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For University Alumni and Friends

Intergenerational Justice

CLIMATE
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Carbon
Footprint

What is sustainable?

CSUEB students, scholars search for answers



Mindy Kimball '05 crusades against climate change

A new breed of solar cells

Profs' e-learning tips make tourism greener

Spring 2010

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PHOTO MAX GERBER

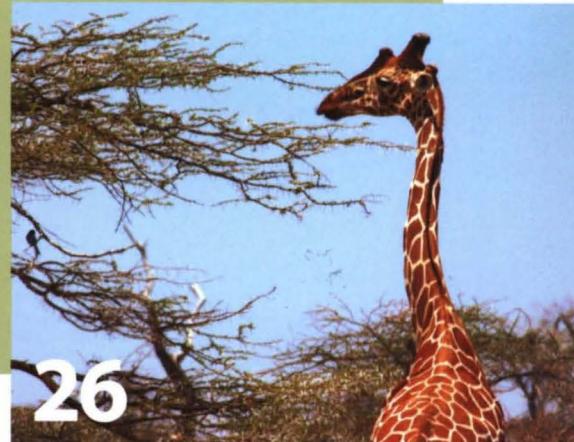
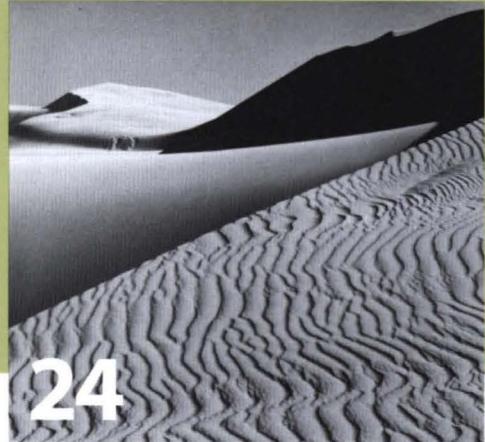


PHOTO COURTESY MELANY SPIELMAN

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Wolff Illustration

east bay

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New ideas about SUSTAINABILITY take root at CSUEB

BOLD VISIONS — like Cal State East Bay's plans to become a regional demonstration site for sustainability and green enterprise — begin by asking difficult questions. At CSUEB, the quest for solutions to critical societal needs has begun, as students, faculty, staff, and alumni together seek answers to one of today's most critical and vexing conundrums: What is sustainable?

Typically, the term "sustainable" is associated with land use, natural resources, and recycling. But at Cal State East Bay, we believe it applies to far more. The cover story in this issue of *Cal State East Bay Magazine* illustrates our uniquely multidisciplinary approach to teaching and learning about sustainability — from geography and environmental science to business, economics, and philosophy.

You'll see how our students are finding creative new ways of thinking and raising awareness about sustainability, as well as bringing new earth-friendly services to the University. And our story about physics Assistant Professor Erik Helgren's work to improve solar energy cells in collaboration with a small team of undergraduate student research assistants demonstrates the practical application of theory and technology that is a CSUEB hallmark.

Beyond the classroom, the University continues to make progress in its quest to model and teach sustainability. CSUEB already has one of the largest solar installations in Northern California, supplying the regional grid with enough energy to power 1,000 homes. As you'll read in this issue's "Looking Ahead" story, we now have plans to add a demonstration fuel cell — one of the first at any U.S. university.

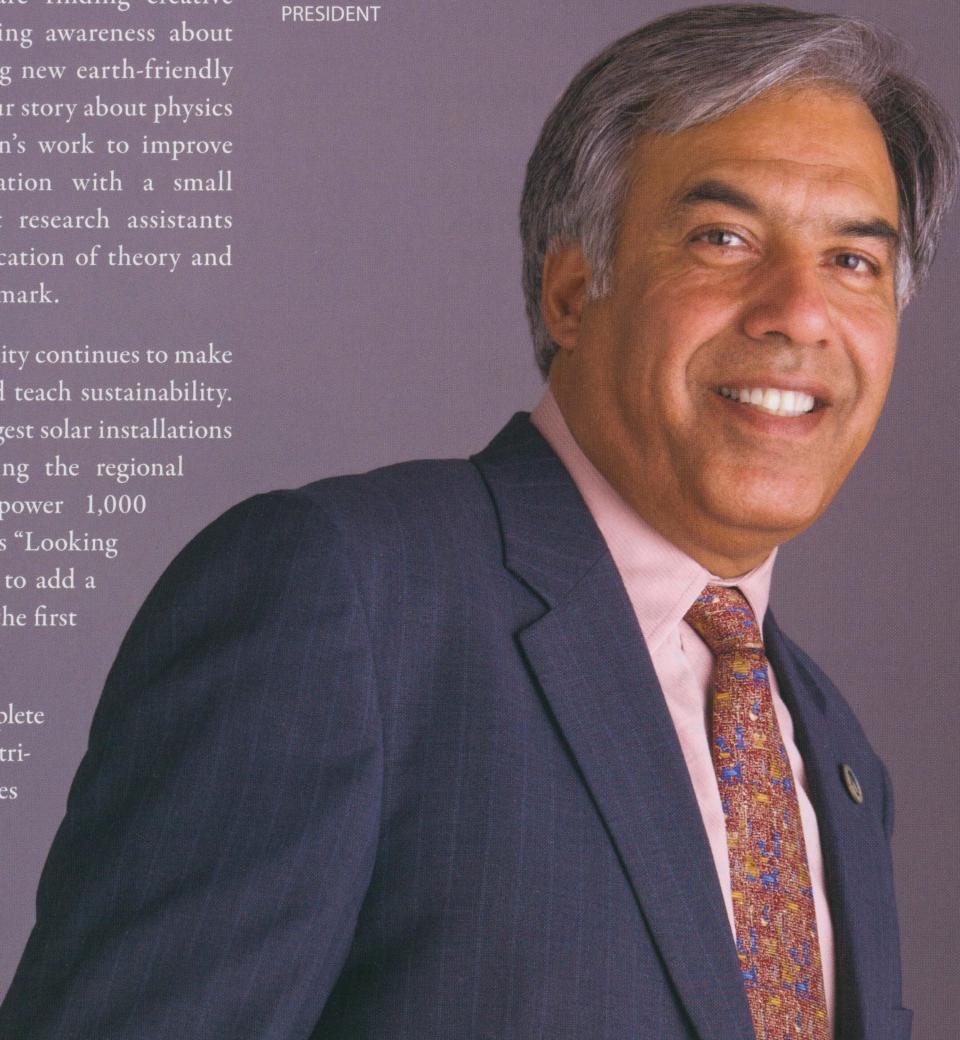
Of course, no issue would be complete without stories about alumni contributions. In this issue, that includes

Jennifer Wolch '75, '76, the dean of the College of Environmental Design at the University of California, Berkeley, and Mindy Kimball '05, a major in the U.S. Army, who is also an environmental crusader.

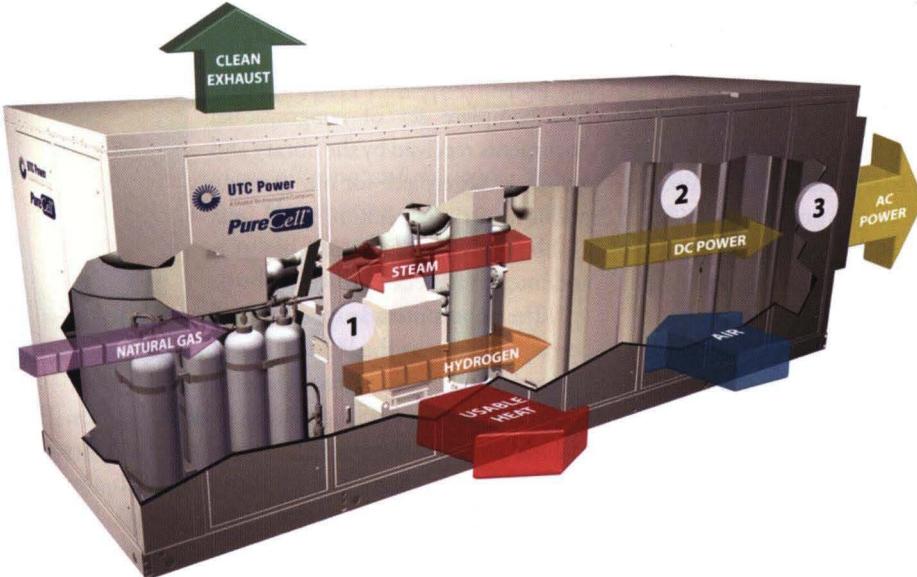
I hope you'll join me in reading this issue cover to cover. You'll be both intrigued and proud to see the level of thought, commitment, and creativity at CSUEB focused on sustainability. We are truly becoming a university where all of our students major in solutions for tomorrow.



Mohammad "Mo" Qayoumi
PRESIDENT



CSUEB may become home to fuel cell for student research, energy generation



Electric power generated by a fuel cell, as depicted in a simplified illustration, left, produces heat for hot water and enough electricity to supply 1,200 standard size homes for one year.

BY BARRY ZEPPEL

The Hayward Campus of California State University, East Bay may become one of the first colleges in Northern California to host a fuel cell, a move that would support University plans to become a center for science, technology, engineering, and math education and a demonstration site for green technology.

When he was vice president for administration and finance at Cal State Northridge in the early 2000s, President Mo Qayoumi initiated a similar, award-winning fuel cell project.

A fuel cell would benefit Cal State East Bay by serving as a research and learning tool for students and faculty members. Additionally, the waste heat generated by a cell can be converted into hot water to be used in buildings on campus.

As CSUEB's partner in this effort, the Pacific Gas and Electric Co. has proposed making the campus a future site for the placement of a \$7 million fuel cell that would be provided and paid for by the public utility. It would be located at the northern tip of the campus, occupying a fenced-off space approximately 50 feet by 100 feet and featuring an information kiosk.

The fuel cell is an ultra clean, low emission, quiet, mini-power plant that uses natural gas and water to generate electricity efficiently, according to Jim Zavagno, the University's director of Planning, Design & Construction. "This partnership with PG&E is a win-win," he said. "The plant, while generating electricity for the public, will supply the University with hot water to heat buildings, allowing us to save on utility costs and equipment, and complements our movement to becoming a sustainable campus."

The installation would be capable of generating up to 1.2 megawatts of electricity – enough to power 1,250 standard size homes for one year. Unlike the photovoltaic panels on top of several Hayward Campus buildings that generate electricity for the University, electricity generated by a fuel cell would be returned to the state's electric grid for powering homes and businesses.

Arguments for and against placing a fuel cell at CSUEB have been presented to an administrative law judge, who is expected to issue a report in the form of a recommendation in March. This report will then be presented to the California Public Utilities Commission, which is expected to render a decision at its May meeting. ■

UNIVERSITY NEWS

TAUSCHER CONGRESSIONAL PAPERS archived at University Library

Ellen O. Tauscher, who served the East Bay in the U.S. House of Representatives for more than 13 years, has donated her congressional papers to the archives of the University Library at California State University, East Bay. Tauscher resigned from her 10th District Congressional seat in June to accept an appointment from President Barack Obama as undersecretary of state for arms control and international security affairs.

"Ms. Tauscher is making a significant contribution to the intellectual growth of Cal State East Bay with donation of her congressional papers," said CSUEB President Mo Qayoumi. "Her papers will help generations of young scholars understand the history of this region and appreciate the work of government as it impacts the lives of citizens now and in the future."

"Ellen Tauscher's papers are the first complete set of congressional documents received by the library and will be a centerpiece for our growing public history curriculum," said Linda Dobb, Cal State East Bay librarian and interim associate provost.

The papers include speeches and correspondence to the White House, cabinet members, executive agencies, state and Bay Area officials, and other dignitaries. They also include photos, awards, press clippings, news releases, letters of thanks and praise from constituents, Web site materials, schedules, and records related to Tauscher's interests as a member of Congress. ■ BZ



Ellen Tauscher

Pioneers unveil new logo

The Pioneers unveiled a new logo at the fall home opener basketball game that reflects the University's move in a positive new direction, athletics officials said.

Starting fall 2009, Cal State East Bay joined the California Collegiate Athletic Association and is awaiting official acceptance to the NCAA Division II rankings with a goal of increasing the visibility and competitiveness for its athletics programs, said Dawn Ellerbe, assistant athletics director for marketing and promotions.

"With the added exposure Cal State East Bay hopes to achieve with its move to DII and membership in the CCAA, developing a new logo is an important part of communicating our momentum and new spirit," Ellerbe said.

The new logo features the words "Cal State East Bay Pioneers" in the University colors, black and red, across a compass that is pointing east to represent East Bay communities, Ellerbe said. The

compass symbolizes the pathfinding, pioneering spirit that characterizes the University, its students, and its athletics programs, she added.

Development of the logo came about through a collaborative process, combining creative ideas from the student body, the Pioneers Athletics Department, and the Office of University Communications.

During spring 2009, Pioneer Athletics held a contest inviting students to submit ideas for a new logo design.

"Our student competition produced some great design elements that became the foundation of the logo ideas we brought to the graphic designer," Director of Athletics Debby De Angelis said.

Once a design concept was developed, it was up to University Art Director Jesse Cantley to tweak it for the Pioneers.

"Our goal was to create a logo that captured the look-feel of a CSUEB sports program that is moving forward



into an exciting and challenging new division," Cantley said. "I worked closely with a talented and well-known illustrator, Chris Gall, on the final version and developed a type treatment that conveys an athletic program on the move."

As CSUEB teams continue the transition to full Division II status, the Athletic Department will focus on integrating members of the University and the community of the East Bay into all sporting events, De Angelis said.

"Our goal is to create a 'communi-versity' on campus with our students, student athletes, faculty, staff, and the community of the East Bay, where we continue to put teams on the playing field that our supporters can be proud of," she said. "We want the level of our athletic achievements to match those of the academic achievement of Cal State East Bay." ■ DE

Online Campus

EXPANDS OFFERINGS AND UNIVERSITY'S REACH

In its 10th year of offering online degree programs, Cal State East Bay continues expanding its reach beyond geographic borders. The University's Online Campus introduced three new offerings during fall quarter, bringing the program total to eight. Launch of a ninth program is pending.

New to CSUEB's online lineup are Bachelor of Science completion programs in business administration and health science and a Master of Science program in taxation. A master's degree program in educational leadership also has been approved.

The Online Campus accounts for approximately 15 percent of Cal State East Bay enrollment. Administrators and students said they expect the distance learning program's growth and popularity to continue unabated.

Many institutions offer online courses through an extension program, explained Carl Bellone, recently retired Associate Vice President for Academic Programs and Graduate Studies. From the start, Cal State East Bay, however, created the Online Campus in consultation with regular faculty members, who also teach the courses. And while most online programs offer a smattering of classes in multiple disciplines, Cal State East Bay's Online Campus offers complete degree programs in fields of highest student demand and greatest faculty member interest.

The first degree available through the Online Campus, an M.S. in education-option in online teaching and learning, was introduced in 1999.

Emerita Professor Jodi Servatius led the team that in 1998 sketched out plans for the Online Campus and has taught several courses in the graduate education program. She's witnessed firsthand the advantages the Online Campus gives students.

"Even the availability of a single course online can make the difference in a student's (ability) to complete their degree," she said. "For people who are

trying to re-tool for a new job, this is tremendously important."

While each course is run differently, most are structured around one-week modules containing a set of assignments such as an activity, paper or discussion that must be completed by week's end, Servatius said.

Working closely with community colleges throughout the Bay Area, the state Community Colleges Chancellor's Office and the CSU Chancellor's Office, the CSUEB Online Campus' team is creating clear pathways for community college students who want to complete degrees online.

Additionally, the Online Campus extends CSUEB's educational reach across state and national boundaries. Servatius' online students, for instance, represented nearly every state and countries including Brazil, Germany, and Iraq.

