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# Music, Mingling, Murder and More

For more on UCR events, look on the Web at [www.events.ucr.edu](http://www.events.ucr.edu).



4.5-5.12

## Master of Fine Arts Exhibition 2007

The UCR Sweeney Art Gallery features the work of UCR students Matt Bryant, Cheryl Gilge, Jason Lutz and John Sisley, with a reception at 7-9 p.m. April 14.

[sweeney.ucr.edu](http://sweeney.ucr.edu)



4.13

## Soweto Gospel Choir

Direct from South Africa, the Soweto Gospel Choir performs in eight different languages in a program of tribal, traditional and popular African and Western gospel.

[www.culturalevents.ucr.edu](http://www.culturalevents.ucr.edu)



4.28-7.07

## Li Zhensheng, and Christy Johnson and 33 Confessors

Li Zhensheng, a Chinese photojournalist, captured turmoil amid revolution, and Christy Johnson explores how the female body is socially and sexually constructed through transformative religious ritual in these two exhibits.

[www.cmp.ucr.edu](http://www.cmp.ucr.edu)



5.20

## Primavera in the Gardens 2007

This ninth annual fund-raiser for the UCR Botanic Gardens includes live music, wine and food from local restaurants and caterers.

[www.gardens.ucr.edu](http://www.gardens.ucr.edu)



5.11-12, 5.18-19

## Sweeney Todd

Stephen Sondheim's epic musical tale of murderous "barber-ism" and culinary revenge mixes intense drama with moments of dark humor. Directed and choreographed by Jim Alexander.

[theatre.ucr.edu](http://theatre.ucr.edu)



5.11

## Chancellor's Distinguished Lecture Series

Robert Engle, 2003 Nobel Laureate in Economics, will speak. This year's theme for the series is "Changing our Ideas, Changing our World."

[www.emp.ucr.edu/cdl](http://www.emp.ucr.edu/cdl)



5.16

## Author Series

Susan Straight, professor of creative writing, will read from her latest book, "A Million Nightingales," as part of the UCR Libraries' Author Series.

[library.ucr.edu](http://library.ucr.edu)



6.8

## Gamelan Ensemble

UCR's Gamelan Ensemble, which includes tuned bronze gongs, metal-keyed instruments, xylophones and drums, will perform traditional and contemporary music of Java in the University Theatre.

[www.music.ucr.edu](http://www.music.ucr.edu)



6.15-18

## Commencement 2007

UC Riverside's 53rd Commencement will be held on the Pierce Lawn, near the UCR Bell Tower.

[www.commencement.ucr.edu](http://www.commencement.ucr.edu)

# Beyond Borders

If you wonder where the world will be tomorrow, look at where universities are today. Throughout higher education, the trend is toward internationalization, global learning and cultural fluency. The success of a campus in transcending its borders may be measured two ways: programs and personnel existing on-site, and those that are sent abroad. UCR is doing both.

Nowhere is UCR's "borderless" community more evident than in our many international research collaborations. Since 1995, Research Physicist Ann Heinson from the Department of Physics and Astronomy has co-led a team of 50 international physicists — dubbed the DZero Project — that first detected a subatomic particle, the top quark, produced without the simultaneous production of its antimatter partner.

The team includes 18 universities and laboratories spanning four continents. Ten of the 50 team members are women — double the proportion of women in high energy physics and another border expanded.

Associate Professor of Chemistry Ludwig Bartels designed a molecule that can move in a straight line on a flat surface, then developed a method to make the nanowalker a molecule carrier. All experiments in this study were conducted by a team of graduate students and postdoctoral researchers who hail from Sweden, Ireland, Germany, Russia, China, Korea, India and the United States. This international effort took place right here at UCR, where fully 29 percent of our graduate students are international, the highest percentage in UC.

UCR also participates in the international exchange of ideas through the Fulbright Scholars program. This year we have two Fulbright Scholars. One will lecture and conduct research at the Bangladesh Rural Advancement Committee in Dhaka; the other at the Central School of Lille in Villeneuve d'Ascq, France. At the same time, the campus is hosting scholars from the University of Malaga in Spain and the University of Bialystok in Poland.

An international focus appears throughout

the curriculum, from the new global studies major to Latin American and Southeast Asian studies to film and visual culture to our Education Abroad Program. University Extension has opened highly successful international education programs in Beijing and Seoul — centers that I encourage you to visit should you find yourself in those cities.

Over the years, UCR has entered into international cooperative agreements and educational exchanges with more than 60 universities, stretching from South America to Europe to Asia. Most recently, I signed agreements with Shanghai Jiao-Tong University and China Agricultural University, where our faculty have burgeoning research collaborations. The campus also provides leadership to UC MEXUS, which fosters exchange between the UC system and academic institutions in Mexico.

I personally have been honored to participate in two stimulating international programs in recent months. In Kyoto, Japan, I took part in a rich exchange between foremost scientists and political leaders at the Science and Technology in Society Forum, a conference on social responsibility in scientific advancement and the impacts of new technology on society. In January, I was a guest of the U.S. State Department in Kuwait in an effort to bring together women of science across international and cultural borders.

Not every border is geographic. As you will read in these pages, UCR faculty, students, alumni and staff are transcending borders of intellect, culture, technology and discipline. In so doing, they — and others around the world — are shaping our world of tomorrow.

Sincerely,

CHANCELLOR France A. Córdova

**“The success of a campus in transcending its borders may be measured two ways: programs and personnel existing on-site; and those that are sent abroad. UCR is doing both.”**





## EPA Funds Research to Detect Drinking Water Contaminants

UCR scientists have received a \$600,000 grant from the U.S. Environmental Protection Agency (EPA) to develop a fast and effective means of detecting disease-causing viruses in drinking water supplies.

The work holds global interest because it addresses the issue of finding and treating viral contaminants and other disease-causing, waterborne viruses in water systems.

The research project is being spearheaded by Wilfred Chen, Ashok Mulchandani and Nosang Myung from the Department of Chemical and Environmental Engineering; and Marylynn V. Yates of the Department of Environmental Sciences.

The grant is part of the EPA's National Center for Environmental Research and is funded through its Science to Achieve Results (STAR) program.



## Commencement Ceremonies Move, Get a Makeover

UC Riverside's commencement ceremonies are getting a major makeover this year – a new location, additional ceremonies and tickets for guest seating.

The six ceremonies will take place June 15 through 18 on the Pierce Lawn east of the bell tower. The new plan also includes limiting the number of seats available to the families and friends of graduates.

“We are planning to give up to 12 tickets per student,” said Kyle Hoffman, assistant vice chancellor for alumni and constituent relations. “But we also know that all students won't request 12 so some students may get more.

What I think we achieve with this new format is we've brought back the intimate setting and as a consequence our graduates will have a more personal experience and a much lovelier setting.”

Find out more at

[www.commencement.ucr.edu](http://www.commencement.ucr.edu).



## Twenty-One UCR Faculty Receive AAAS Fellowships

The American Association for the Advancement of Science (AAAS) has named 21 UC Riverside faculty members, including the chancellor and the dean of the College of Engineering, as 2006 AAAS fellows.

This represents the largest single-year contingent from the campus and the largest from within the UC system. The selection of this year's fellows brings the number of UCR faculty who have received this distinction to 150.

The AAAS has awarded the fellow distinction to 449 of its members this year. They are being recognized for their efforts in advancing science applications that are deemed scientifically or socially distinguished.

The 2007 AAAS fellows are:

**Bourns College of Engineering:** Reza Abbaschian, dean and professor of mechanical engineering; Wilfred Chen, professor of chemical and environmental engineering; Marc Deshusses, professor and chair in the Department of Chemical and Environmental Engineering; Tao Jiang, professor of computer

science and engineering; Dimitrios Morikis, professor of bioengineering; Victor G.J. Rodgers, professor of bioengineering; Charles Wyman, professor of chemical and environmental engineering.

**College of Humanities, Arts and Social Sciences:** Christine Ward Gailey, professor of anthropology and women's studies.

**College of Natural and Agricultural Sciences:** Guy Bertrand, Distinguished Professor of chemistry; Katherine A. Borkovich, professor of plant pathology; France A. Córdova, chancellor and professor of astrophysics; Shou-Wei Ding, professor of plant pathology; Jodie S. Holt, professor of plant physiology and chair in the Department of Botany and Plant Sciences; Bai-Lian Li, professor of ecology, botany and plant sciences; Umar Mohideen, associate professor of physics; Joseph G. Morse, professor of entomology; P. Kirk Visscher, associate professor of entomology; Shizhong Xu, professor of plant genetics; Jory A. Yarmoff, professor of physics; Marylynn V. Yates, chair in the Department of Environmental Sciences and professor of environmental microbiology.

