—you can even see a large planter of carnivorous pitcher plants and sundews. There's also a demonstration area of different species of manzanita, and McWhorter plans to create another demonstration bed of *Ceanothus* (California lilac) to honor the legacy of Howard McMinn, who specialized in the study of both species.

Approximately two-thirds of the plants in the garden are California natives, and McWhorter eagerly explains the practice. Native plants provide habitat for local animal species, including key pollinators, and are adapted to the area's wet winters and hot dry summers. McWhorter propagates many for use in restoring the riparian flora along Leona Creek and in other areas of the campus landscape.

"I've collected seed from our local natives on campus—not just California natives and not just native to the Bay Area, but native to the Mills campus—plants that have evolved on this land for thousands of years," she says. "We're supporting very local biodiversity. These site-specific plants are adapted to right here."

In addition, experimental beds are testing alternative lawn grasses, which would consume less water, less fertilizer, and ideally less time than standard lawns.

But perhaps the aspect of the garden that McWhorter finds most exciting is its role as a tool for community building and outreach. "I've always been interested in this connection between plants and people—that's where the real energy happens," she says. With a graduate degree in public horticulture, including therapeutic and community gardening, McWhorter's knowledge finds plenty of use at Mills. "The botanic garden is really a place for everyone. As long as you are breathing, you can be a part of this," she says. Groups from local K-12 schools and retirement homes come to the garden to use it as both an educational resource and a beautiful spot to relax.

A community garden, established in fall 2007 along the northern side of the existing greenhouse, attracts students, staff, alumnae, and others to weekly garden gatherings. In McWhorter's experience, gardening together fosters social connections, and several students have found purpose and friendships while working the soil.

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Dig It: Christina McWhorter demonstrates planting techniques for creek restoration volunteers.



A la Carte

Tanita S. Davis, MFA '04
Knopf Books for Young Readers, 2008

Seventeen-year-old Lainey, the protagonist of this young adult novel, faces the usual problems of boys and school and family—but

she is propelled by her dream to become a famous African American vegetarian chef with her own TV cooking show.

Intersex (for lack of a better word)

Thea Hillman, MFA '99
Manic D Press, 2008

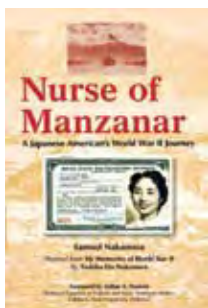
In this brutally frank story, Thea Hillman shares her personal experience growing up and coming of age with congenital adrenal hyperplasia, which increases testosterone production. Along the way, she explores the constructed ideas of gender and the challenges of defining the term “intersex.”



Nurse of Manzanar: A Japanese American's World War II Journey

Samuel Nakamura
P.O. Box 4381, Bellingham,
WA 98227-4381

Shortly after the last Japanese American internment camp closed after World War II, Toshiko Eto Nakamura '33 wrote a memoir of her experiences from the day of Pearl Harbor, when she was working as a nurse in San Luis Obispo, through her time at Manzanar Relocation Camp and resettlement to Madison, Wisconsin, in 1943. Now, her son Samuel has published her manuscript with the addition of historical photos and documents, a bibliography, and other supplemental material. The author's keen observations make this an intriguing and factually detailed account of daily life in this period of American history.



The California Deserts: An Ecological Rediscovery

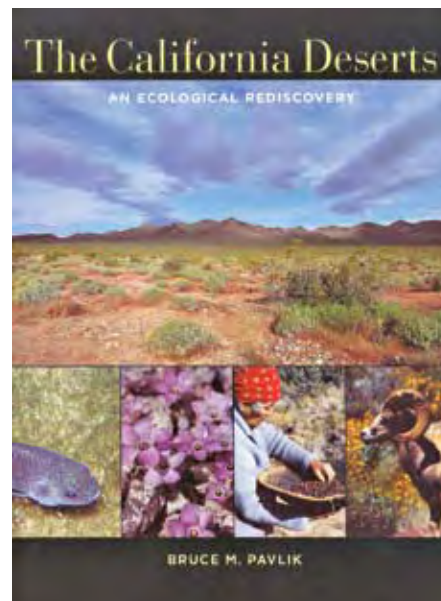
Bruce Pavlik
University of California Press, 2008

One might expect a book on deserts to be a bit—well, dry, but Mills Professor of Biology Bruce Pavlik tells an engrossing story of plants, animals, water, geology, history, and people that is highly readable, informative, and enjoyable.

The first section of his book describes human interactions with California deserts over time, from the Native American tribes that drew their sustenance from the land to the Early Spanish explorers and pioneers of the American West who faced great hardship and even death in their explorations of the terrain. This initial focus on the human experience in the desert provides an inviting point of entry for the reader. The desert landscape, with its strange animals and cartoonish plants, often is stereotypically perceived as hostile, remote, and alien. But Pavlik reveals the longstanding human relationship with the desert; along with the author's narrative, well-chosen excerpts from early explorers' journals reveal astonishing wonder and beauty—and inspire a thirst for understanding and appreciation of this unique world.

And Pavlik provides that understanding and appreciation with a deft touch. An accomplished ecologist with extensive field experience in deserts throughout the world, he writes with the precision of a scientist, the zeal of an evangelist, and the soul of a poet. Pavlik paints a fascinating picture of these highly diverse landscapes: “On a clear day it is possible to view smoldering desert from a snowy observation point surrounded by subalpine forests,” he writes in describing the Great Basin Desert, which includes Death Valley, one of three distinct desert areas covered in the book.

But the book is much more than a travelogue. Pavlik communicates the



complexity of desert ecosystems in a way that is perfectly comprehensible without oversimplifying scientific concepts. Even the casual reader will grasp the evapotranspiration-to-precipitation ratio (ET/P)—that is, the power of the dry desert air to evaporate moisture as compared to the annual amount of rainfall—as well as the intersecting factors of geography, temperature, soil types, and water in these regions, all of which contribute to highly specialized flora and fauna that have adapted to extreme conditions.

Pavlik's book is further distinguished from standard monographs of natural history by a thoughtful evaluation of current pressures on California deserts. As growing human populations disrupt the landscape and make increasing demands on water resources, as highways and off-road vehicles destroy soils and habitats, the delicate balances that have evolved over thousands of years suddenly face substantial, even catastrophic, change. “Will these arid lands be cherished before irreversible degradation or meaningless consumption?” he asks.

Each reader who absorbs the information in this book will find it hard *not* to cherish the fascinating deserts of California and to care deeply about their fate.

—Linda Schmidt