"We have to plan for the budget crisis, and we also have to plan for coming out of it; we want to come out of it strong," Bellone said. "There's a limit to how much we can grow our enrollment on this campus without building a building. With online, there's no limitation." ■ MB

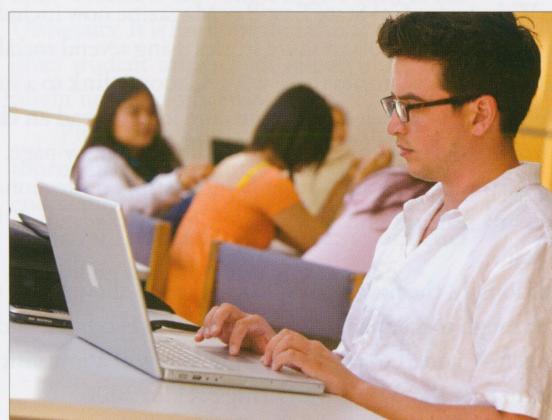


PHOTO SCOTT CHERNIS

SUSTAINABILITY CERTIFICATE OPENS DOORS TO GROWING FIELD OF GREEN JOBS

As part of its university-wide commitment to developing a greener future and reducing environmental impact, Cal State East Bay has introduced a Certificate in Sustainable Resource Management, available to upper-division students and for professional development.

"It's a response to the great increase in need for sustainability directors and coordinators," said Professor Karina Garbesi of the Department of Geography and Environmental Studies. "There is a whole new professional

role for environmental jobs in cities, agencies, and universities."

Throughout the state, cities and universities are now required by law to include climate action plans as part of general operating plans. Climate change is closely linked to energy usage, public services, and city planning, so action plans typically cover a wide range of environmental topics. Developing and implementing those plans calls for a diverse background in sustainability.

In 2009, the University joined the East Bay Green Corridor Partnership to stimulate green job development. By increasing the number of academic options for students interested in sustainability, Cal State East Bay can make an immediate contribution to the regional green workforce, Garbesi explained.

The economics forecasting organization Global Insight indicates green jobs could account for 10 percent of new employment growth over the

next three decades, creating up to 4.2 million jobs.

Open to upper-division students in any undergraduate major who meet the prerequisites, the certificate program requires four courses in geography, environmental studies, and management, plus a choice of three electives from a list that includes energy, water, development, and field studies.

Because of the interdisciplinary approach, students from all majors with a variety of career objectives will benefit from the certificate, and Garbesi sees that as a natural extension of CSUEB's mission to create graduates with broad skills. It also fits with the University's new focus on science, technology, engineering, and math education, known as STEM.

"The world is changing dramatically toward sustainability, by planetary necessity," Garbesi said. "We have to make these changes. But it's also exciting. We can recreate the world." ■SS



FRESH WEB DESIGN AND FEATURES FOR cal state east bay magazine

The Web site for Cal State East Bay Magazine now includes new photo gallery and page viewing features, plus tools to share stories using several social media options.

Visitors may view stories three ways: Choose a link to a specific story, open a PDF of the complete magazine, or select the Issuu.com icon to read an electronic copy of the magazine that allows viewers to "flip" through an edition page-by-page.

"The goal was to create a visually interesting, professionally designed site that allowed easy access to features and news stories in the magazine," University Art Director Jesse Cantley said.

Additionally, the new alumni magazine site allows users to conveniently access or share content through social media platforms such as Facebook and Twitter, he said.

An archive added to the revised site also will allow visitors to refer to a PDF of issues of Cal State East Bay Magazine dating back to 2006.

Future site enhancements under development include a subscription preferences section that will allow readers to choose between receiving the magazine by mail or electronically.

Visit Cal State East Bay Magazine online at www20.csueastbay.edu/news/magazine. ■MB



PITCHING IN TO ENDOW THE FIRST CSUEB ATHLETIC SCHOLARSHIP

With the move to NCAA Division II and a new athletic conference, it has been a year of new experiences for Cal State East Bay's Athletic Department and fans. Now, a gift from alumnus Rich Sherratt '70 will usher in another first for the Pioneers: the University's first athletic scholarship endowment.

Announced at the inaugural alumni baseball game in October, the Richard and Susan Sherratt Athletic Scholarship Endowment will provide financial support for student-athletes beginning in 2010, said Director of Athletics Debby De Angelis.

"We are particularly excited that this will be our first endowment for Intercollegiate Athletics," she said. "It is the type of gift that contributes to our future and continues to give each year."

Several student-athletes from baseball and other sports annually will be formally acknowledged as recipients of the Sherratt scholarship.

Sherratt and his wife, Susan, decided to make the first \$25,000 gift on the occasion of the Division II move, the division Sherratt played in during his time as a Pioneer. In December, they added a second



PHOTO COURTESY RICH SHERRATT

Rich Sherratt (with wife Susan) was a pitcher for the Pioneer baseball team as a student in the 1960s.

gift of \$10,000 and pledged an additional \$15,000 for the future.

"I worked hard to put myself through Cal State, and being a part of the baseball team added to my success in college," he said. "I feel it is important to give back to the University. It is my hope that this scholarship gives student athletes an opportunity they might not have otherwise."

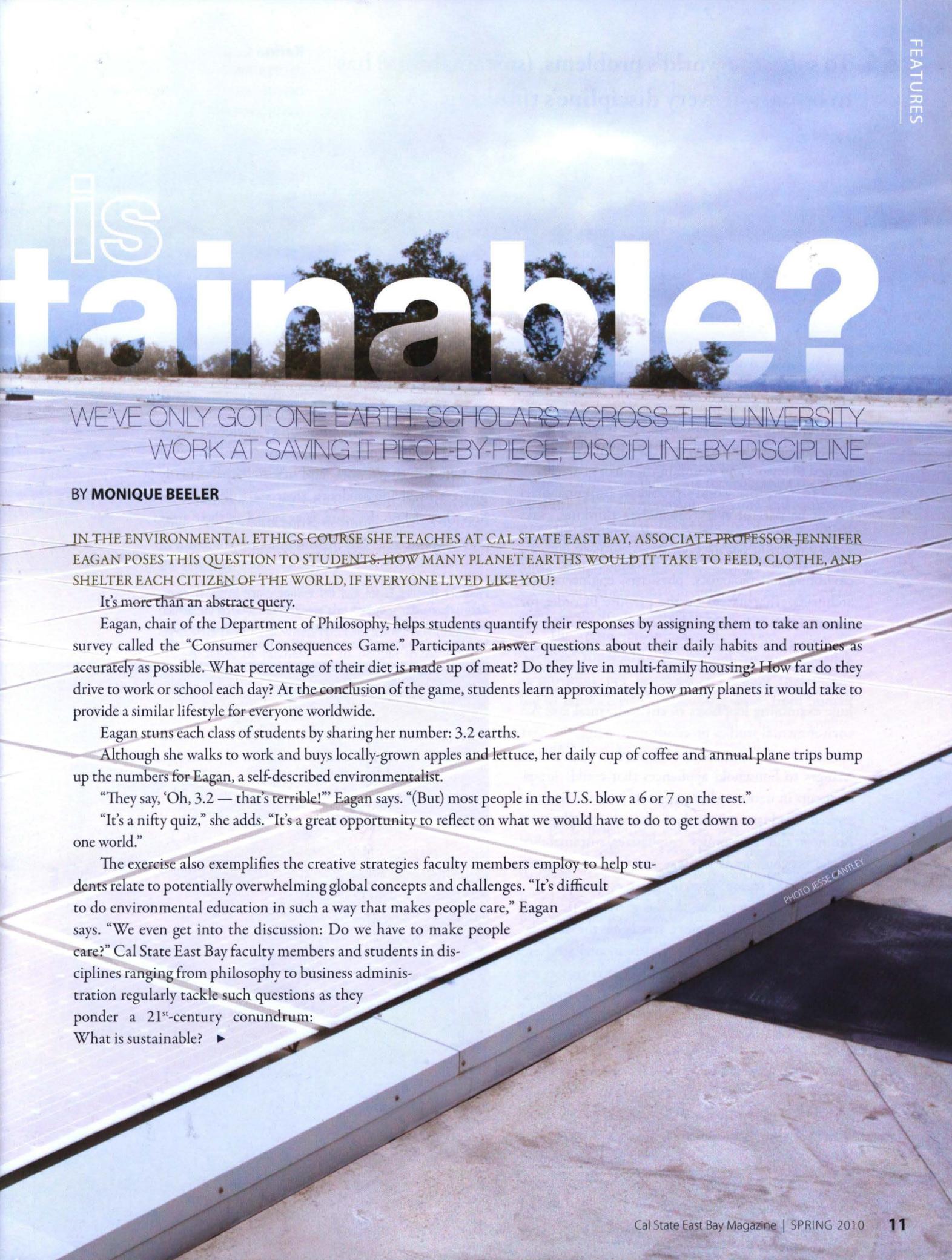
Proceeds from the annual CSEUB golf tournament in August will be added to the endowment, De Angelis added, and the department is reaching out to other athletics alumni for contributions as well. ■ **SS**

what SUS



Leading the effort to place one megawatt of solar panels on University buildings counts among Professor Karina Garbési's career highlights. She'll spend the coming year spearheading energy efficiency projects at Lawrence Berkeley National Laboratory.

is tainable?



WE'VE ONLY GOT ONE EARTH. SCHOLARS ACROSS THE UNIVERSITY WORK AT SAVING IT PIECE-BY-PIECE, DISCIPLINE-BY-DISCIPLINE

BY MONIQUE BEELER

IN THE ENVIRONMENTAL ETHICS COURSE SHE TEACHES AT CAL STATE EAST BAY, ASSOCIATE PROFESSOR JENNIFER EAGAN POSES THIS QUESTION TO STUDENTS. HOW MANY PLANET EARTHS WOULD IT TAKE TO FEED, CLOTHE, AND SHELTER EACH CITIZEN OF THE WORLD, IF EVERYONE LIVED LIKE YOU?

It's more than an abstract query.

Eagan, chair of the Department of Philosophy, helps students quantify their responses by assigning them to take an online survey called the "Consumer Consequences Game." Participants answer questions about their daily habits and routines as accurately as possible. What percentage of their diet is made up of meat? Do they live in multi-family housing? How far do they drive to work or school each day? At the conclusion of the game, students learn approximately how many planets it would take to provide a similar lifestyle for everyone worldwide.

Eagan stuns each class of students by sharing her number: 3.2 earths.

Although she walks to work and buys locally-grown apples and lettuce, her daily cup of coffee and annual plane trips bump up the numbers for Eagan, a self-described environmentalist.

"They say, 'Oh, 3.2 — that's terrible!'" Eagan says. "(But) most people in the U.S. blow a 6 or 7 on the test."

"It's a nifty quiz," she adds. "It's a great opportunity to reflect on what we would have to do to get down to one world."

The exercise also exemplifies the creative strategies faculty members employ to help students relate to potentially overwhelming global concepts and challenges. "It's difficult to do environmental education in such a way that makes people care," Eagan says. "We even get into the discussion: Do we have to make people care?" Cal State East Bay faculty members and students in disciplines ranging from philosophy to business administration regularly tackle such questions as they ponder a 21st-century conundrum:

What is sustainable? ▶

PHOTO JESSE CANTLEY

“To solve the world’s problems, (sustainability) has to be part of every discipline’s thinking.”

Karina Garbesi

PROFESSOR

DEPARTMENT OF GEOGRAPHY AND
ENVIRONMENTAL STUDIES

Solving world problems

Scholars representing diverse disciplines, whether in the sciences or humanities, define sustainability based on the nuanced perspective of their field. Likewise, their proposed solutions to pieces of the global sustainability puzzle also reflect their areas of expertise.

As CSUEB professors and students consider a broad range of factors — from economic inequity to shortsighted political systems — stressing and stretching the planet’s resources and resilience, most agree that a collaborative, multidisciplinary effort is needed to restore and maintain the earth’s balance.

“To solve the world’s problems, (sustainability) has to be part of every discipline’s thinking,” says Professor Karina Garbesi of the Department of Geography and Environmental Studies. “You need environmental biologists, physicists, engineers, and architects. That has to be the premise in order for sustainability to be achieved.”

Members of the University community are doing their part to contribute solutions. A political science lecturer, for instance, will publish a book in June examining loopholes in environmental law. An environmental studies professor is spending the next year working at a national lab exploring potential changes to household appliances that could jump-start cuts in nationwide energy use. And the recently revised graduate curriculum for the College of Business and Economics emphasizes sustainability as the program leads the way in educating business people for the region’s growing green economy.

“Since its inception in the early 1970s, environmental sustainability has been the foundational concept of environmental studies,”

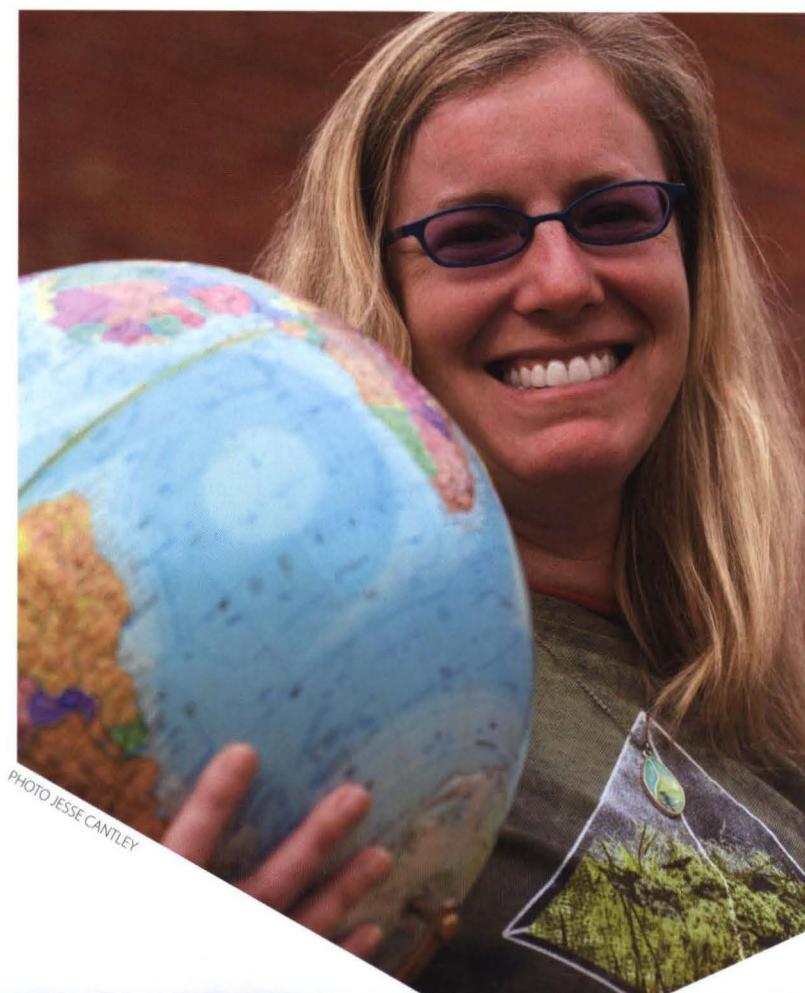
Garbesi says. “Only recently has the rest of academia, professional programs, and society as a whole begun to focus

seriously on the issue, which is indeed a good sign, but long overdue.”

In April 2007, Cal State East Bay’s Academic Senate passed a resolution expressing support for making climate neutrality and sustainability a part of the curriculum and other educational experiences for students, including treating campus facilities and grounds as learning laboratories. The Senate resolution also supported the expansion of research and other efforts necessary to achieve climate neutrality and sustainability.

While University community members agree on the importance of supporting sustainability in CSUEB coursework and research, particularly projects involving students, their starting point, or how they define the issue, is as varied as their areas of interest.

Professor Jennifer Eagan and her environmental ethics students discuss the need to scale back to a “primitive” economy for the world’s population to make do with one planet. “How on earth do we scale back that far? We always have more questions than answers,” she says.



Building sustainability into the core of the University's MBA program represented a bold move, says Terri Swartz, dean of the College of Business and Economics. Sustainability, she says, should be "at the forefront of business education."