**Graduate School of Education:** Jan Blacher, faculty chair and professor of education.



## UCR Proceeds with Plans for Medical School

UCR has begun a national search for a founding dean for its proposed School of Medicine and will also hire initial faculty and staff, develop curriculum that focuses on improved health care in both primary and specialty care, and seek private support.

These moves come after a November vote by the University of California regents to allow UCR to proceed with planning for the school.

Mark Rubin, a longtime Riverside area commercial and residential property developer, and his wife, Pam Rubin, have designated that some of the proceeds from a real estate gift they made to the university be used to endow a chair for the medical school's founding dean. Campus officials estimate that this will mean at least \$3.5 million for the chair when the property is sold – the largest chair endowment in campus history.

Projected to open in fall 2012, UCR's School of Medicine would serve the medically underserved in Inland Southern California and would be the first new public medical school west of the Mississippi since 1971.

UCR plans to submit a final proposal and refined business plan to UC officials by the end of 2007. Both will go through review by the UC Academic Senate, the California Postsecondary Education Commission, the Liaison Committee on Medical Education and the regents.

More information is available at [www.medschool.ucr.edu](http://www.medschool.ucr.edu).





## National Research Group Awards Low-Emissions Vehicle Research

The Transportation Research Board, a division of the National Research Council, has given UCR's College of Engineering-Center for Environmental Research and Technology (CE-CERT) its Pyke Johnson Award.

The award, which recognizes excellent research in transportation systems, planning and administration, acknowledges the impact of a 2005 paper titled *Measuring and Modeling Emissions from Extremely Low Emitting Vehicles*, which was authored by CE-CERT Director Matthew Barth; researchers John Collins, George Scora and Nicole Davis; and Professor of Chemical and Environmental Engineering Joe Norbeck.

The CE-CERT researchers developed an emission measurement program for a new class of vehicles that are 98 percent cleaner than catalyst-equipped vehicles of the 1980s. They also developed emissions models from those measurements. Then they applied those models to future emission inventories in regional air quality models.



## UCR Alumnus Will Lead Efforts in New Orleans

Edward J. Blakely ('60), namesake for UCR's Edward J. Blakely Center for Sustainable Suburban Development, has been appointed executive director for recovery management in New Orleans.

Blakely will act as the primary recovery interface to all regional state and federal agencies for the Hurricane Katrina recovery efforts and will serve as Mayor C. Ray Nagin's designee on other recovery related issues.

Blakely, who is the chair of urban and regional planning at the University of Sydney, is nationally and internationally recognized for his extensive experience in the design of recovery strategies for cities across the country.



## UCR Researchers Named Fulbright Scholars

Two UCR researchers will take their research on the road after being named Fulbright Scholars. The Fulbright Scholars Program is one of the most prestigious international education programs in the United States.

Debadarshi D. Bhattacharya, an associate research physicist at UCR's Institute of Geophysics and Planetary Physics, will travel to Bangladesh Rural Advancement Committee in Dhaka, Bangladesh, to lecture on and research curriculum development and gamma-ray imaging collaboration. Mohsen Elhafsi, associate professor at the A. Gary Anderson Graduate School of Management, will conduct research on managing inventory and capacity in contract manufacturing at the Central School of Lille in Villeneuve d'Ascq, France.



## UC Riverside Officials Inaugurate Altix 4700 Supercomputer

As speakers extolled the virtues of UCR's latest acquisition to a room full of professors, students, administrators and the press at the Bourns College of Engineering on Feb. 2, the guest of honor whirred away in a mostly empty, bone-chilling room several doors away.

The cause of the enthusiasm was the Altix 4700 supercomputer, which is designed to boost high-end computing and data analysis in engineering, bioinformatics and computer science by up to 1,000 times.

Laxmi Bhuyan, a professor of computer science and engineering and one of the principle investigators, obtained a \$330,000 National Science Foundation grant that helped obtain the refrigerator-size Altix 4700.

The system, the largest single Altix 4700 in the University of California system, is powered by 64 Intel Itanium 2 processor cores and features 128 GB of system memory. It can also be expanded to 1,024 Intel Itanium 2 processor cores and up to six terabytes on a single Linux operating system.

In bioinformatics and proteomics – the technology that made TV shows like “CSI” hits – new investigations in Altix technology shows promise in cutting the time it takes to get results from a sample of unknown origin down from three days to less than an hour, said Eng Lim Goh, chief technology officer at SGI, the Silicon Valley company that sold the supercomputer to UCR.



## AGSM Gets Kudos in Princeton Review Survey

The A. Gary Anderson Graduate School of Management (AGSM) at UC Riverside has been named an outstanding business school by The Princeton Review's “Best 282 Business Schools: 2007 Edition.”

The Princeton Review compiled the ranking lists based on a survey of 18,000 students at 282 business schools. Schools were chosen based on high regard for their academic programs and offerings, institutional data collected from the schools and the candid opinions of students who rate and report on their campus experiences at the schools, said Robert Franek, Princeton Review vice president-publishing.

The review says that students involved in the AGSM program seemed most excited about the wide variety of electives, which are all seminar size and designed to encourage participative learning.



## Native Nations Research Materials Donated to UC Riverside Libraries

The papers and photographs of Ralph C. Michelsen and Roger Owen, scholars of the Cahuilla, Cocopah, Kiliwa and Kumeyaay nations, and papers discussing the Pechanga, Rincon and Soboba nations of the Luiseno group of Indians have been donated to UC Riverside Libraries.

The collection, donated by anthropologist Susan Lobo from the University of Arizona, covers work between the 1950s and the 1980s related to the PaiPai and Kiliwa of Baja California; various Luiseno groups in Southern California; the Mohave and Cocopah; the Seri of Mexico; and other groups in Mexico and Guatemala.

The papers will be housed at the Rupert Costo Library of the American Indian in the Rivera Library. The collection includes more than 7,000 books and thousands of documents, artifacts and baskets collected over a period of 50 years.



## Insulin Heals Wounds

Insulin is a hormone known primarily for regulating sugar levels in the blood, yet researchers at UC Riverside have discovered that applying insulin directly to skin wounds significantly enhances the healing process.

Skin wounds in rats treated topically with insulin healed faster. Surface cells in the epidermis covered the wound more quickly and cells in the dermis, the deeper part of the skin, were faster in rebuilding blood vessels.

In follow-up studies of human skin cells in culture, Professor Manuela Martins-Green and her colleagues explored the molecular impact of applying insulin on keratinocytes, the cells that regenerate the epidermis after wounding, and on microvascular endothelial cells, the cells that restore blood flow.

Chronic or nonhealing wounds take an immense toll on American health and on health care systems. It particularly affects millions of patients with impaired mobility and those with diabetes. Because diabetes is a disease caused by impaired production or utilization of insulin, this work may help explain the connection between diabetes and poor healing.

Martins-Green worked with Y. Liu, who is on leave from the burn department of a university medical center in Shanghai, China; and M. Yao, who is now at the Wellman Center for Photomedicine, Massachusetts General Hospital, Harvard Medical School, Boston, Mass.



## Three UCR Engineering Professors Named IEEE Fellows

The Institute of Electrical and Electronics Engineers (IEEE) has elected Jie Chen and Ilya Dumer, from the Department of Electrical Engineering; and Walid Najjar, from the Department of Computer Science and Engineering, as 2007 IEEE fellows. The IEEE is the world's leading professional association for the advancement of technology.

Chen was cited for his contributions to fundamental design limitations of feedback control in electrical and electronics systems. Dumer was cited for his contributions to error-correcting codes. Najjar's citation focuses on his contributions to data flow and reconfigurable computing architectures.

What's a border anyway? Just an often-imaginary line that divides belief systems, people, organizations, countries and disciplines. Today, parallel revolutions in science, business, politics and other fields are challenging the very existence of borders — driving top thinkers to look across them, erase them, find common ground, create new unions. Very often, the synergistic, groundbreaking research where disciplines overlap and borders

medical devices have led to a new Department of Bioengineering. And the University of California Institute for Mexico and the United States (UC MEXUS) grew from the recognition that the interdependence of the two countries was fertile ground for research.