PHOTO JESSE CANTLEY

Defining and strategizing

Philosopher and ethicist Eagan, for instance, offers up an androcentric definition. The term refers to human beings and human practices and behavior, she explains.

"To define sustainability is to do these human practices forever and into the future," she says. "It's especially pertinent when you talk about resources."

A sense of fairness — to people living on the planet now and those who will come after us — also comes into play in what's known as intergenerational justice, a concept that is a fundamental principle in the field of environmental ethics, Eagan adds.

"If you think of sustainability, it should be whatever I'm using right now, to be fair, future people should be able to have what I have," she says. "If you look at the science — agriculture, energy, land use — what (we're) doing is not sustainable."

Nailing down a precise meaning of sustainability also varies among related academic categories. Terri Swartz, dean of the College of Business and Economics, observes that faculty members within the college examine the subject from different vantage points, a fact that does not disturb her given the end-result: well-prepared students.

"Sustainability might mean one thing to someone in marketing; it might mean something else to someone in finance," she says. "That's fine. Our students, when they finish the program, they have an understanding of globalization, innovation, and sustainability and why a company needs economic, financial, and social viability."

Garbesi points out that her field, environmental studies, embraces a definition incorporating the three interlinked E's: environment, economy, and equity.

"Environmental sustainability was the initial concept, meaning you sustain the biosphere; you don't cause degradation," she says. "Equity requires that subsequent generations and different peoples get equal access to environmental services."

The term environmental services refers to "services" supplied by the natural environment such as providing raw materials and energy that people use to produce goods; absorbing waste from human activities; and supporting life and offering benefits, such as pollination and climate control.

Whys and hows

Each discipline's unique way of defining the issue also is reflected in how faculty members educate students and the types of research projects they undertake. Put more simply, the humanities, such as philosophy, often consider the "why" of the problem. As Eagan says: "Why are we trying to do any of this?" While the scientific and technical side of the academic house, she says, focuses on the "how," as in "How are we going to make things better?"

Garbesi, for one, has devoted much of her career to exploring "how" aspects of the equation. On a recent gray winter afternoon, Garbesi, who has worked on energy projects from San Francisco to Eritrea in eastern Africa, is busy boxing up books and wiping away dust from shelves in the second-floor Robinson Hall office where she has worked for about 10 years. ▶

In keeping with her refusal to needlessly use electricity, the lights are off.

"Come on in," she calls to a colleague at her door. "The office is the cleanest it's been in years."

In February, Garbesi began a one-year project for the Department of Energy based at the Lawrence Berkeley National Laboratory. She's been charged with improving U.S. energy efficiency through two assignments.

"It will be fun," says Garbesi. "I'll have a significant group of engineers and post-docs working under me."

The first prong of her project involves identifying household appliances, such as refrigerators, that have potential for "rapid energy efficiency improvement." Then, she'll set her team to work developing technology to make the potential a reality. The ultimate goal, she explains, is to create a new Energy Superstar designation, which would be 15 percent more efficient than washing machines and dishwashers bearing the existing Energy Star label.

"Energy efficiency saves you so much money, (because) it pays for the cost of renewable energy generation, such as solar," she explains.

The other focus of Garbesi's work at the lab will be a program exploring the prospect of "dramatically increasing home energy efficiency" by using direct current, or DC, circuits rather than the alternating currents, or AC, circuits American homes now use. Since most household electronics run on DC, an inverter is needed to adapt to the AC flowing through wall outlets. The conversion process results in significant energy loss, she says. Renewable energy sources, such as solar cells, on the other hand, supply the DC circuits that lamps and laptops require, with no energy lost in the conversion process.

Programs promoting renewable energy use count among Garbesi's career high points.

"There are two things I'm most proud of: getting one megawatt of solar (panels) on four buildings on campus — at the time, it was probably the biggest solar system at a university in the world — and working with the students on this (CSU) systemwide climate action strategy," Garbesi says. [See: "Students Craft Climate Action Plans for University and CSU," p. 17] "It was wonderful watching them rapidly get up to speed and work with professionals in the field and see their work come to fruition."

The environmental studies program at Cal State East Bay has grown in recent years and boasts about 40 majors. Many go on to work for public agencies such as cities and park districts and in fields such as sustainable resource management, green transportation, and environmental education.

Green jobs ahead

"With a B.A., many of our students go into public agencies, particularly municipalities," Garbesi says. "Every city is required to have a climate action plan. Who is going to be doing that kind of work? It's our students who largely have been in the green energy field, which is where the green economy is really exploding."

In recognition of the growing green economy, particularly in the East Bay, the College of Business and Economics has made significant changes to the focus of its master's in business administration, Swartz says. Key among the changes is a requirement that all students take the Globalization, Innovation, and Sustainability course.

"We're not doing it as a fringe, we've built (sustainability) into our core," Swartz says. "That's where we think it belongs. When we look at employment opportunities in the East Bay and job creation, I anticipate more of that's going to be happening on the green side."

In refashioning the MBA program, faculty members took into account the "challenges we must address if we want to live in a healthy biosphere, in healthy societies, as healthy people working in healthy companies," according to guiding principles for the new program co-written by Gregory Theyel, an associate professor of management. "Sustainability means we don't want to see things get worse, but it does not mean we have lost the desire to see things dramatically improve."

Theyel, who teaches business courses about subjects ranging from global strategy to sustainable management, has spent the past 10 years focusing his research and community involvement on the up-and-coming clean technology industry in the Bay Area. Clean technology, or clean tech, he says, refers to renewable energy generation and storage, energy efficiency, and technology for the renewal of resources such as air, water, land, and materials.

His clean tech research and business connections brought him to the attention of scholars at the University of Cambridge, who have tapped him to lead the Emerging Industries Program run by the Cambridge Institute of Manufacturing. Project participants are charged with translating scientific ideas and opportunities into products and services, explains Theyel, who will serve as senior research associate on the project. He also expects the ongoing exchange of knowledge and learning between scholars in the United Kingdom and the Bay Area will expose his students to research and professional opportunities that will make use of their advanced levels of sustainability literacy.

Emphasizing sustainability literacy in the revised graduate business administration program at Cal State East Bay, he says, has made the academic experience more relevant and useful to students and faculty, while ultimately benefiting the community.

In his book *Toxic Loopholes*, due out in July, author and lecturer Craig Collins argues that many laws intended to protect the environment have done too little or failed. While a few species, such as the Langue's metalmark butterfly found near Antioch, have been safeguarded through legislation, each year thousands of species, including several types of plankton, right, go extinct, often with unknown environmental consequences. Microscopic plant-like organisms, plankton, for instance, are a major indicator of ocean health, a foundation of the marine food chain, and critical to absorbing from the atmosphere excess carbon dioxide — a greenhouse gas that contributes to global warming.

"I believe what we do in life must offer positive outcomes for the world, and there are incredible opportunities to address the significant social, environmental, and economic challenges that define sustainability," Theyel says. "On a personal and professional level, I want our students to offer positive solutions for restoring our earth, society, and economy through a range of opportunities from clean, renewable energy technology to community-based financing to the restoration of our air, water, and land."

While Theyel and the MBA program help prepare future leaders of the green economy, the task of guiding students toward a deeper understanding of the politics behind sustainability — and how energy, environmental, and sustainability laws are made and changed — falls to others in the University community.

As part of the three-member team that teaches the "Thinking Globally" freshman learning ▶





Sustainable public policy must include greater protection for endangered species worldwide, says political scientist Craig Collins, above. "The loss of biodiversity is potentially more devastating than climate change," he says.

community cluster, political scientist Craig Collins introduces first-time college students to how the political process succeeds and fails when it comes to issues of sustainability, such as protecting biodiversity and reducing fossil fuel dependence. Collins instructs the "Environmental Politics" course in the cluster; other classes in the learning community include environmental science and philosophy.

"My job is to teach them what kinds of policies are needed to deal with the problem and what are the barriers to making that happen," he says.

Think globally, act collectively

Among the obstacles, he says, is that reversing or stopping some unsustainable practices — such as stripping forests of their trees or releasing pollutants from factories into the air — could disrupt or destroy the economic health of individual countries or, ultimately, the global economy.

In other words, Collins explains to his students, some solutions cost more than the problem itself. And while he doesn't discourage the efforts of students who travel solely on public transportation or make a point of buying locally grown grapes and potatoes, he makes it clear that it will take collective political, social, and economic action to achieve major sustainability goals such as climate change.

"I would rather have them think of this as a systemic problem as opposed to an individual problem," Collins says. "I want them to have a down-to-earth perspective on how serious the problem is and how hard it is to solve."

To illustrate the point, over the years in his classes, Collins has discussed laws intended to protect the environment, such as the Clean Water and the Endangered Species acts. His students' probing questions, however, soon poke holes in the laws' effectiveness.

The Clean Water Act, passed in 1972, for instance, called for all waters of the United States to be "fishable" and "swimmable" by 1983. Why, then, his students asked, was the San Francisco Bay still polluted? Collins found that the environmental law textbooks he used in the classroom spelled out the basics about the Clean Air and Energy Policy acts, but they didn't delve into whether the laws fixed the problems as intended.

"There are so many loopholes that it's not really working," Collins says.

So, about four years ago, he started writing a book that took up where the environmental law textbooks left off. Titled *Toxic Loopholes*, it's due out during the summer from Cambridge University Press.

"The first chapter is about the Environmental Protection Agency; is the EPA protecting the environment or protecting polluters?" he explains.

Another section focuses on the Endangered Species Act, which Collins says is probably the best law of its kind in the world, an impressive claim until one considers the details.

"They've brought back from extinction and guarded temporarily the health of 13 species, while 10,000 to 50,000 go extinct every year," Collins' research reveals. "That's like putting a little band-aid on a gaping wound that's gushing blood."

Leading the long view

Despite the imposing obstacles to returning the planet to sustainability, Collins says change is possible, but he expects it to take a major crisis — on the scale of a Hurricane Katrina — to draw significant attention to the problem and generate the level of social support and political will needed.

"The problem with turning things around, is we live in this political system based on rapid economic growth and maximizing profit," Collins says. "The environment is way down the list (of societal priorities)."

Boosting the environment higher up the list also may require overcoming basic human apathy.

"One of our limitations is we have trouble caring about things we can't see in front of our faces," Philosophy Professor Eagan says. "So one of the questions is: What do we do to spur our imaginations into doing these things we should be doing?"

Unlike politicians whose careers and ambitions are pegged to the next election cycle and business people who must focus on the next quarter's earnings, Collins says, university scholars are in a position to take the long view and propose creative approaches others may not consider.

Theyel shares a similar perspective. "I see us offering society a dual focus — one, being a long-term, thoughtful perspective through our research and, two, a teaching and outreach focus for communicating our findings," he says. "Through these two foci, we have the responsibility and opportunity to research and communicate the urgency and opportunities of sustainability."

"Raising the questions is important," Collins says. "Historically, universities have played somewhat of a role of being the conscience of society."

"By being able to step back and look at the universe we live in, it provides the time and space for reflection about where are we and where are we going." ■



Reaching a statewide goal to reduce greenhouse gas emissions by 25 percent by 2020 requires communities and universities to develop climate action plans. In the fall, CSUEB students, including Rebecca Brown (seated, on left) led a workshop to help administrators and students draft plans for the California State University system's 23 campuses.

STUDENTS CRAFT CLIMATE ACTION PLANS for UNIVERSITY and CSU

BY MONIQUE BEELER

As a Cal State East Bay graduate student studying geomorphology — or how landforms came to be — Rebecca Brown, 26, of Long Beach, says she's gained firsthand experience working on "how" aspects of the sustainability problem.

Brown was among about 15 students who accompanied environmental studies Professor Karina Garbesi to the This Way to Sustainability Conference at CSU Chico in November. The CSUEB group led a workshop in which administrators, faculty, staff members, and students from across the CSU collaborated on developing a model climate action plan for individual CSU campuses and the CSU system. Climate action plans give universities and other organizations a road map for meeting targets for reducing greenhouse gas emissions. The targets were set by the legislature in 2006 under the state Global Warming Solutions Act.

"A huge part of what I got out of the presentation was putting pen to paper and ... codifying measures that could be taken to improve carbon emissions for the CSU system," Brown says. "It was the foundation for actual steps that can be taken not just at East Bay but at all 23 CSU campuses."

"From the perspective of being a student, it was very exciting," says Brown, adding that speaking in front of professionals, including campus energy managers, gave her valuable "real world" experience.

Brown and her fellow students also have conducted a CSUEB carbon assessment that measured the prevalence of carbon dioxide and other greenhouse gases on the Hayward campus. About half of emissions at the University, the students' research revealed, came from commuting. Brown notes that students and employees drive an average of 18 miles to reach Cal State East Bay.

Additionally, Brown and others in Garbesi's applied field studies course, including recent environmental studies graduate

Russell Andrews '09, helped develop recommendations for Alameda County as it develops a climate action plan.

"We went to some of their meetings, and they adopted some of our ideas, which is really cool," says Andrews, 27, who hopes eventually to start an environmental consulting firm. "One idea in particular they were fond of we adapted from Portland. It was shifting garbage pickup to every other week to make people more aware of what they put in their garbage (bins)."

Another member of the team who worked on recommendations for Alameda County, Emese Danko, 29, an environmental studies senior, hopes to work on educating the community about efficient energy options.

"A lot of people don't know they have the power to mandate 'we want more renewable and sustainable (energy) sources,'" she says.

Brown, who is Ph.D.-bound, credits her professors' professional backgrounds with providing her with a high-quality education and primary research experience that can be difficult to gain at many large universities.

"Most of the professors at East Bay, in my experience, they're not just academics," says Brown, who hopes to pursue a career with the US Geological Survey. "They have experience in the kind of jobs we want to obtain."

"I love them," adds Danko, regarding her professors. "They were very passionate about their work, and all of them have different fields they're dedicated to; like Karina, she's an energy genius."

Andrews expresses confidence that he and his classmates will put their Cal State East Bay training to good use.

"I'm very optimistic," he says. "There are a lot of opportunities, because there's so much work to be done in order to get to the world we would like (and) to have a sustainable future."

DEAN of Green

Jennifer Wolch '75, '76 brings a sustainable mindset to UC Berkeley's College of Environmental Design

BY FRED SANDSMARK '83

PHOTO STEPHANIE SECREST



IT'S A CHILLY DECEMBER MORNING IN BERKELEY, AND JENNIFER WOLCH '75 '76 IS DRESSED APPROPRIATELY: JEANS AND FURRY SUEDE BOOTS, TOPPED BY A BULKY, MULTI-HUED, HAND-KNIT SWEATER. IT'S NOT AN OUTFIT THAT WOULD GARNER A SECOND NOTICE ON THE CAL CAMPUS, BUT FOR ONE THING.

Wolch is the new dean of University of California, Berkeley's College of Environmental Design — one of the most important and influential integrated architecture, landscape architecture, and urban planning schools in the nation — and the sweater seems a bit casual considering her lofty title. Then she begins talking about sustainability — her passion, her area of academic expertise, and the reason she was hired to lead the CED — and the colorful, complicated sweater makes a certain sense.

"Sustainability is about action," Wolch says. "It's one thing to understand a system and how it works; it's another thing to think about how you use that knowledge, with other kinds of knowledge, to devise solutions to problems. It requires a different way of thinking, a willingness to experiment, and cross-disciplinary work." Like Wolch's sweater, sustainability has many elements that must be knit together to succeed. ▶

Jennifer Wolch '75, '76, an urban planning scholar and advocate for sustainable urbanism, in July became dean of the College of Environmental Design at University of California, Berkeley. Sustainability, in Wolch's view, includes creating environments that are hospitable and healthy for people, ranging from the low income to the affluent, and that consume fewer natural resources than was standard in the past.

And the CED is, perhaps, the perfect place for her to study, teach, and advance sustainability. "The college was established in 1959 by (renowned California architect) William Wurster as the first interdisciplinary college of environmental design in the country," Wolch explains. "It was the first college to — under one roof — combine architecture, landscape architecture, and city and regional planning, because of their clear need to interact and work together."