A passport-free Europe. Manmade glands. Click-through bricks. Everything we've thought about borders may be obsolete.

# BORDERS

dissolve is the catalyst that accelerates human development.

Interdisciplinary departments continue to spring up at UCR in response to these revolutions. Evolving consumer conduct online spawned the creation of the Sloan Center for Internet Retailing, where human behavior, economics and technology intersect. Advances in nanotechnology and demands for new

To learn whether UCR's interdisciplinary approach to education is a metaphor for the diminishing importance of borders in all aspects of life, we invited several UCR professors to discuss this trend. What they reveal might surprise you: In almost every area of our lives, making the lines between us more permeable brings us closer together. By Bob Rucker

## The Body as an Open Book

The past few decades have seen a quiet revolution at the border between biology and engineering, as doctors, patients and insurers have sought the advantages of non-invasive diagnostic tools, bioengineered hormones, artificial organ implants and medical devices that transcend the fading boundary between inorganic and organic materials.

Distinguished Professor of Bioengineering Jerome Schultz is a well-known pioneer in the field, an engineer/biologist whose research has been applied

**“I’m always amazed at how plants, animals and bacteria all develop multiple solutions for surviving in exactly the same environments. Biological systems have parallels in the social world.”**

— Jerome Schultz

to devices that mimic, modify and control the human body’s biological systems. One such device is an implantable biosensor, a less-traumatic way to monitor blood sugar in millions of diabetics — especially children, with their legendary fear of needles and blood.

“Diabetics should check their blood glucose levels as often as five times a day, to prevent conditions that lead to loss of eyesight, kidney function, nerve damage,” said Schultz. “In children, that usually requires a parent’s help. If we could

## Of Physics and Fiction

“Tennis with the net up” is how Gregory Benford describes his approach to writing science fiction. He means that his books scrupulously incorporate hard science in their story lines, unlike softer science fiction novels such as George Orwell’s “1984.”

“It’s an interesting challenge,” said Benford, who will be at UCR this spring as science fiction writer-in-residence. “All fiction writers have to persuade their readers to willingly suspend their disbelief. But a science fiction writer has the additional challenge of creating a stage for his human drama from the new and unfamiliar reality of modern physics. Bare bones science is very hard to understand. The easy way to make science comprehensible is to show people doing it. That’s where the writer comes in.”

And as a fiction writer, Benford’s job often draws on his physics training for subject matter and technique.

“Scientists are like detectives — we’re all professional skeptics. Like a good detective, good scientists and writers are concerned with finding the truth. But scientists and detectives practice the ‘Joe Friday’ worldview,” he said, referring to TV’s “Dragnet” series. “Informed skepticism. ‘Just the facts, ma’am.’ The writer has a little more freedom to experiment with plausibility.”

Benford’s own skepticism may have been nurtured by a highly unusual alliance with his brother Jim — his “mirror twin.” Many of their characteristics — handedness, cowlicks, birthmarks — are mirror images. It’s a rare phenomenon, and one that created a couple of rare personalities.

“Jim and I were very skeptical of what we saw and heard growing up in a small town in Alabama,” he said. “We confirmed each other’s observations, we supported each other and we plotted together. We collaborated in our own liberation from that restrictive environment.”

At the same time he was cultivating his scientific skepticism, Benford learned to ask the “What if?” questions that scientists are conditioned to avoid.

“In the sciences, there’s a penalty for speculation,” he said. “That’s always puzzled me, because speculation is really the only way to get original ideas. And maybe that’s why I’m also drawn to fiction.”

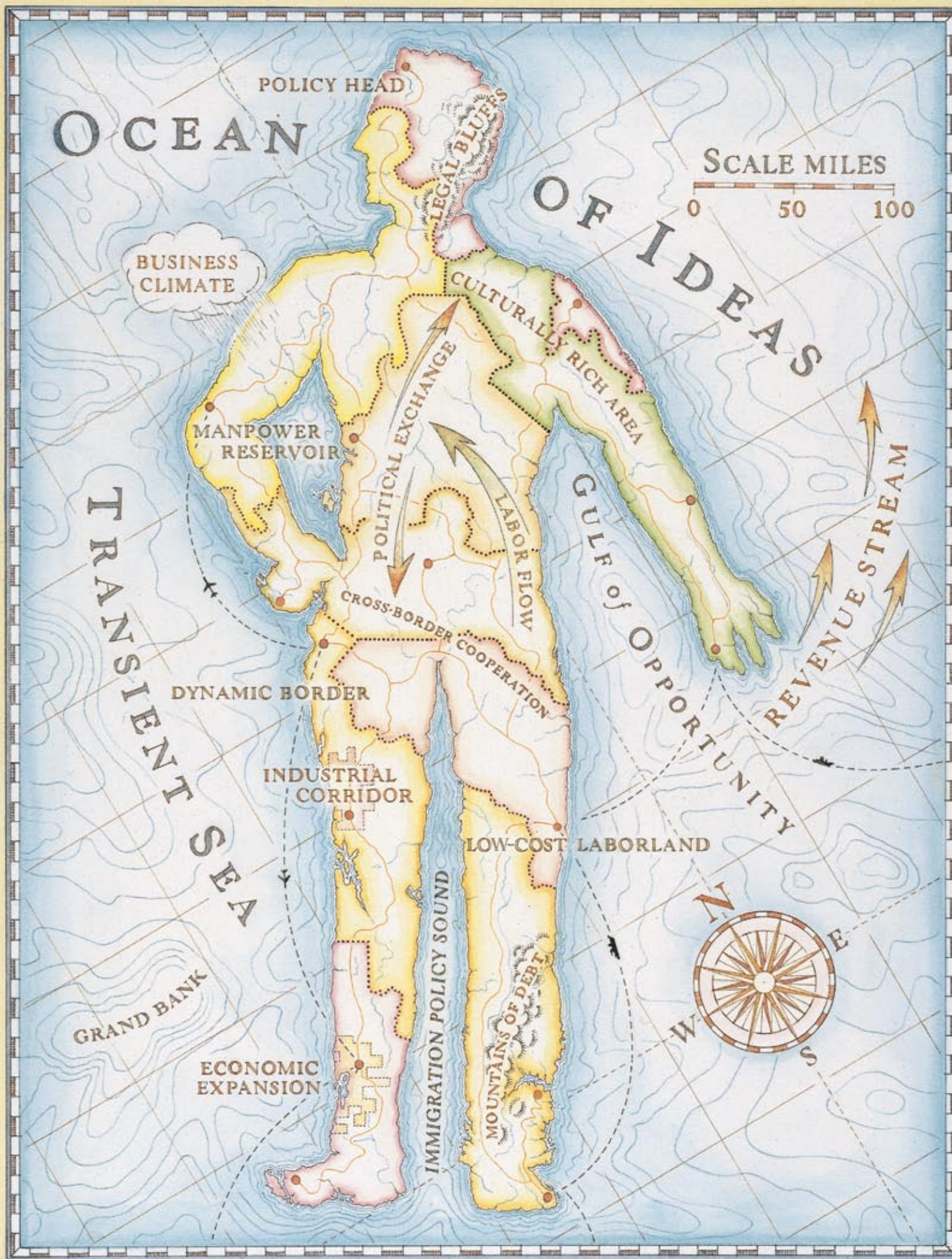
Skeptical and speculative? Perhaps the constant availability of his brother-collaborator has made for easier conversation with the speculative powers of his own unconscious when writing. He notes that his 1980 book, the Nebula Award-winning “Timescape,” features a lead character named Gregory Markham, who can be seen as the author’s alter ego. (The original manuscript of “Timescape” is in UCR’s Eaton collection.)

Yet Benford says he was not aware he’d created a new twin of himself until several reviewers pointed it out.

“It’s a perfect example of a writer not being fully aware of what he’s doing,” he said. “Crossing that border between the conscious and the unconscious is at the center of the creative process — for scientists and for writers.”

*Gregory Benford is a professor of physics at UC Irvine.*





develop a tiny device to place under their skin that needed replacement just once a month, we'd do a great service to the families helping kids manage diabetes — and eliminate the needles.”

In fact, the device already exists in Schultz's lab, where it awaits funding for the extensive safety tests required before it can be marketed. It's a threadlike porous capsule filled with beads containing a bioengineered protein that switches a fluorescing chemical on and off, in relation to glucose levels. Once the device has been implanted under a patient's skin, glucose enters the tube and modulates the fluorescence of the protein. By holding a light source above his skin, the patient can check his blood sugar level by gauging the intensity of the green fluorescence. No finger prick, no blood.