“Most people live in cities, and that share is going to go up...we need to figure this out: how to create settlements that don’t consume as much of our natural capital as they have in the past.”

Jennifer Wolch '75, '76

DEAN

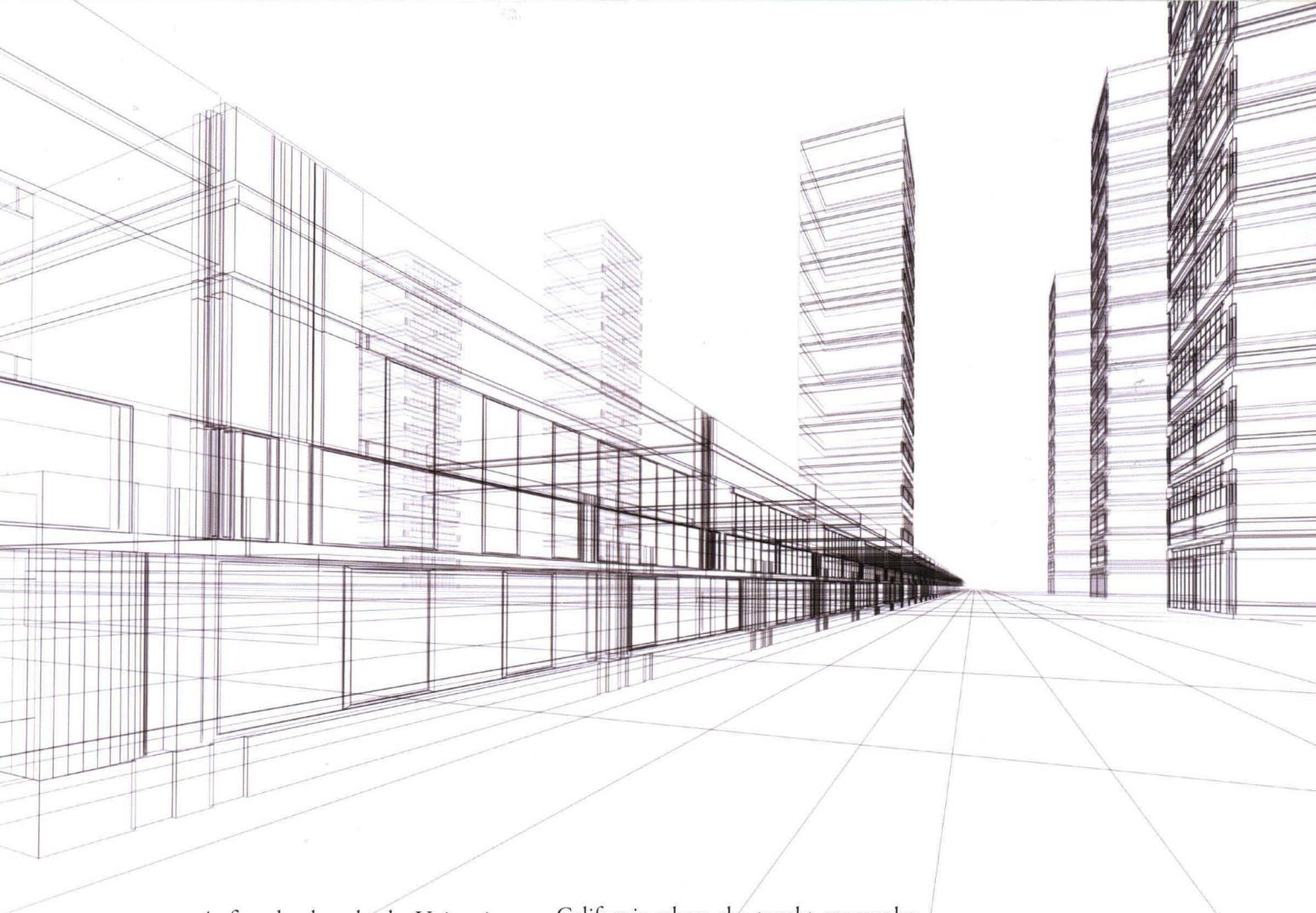
COLLEGE OF ENVIRONMENTAL DESIGN

UC BERKELEY

Wolch's own academic and professional work is equally multifaceted. She has taught urban planning for 30 years, contributed to six books and dozens of articles on topics including geography and public policy, won Guggenheim and Rockefeller Fellowships, and led a comprehensive project to understand the relationships between Southern California's natural and human environments. Her interests also include human services for the poor and homeless, human-animal relations, cultural diversity, and suburban sprawl — all of which, she says, can be understood as part of a trajectory that began as an undergraduate in Hayward.

EAST BAY ROOTS

Wolch grew up in Castro Valley, attended public schools, and graduated from Canyon High School. "I went to Chabot Community College in between my graduation from high school and starting Cal State," she explains. "I had a class in anthropology that was interesting and intriguing and exciting, and I said, 'I want to be an anthropologist!' As is the case for so many kids, I got a great teacher and found what I wanted to do." She enrolled at then-California State University, Hayward as an anthropology major, focusing on physical anthropology.



At first she thought the University would be a stepping-stone to another institution, but her eagerness got in the way. "I was so impatient to do work in anthropology that I pretty much took my major courses first," Wolch recalls with a smile. "I was almost done with my major by the time I would have transferred, so I finished." Her undergraduate experience was "terrific," she says: "The department had an excellent faculty, and it wasn't so big that we didn't get lots of personal attention. I worked directly with faculty on research projects." She stayed at CSUEB for a master's degree in geography, and began integrating anthropological concepts of social justice into the science of geography.

She completed a Ph.D. in urban planning at Princeton University in 1978. The following year she took a faculty position at the University of Southern

California where she taught geography and urban planning for 30 years, founded USC's Center for Sustainable Cities, and contributed to several books. She also dove into the public policy arena. [See "Greening Southern California," p. 23]

LARGE-SCALE ISSUES

Although she was enmeshed in the academic and policy fabric of Southern California, Wolch was quick to return to the East Bay when the position at UC Berkeley was offered. The Bay Area is a welcoming place for academics, she says, and that benefits all colleges and universities in the region. "People study here and don't want to leave," she says. "That makes the faculty of Cal State East Bay really top notch."

Now that she's back, Wolch is eager to re-explore the area and observe its growth and change. There have ▶



been successes, such as BART and other transit-oriented developments, as well as failures, such as sprawl in the Tri-Valley and heavy traffic patterns, that she wants to learn more about. But for now she spends most of her waking hours on the UC campus. Her job includes dealing with personnel issues, budgets, and fundraising, but she also provides academic leadership to the CED. “I really want to work on large-scale issues,” she says. “I’m responsible for helping the departments re-think how they’re organized, what kinds of programs they’re offering, and what new things should be incorporated into the curriculum.” And that means bringing sustainability — her passion — into the mix.

Because to Wolch, sustainability means more than designing energy efficient homes and communities. Sustainability is also about making environments more

hospitable, fair, healthy, and viable for residents at all economic levels. It also means acknowledging and planning for nature, wildlife, and open space. “Most people live in cities, and that share is going to go up,” she says. “We need to figure this out: how to create settlements that don’t consume as much of our natural capital as they have in the past.”

ROLE OF PUBLIC UNIVERSITIES

Wolch thinks academia has several important roles to play in developing and promulgating sustainability. First, the academy trains the next generation of architects, planners, and thinkers. Second, academics are equipped and positioned to do the basic research that supports and advances sustainable concepts. And third, academics can work in the intersection between policy and practice.

“Academics who work in areas like environmental design really need to be public intellectuals, engaged in policy or work related to it,” she says. “And I think being at Berkeley or Cal State — as part of the public university system — it really is incumbent upon us to have at least part of our agenda be directed toward how the future should unfold and the policies we need to make that future a positive one.” ■



PHOTO: JESSE CANTLEY

Greening Southern California

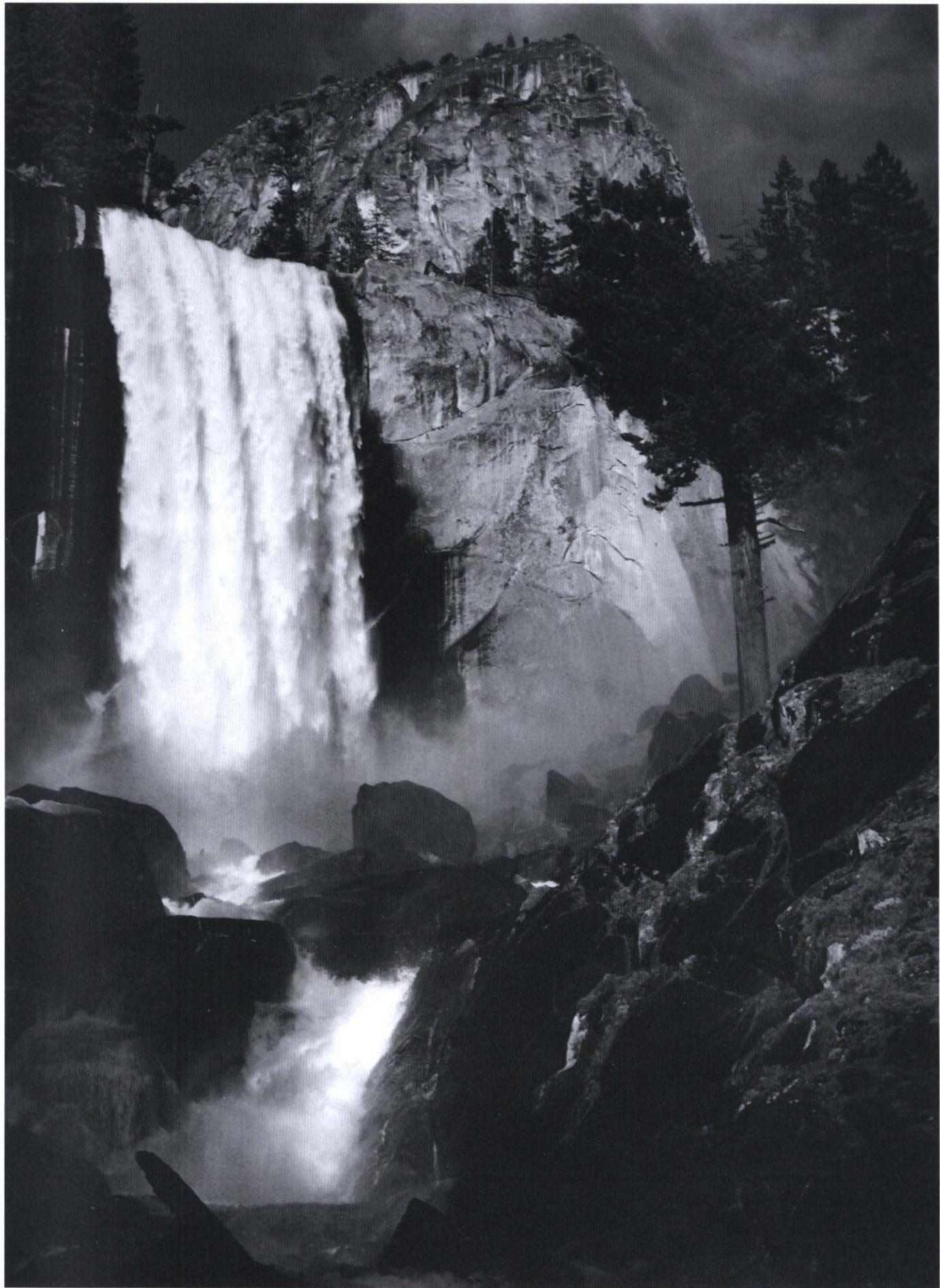
BY FRED SANDSMARK '83

While at USC, Jennifer Wolch headed the Green Visions Plan for 21st Century Southern California (www.greenvisionsplan.net), a collaborative project of architects, urban designers, planners, and engineers charged with helping land conservancies in Southern California to invest their resources, particularly bond funds, in ways influenced by science more than politics. The result was a Web-based geographical information systems (GIS) database cataloging watershed health, habitat conservation, recreational open spaces, and other natural resources in Southern California.

The plan's sponsors, in turn, mandated use of the database in funding requests, in hopes that projects and funds would be spread equitably throughout the region. "If you're a small, poor city in South Central Los Angeles, you can't hire fancy consultants to do winning proposals, so the richer areas get more money and the poorer areas lose out," Wolch explains. By giving all parties the same data, and requiring them to use it to make their cases, lower-income areas would have a better shot at resources, she says. The database also helps funders evaluate proposals.

Green Visions demonstrates that social justice, the needs of animals and wildlife, and urban planning are all elements of sustainability. "The macro idea for Green Visions," Wolch says, "is to create a metropolitan region that has more ecological integrity, produces a higher level of important ecosystem services, has open space that's accessible throughout, and that allows animal species to permeate through the landscape and connect to the habitat that surrounds the region."





Tom Glenn

Majestic COLLECTION

WHEN THE DAYTIME SKY IN A PHOTOGRAPH TURNS NEARLY BLACK, A FROTHY WATERFALL APPEARS TO CASCADE IN LIVE MOTION ACROSS THE FRAME, OR A SMALL RISING MOON DOMINATES A MIGHTY MOUNTAIN IN THE FOREGROUND, THE BLACK-AND-WHITE IMAGES IN QUESTION CAN ONLY BE THE WORK OF ANSEL ADAMS.

After arriving at Cal State East Bay in fall 2008 to assume the job of University librarian, Linda Dobb set out to explore the treasures held in the library's special collections. Among letters by 20th-century newspaper columnist H.L. Mencken, samples of Beat poetry, a set of 1865 Horatio Alger novels, and a Latin mass from the 1490s, she also found unexpected gems touched by Adams' own hand.

"When I came here, I saw this piece of paper that said we had an Ansel Adams portfolio," she says. "The book was sold in copies of 250. Our set happens to be copy No. 113."

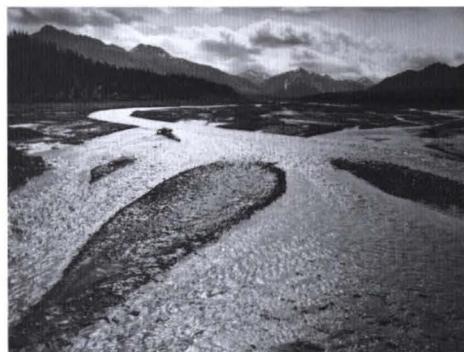
Dobb soon tracked down the folio, *What Majestic Word*, published in 1963 by the Sierra Club, an organization Adams served as a board member for nearly 40 years. The folio contains 15 18-inch by 14-inch prints made by Adams from his original negatives. The black-and-white prints were originally bound together, but early University librarians wanted library patrons to see the collection more easily.

"Somebody was smart and said, 'Why have them in a book?' and took them out and framed them," Dobb explains. "For a long time they hung in the library."

While the move may have diminished the monetary value of the folio — a bound set recently sold at auction for approximately \$170,000 — it better served the University's purposes, she says.

"Our whole library is about access," Dobb says. "We want people to study them as art."

Today, the prints — stored carefully in five archival boxes — are kept in the oak-paneled Erickson Special Collections Room and are available for students and scholars to study by appointment. During a recent informal tour of the special collections room, which contains about 25,000 items, Dobb pulls the folio boxes down from a high shelf and sets them on a large worktable that dominates the center of the room.



Ansel Adams made photographs of natural subjects at sites across the West, including "Teklanika River, Mt. McKinley National Park, Alaska," above, and "Vernal Falls, Yosemite Valley, CA," left.

Library treasure hunt turns up Ansel Adams prints

BY MONIQUE BEELER

"Let's just take the ribbon off of these," she says, before removing the box top and gently pulling a rectangle of linen from the first image, "Northern California Coast Redwoods," depicting a row of slender, towering evergreens. "We're trying to keep them for future generations to come and see."

The prints represent a range of the natural subjects, from a close-up of forest foliage made in Alaska to panoramic Sierra Nevada landscapes, all interpreted in the artist's trademark high contrast style emphasizing black blacks against pale grays and nearly luminescent whites.