Schultz's biosensor transcends the boundary between organic and inorganic by slipping past the immune system.

“The immune system is the equivalent of the human body's border police. Its primary job is to reject, digest or encapsulate foreign materials,” Schultz said. “The job of a bioengineer is to endow a device with characteristics that fool the immune system into thinking the device is not there. In the case of this implant, that's achieved by coating it with a specific polymer.”

But finding the right polymer was not easy. Many of the materials tested by bioengineers over the years passed the “border police” but interfered with the functioning of implanted devices in other ways.

“That's one of the many roles of the engineer in this field — to ask the challenging question: ‘How can we make this work in the human body?’”

And therein lies one of the most important advantages of treading the line between biology and engineering.

“Biologists and engineers have different mindsets,” said Schultz, who is chair of the Department of Bioengineering

and director of the Center for Bioengineering. “Biologists tend to be qualitative thinkers — they develop a ‘what if’ hypothesis and then design experiments that can yield a yes or no answer. Engineers, on the other hand, operate on the ‘how much?’ model. There are no black-and-white answers to

parallels in the social world,” Schultz said. “Like animals, different societies have developed different solutions to optimizing their performance and, ultimately, their chances of flourishing in the same environment. The important thing to realize is that no one solution is ‘the’ best.

“In our department, we've adapted

**“The United States is a first-world country that butts up against a third-world country. That's pretty unique these days. This asymmetry creates opportunities and challenges on both sides.”**

**— Roberto Sanchez-Rodriguez**

dynamic questions like ‘how much?’”

One role of UCR's Department of Bioengineering, then, is to bring together the qualitative and dynamic approaches to biomedical problems and create an environment in which engineers and biologists work as a team.

“This gap between these otherwise complementary disciplines exists partly because biologists don't typically study a lot of math, and engineers don't typically study much biology,” Schultz said. “Our program in bioengineering strongly emphasizes life sciences — organic chemistry, biology and biophysics. But we also focus on the math-heavy, technically rich engineering discipline.”

Like biological systems, universities find ways to adapt to changes in the world around them. As an engineer forever looking for new ways to integrate his training with biology, Schultz would look to the natural world, not surprisingly, for tips on adapting his department to the changing world.

“I'm always amazed at how plants, animals and bacteria all develop multiple solutions for surviving in exactly the same environments. Biological systems have

our methods of teaching to ensure that the best characteristics of both the life sciences and engineering survive and complement each other,” Schultz concludes.

#### A Declaration of Interdependence

Like the human immune system that seeks and rejects foreign objects, human societies often seek to separate “us” from “them,” relying on borders — sometimes fences and walls — to keep foreigners out. But as Robert Frost wrote nearly a century ago, “Something there is that doesn't love a wall.” In “Mending Wall,” he tells of walking the border with his neighbor, patching a stone wall that does not share the will of its builders to stand up over time.

Ask an expert in international relations and he or she will tell you that a border — even a manmade one — has such a will of its own. Roberto Sanchez-Rodriguez knows about the permanence and the permeability of walls and borders. He's the director of UC MEXUS, a professor of environmental studies at UCR and an expert on the boundary between the United States and Mexico.

“Many issues bring together and separate Mexico and the United States — immigration, pollution, water rights. These issues are most observable at the border, at places like Tijuana,” says Sanchez-Rodriguez.

At Tijuana, rivers run in barbed-wire-lined concrete channels, streams course through pipes under city streets, creeks flow in ditches. The precious content of these watercourses, unlike manmade borders, doesn’t suffer cartographers kindly. Because water goes where it’s drawn, it’s a resource that must be shared by the two countries.

This has led to no end of battles across the border, especially with respect to the Colorado — the Southwest’s largest river and thirst-quencher for much of Arizona, Southern California and northern Mexico. But where another river, Rio Tijuana, enters the Pacific Ocean, Sanchez-Rodriguez sees a model of how cross-border cooperation is preserving the environment.

The Rio Tijuana estuary is the largest saltwater marsh in Southern California and one of the state’s last intertidal coastal wetlands. The estuary’s rich habitat is characterized by extremely variable stream flow, with extended periods of drought interrupted by heavy flooding during wet years. Since three-quarters of the river’s watershed is in Mexico and the rest in the United States, the two countries have developed agreements to manage sedimentation and sewage flow into the estuary.

“It’s sometimes the countries that are most dissimilar that rely the most on each other,” Sanchez-Rodriguez explains. “The United States is a first-world country that butts up against a third-world country. That’s pretty unique these days. This asymmetry creates opportunities and challenges on both sides. It means that Mexico has become heavily dependent on the United States for trade and industrial production. In just the last couple of decades, a new industrial corridor has

cropped up in Tijuana, Mexicali and Ensenada, as U.S. companies established factories across the border.”

Meanwhile, the United States has become heavily dependent on Mexico for inexpensive labor, drawing a constant flow of immigrants north, he adds.

In fact, just about every transborder issue, from economics to agriculture to politics to pollution, has this immigration component, according to Professor Armando Navarro. Navarro is a professor at UCR’s Department of Ethnic Studies and has strong opinions on the subject. He’s about to publish a book that chronicles the history of immigration on the U.S.-Mexico border.

Each year, more than 40 million people pass through the world’s busiest port of entry, just 100 miles south of UCR’s campus, at San Ysidro. Most are workers commuting to jobs throughout Southern California. Navarro says poverty and low wages in Mexico conspire with the U.S.

economy’s seemingly permanent reliance on inexpensive labor to both push and pull the Mexican workers through San Ysidro and other border crossings, legal or not.

While a “nativist mindset” in the United States and a growing movement to increase wages and investment in farms and factories in Mexico may lead to at least a temporary reversal of the centuries-long Mexican diaspora, Navarro says, “until there are structural changes on both sides of the border, the traffic in labor will continue across the ‘cactus curtain.’”

How and when will those structural changes come about?

“Historically, a dynamic border has proved beneficial for both countries,” argues UCR Professor of Anthropology Michael Kearney. “The money that comes into Mexico in the form of small money orders or in the shoes of returning workers rivals tourism as a source of trade. And it’s a net benefit to the United States, especially to California, to have the immigrant labor.”

Rather than fighting the inevitable, Kearney suggests, both countries might do better to admit, at least, that the U.S.-Mexico border has long been an effective “labor management mechanism” disguised as immigration control. “Border restrictions have been loosened when the U.S. economy is expanding; enforcement has been tightened when the U.S. unemployment rate is up. It’s like opening and shutting a valve for labor.”

While the issues are clearly complex, people on both sides, like Robert Frost, sometimes worry what their border is walling in and walling out. Generations of cross-border traffic have helped energize the border states with cultural riches from both sides, Sanchez-Rodriguez said. It’s no surprise that the music, food and art found in San Diego or San Antonio are more like that found in Mexico than in Michigan. Both countries are better off for the exchange, he says.

Common sense says the question of whether to maintain a border between two countries is largely one of deciding whether the positives outweigh the negatives. Are we nearing that point?

Not in our lifetimes, says Sanchez-Rodriguez. Although there will probably always be a border of some type between the United States and Mexico, a European Union-like solution, with a free flow across the borders of like countries — would not work here. Instead, he said, the solution for the foreseeable future lies in “acknowledging that we’re asymmetrical neighbors. The goal is to make the best of the opportunities and minimize the negatives,” says Sanchez-Rodriguez.

#### Retailers Become E-tailers

**B**orders are not always in the physical world — they’re sometimes theoretical, like those in cyberspace or between business models.

Few people have studied the latter — the border between traditional bricks-and-mortar





commerce and Internet-based retailing — more than UCR Professor of Management Donna Hoffman.

Hoffman is co-director of eLab 2.0 and the UCR Sloan Center for Internet Retailing, where she and her husband, UCR Professor of Marketing Tom Novak, look closely at how consumers behave on the Internet and how the unique characteristics of that medium are redrawing the boundaries between and among consumers and businesses.

“The Internet has had profound and important effects on behavior and commerce,” said Hoffman. Before the Internet was commercialized, she said, businesses generally treated consumers as an “audience” — passive receptacles for the advertising and other messages businesses sent out through “one-to-many” broadcasting media like print, billboards and TV. But because the Internet is a “many-to-many” medium, “it allows consumers a host of new ways to interact with commercial enterprises and to provide content for the benefit of each other.”