"There are different periods of Ansel Adams' life in which he made prints of his work," Dobb says. "Some are considered light and some are dark. I believe 1963 is considered a good period for his work."

On one of his first visits to Cal State East Bay, Associate Professor of Art Scott Hopkins says he saw the Adams' prints on display. Hopkins teaches photography, photo history, and multimedia courses and currently is working on an ongoing project making photos along both sides of the U.S.-Mexico border. Given the political nature of his own work, Hopkins appreciates the role Adams played in drawing attention to the importance of preserving natural spaces.

"Ansel Adams was certainly an activist in a way," Hopkins says. "There's a long tradition of activism and art — (there's) the *Raft of the Medusa* by Géricault and, of course, Goya's painting of people being killed (by Napoleon's troops) and Picasso's *Guernica*, that's a very political painting."

While earlier artists directed public attention to atrocities of the day, Adams focused his lens on beautiful subjects in areas such as Yosemite but not strictly for beauty's sake, says Hopkins, who characterizes Adams as a "diehard environmentalist." He notes that Adams first went to work at Yosemite when he was 14 years old and joined the Sierra Club before discovering his passion for making pictures.

"Ansel's pictures really helped promote the Sierra Club idea 'in wilderness is preservation of the world,'" Hopkins says. "(He) promoted the beauty of wilderness, and how important it is to protect it." ■

help at a distance

BY KIM GIRARD

Professors help Kenyan tourism college set up e-learning program

AS PROFESSOR MELANY SPIELMAN DROVE ACROSS KENYA IN SUMMER 2009, SHE EXPERIENCED HOW GRELING IT CAN BE TO GET AROUND. ROUGH DRIVING CONDITIONS — AND SOMETIMES A LACK OF ROADS — MEAN IT CAN TAKE 12 HOURS TO TRAVEL 200 MILES INTO A REMOTE WILDLIFE RESERVE, SAYS SPIELMAN, CHAIR OF THE DEPARTMENT OF LEADERSHIP IN HOSPITALITY AND LEISURE SERVICES FOR CALIFORNIA STATE UNIVERSITY, EAST BAY.

"Tourism jobs are in places that have been created for Europeans and Westerners — in Mombasa, the ocean, and the national parks — and they are very remote," she says.

Spielman's eye-opening trip, which she took with CSUEB Assistant Professor Richard Makopondo, gave her a front-seat look at what a crucial role the University could play in the future of training for the tourism industry in Kenya.

Leading CSUEB's effort is Makopondo, who was hired by Nairobi-based Utalii College to come up with a plan to set up a distance learning program at Utalii. Makopondo is well versed in the challenges Kenya faces, after spending 11 years teaching hotel management at Utalii, a prominent government-run travel and tourism institution.

His plan, backed by \$45,000 Utalii committed to fund the project after Makopondo sent in a proposal, will give the college the tools it needs to connect Kenya's tourism workers to the training they require for everything from managing a wildlife resort to running the kitchen of a major hotel. The program would allow students to enroll at Utalii from far-flung locations across Kenya. Instructors at Utalii will use video and Internet-based tools — such as the Web-based e-learning software, Blackboard, that Cal State East Bay faculty members use — to teach workers a range of duties from desk hotel management to chef skills. The program also targets former students already working at resorts and parks throughout Kenya, giving them the chance to receive further training. ▶



Three Cal State East Bay faculty members are lending their hospitality and e-learning expertise to colleagues at Utalii College in Kenya to help improve tourism workers' skills.



A research trip to interview managers at Kenyan hotels took three CSUEB faculty members to the south and Amboseli National Park. Pictured, from left: Walter Otieno, Richard Makopondo, a visiting professor from Sweden, Titus Bagadja, Judy Gillani, Bijan Gillani, Jack Mtula, and Melany Spielman (seated). Mt Kilimanjaro appears in the background.

“The idea was to help Utalii take what they’re really good at and be more efficient at delivering it.”

Melany Spielman

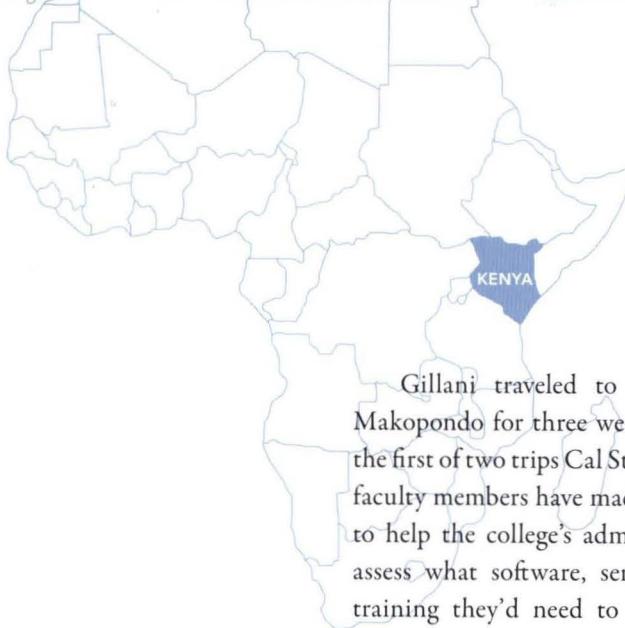
PROFESSOR

CHAIR, DEPARTMENT OF LEADERSHIP
IN HOSPITALITY AND RECREATION SERVICES

“The idea was to help Utalii take what they’re really good at and be more efficient at delivering it,” Spielman says. “(Today) either the employee has to come to Nairobi and pay the expense of staying there, or Utalii instructors have to stay at hotels at the sites.”

But Utalii, with 85 full-time staffers, lacks the resources to send instructors away from the school. “Our job was to teach them how to teach online,” Spielman says.

To handle the technical side of the project Makopondo enlisted Bijan Gillani, a professor of educational technology at CSUEB, one of the few universities to offer a degree in e-learning and that trains students who will go on to build e-learning systems for others.



Gillani traveled to Kenya with Makopondo for three weeks in 2008, the first of two trips Cal State East Bay faculty members have made to Utalii to help the college's administrators assess what software, servers, and training they'd need to build an e-learning infrastructure.

"What I found was there was a tremendous amount of enthusiasm, but the infrastructure was from the 1980s," Gillani says.

The college, for instance, still relied on dial-up connections instead of broadband, and access to computers remains limited.

Still, Gillani saw signs across Kenya that the country was starting to install fiber optic cable for broadband service. "I saw them digging while I was traveling," he says.

Once Utalii has broadband, the school will only need to invest in online tools and train Utalii's instructors to use them. Utalii could, say, broadcast a class to multiple big resorts, where managers could train online instead of traveling hundreds of miles to Nairobi.

Makopondo is now waiting to hear from Utalii, which recently changed top leadership, about whether the CSUEB team's recommendations for online learning will be approved and funded by the tourism college.

Meanwhile, Gillani continues to offer an accelerated online master's program he started last year with two Utalii students. The students relay their assignments over e-mail to earn a degree in technology and tourism, but they cannot yet participate in Web-based classes. The 10-hour time difference is a ▶



PHOTO COURTESY MELANY SPIELMAN



PHOTO COURTESY MELANY SPIELMAN

Counterclockwise from top: Bijan Gillani, center, professor of educational technology, trains Fredrick Ndisi, left, and a young visitor in online teaching techniques.

Tourism student Mary, from left, and Professor Melany Spielman attend an Utalii College African Food Fair fundraising event organized by students, who each performed a traditional dance representing a tribal culture other than their own.

During a research outing to Mt. Kenya, team members stop for lunch at a local eatery, where they were served by a waiter who had graduated from Utalii.

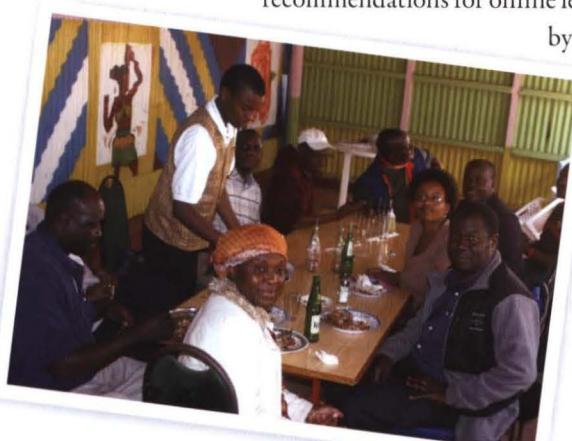


PHOTO COURTESY MELANY SPIELMAN

Attracted to Kenya's natural grandeur, including snow-covered peaks, the Great Rift Valley, and white-sand beaches along the Indian Ocean, world travelers have flocked to the African nation for centuries. Long distance training assistance provided by CSUEB faculty will help the country's tourism professionals maintain a competitive edge.



struggle on both ends, and the students often have trouble logging on. "Our (online) pipe is a foot wide," Gillani says. "Their's is half an inch."

To relay Utalii's programs to remote areas of Kenya will also require more computers and broadband service. Right now, just one in seven hotels in Kenya has computers set up for employees. The answer, Makopondo says, is to build regional centers in remote areas where workers can take classes when they can't afford to leave their jobs or travel.

Since the collaborative program's inception, three Utalii instructors have visited CSUEB, studying Gillani's design of e-learning programs. "They were shocked," Gillani says, when they saw the online learning and video system he uses at Cal State East Bay. "They said: 'This is the future.'"

CSUEB expertise helps expand sustainable hospitality practices

BY KIM GIRARD

Wildlife reserves facing a water shortage in Kenya pour gray water on plants to conserve. Some hotels jumped at the chance to try solar energy, because it promised more reliable electricity for areas that aren't on the power grid. Others are using local wood and materials to build new structures that blend into the natural landscape.

"The management in remote areas try to do whatever they can," to deal with a short supply of resources, says Melanie Spielman, Chair of the Department of Leadership in Hospitality and Leisure Services at California State University, East Bay, who in summer 2009 traveled across Kenya.

Now Spielman and a team at CSUEB aim to expand sustainable practices to a new area: the training of tourism workers across Kenya. Spielman's colleague, Assistant Professor Richard Makopondo started working with Utalii College in Nairobi in 2007 on developing a distance learning program for travel and tourism students. The goal is to train Utalii's instructors to set up and use an e-learning network so that resort, wildlife reserve, and hotel workers can stay where they are — instead of traveling hundreds of miles to Nairobi and living on campus, where they'd require rooms and support services from the college.

E-learning could also provide a way to train hotel and wildlife reserve management on new techniques in water conservation, alternative energy, and green building construction — enabling managers to share what they've learned.

Traveling in Kenya last year, Spielman spoke to general managers at hotels and resorts about their success with sustainable approaches such as solar power. She found that though many had tried solar, they lacked a backup system that kicked in after they ran out of hot water. "You can't run out of hot water when you are charging \$400 a night to Westerners," she says. "So now they have to think through the system," she says, noting engineers are looking at innovative ways to combine systems.

Better technology on the wildlife reserves could also be used to control the amount of time guides spend in the Land Rover looking for animals, says Bijan Gillani, a professor of educational technology at CSUEB who is in charge of the technical side of the Utalii project. Webcams could be installed on Kenya's reserves to connect tour guides via computer to the location of animals, he says.

Using the system will ensure that tourists aren't disappointed if they don't see certain animals on their trips, and guides won't spend too much time eating up gas while scouring reserves. Potential visitors could also watch real-time video footage of the reserves on travel Web sites, to whet their appetite to book a trip.

"In South Africa you are guaranteed to see elephants, lions, leopards, cheetah, and rhinos," Gillani says. "They have organized it so well. The same model can apply to Kenya."

PHOTO COURTESY MELANY SPIELMAN

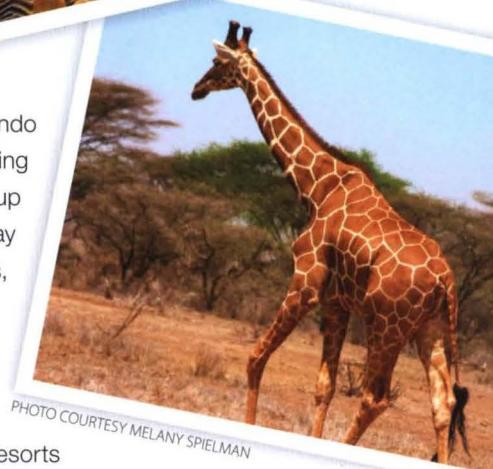
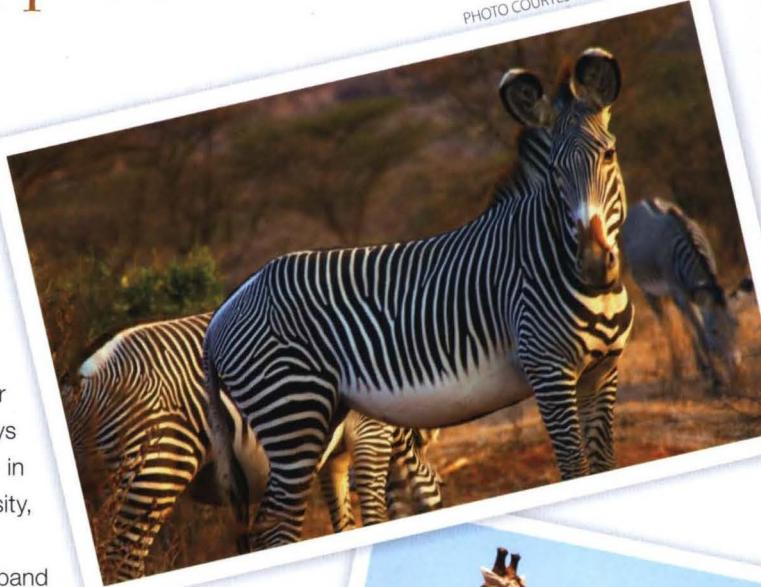


PHOTO COURTESY MELANY SPIELMAN

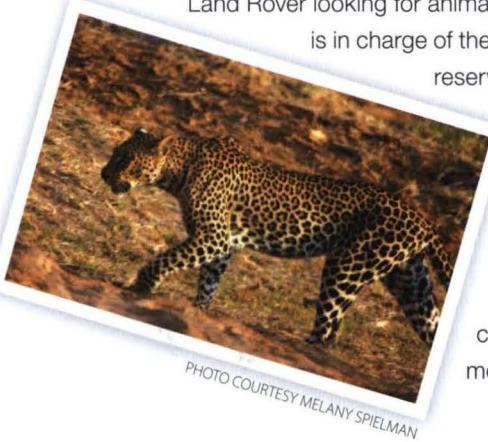


PHOTO COURTESY MELANY SPIELMAN

SHEDDING NEW LIGHT ON solar cells

BY NICOLE LUTTON

ONE PHYSICS FACULTY MEMBER'S EFFORTS TO ENGINEER A MORE EFFICIENT SOLAR ENERGY CELL ARE ALSO CREATING WELL-PREPARED FUTURE SCIENTISTS AMONG STUDENTS AT CAL STATE EAST BAY.

Assistant Professor Erik Helgren joined CSUEB after working at University of California, Berkeley, where he conducted research on silicon solar cells. Armed with a research background, Helgren arrived at Cal State East Bay in fall 2008 ready to continue his work in the lab, with the addition of student assistants.

"The type of research I wanted to pursue, in particular the renewable energy materials research, is ideally suited for incorporating undergraduates as part of the research plan," Helgren says.

In January 2009, Helgren acquired lab space in the corner of the North Science Building on the Hayward campus. On an overcast day, sunlight struggles to brighten the otherwise dimly-lit lab. It is here Helgren and his students search for ways to illuminate alternative solar energy cells.

The lab contains all the traditional makings of a scientific laboratory; but among the beakers, microscope slides, and charcoal-colored countertops, are two tools that look like remnants from a sci-fi film from decades past. Nestled beside the door is the "glove box." Long rubber gloves inserted into the front glass piece allow researchers to manipulate objects within the box without coming into contact and contaminating the material inside. At the center of the room stands a thermal evaporating chamber, a silver contraption resembling a simpler R2D2. The chamber and the glove box are critical pieces of equipment in Helgren's research on alternative solar energy cells.

Instead of continuing research on silicon solar cells — which make up 95 percent of solar cells used commercially — Helgren is looking at organic polymers as an alternative to the widely-produced silicon cells. While silicon cells, the same type used in computer chips, have been most efficient at converting energy from the sun, the cells are expensive to produce and are not flexible, causing breaks in the cells. Organic polymers, including the P3HT Helgren works with, are cheaper to construct and are more malleable.

A close-up photograph of Erik Helgren, an assistant professor of physics, in a laboratory setting. He is wearing a light-colored lab coat over a blue and white checkered shirt. He is holding a small, dark, circular pellet in his right hand and a piece of equipment, possibly a vacuum line, in his left hand. He is looking directly at the camera with a slight smile. The background is dark and out of focus, showing some laboratory equipment.

Erik Helgren, assistant professor of physics, demonstrates how the thermal evaporating chamber transforms a pellet of copper or aluminum into thin metal films used in creating polymer solar cells.



CSUEB students Trevor Billings, from left, and Keith Penney work in the lab alongside Assistant Professor Erik Helgren, who places a high priority on providing opportunities for students to conduct hands-on research.

"The polymer can be put on a plastic sheet, sprayed on, and can be flexible," Helgren says.

But there is a hurdle to making polymer the solar cell material of choice: its reduced efficiency. While silicon solar cells can capture and convert sunlight at an approximate 15 percent efficiency rate, the polymer efficiency rate ranges from 3 percent to 5 percent, says Helgren.

This is where Helgren hopes his research will pay off. He and his student assistants are looking at the material properties of polymer cells and investigating how to increase their efficiency.

Inside the lab, Helgren and his students construct, manipulate, and experiment on the polymer solar cells. Seven students have worked in Helgren's renewable energy resource lab, including an intern from Contra Costa Community College and CSUEB students whose majors

range from physics to ethnic studies, including one who hopes to become a midwife.

Attracted by the opportunity to work in a campus laboratory, physics major Trevor Billings transferred to Cal State East Bay from De Anza Community College during fall quarter.

"I like to be in the lab, whether it's for a grade or not," says Billings, during a break from his studies. "(It's) passionately fun for me. It's something that I'm interested in just doing to do it."

Billings did not assume he'd get to work in a lab right away when he arrived at the University, so he was excited when Helgren invited him to work alongside him. "(I) crunch some numbers. Come up with ideas. Carry heavy things," Billings says. Throughout fall quarter, Billings' lab work has focused on construction of the vacuum

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chamber, including taking measurements, testing the power supply, and drilling and placing posts in the chamber.

The vacuum chamber of the thermal evaporator was completed in December. In the vacuum environment, thin metal films are created to produce the polymer solar cells. The film layers must be transparent enough to allow sunlight to hit the polymer cell sandwiched between the film strips. Tiny pellets of metal, typically copper or aluminum, are loaded into the machine, where they are vaporized and collected on glass slides. In January, Helgren's students were trained on how to safely run the machine and create the films.

Applying polymer to the films also requires a painstaking procedure. The polymer layer is applied inside the glove box to keep oxygen from contacting the polymer. If oxygen touches the polymer, it will cause the organic material to oxidize, making the polymer useless, Helgren explains. Oxygen is pumped out of the air inside the glove box and replaced with an alternative gas, such as nitrogen.

Helgren and his team have been trying to improve the cell's efficiency by adding carbon-based derivatives to the cell, in this case carbon nanotubes. Published research papers report that adding nanotubes increases the efficiency, but the reason is still being studied. "Do the nanotubes help the polymer blend absorb more sunlight or does the colloid of nanotubes and polymer conduct current better? That is one of the research questions I hope to answer," Helgren says.

After adding the nanotubes and finishing construction of the solar cell, Helgren's team members take the polymer solar cell outside into sunlight and test its efficiency using voltage measuring equipment. They then analyze and interpret the outcomes.

"Ideally, we (will) find some really great breakthrough on how to increase the efficiency of polymer cells," Helgren says.

"I'd like to see results from the research to have the feeling of accomplishment that we did something," Billings adds. "Even if the accomplishment is just making sure the vacuum chamber isn't leaking."

Helgren hopes to publish his team's findings and attend and present at scientific conferences. Billings, for instance, may get to present at an upcoming conference at the Naval Postgraduate School in Monterey. Faculty in the physics and chemistry departments recently received a grant from the National Science Foundation to purchase new research instruments. Helgren and his students also will benefit from

the grant by receiving commercial-quality equipment, which is expected to be in place by summer.

"Students would get (improved) hands-on experience using thin film deposition equipment and other techniques involved in solar cell manufacturing similar to ones being used in industry," Helgren explains.

For Billings, experience working in the lab offers the promise of bringing him closer to his dream job of working for a think tank. And working on a timely project offers additional rewards.

"It's pop science," he says. "Making spreadable photovoltaic cells is really in vogue in the scientific papers ... It's something that can open up a lot of scientific horizons."

Helgren, on the other hand, maintains a long-range vision about the relevancy of his research. It addresses an important and pressing issue, he says: the future of energy.

"We are an economy and a country so dependent on fossil fuels, but as David Goldstein in his book *Out of Gas* puts it, the cheap petroleum we are so dependent on will soon run out," he says.

Helgren will share his vision for combating fossil fuel dependence with alternative materials, such as polymer solar cells, at research seminars and eventually, he hopes, by developing a materials science engineering program at Cal State East Bay. But for now, he hopes his research will provide breakthroughs in the green energy field, diminishing the energy problem and contributing to a brighter future. ■

NANOTUBES

Carbon nanotubes, long tube-shaped molecules of graphitic carbon, are one of the sturdiest materials. As individual molecules, carbon nanotubes are 100 times stronger than steel, but about 15 percent lighter. Due to their extreme efficiency in conducting electricity and heat, academic and commercial researchers are exploring uses for nanotubes in energy cells and as a possible replacement for copper wire in energy grids.

Students take green steps toward sustainability

BY ERIN MERDINGER

STUDENT ENVIRONMENTALIST ELYSSE GROSSI '08 LEARNED THE IMPORTANCE OF CONSERVING RESOURCES AT A YOUNG AGE.

"My mom used to get so irritated when she would find paper scraps, toilet paper rolls, and other recyclables in the trash," Grossi recalls. "She would hold them up and say, 'Reduce, reuse, recycle! It's your generation, not mine!'"

"One day, I just got the message," she says.

Today, she's busy passing the message on. Grossi's conservationist streak continued during her undergraduate years as a health science major at Cal State East Bay. In 2007, she started Club Green, a short-lived student organization that promoted environmental awareness on campus through coordinating events such as Earth Day celebrations, environmental film showings, and a green job fair.

Grossi is one of a growing number of students working to put the environment at the top of University priorities through club events, academic pursuits, and student leadership activities.

Stan Hebert '76, associate vice president for Student Affairs, has noticed a change in students' mindset toward issues of sustainability in recent years.

"It's no longer a radical position," Hebert says. "Sustainability and the environment would not have been a general student concern 20 years ago, but now it plays a regular role in student discussions."

Hebert attributes this change in students' attitude partly to the increase in support and awareness from administrators and faculty members, who weave elements of sustainability into their instruction and courses through methods from cutting down on paper handouts to teaching classes such as "Sustainable Development" and "Resource Management."

"One of the reasons I chose CSUEB for my undergraduate education was our ongoing dedication to sustainability," Grossi says. "I thought I would feel at home on a campus that uses solar energy and sustainable landscaping." ▶



Graduate student Elysse Grossi '08



From top left: Elysse Grossi takes a leap during an educational hike. Grossi peers across the water during a break from a bayshore oil spill cleanup. At an environmental demonstration, Grossi cleans a small wound on a friend's forehead. At the 2008 Soberfest on the Hayward Campus, Grossi answers questions about greenhouse gas emissions created by the alcohol industry. Using a laptop, she also helped collect paperless survey responses regarding trash and recycling at the University.

Now as a graduate student studying cell and molecular biology and a full-time outreach coordinator for CSUEB Student Health Services, Grossi continues her drive to make Cal State East Bay a greener place.

Grossi's current projects include collaborating with Associated Students Inc. and the Marin Agricultural Institute to bring a farmers market to campus starting spring quarter. Additionally, she is working with Student Health Services to make the department as paperless as possible by moving medical records, appointment schedules, and resource materials online.

Another area in which Hebert sees increasing student involvement in sustainability is in organizations such as ASI, which added an Environmental Affairs Committee in 2008.



PHOTO COURTESY ZIPCAR

Plans for Zipcar service at the Hayward Campus include hiring an employee or student intern who will shuttle the cars for basic care and maintenance.

"The student-driven initiatives are the ones that continue to grow," Hebert observes.

Sarah Kim, a junior majoring in political science, has spearheaded a plan to bring a sustainable alternative transportation option to the University. By the start of

spring quarter, she says, Cal State East Bay will provide a car-sharing program through Zipcar, a service that offers members hourly or all-day access to a loaner car. Currently, only five CSU campuses offer Zipcar service.

"Not only does it provide convenient and affordable transportation for people who live or work on campus," says John Williams, a Zipcar spokesman. "It also helps a university reduce demand for parking and associated congestion, as well as reduce emissions and environmental damage from building more parking."

Each Zipcar could take 15 to 20 cars off the road, and members of the program report increasing their use of public transit by about 20 percent and decreasing their overall driving miles by 40 percent, Williams says.

"It's a consolidation effort," Kim says. "The less vehicles we're using, the less emissions we're putting out." Additionally, Zipcar vehicles, expected to include a hybrid car, are more fuel-efficient than most cars students drive, Kim says.

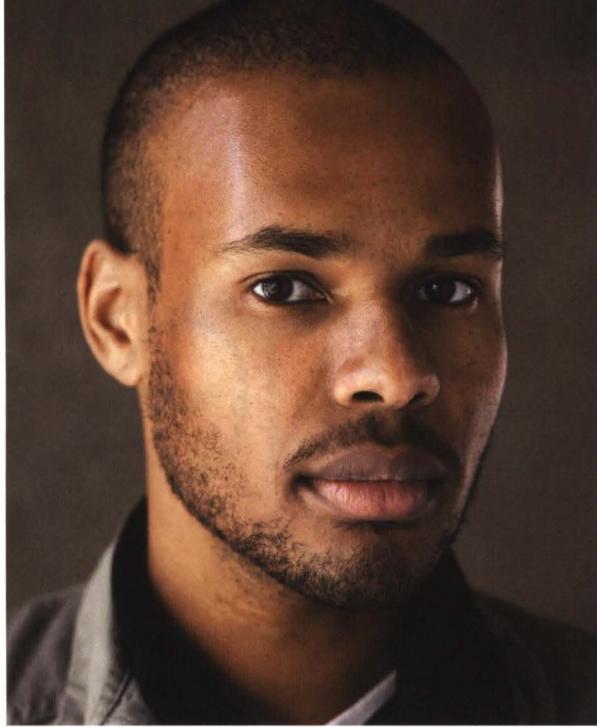
Zipcar will start the program at CSUEB with two vehicles on the Hayward campus and will add more cars as demand increases.

Students in the Department of Geography and Environmental Studies also have made strides toward keeping the environment and sustainability at the forefront of discussion at Cal State East Bay. As part of his applied field studies class, student Brandon Johnson in December participated in the Climate Action Plan Workshop hoping to spark general student interest in environmental affairs at CSUEB. The workshop also allowed students to help the University meet a state requirement under the California Environmental Quality Act that calls for local governments to create climate action plans.

"We just set the foundation, established an outline of what needs to get done; now we need to move toward action," says Johnson, a senior in the class whose presentation focused on moving University landscaping and buildings toward carbon-neutral designs.

Students also presented ideas for a more sustainable campus, ranging from addressing commute-related

PHOTO MAX GERBER



Environmental studies students, including Brandon Johnson, drafted a climate action plan for CSUEB that recommends adopting green landscaping methods, including using plants that require minimal water, reducing use of synthetic fertilizer, growing food on campus, and composting.

greenhouse gas emissions, which account for 60 percent of CSUEB's total emissions, to imposing a student-generated green fee. The green fee concept was modeled after a San Jose State University plan to use green fees to pay for a campus climate officer staff position.

Environmentally conscious students also can be found in less obvious fields of study such as the Multimedia Graduate Program. For his thesis project in the program, Daniel Weinstein, a second-year graduate student, created a mobile phone application with an environmental spin.

Weinstein's application, called Fescue Rescue, is a quest-style game that encourages participants to explore Bay Area trails and parks and promotes habitat restoration. As players walk through a wilderness area, such as Point Pinole Regional Shoreline, with a mobile device in hand, the game shares information about native species such as the Alameda whipsnake, salt marsh harvest mouse, and Mount Diablo sunflower. During the quest, participants use Weinstein's technology to interact with "characters" like the California red-legged frog, while following the game's prompts to assist in restoring a clean pond where the amphibian can thrive.

"Fescue Rescue games are played in a ubiquitous learning environment that teaches players about the ecology, restoration, and sustainability of the natural environment," Weinstein says. "One desired outcome of playing Fescue Rescue is to encourage people to care about preserving and restoring natural, public, and open spaces."

Weinstein says he hopes to publish Fescue Rescue as an iPhone game geared toward outdoors enthusiasts, including park visitors, natural science students, citizens facing environmental decisions, walkers, hikers, mountain bikers, and naturalists.

Although student projects like Weinstein's Fescue Rescue exemplify the recognizable progress being made across the University at the student level, green leaders like Grossi still see student involvement as the most difficult, yet key component in achieving environmental sustainability on campus.

"When I first started here there wasn't an Earth Day celebration or an ASI sustainability committee," Grossi says. "We're moving in the right direction, but there are things we can do to make it move quicker." ■



I'm Rainbow, a Steelhead Trout, that lives in streams and creeks while landlocked and migrates to the Pacific Ocean when I can. I'm stuck here in this culvert and living in a shopping cart. Help!

In designing the Fescue Rescue game for his thesis project, multimedia graduate student Daniel Weinstein took inspiration from the writings of pioneering artist Roy Ascott, who treated online computer networks as an artistic medium. Weinstein's application for smartphones transforms the viewer into an active participant who helps shape the game.

SEEING *the* possibilities

“Talent always rises,” says alumnus Lou Miramontes, who is establishing a new scholarship for business students and leading the way for the University’s first comprehensive fundraising campaign

BY SARAH STANEK



The Miramontes at their home in the Tassajara Valley north of Pleasanton. They planted an orchard of English walnut trees almost 20 years ago with help from Kristi's father, a farmer.

ECONOMIC AFFAIRS HAVE CHANGED FOR THE BAY AREA AND THE WORLD IN THE FOUR YEARS SINCE LOU MIRAMONTES '76 WAS NAMED CAL STATE EAST BAY ALUMNUS OF THE YEAR. AND HE HAS OBSERVED THE TUMULTUOUS TIMES FROM A FRONT ROW SEAT IN HIS POSITION AT THE GLOBAL ACCOUNTING FIRM KPMG, WHERE HE BEGAN WORKING AFTER EARNING HIS BACHELOR'S DEGREE.

It's easy to focus on the negative, but Miramontes appreciates the cyclical nature of the economy and sees recovery coming. There will always be a need for well prepared graduates in business, he notes, and so his family has established the Louis and Kristi Miramontes Scholarship Fund to support undergraduates majoring in business administration. At least 60 percent of the scholarship awards will be earmarked for those in the accounting option — Miramontes' own focus.

"More so than ever, students need to be connected to political and economic situations," he says. "They have to look where the opportunities are and ensure their skills match demand."

Miramontes and his wife Kristi acknowledge that they benefited from their families' strong values, with parents supporting their educational ambitions. But as first-generation college students, they were unfamiliar with the university environment and didn't have the connections other students did.

Kristi Miramontes says she's seen that changing. "Students now are exposed to so much more," she says, "but there's also more competition."