The result, Hoffman says, is that almost every business of any size has been compelled to build a Web presence into its marketing strategy — not to mention adopting Web-based inventory management systems, interacting with wholesalers online and, equally important, getting closer to customers through “Contact Us” links on their home pages and other online avenues.

When evaluating how the Internet has redrawn the borderline between consumers and sellers, one need look no further than aptly named Borders Books, Hoffman says. Borders began a successful expansion of its bricks-and-mortar bookstores in the early 1990s, but was caught off guard by the appearance of online bookseller-cum-mass-merchant Amazon.com just a few years later.

It seems that book buyers appreciated the convenience of buying online and the

level of information — including product reviews — available from Amazon. Borders quickly launched its own e-tailing site, but just as quickly found another route to customers who were migrating online. They joined with Amazon — which was challenged to find growth opportunities at the time — and created a co-branded site.

Enter borders.com on your Web browser today and you’ll be whisked to a site that looks a lot like Amazon. The alliance has benefited both companies, turning would-be competitors into collaborators. Another border dissolves; profits ensue.

“In the early days of the Internet, savvy businesses learned several key lessons very quickly,” Hoffman says. “First, they realized that consumers had to be brought into the equation.” Many traditional businesses that incorporated Web sites in their business plans borrowed ideas from Internet-only businesses like Amazon.com and Netflix — offering space on their Web sites where users could share

**“... eBay could not exist in the physical world. They are in no way involved in handling merchandise. They simply stand on the border between customers and facilitate transactions.”**

**— Donna Hoffman**

product reviews, for example.

“Second, the ease of buying online made purchasing in the physical world a more frustrating experience by comparison,” she says. “That just offered further impetus to shop online.” Yet, while consumers have found it easy to locate, learn about and buy what they want online, there’s one way that the Internet experience drives consumers into stores. Interestingly, many shoppers print

out their online price comparisons and product reviews and then carry them into a bricks-and-mortar retailer to buy from, or negotiate with, a live person. That way, they get the best of both worlds — detailed inside information and the immediate gratification of walking out with their purchase.

“Auto dealers and other big-ticket sellers have seen the biggest impact in this regard,” Hoffman says. “Today you have buyers coming into dealerships with a stack of printouts telling how much a particular car, with a particular set of options, is selling for in a particular ZIP Code.

“That behavior radically changed the auto business. Manufacturers and dealers have been forced to make their businesses more transparent — all the way down to publishing the wholesale prices of cars. To survive, they’ve adjusted their marketing to push financing, warranties and other revenue streams. The same thing has happened in financial services and real estate.”

Indeed, Hoffman foresees a big impact of the Internet on the real estate market — a crucial issue in the Inland Empire, the fastest-growing part of the United States. In real estate, Hoffman predicts that this wealth of fast-paced information will expedite real estate cycles. The truth may very well be known in the next few months, as we watch the the latest developments in the state and national real estate markets.

“The last time the real estate market crashed, in the early 1990s, it took more than 18 months for the average homeowner to realize prices were collapsing. That’s because the information was broadcast from Realtors, the financial markets and the media to the mass market audience by newspapers and TV,” she says.

“This time, the cycle will be shortened by the real-time availability of information over the Internet. The entire Multiple Listings Service is now available online. Web sites track price reductions in real time and offer instant estimates of a home’s value. Scores of blogs not only discuss the impending crash, they offer reams of insightful and scary analysis.”

Finally, consider the auction. Once a quaint method of dissolving fine art collections or dilapidated farms, mention “auction” today and almost everyone thinks of eBay. eBay surfs a different kind of border than, well, Borders, Hoffman says.

“eBay is a ‘pure play’ — a business that takes full advantage of the unique aspects of the Internet. In fact, eBay could not exist in the physical world. They are in no way involved in handling merchandise. They don’t have a store. They simply stand on the border between customers and facilitate transactions.”

What lies ahead?

“The Internet has redrawn the borders in the business world in a fundamental way,” says Hoffman. “As it becomes more deeply embedded in the way we live, and as we find ourselves moving from the desktop to the laptop to mobile phones and PDAs that are Wi-Fi enabled, we’ll increasingly have a 24/7 connection to products and services. It will become harder and harder to tell where the physical world stops and the digital world begins.”

## A Global Education

What exactly is globalization? Some call it a big step toward worldwide instability. Others foresee a borderless utopia. A select few go on to ask how and why globalization is happening in the first place and how to iron out its challenges. Those students will eventually find their way to UCR’s new Department of Global Studies or to UCR Extension’s International Education Program (IEP).

Appropriate to a program that looks across borders, the global studies program, which opened its doors as part of the College of Humanities, Arts and Social Sciences (CHASS) in fall 2006, is interdisciplinary. Students look at how cultural and artistic processes have brought people together over time and how politics, disease and environmental damage have divided them. They also learn why sociocultural, political, economic, ecological, demographic and biomedical movements are converging toward globalization.

The program prepares students to become the global thinkers and problem-solvers of the 21st century, from public policy to public service, from media to medicine to management.

While the global studies program offers students a chance to transcend borders from a classroom, UCR Extension’s International Education Programs brings students across borders to meet face to face.

Interim Dean Sheila Dwight oversees the International Education Program. Last year, more than 3,000 students from 47 countries came to Riverside through IEP to take advantage of its many offerings — from learning English to cross-cultural communication.

Most of the students stay with local families that have children. They quickly develop lasting relationships with the students. Dwight likes to tell of a now-grown child from a former home-stay host family who stopped by her office recently with photos she’d taken in Japan at the wedding of a former visiting Japanese student.

“It’s this kind of experience that helps to internationalize our community,” she said.

“Students come here thinking they’re just going to study English,” Dwight said. “But they quickly learn about American culture — and other cultures, as well.”

Recently, a visiting student from Greece announced that he needed to transfer out of class because it put him in close contact with a Turkish student. Dwight persuaded him to stay in the class and was pleased to learn that within a week, the two students had become fast friends.

“People tend to leave their prejudices behind when they’re out of the milieu that fostered them,” Dwight says.

The program also brings foreign students to local elementary school cultural-exchange programs. The program is in its fourth year of a contract with local schools to help non-English-speaking mothers better communicate with their children’s teachers.

Meanwhile, IEP practices what it preaches. The program itself has become a microcosm of its participants — its staff members hail from Turkey, Japan, Korea, Brazil, Argentina, Cambodia and other countries.



# EVOLVING EDUCATION:

How can a system of public education designed for the 19th century be brought up to 21st century standards?



By Ricardo Duran

The education debate of the past five years has focused on leaving no child behind, but those who look beyond the horizon see the world getting flat.

New York Times columnist Thomas Friedman's 2005 book "The World is Flat," says the forces that ensured America's educational supremacy for most of the 20th century have shifted.

## Slip Sliding Away

This realization has spawned a blizzard of government white papers, private foundation and media reports pointing out education's shortcomings in preparing today's students for the future. Meanwhile, nations from tiny Singapore to the Chinese and Indian economic behemoths are rapidly overtaking U.S. educational standards.

In December, the New Commission on the Skills of the American Workforce called for a top-to-bottom overhaul of U.S. education to help Americans compete in a global marketplace. Funded by such influential private players as the Bill and Melinda Gates Foundation, the Lumina Foundation, the Annie E. Casey Foundation and the William and Flora Hewlett Foundation, the commission's ranks include current and former local, state and federal education leaders, industry CEOs and trade and labor leaders.

Their December 2006 report, *Tough Choices or Tough Times*, made sweeping

recommendations such as instituting high school board exams for all 10th graders, diverting most to community college while retaining high-scorers for preparation to admissions at selective colleges; recruiting better students as teachers; funding schools at the state level to pump more money where needs are greater; and supporting lifelong education to keep workers at the cutting edge.

The single greatest factor in improving student performance, most say, is the quality of teachers.

## So What Can Higher Education Do?

Action at UCR means sending scientists and scholars to the K-12 schools, placing students in classrooms and actively recruiting its promising mathematics, science and engineering students — areas of critical need according to the state of California — to become teachers.

"As a mathematics educator, I have always felt that one of the primary reasons we teach and learn mathematics is to expand students' capacity to think creatively and analytically" said Assistant Vice Provost for Academic Outreach and Educational Partnerships Pamela Clute. "The study of mathematics teaches critical thinking skills, which are used to manage and process information, and assess it for accuracy."