One thing that will give students an edge as the economy recovers, Lou Miramontes says, is an understanding of the business decisions and actions that led companies to today's difficulties.

The curriculum at Cal State East Bay will play a big part in that, as will the diverse environment. Lou Miramontes, who serves on KMPG's diversity advisory board, says having employees from a wide range of backgrounds, including gender and ethnicity, leads companies to "better business solutions."

For students in the College of Business and Economics, the impact of the Miramontes' gift will be profound, says Professor Micah Frankel, chair of the accounting department. "Lou and Kristi are not just setting up a scholarship fund, they are leaving a legacy that will change and brighten lives and will continue to encourage and support our students year after year," he adds.

A December 2009 survey by the Bill & Melinda Gates Foundation revealed that money is the primary reason students drop out of college, particularly for those trying to balance work and school. For those students, Lou Miramontes says, a scholarship award "could be the difference between continuing and not being able to go on."

Just as important, it's a form of recognition. Not only are students rewarded for their work, he explains, "they realize 'someone cares about this school, and someone here cares about me.'"

It's also a way to acknowledge CSUEB's strong business programs. Many other regional business schools are larger, but with limited undergraduate options and MBA programs that don't offer specialization.

Modest income families, like the ones the Miramontes grew up in, "need a state university in their backyard" says Kristi Miramontes. This gift is their contribution to keeping that option open, she says.

It also marks the first major private gift to CSUEB's *University of Possibilities* campaign. In Fall 2009, Lou Miramontes was named co-chair of the president's campaign steering committee, which will help spread the word about the University's fundraising priorities and strategic direction for the coming years.

With so many other alumni who got their start at Cal State East Bay, Lou Miramontes says he hopes his family's scholarship will be the first of many. "As more graduates move up the ladders in their respective fields, they'll be inspired to do the same." ■

GEOLOGY GRAD shares the



PHOTO: MINDY KIMBALL, COURTESY UNION OF CONCERNED SCIENTISTS

spotlight with CSUEB

A major in the U.S. Army, Mindy Kimball recently completed a one-year tour of duty in Iraq.

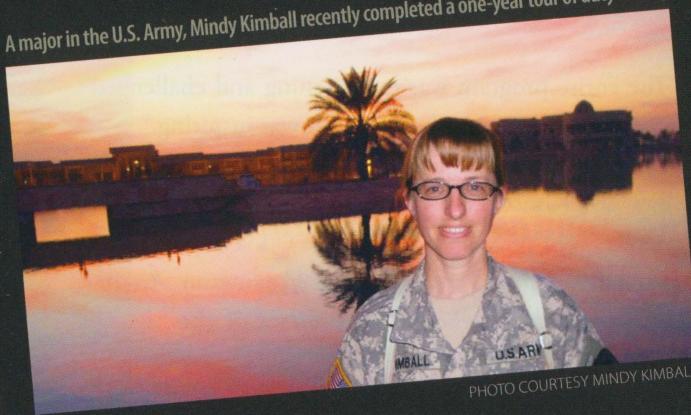


PHOTO COURTESY MINDY KIMBALL

BY ED FRAUENHEIM

MINDY KIMBALL '05 IS BECOMING A MINI-CELEBRITY AS A CLIMATE CHANGE ACTIVIST. AND SHE'S MAKING SURE THE UNIVERSITY GETS ITS SHARE OF HER GLORY.

Kimball earned a master's degree in geology at California State University, East Bay. Her studies at the University helped convince her that global warming presents a real peril. Since then, the 35-year-old has blended a career as an Army officer with speaking engagements as a representative of The Climate Project, an advocacy group founded by former vice president Al Gore.

In addition, a photo Kimball took in the Death Valley desert while on a Cal State East Bay field trip has been included in a new print and online book *Thoreau's Legacy: American Stories about Global Warming*.

Kimball took pains to ensure that Cal State East Bay was mentioned in the short write-up in the book that accompanies her photo of one of Death Valley's strange "sliding rocks." After all, she says, she wouldn't be who she is without the University's solid scientific foundation. ▶

A photo, left, that Mindy Kimball '05 took as a CSUEB graduate student of one of Death Valley's mysterious "sliding rocks" appeared in the 2009 book *Thoreau's Legacy: American Stories about Global Warming*.

Mindy Kimball was among the first of 3,125 volunteer presenters nationwide trained by former Vice President and Nobel laureate Al Gore for The Climate Project. The project's mission is to educate the public and raise awareness about the climate crisis at a grassroots level worldwide.

"The entire program was enlightening and challenged me to learn so much," Kimball says. "It was inspiring."

Luther Strayer, associate professor of geology at Cal State East Bay, says Kimball rates as one of the most impressive students he's seen since he arrived at the University 10 years ago. In 2005, Kimball received the Harrington Award, presented to students who produce theses of the highest quality. She should be an effective advocate on the dangers of global warming, Strayer says.

"She's charming, and she's cute as a button," Strayer says. "She also can speak with authority."

As a major in the U.S. Army with expertise in satellite communications systems, Kimball in January completed a one-year tour of duty in Iraq. Kimball's strong convictions about the looming threat of global warming and the need to prevent it stand out among her more conservative military colleagues.

"Pretty much people label me as the tree hugger in the group," she says.

But she isn't afraid to speak her mind to fellow soldiers. In fact, the Army invited Kimball to speak about climate matters during a Women's History Month event in March 2009. The talk was one of about 20 that Kimball has delivered since 2007, when she became an official presenter for The Climate Project. Kimball connected with the advocacy group after seeing Gore's movie *An Inconvenient Truth* in 2006. She was prepared to challenge the accuracy of the film but found it stuck closely to the science she'd learned at Cal State East Bay.

At the close of the movie, viewers were invited to get involved. Kimball signed up. "I've always believed in that Gandhi quote — 'be the change you wish to see in the world,'" she recalls. "I knew that the general public misunderstood the science behind climate change, and thought this may be my chance to do something."

Kimball applied to be a presenter with Gore's group, was accepted, and received three days of training in Nashville. Since then, she has spoken to community college students, Girl Scouts, and national park visitors.

Her life as a public advocate is a direct consequence of training she received at Cal State East Bay, says Kimball, who attended the University with the help of

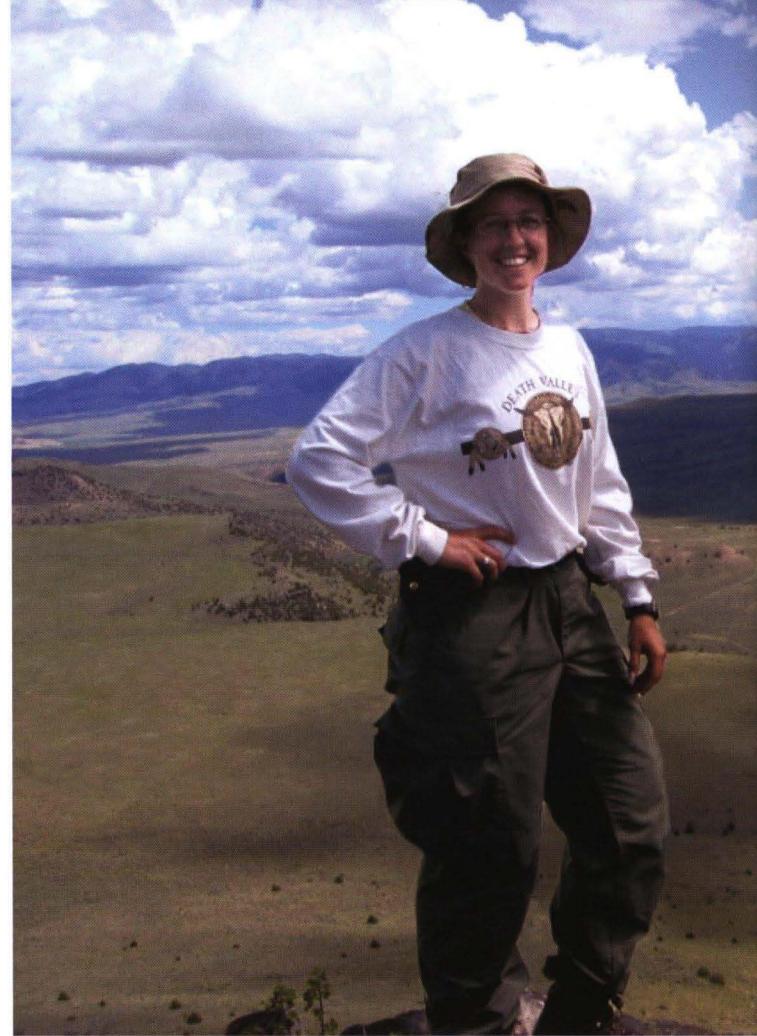


PHOTO COURTESY MINDY KIMBALL

an Army scholarship. She says Cal State East Bay faculty helped her get a grasp of the data and models used to draw conclusions about how the earth's weather patterns have changed in eons past and continue changing. Professors encouraged her to read complicated journal articles. "They took the intimidation out," Kimball says

In 2004, Kimball spent spring break on a field trip to Death Valley organized by Strayer and Professor Jeff Seitz, chair of the University's Department of Earth and Environmental Sciences. Among the highlights was an excursion to Racetrack Playa, a dried lakebed famous for the dozens of rocks that sit far out in the dessert with distinct trails behind them.

One theory for these "sliding rocks" — which can be the size of toaster ovens — is that high winds push them through mud caused by rain. Another suggests that the rocks move in cold weather when trapped in thin sheets of ice blown by the wind.

But the rocks' migration remain a mystery. "Nobody has ever observed them while they are actually moving," Kimball says.



Last year, a photo she shot at Racetrack Playa was accepted as part of the *Thoreau's Legacy* anthology, published in July. The black-and-white image she made is striking, showing a solitary rock in the foreground with its long trail stretching out in the distance. The book, a joint project of the Union of Concerned Scientists advocacy group and Penguin Classics, also may be viewed online at www.ucsusa.org/americanstories. The sliding rock in Kimball's photo isn't directly related to global warming. But the parched terrain in the image serves as a warning of what much more of the American Southwest could look like if global warming continues unabated, she says.

Indeed, when Kimball returned to Death Valley in 2007 to give one of her talks, the temperature reached a record high. "It was 101 degrees," she recalls. "And it was only March."

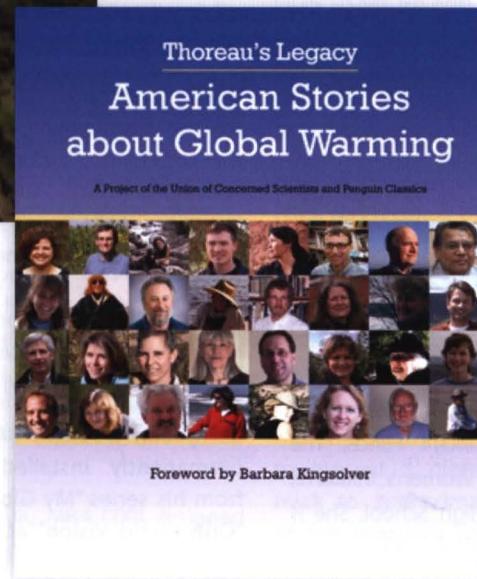
Next to Kimball's photo a bio appears that mentions she's a graduate of both West Point and Cal State East Bay. The anthology editors at first cut down the bio for space. But Kimball asked them to re-edit it to include the University.

Kimball hopes her presence in the book inspires action on global warming. And she hopes it raises the profile of Cal State East Bay, the school that served as a bedrock for her career as an environmental activist. "I hope it makes people take a look at the program," she says. ■

“The entire (CSUEB geology) program was enlightening and challenged me to learn so much. It was inspiring.”

Mindy Kimball

'05 ALUMNA



A black-and-white photograph and written commentary by Mindy Kimball were among 67 contributions accepted — from among 1,000 submissions — for inclusion in *Thoreau's Legacy*.

CLASS NOTES

1960s

Robert Barengo, BS, business ('66), was appointed chairman of the Nevada Tax Commission. Barengo is an attorney in Reno and a former speaker of the Nevada State Assembly. His public service in Nevada includes serving on the Nevada Tax Commission since 2003, the Nevada Insurance Commission from 1996 to 2003, the Nevada Assembly from 1972 to 1982, and the City of Reno Financial Advisory Board from 1988 to 1991.

1970s

Walter C. Cambra, BA, philosophy ('70) and BA, history ('02), has completed the curriculum of the Rosicrucian Order and received his certificate of completion from the Grand Master of the English Grand Lodge for the Americas.

Evelyn Dilsaver, BS, business ('77), was appointed to Blue Shield of California's Board of Directors. She is the retired president and chief executive officer of Charles Schwab Investment Management, where her responsibilities included portfolio management, product development, sales, and operations. Dilsaver serves on the boards of Tamalpais Bank, HighMark Funds, The Commonwealth Club, Women's Initiative, and Bishop O'Dowd High School. She is also a certified public accountant.

Edward Holmes, BA, drama ('76), has organized a one-man show called *Subhuman: True Tales from Beneath the Sea* based on his experience in the U.S. Navy from 1964 to 1971 where he worked on diesel-powered submarines, nuclear-powered vessels, and an aircraft carrier stationed in Alameda. Additionally, Holmes has been a member of the San Francisco Mime Troupe for 20 years and has organized a gallery exhibit of art made by 20 military veterans.

Philip Jonik, MS, counseling ('74), has retired after 32 years of teaching and counseling in Martinez and Shoreline unified school districts. He and his wife run a bed and breakfast, the Inverness Secret Garden Cottage, near the Pt. Reyes National Seashore Park in Marin County.

Martin Krieg, BS, business ('76), has crossed the country twice on a bicycle. In 1979, he rode across America on a standard upright bicycle, and in 1986 he rode a recumbent bike and organized media events, public speaking, and fund raising for the National Head Injury Foundation. Krieg is also committed to making an interconnected network of safe roads and paths for bikes called the National Bicycle Greenway.

Willie Marshall, BS, nursing ('78), teaches community and public health at the University of Hawaii at Manoa in Honolulu. "Nurse Willie" has been an instructor at UH since 1991. He has been an HIV nurse, school and diabetes nurse, emergency medical services nurse-educator, pediatric community health nurse, and public health nurse for pregnant and parenting teens.

Larry Van Deusen, BA, art ('75), has permanently installed 29 paintings from his series "My Global Village" and "One World Vision" at the Centerville Library in Fremont.

1980s

Julian Alexander, BS, business ('85), is vice president of marketing and distribution at ANSA McAL (US) Inc. Previously, he spent 10 years with the Alpha Micro Users Society, working with companies on management, marketing, and sales projects.

Kathy Briccetti, MS, counseling ('85), will have her first book, "Blood Strangers: a memoir", published in spring 2010 by Heyday Books. Her writing achievements

include a Pushcart Prize nomination and a residency at the Vermont Studio Center. Briccetti also works as a school psychologist in the Oakland Unified School District.

Nicole Dickson, BA, psychology ('88), published her first novel, *Casting Off*, about an archaeologist and single mother who travels to a tiny island off the west coast of Ireland to study the island's ganseys, or traditional knit sweaters, whose distinctive patterns tell a story in each knitted row and stitch.

Armando Quintero, BS, environmental studies ('85), was sworn in to represent San Rafael on the Marin Municipal Water District Board of Directors in September. Quintero is the director of development at University of California, Merced's Sierra Nevada Research Institute, which conducts integrated research in the natural, social, and engineering sciences with the goals of sustaining natural resources and promoting social well being. He also is chairman of the board for the Sequoia Parks Foundation and a member of the City of San Rafael Parks Commission.

Richard A. Williams, BA, art ('88), was ordained as a permanent deacon on Oct. 31 at St. Mary's Cathedral of the Immaculate Conception in Portland, Ore. His ministry has been at St. John the Baptist Mission in Port Orford and at Holy Trinity Parish in Bandon. Previously, Williams served three tours of duty in the Vietnam War and continued in the Active Reserve Program until 1985.