## Finding the Teacher in Students

Bradley Hyman, a biology professor, is helping lead the way at UCR by attracting strong students in the College of Natural and Agricultural Sciences and the Bourns College of Engineering to a career path they may not have considered — teaching.

At the Science and Mathematics Initiative (SMI), where Hyman is co-director with Leslie Bushong, students can work toward their bachelor's degree in science, engineering and mathematics while preparing to pursue a teaching credential.

Started and funded largely by the California Governor's Office and the UC Office of the President, the initiative seeks to address the shortage of highly qualified science and mathematics teachers in the state's classrooms. SMI at UCR links the College of Natural and Agricultural Sciences, and the College of Engineering with the Graduate School of Education.

To that end, Hyman and Bushong attend all new-student and science/engineering major orientations, while working closely with the Graduate School of Education's teacher preparation program. They have established a listserv and e-newsletter for about 200 enrolled students, giving advance notice of seminars, guest speakers and workshops for improving study skills, learning about the teaching profession and working with school children.

## Building Better Science Teachers

At the Graduate School of Education, a dynamic trio of educators landed a five-year, \$11.5 million U.S. Department of Education grant in 2004 to develop a pipeline for students to become top-notch science teachers.

Linda Scott-Hendrick, the director of teacher professional development; Athena Waite, director of teacher preparation programs; and Jocelyn Edey, an education researcher, developed the proposal for the Copernicus Project to feed this pipeline by reaching back to community colleges to identify future science teachers, and beyond graduation to form a supportive environment that follows them through credentialing into their working lives.

"We've developed a community college residency program in which students get actual (K-12) classroom experience even before they arrive at our doors," said Edey, now the director of the Copernicus Project.

A summer science institute gives new teachers opportunities to hone their science and teaching skills. In May, they'll hold a conference for college students, high school juniors and seniors and their parents to exchange information about the teaching profession for those interested in science-related careers. Summer institutes cover topics such as invasive-species management using natural enemies, solar cell fabrication using

plant dyes to convert sunlight into electricity, and water quality and treatment methods.

Even without global pressures, the need is great, according to the National Science Foundation, which predicts that the nation's school districts will need to hire 240,000 new middle- and high-school science and mathematics teachers by 2012.

## Improving the Teachers We Already Have

Katherine Gonzalez, a fourth- and fifth-grade science teacher for 19 years, always enjoyed math and science but didn't graduate with a science degree, a shortcoming in her line of work. So when she heard of a weeklong summer workshop at El Camino Elementary School in the Jurupa area, just west of the city of Riverside, she jumped at it.

On a triple-digit July afternoon, she supervised four boys as they measured the design of the vehicle, the slope and angle of the ramp determined its rate of travel.

Gonzalez was one of a dozen teachers and 65 students participating in ALIAS (Accelerating Literacy Integrating Algebra and Science), one of a handful of programs under the umbrella of Mathematical ACTS at UCR, funded by a \$5.2 million grant from the National Science Foundation. The program injects fun and hands-on lessons to students and their teachers to help raise California's mathematics and science achievement.

"Kids are natural scientists," said Richard Cardullo, a professor of biology at UCR and the principal investigator for Mathematical ACTS. "They like to ask questions of the world around them and play around to figure things out."

## Meeting Tomorrow's Challenges

A century ago, the United States led the world in the vertical integration of corporations, where companies performed every function necessary to get their products to market. Today, the country is once again a leader, this time in deconstructing vertical integration through outsourcing.

But the trend is moving beyond simply finding cheaper labor and toward complete automation of some white-collar tasks, according to the New Commission on the Skills of the American Workforce. As the cost of labor rises and the cost of automating falls, it becomes both possible and necessary for firms to cut jobs.

First to go were low-skill manufacturing jobs, but now the most vulnerable are those involving routine white-collar tasks.

"This is a world in which a very high level of preparation in reading, writing, speaking, mathematics, science, literature, history and the arts will be an indispensable foundation for everything that comes after that for most members of the work force," the commission report said. ■

# A Passage Through the Pages

The written word has often been used to take readers on literary journeys that allow them to cross borders and transcend the boundaries of everyday life.

Such is the case with this issue's Page Turners.

"Inlandia" celebrates and explores the area otherwise known as the Inland Empire with contributions from dozens of writers across genres. In "What Came Before He Shot Her," we travel across the Atlantic Ocean to a rough region of London to follow the unfolding of a murder apparently committed by a troubled young boy.

The journey of "American Cookery: A Novel" starts in Idaho and follows the life of a young woman and her extended, tightly knit Mormon family. More than two-dozen recipes are included in the book.

Start your own journey across borders by taking a look at what these authors have to offer.

## Inlandia: A Literary Journey through California's Inland Empire

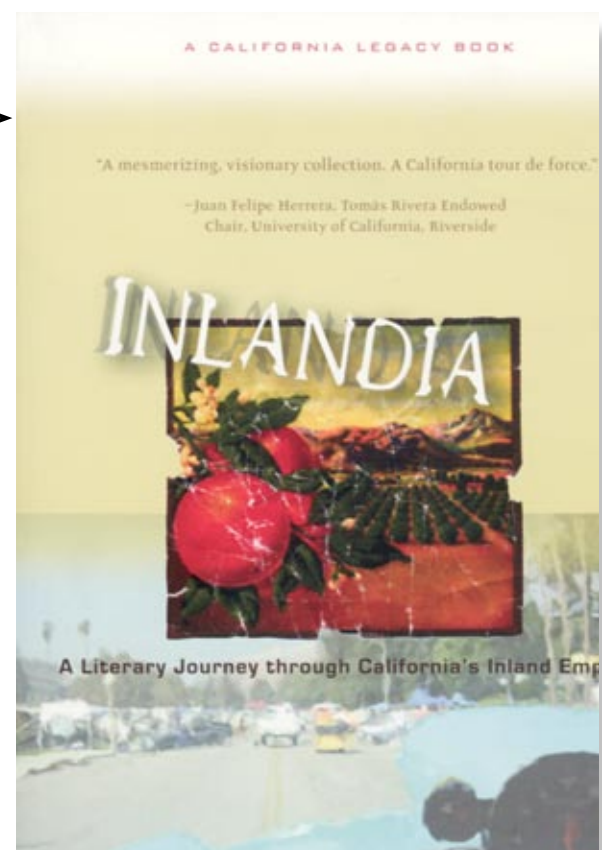
Edited by Gayle Wattawa with an introduction by Susan Straight, chair and professor of creative writing  
Heyday Books  
October 2006, 433 pages

Showcasing poetry, fiction, creative nonfiction and other literature by such luminaries as Joan Didion, Raymond Chandler, M.F.K. Fisher and others, "Inlandia" puts a new literary region on the map.

More than 80 writers are represented in the anthology, with material ranging from Indian stories and early explorers' narratives to pieces written by local emerging authors.

"Inlandia" – a term coined by Juan Felipe Herrera, holder of the Tomas Rivera Endowed Chair at UCR – is the study of the journey of a people bound by geography who are striving for self-identity and artistic recognition, and of a land that is becoming both more prosperous and endangered.

The area consists of Riverside and San Bernardino counties, and is also known as the Inland Empire. As one of the fastest-growing regions in America, the area is quickly becoming much more than just the area east of Los Angeles.



## Still Water Saints: A Novel

By Alex Espinoza  
Random House  
January 2007, 256 pages

"Still Water Saints" chronicles a year in the life of Agua Mansa, a largely Latino town loosely modeled on Colton, a city located in the Inland Empire and home of the Botanica Oshun, where people come seeking charms, herbs and candles.

They also seek the guidance of Perla Portillo, the shop's owner. Perla has served the community for years, arming her clients with the tools to overcome all manner of crises. There is Juan, a man coming to terms with the death of his father; Nancy, a recently married schoolteacher; Shawn, an addict looking for peace in his chaotic life; and Rosa, a teenager trying to lose weight and find herself. But when a customer with a troubled and mysterious past arrives, Perla must confront her own unfulfilled hopes and doubts about her place in a rapidly changing world.



## What Came Before He Shot Her

By Elizabeth George  
'70, '73 teaching credential)  
HarperCollins  
October 2006, 560 pages

The death of Inspector Thomas Lynley's wife has left Scotland Yard shocked and searching for answers, especially when it becomes apparent that a 12-year-old boy pulled the trigger. The story begins in the rough North Kensington area of London, where three mixed-race children are bounced first to their grandmother then to their aunt. The oldest is headed for trouble, leaving the middle child, Joel, to care for his young, troubled brother, Toby.



## Other Fugitives and Other Strangers: Poems

By Rigoberto Gonzalez ('92)  
Tupelo Press  
September 2006, 78 pages

Gonzalez's eighth book is a collection of poems that explores sexuality in times of violence. The recipient of a Guggenheim Fellowship and various international artists' residencies, Gonzalez is a member of PEN and the National Book Critics Circle. He reviews books by Latina/o authors for the El Paso Times.



## American Cookery: A Novel

By Laura Kalpakian ('67)  
St. Martin's Press  
September 2006, 288 pages

"American Cookery" includes 27 recipes from the life and tumultuous times of Eden Douglass, who was born in 1920 into a contentious California tribe. The ingredients of her life include Eden's grandmother Ruth Douglass and her aunt Afton Lance. They struggle to pull her from her ill-matched parents. When Eden's mother breaks down, Eden must shoulder the household drudgery, which keeps her from pursuing her dream of becoming a journalist.

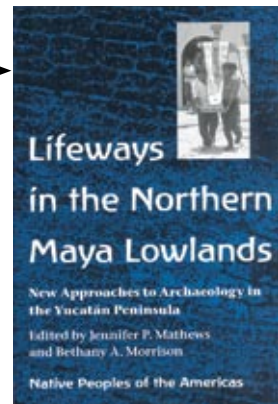


These books are available for purchase at the UCR Bookstore and online at [www.bookstore.ucr.edu](http://www.bookstore.ucr.edu). They have been discounted up to 30 percent.

**Lifeways in the Northern Maya Lowlands: New Approaches to Archaeology in the Yucatán Peninsula**

Edited by Jennifer P. Mathews ('95 M.A., '98 Ph.D.) and Bethany A. Morrison  
University of Arizona Press  
May 2006, 274 pages

Focusing on the northern Maya lowlands, this book presents a cross section of current research projects in the region. Both established and up-and-coming scholars cover key topics with environmental and historical significance, the archaeology of large and small sites, and the development of agriculture, resource management, ancient politics and long-distance interaction among sites.



**Boarding School Blues: Revisiting American Indian Educational Experiences**

Edited and introduced by Clifford E. Trafzer, UCR professor of history, and Jean A. Keller and Lorene Sisquoc  
University of Nebraska Press  
September 2006, 274 pages

The first volume of essays to focus on the American Indian boarding school experience, the book is written by some of the foremost experts and most promising young scholars of the subject.

"Boarding School Blues" addresses issues such as sports, runaways, punishment and Christianity.

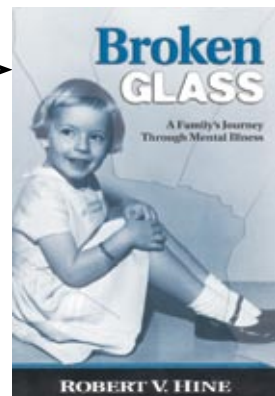
Trafzer is a professor of American Indian history, director of public history and director of graduate studies at UCR.



**Broken Glass: A Family's Journey Through Mental Illness**

By Robert V. Hine, UCR professor emeritus of history.  
University of Arizona Press  
May 2006, 274 pages

When Robert Hine's daughter, Elene, first showed signs of unhappiness as a little girl, no one dreamed she would grow up to have a serious personality disorder. In this book, Hine shares the story of his family's struggle to keep Elene on track and functional, to see her through her troubles with delusions and medication, and eventually to help her raise her own children.



**Enrique Granados: Poet of the Piano**

By Walter Aaron Clark, UCR professor and chair of music  
Oxford University Press  
November 2005, 304 pages

Enrique Granados (1867-1916) was among the leading pianists of his time. His eloquence at the keyboard inspired critics to dub him the "poet of the piano." In this book, Clark offers a substantive study in English of this virtuoso pianist, composer and music pedagogue. Drawing on newly discovered documents, Clark explores the cultural spheres in which Granados moved, particularly of Castile and Catalonia.



**Chaos and Cosmos: On the Image in Aesthetics and Art History**

By Karen Lang ('82, '87 M.A.)  
Cornell University Press  
October 2006, 304 pages

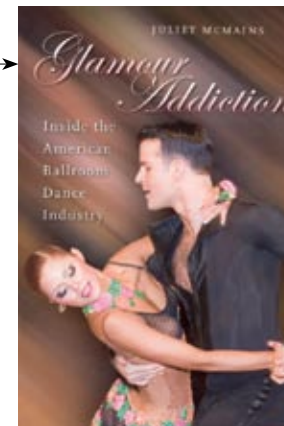
"Chaos and Cosmos" explores the period from the 1880s to 1940, the intellectual and cultural early years of academic art history in Germany. Extensively illustrated with works of art from the Enlightenment to the present day, this book illuminates an intellectual legacy that has shaped the study of the history of art.



**Glamour Addiction: Inside the American Ballroom Dance Industry**

By Juliet McMains ('03 Ph.D.)  
Wesleyan University Press  
January 2007, 264 pages

In the wake of the television success of "Dancing with the Stars," competitive ballroom dance has experienced new fascination and renewed scrutiny. Putting ballroom dance in the larger contexts of culture and history, "Glamour Addiction" makes a contribution to dance studies while giving new and veteran enthusiasts a unique glimpse behind the scenes.



Also published:

**City of Gabriels: The History of Jazz in St. Louis, 1895-1973**

By Dennis Owsley ('65, '69 Ph.D.)  
Reedy Press  
September 2006, 208 pages

**The Telemachia: A History by Antimenes of Argos**

By Michael Barnes Selvin ('69)  
Lulu Press  
2006, 575 pages

**Different Voices: Women in United States History**

by Emily M. Teipe ('97 Ph.D.)  
CAT Publishing  
February 2006, 458 pages

**Great Stagecoach Robberies of the Old West**

By R. Michael Wilson ('00)  
Falcon Publishers  
November 2006, 200 pages

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They come into this country illegally, riding on fruits and vegetables. They can cause economic and environmental damage. Entomologist Mark Hoddle's job is to stop them in their tracks. He is part of

# UCR's CSI Team

## (Controlling Sinister Insects)



By Celeste Durant

The fetid odor of rotting avocados fills the bedroom of a small white stucco and brick house in San Pedro Las Huertas, in central Guatemala. The room, a makeshift laboratory, is crammed with tables, a microscope and 15 large white plastic and mesh dome cages, some of which rest on the guest beds. In each cage, a large pile of once-healthy avocados (collected from wild avocado trees from the cities of Alotenango, Antigua, Coban, Iztapa, Santiago Atitlan and Sumpango) sits in varying stages of decomposition.

UCR entomologist and researcher Mark Hoddle, his nose and mouth protected with a white mask to fend off the olfactory assault that has pushed the air from the small room, sits in front of the greenish-gray mounds of decay in the cages. He ponders the entomological who-done-it before him as he prepares to crack open and examine decaying fruit. He is looking for the insect pests feeding inside.

A man fascinated by insects since his boyhood in New Zealand, Hoddle opens the nearest cage and grabs one of the liquefying globs. Carefully, he inspects it for clues to the identity of the culprit that could be living inside.

He focuses his eyes past the mold and

bacterial colonies feasting on the surface of the avocado and probes deeper for tell-tale signs of what is destroying the fruit from the inside out.

Finally, he finds what he's looking for. "Caterpillar poop," he says half-smiling. "This is a keeper!"

The villain? *Stenomoma* – a pale beige moth whose larvae feed on the seed and pulp of the fruit of the avocado tree.

Native to Mexico, Central America and South America, the avocado is the only member of the laurel family that produces fruit edible to humans. The Aztecs called it "ahuacuatl" – the testicle tree – because of the way the fruit grows in clusters on its branches. They hid their maidens during harvesting season because they believed it had aphrodisiacal properties.

The first recorded planting of an avocado tree in California was sometime before 1856 in San Gabriel. By 1908, railroad magnate Henry E. Huntington, who had the chef at his downtown club save seeds for him, planted the first commercial avocado orchard in San Marino.

The market for avocados grew rapidly. Just seven years later, there were enough commercial avocado growers in the state to

lobby for a quarantine on competing Mexican and Guatemalan avocados to prevent "the introduction of seed weevils, stem borers and other pests."