1990s

Dan Abbott, MBA ('98), has joined StreamSend, an e-mail marketing software provider, as a channel business development executive. His role is to identify, build, and manage long-term relationships with strategic partners and resellers. Abbott has over 18 years

of experience in technology sales and business development.

Scott P. Daly, MPA ('97), has worked for the Office of the Sheriff, Contra Costa County for the last 35 years. Daly served as a reserve deputy sheriff, dispatcher, deputy sheriff, sergeant, lieutenant, captain, and commander. He was appointed as undersheriff of Contra Costa County in February 2009.

Bita Daryabari, BS, computer science ('91), founded the Unique Zan Foundation, a nonprofit organization dedicated to women's health and education. The UZF is active in providing grants to promote breast cancer awareness and research through the Palo Alto-based Community Breast Health Project. Daryabari also founded the Bita Daryabari Scholarship for Women in Economics at The HAND Foundation in 2007 and funded a women's center in Palestine in cooperation with Relief International in 2008. Additionally, Daryabari has funded The Parkinson's Institute and the University of California, San Francisco in advancing neurological research.

Karuna Gerstein, BA, speech communication ('98), contributed a chapter, "Spirituality of Aging — Stirring the Spirit," to the book *Awakening to Aging: Glimpsing the Gifts of Aging*, published in October. Gerstein was ordained as a reverend in 2003 at the Chaplaincy Institute of the Arts and Interfaith Ministries in Berkeley.

Elana Hobson, BS, business ('95), took over as vice president of Operations for Division II at Jack in the Box Inc. in early February. She previously served as the company's Division Vice President of Operations Initiatives. Hobson joined Jack in the Box in 1977 as a team

member at a restaurant in Hayward. In 2003, she was promoted to vice president of the company's North Coast region, which included more than 160 restaurants in Northern California and Hawaii. She relocated to the corporate offices in San Diego in 2007 as Division Vice President of Guest Service Systems.

Margaret Murray, single subject-teaching credential ('94), wrote and published *Sundagger.net*, launching it at the LitQuake Festival in San Francisco in 2008. *Sundagger.net*, a novel of magic realism, was independently published by her WriteWords Press, which received an Excellence in Publishing award from Bay Area Independent Publishers Association. Murray's novel *Dreamers*, about an interracial romance set in the 1960s, which received an American Federation of the Arts award and a National Endowment for the Arts grant, is due out in 2010.

2000s

Mona AuYoung, MS, kinesiology ('04), co-authored the book *Health Issues in the Black Community*. Her research focuses on obesity and diabetes prevention, health disparities among ethnic minorities, and public health partnerships with sports philanthropies. AuYoung is also a Certified Athletic Trainer.

John Garamendi Jr., MBA ('00), resigned his position as vice chancellor for University Relations at UC Merced in January to focus full time on his new consulting business specializing in government and education issues. At UC Merced, he was responsible for the areas of development, university relations, governmental relations, communications, the UC Merced Foundation and its Board of Trustees, alumni affairs, and special events and protocol. Garamendi also served in the United States Peace Corps and Army Reserve.

Jason Jimenez, MBA ('01), is a supervising human resources analyst for the Bay Area Air Quality Management District. He is scheduled to receive his Master of Science in education, which he plans to use to educate, train, and develop air district employees and to teach at the university level.

Gregory Kompes, MS, education ('08), contributed a story to the new *Chicken Soup for the Soul: What I Learned from the Dog: 101 Stories about Life, Love and Lessons*, published in September.

Ravi Mistry, MBA ('02), launched a new company, The Mistry Group, in January. TMG offers management consulting services to set up and manage business operations infrastructure for start-up and growth ventures. Mistry has previously managed similar operations for start-ups in technology and life sciences industries.

Kirsten (Bilteau) Nicholas, BS, psychology ('02), was recently promoted to the role of associate director of External Relations for the Duke University Career Center. She has worked in career services since graduation in 2002. Nicholas was honored with an Alumnae Advisory Board of the Year 2008-2009 award from Sigma Sigma Sigma National Sorority. In July, she is scheduled to present a professional development track to approximately 1,500 attendees at the sorority's national convention in her role as a certified trainer on the Seven Habits of Highly Effective People.

Leah Webster, BA, history ('03), was selected for a Peace Corps assignment in Samoa. Webster began a two-year volunteer assignment in English literacy and community development in October. Her previous experience has included teaching English in Japan and working for two years at the Amundsen-Scott South Pole Station in Antarctica.

Submit Class Notes

Share news about your career, accomplishments, and changes in your life with fellow alumni. Include your address, phone numbers, degree earned, major, and graduation year. Mail to: Cal State East Bay Magazine, Attention: Editor, 25800 Carlos Bee Blvd., WA 908, Hayward, CA 94542. Or e-mail to: monique.beeler@csueastbay.edu.

CALENDAR



THEATRE

Performance Fusion

May 28, 29, June 4, and 5 at 8 p.m. and May 30 and June 6 at 2 p.m. in the University Theatre. \$15 general admission; \$10 youth, senior, and alumni; \$5 with CSUEB ID.

MUSIC

East Bay Singers Concert

April 10 at 8 p.m. at Mission San Jose, 43300 Mission Blvd. in Fremont. Buddy James, conductor. \$7 general admission; \$5 youth, senior, and alumni; free with CSUEB ID.

MUSIC

25th Annual CSUEB Jazz Festival Concert

April 16 at 8 p.m. \$15 general admission; \$12 youth, senior, and alumni; \$10 with CSUEB ID.

HAYWARD CAMPUS

ART

Annual BFA Exhibition

Opening reception March 29 from 5 to 7 p.m. Exhibition March 30 through April 22 from 12:30 to 3:30 p.m. Monday through Thursday in the University Art Gallery. Free.

Annual Juried Student Exhibition

Opening reception May 18 from 5 to 7 p.m. Exhibition May 19 through June 3 from 12:30 to 3:30 p.m. Monday through Thursday in the University Art Gallery. Free.

All Aboard! The Impact of Trains on American Culture

Through June 11, 10 a.m. to 4 p.m. weekdays, in C.E. Smith Museum of Anthropology, MI 4047. Free.

THEATRE

Wayward

May 7, 8, 13, 14 at 8 p.m. and May 15 at 2 p.m. in the University Theatre. Directed and choreographed by Nina Haft and Eric Kupers. \$15 general admission; \$10 youth, senior, and alumni; \$5 with CSUEB ID.

Pilipino Cultural Night

May 21 at 7:30 p.m. and May 22 at 6:30 p.m. in the University Theatre. Created and performed by the Philippine American Student Association with the Department of Theatre and Dance.

MUSIC

Faculty Recital

April 15 at noon in Music and Business room 1055. Jeffrey Sykes, piano with guest artists Axel Strauss, violin; and Jean-Michel Fonteneau, cello. Free.

Faculty Recital

April 18 at 5 p.m. in Music and Business room 1055. Free.

Special Music Department Concert

April 21 at 7:30 p.m. in Music and Business room 1055. Featuring the CSUEB Symphony Orchestra and other ensembles. Free.

Symphonic Band and Chamber Winds Concert

April 27 at 7:30 p.m. in the University Theatre. \$7 general admission; \$5 youth, senior, and alumni; free with CSUEB ID.



ATHLETICS

Baseball



ATHLETICS

Women's Water Polo



COMMENCEMENT

ATHLETICS

Baseball

March 23 at 2 p.m. vs. Academy of Arts
March 28 at 11 a.m. vs. Sonoma State
April 3 at noon vs. Monterey Bay
April 16 at 3 p.m. vs. Cal Poly Pomona
April 17 at 11 a.m. vs. Cal Poly Pomona
April 18 at 11 a.m. vs. Cal Poly Pomona
April 30 at 2 p.m. vs. CSULA
May 1 at 11 a.m. vs. CSULA
May 2 at 11 a.m. vs. CSULA

Softball

March 31 at 1 p.m. vs. Menlo
April 9 at 1 p.m. vs. CSU Stanislaus
April 10 at noon vs. CSU Stanislaus
April 16 at 1 p.m. vs. Chico State
April 17 at noon vs. Chico State

Women's Water Polo

March 19 at noon vs. Harvard
April 9 at 5 p.m. vs. UC San Diego

HONORS CONVOCATION

May 15 at 10 a.m. on the University peristyle, the walkway, and lawn in front of the Music Building.

COMMENCEMENT

College of Science

June 11 at 6 p.m. in the University Stadium

College of Letters, Arts and Social Sciences

June 12 at 9 a.m. in the University Stadium

College of Business and Economics

June 12 at 3 p.m. in the University Stadium

College of Education and Allied Studies

June 13 at 2 p.m. in the University Stadium

CONCORD CAMPUS

LECTURE SERIES

Green Architecture/Exploratorium

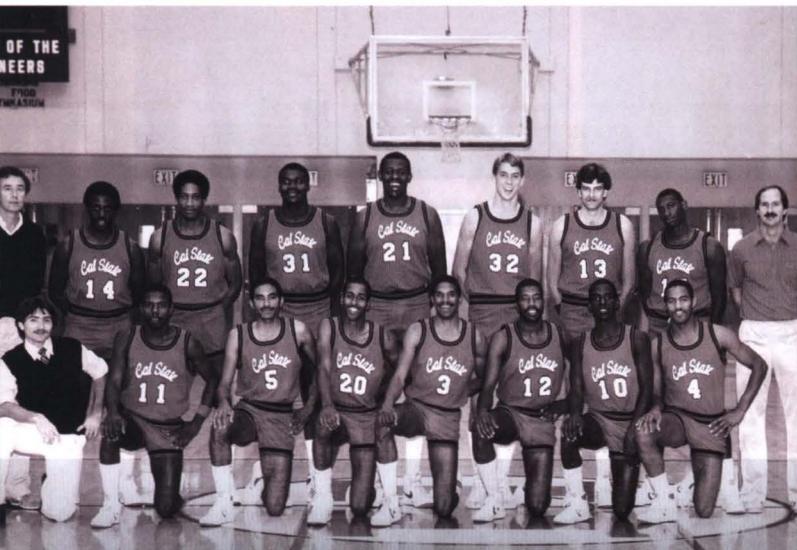
March 22 from 1:30 to 3:30 p.m. and May 17 from 9 a.m. to 2 p.m. Instructors include Mohammad Qayoumi, CSUEB president; Karina Garbesi, professor, geography and environmental studies; and Jill Johnsen, CSUEB lecturer in physics. \$40 for OLLI members; \$55 for non-members.

Personalized Medicine: A Molecular Approach

April 1, 8, and 15 from 10:30 a.m. to 12:30 p.m. Lecture given by James Felton, associate director UC Davis Cancer Center. \$30 for OLLI members; \$45 for non-members.

COMMENCEMENT

June 13 at 9 a.m. in the Boatwright Sports Complex on the Concord Campus.



BASKETBALL CHAMPS HONORED AT

Homecoming 2010

BY ERIN MERDINGER

Attendees at the Feb. 26 homecoming game honored Cal State East Bay's two most successful basketball teams, the 1984-85 and 1985-86 squads, during a halftime celebration of the 25th anniversary of the teams' back-to-back NCAA Division II West Regional Championship wins.



Glen Graham

"We weren't the tallest team, but we were the toughest," says Glen Graham, who played for both winning teams. "It didn't matter where we played, we knew we would win."

Graham credits Coach Bill Vandenburg, the University's first athletic director and first coach, with sustaining a unified spirit among the athletes.

"We all played together," Graham says. "(We) all knew each other's roles on the team and worked together as a family."

President taps alumni to head major fundraising committee

With the announcement of its first comprehensive campaign in 2009, Cal State East Bay is beginning a seven-to-eight-year effort to raise \$40 million to \$50 million for the University's top priorities. Preparing for growth in fundraising activities, President Mohammad Qayoumi called on two notable alumni to lead a Campaign Steering Committee.

Lou Miramontes '76 and Allen Warren '89 will share duties as chairs of the committee, meeting periodically with University administrators and supporters to drive the University of Possibilities campaign development.

Miramontes, a former Alumnus of the Year and last year's honors convocation speaker, is a partner at the accounting firm KPMG [see story, p. 40]. Warren, president of New Faze Development, is a trustee of the Cal State East Bay Educational Foundation.

"This is an important step in the early quiet phase of our campaign," said Qayoumi. "Everyone on the committee understands the value of the campaign priorities and agrees with me that we cannot wait to begin raising awareness and early support for the investments we need to make real our commitment to regional stewardship."

Several graduates also will serve on the committee. Carolyn Aver '82 is the co-founder and senior financial executive of Aver Family Vineyards in San Martin. Rich Sherratt '70 is CEO of Ballena Technologies in Alameda. Hank Salvo '72, the chair of the Educational Foundation, is the former CFO of Robert Mondavi and Clorox.

The other committee members are Atef Eltoukhy, president of Aurum Capital Management; Gay Hoagland, executive director of the Stanford Educational Leadership Institute; and Emily Shanks, a senior vice president at Bank of America.

"It was important to bring people with different backgrounds, perspectives and relationships onto the committee," said Bob Burt, vice president of University Advancement. "They will help us expand our fundraising capacity in many different directions."

During the early leadership phase of the campaign, the steering committee will advise the president on campaign strategy, introduce advancement staff to other potential supporters and guide the development of campaign materials and promotions.

"To be the university we want to be, we have to have a major campaign," said Sherratt, who recently made a gift to endow the first athletics scholarship fund. He noted several changes, such as expanded on-campus housing, as positive developments for students and supporters.

THE LAST WORD:

“What does sustainability mean in the context of your field of study or work?”

Often when people think of the word sustainability, they think “green.” It’s a term, however, that also applies to global issues such as poverty, inequality, hunger, and the environment. A 1987 report from the United Nations World Commission on Environment and Development defined sustainability as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” Recognizing that sustainability encompasses many things, we asked CSUEB community members to share what the concept means to them.



“Art’s sustainability rests on the longevity of the materials used, the preservation of its history, and, most importantly, the creative commitment of emerging and established artists who continually reframe the social context of our world.”

Liz Zunino

Senior
Art



It means not using too many resources in regards to equipment. As a nurse I need to use equipment, but I won't consume more than I have to. For example, if I need a syringe, instead of taking a handful of them that I may not use, I will just take the one I need.

Manolo Galvez
Junior
Nursing



The sustainable business paradigm is a gray area. We are all taught ethics, but what is ethical to some may not be to others. To me, if someone or something is not harming another, then that is sustainable.

Drew Patterson '09
BS business administration



I do ABA (applied behavior analysis) therapy with autistic children, and being sustainable means using our imagination as our resource.

Kayla Anaya
Junior
Liberal studies



To keep the competitiveness of our scholastic programs and strive to make them better. Sustainability in the lab would be financial stability to fund undergraduate and graduate research.

Kenneth Curr
Assistant professor
Biology Department



Sustainability means that we have viable and predictable revenue sources; being able to sustain a budget to prepare students for more college or the workforce.

Joseph Corica
Library assistant



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CALIFORNIA STATE UNIVERSITY, EAST BAY 2010

PRESIDENTIAL & SCHOLARS, BENEFIT & AWARDS GALA

Event proceeds provide direct student support through the Presidential Scholarship Fund, established to attract and reward high-achieving regional high school students with full tuition aid awards.

Festivities include international cuisine, cocktails, live music, dancing, and presentation of the CSUEB Young Alumnus and Distinguished Alumnus of the Year awards.

Saturday, April 10, 2010

6:00 – 9:00 p.m.

Dining Commons, Hayward Hills Campus
California State University, East Bay

6:00 p.m. Social hour

7:00 p.m. Dining and Awards Program

8:00 p.m. Entertainment

SEMI-FORMAL DRESS/SEMI-FORMAL CULTURAL DRESS

\$150 PER PERSON, ALL INCLUSIVE

For more information, or to reserve or purchase your tickets, please contact Eileen M. Mello, CSUEB Donor Relations Manager, at 510.885.2849 or e-mail eileen.mello@csueastbay.edu. Availability is limited. General ticket sales will end March 26, 2010.

For tax purposes, the Cal State East Bay Educational Foundation tax ID is 94-6128893.



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