The quarantine against imports of foreign avocados lasted 83 years. During that time, no fruit-feeding avocado pests from Mexico and Central America established themselves in California orchards.

Then in 1997 the U.S. Department of Agriculture (USDA) – some say to satisfy requirements imposed by the North American Free Trade Agreement (NAFTA) – partially lifted the ban to allow Hass avocados from "certified pest free zones" in Mexico into the United States.

In the first phase, avocado fruit imports were allowed in only 13 non-avocado growing states, mainly in the northeast section of the country. Later, imports were authorized in all but the three avocado-producing states, California, Florida and Hawaii, which lobbied heavily to keep imports out. This year, the three remaining states reluctantly joined the fold.

USDA officials are sensitive on the subject of how much influence NAFTA had in lifting the ban. They maintain that talks aimed at easing restrictions began years



before the treaty, but admit NAFTA may have accelerated the process.

“I don’t think it was directly responsible for any breakthrough,” says the USDA’s Brian Gruenfelder, director of the Office of Regional and Bilateral Negotiations and Agreements, “but it probably helped to facilitate the dialogue and process.”

Agency officials are also emphatic in their defense of the measures they have and will continue to take, to protect U.S. avocado growers from unwanted invasions

imports could spell trouble because of the huge volume of fruit that will be coming into California, and what he calls “the impossibility that all pests have been effectively excluded in the country of origin.”

“I don’t think anyone from the USDA goes to these countries for an extended period of time to do the kind of analysis we are doing in Central America,” says Hoddle. “We’ve cracked open almost 4,500 avocados looking for pests that feed on the fruit.”

travel after sunset should be avoided. Travelers should exercise extra caution on the roads in rural areas.”

“Violence and robberies are a big issue every day in Guatemala,” Hoddle says matter-of-factly. On one field trip, in the course of gathering specimens near an avocado orchard, armed men guarding the orchard informed him that they had chased three avocado thieves the previous night, corralled them against the gate and “blasted them with shotguns.”

“They said the bodies of the three people they’d shot were taken to the local hospital and the police informed that it was a rabbit hunting accident,” he recalls.

In addition, there are also daunting natural obstacles.

“We’ve had to drive through rivers so deep that the water comes up to the doors of the car and bow waves wash over the hood. Some of the roads are so bad that once you’re committed, you have to keep going; you will either drive out or get stuck in the mud, or the bottom of the car will get hung up on a large rock or center ridge.”

So why does he do it?

Every month new insects immigrate to California, arriving in the cargo holds of ships and airplanes, in car trunks and truck trailers and on fruit in the lunches of people entering the United States from countries north, south, east and west. Any one of these insects has the potential to ruin crops. Because of this, an average of six new pest species establish themselves in California each year. Some of these pests cause severe economic and environmental damage to the state.

### Insect Forensics

The research Hoddle is conducting is what he calls a preemptory strike in an on-going war. He is searching out potential threats to California avocados so that he and his colleagues can develop what are called biological controls, which are defined as “the intentional use of host specific predators, parasitoids and pathogens by

humans to suppress population growth of noxious plants and animals.” In other words, it’s the science of managing agricultural pests with natural enemies rather than using pesticides.

The Guatemala project has two goals.

The first, says Hoddle, “is cataloging, in advance, natural enemies of pest species, so if necessary in the future they can be recruited, imported, tested and released in California for biological control of new avocado pests.”

Second, “we are isolating and identifying pheromones from pest-moth species that can be used in what are called monitoring traps that are deployed around California airports, seaports, residential and agricultural areas. Early detection of an avocado pest incursion with monitoring traps may make eradication a feasible option.”

Over the next few weeks, Hoddle will attempt to establish a colony of *Stenoma* moths in the laboratory bedroom.

“Once we have moths, we breed them and once they lay eggs and we have caterpillars that turn into pupae, a quiescent phase in the moth life cycle, that provides the safest time to ship specimens back to UC Riverside.”

Once they arrive at the university, the pupae will be allowed to hatch at UCR’s state-of-the-art Insectary and Quarantine facility.

“Males and females are ready to breed within one-to-two days of hatching,” says Hoddle.

And when they do, Jocelyn Millar, a professor of entomology who specializes in the identification and synthesis of insect pheromones, will go to work.

Pheromones are chemicals used in communication between members of the same species. They’re used by everything from ants to humans. There are alarm pheromones, aggression pheromones and sex pheromones. The sex pheromones act as a chemical perfume that lets males know there’s a good time to be had close by.

Millar will extract a sample of the sex pheromone from *Stenoma* females and put it in a machine that will analyze its chemical make up. He will then use this analysis to create a synthesized version of the pheromone that will be placed on traps to attract and kill any males unfortunate enough to land in a California avocado orchard – all this without the use of environmentally unfriendly chemicals.

### A Century of Sleuthing

Hoddle and Millar are just two in a long line of UCR scientists whose work has provided protection for California farmers and their crops for more than 100 years.

On Feb. 14, 1907, what was then called the Citrus Experiment Station opened its doors in Riverside at the request of local citrus growers who wanted more effective ways to protect their crops from diseases and pests.

The station, which provided the impetus for the creation of UCR in 1954, is now called the Citrus Research Center-Agricultural Experiment Station. In the intervening century its mission has expanded to include the protection of other crops, the development of new species of fruits and vegetables, and the search for environmentally safe ways to combat plant diseases and pests.

Citrus station scientist Harry Scott Smith, who later became one of UCR’s founding professors, was the first to use the term biological control in 1919 at a meeting at the Mission Inn in downtown Riverside. Four years later he and four colleagues formed the Division of Beneficial Insect Investigation, the world’s first academic department devoted to the science of biological control.

In the 1920s, station scientists stopped the citrophilus mealybug, a major citrus pest, with a parasitic insect imported from Australia. In the 1940s, station researchers halted the spread of tristeza disease, which

threatened to wipe out the state’s citrus industry, by developing a new disease-resistant rootstock.

More recently, UCR entomologists have developed biological controls to stop pests like the glassy-winged sharp shooter from destroying the state’s vineyards and almond orchards, and saved its avocado orchards from the ravages of the red-banded whitefly, the avocado thrips and the perseia mite. Each new advance is the result of painstaking detective work and science.

Back in Guatemala, Mark Hoddle’s crime scene investigation of potential threats to U.S. avocados continues. He and his wife, Christina, will spend countless hours gathering more specimens in their rigorous pursuit of avocado pests and the biological control agents that might be useful in controlling them.

While the solution to a potential *Stenoma* moth attack may lie in pheromone-laced traps, Hoddle and his team know that they will need an arsenal of weapons, each designed to fend off a specific predator.

“The flies and beetles may not have pheromones so we won’t be able to design traps in the same way,” he says.

As a back up, “We are hunting for potential natural enemies. We’ve found a number of them and we are well-positioned for a biological control program in case they cross the border and establish damaging populations in California orchards.”



*Stenoma* larvae feed on the seed and pulp of the fruit of the avocado tree



“We’ve cracked open almost 4,500 avocados looking for pests that feed on the fruit.”

— Mark Hoddle



of avocado pests.

“We wrote plant health regulations that the exporting countries need to follow to make sure the fruit and vegetables don’t have pests,” says Eric Nichols, trade director for the Western Hemisphere for the USDA’s Animal and Plant Health International Services. “We actually have people stationed in Mexico who monitor the programs and make sure all the pest management steps are being complied with.”

Nichols feels a greater risk to U.S. growers comes from avocado smugglers. “That’s probably a more realistic scenario for introducing these pests.”

Still, Hoddle and others feel the legal

So far he’s found four different species of avocado-devouring moth.

“. . . and that’s just the moths. This inventory doesn’t include the beetles and flies we are finding.”

Some of the insects he’s found are entities known to be avocado pests but others are unknown and the full extent of the damage they could potentially cause is undetermined.

### Searching for Evidence

The 2,000-mile journey from Riverside to the remote interior of Guatemala is not for the faint of heart. One travel Web site warns, “a high level of violent crime is committed against foreigners . . . Intercity

## A Boom with a View

UCR grad Dan Kish teaches the blind to “see” by sensing echoes that bounce off the objects in their environment.

By Laurie Williams

It took Dan Kish a long time – a big chunk of his childhood and adolescence – to acknowledge that being blind was a fundamental part of who he was.

“It was a considerable struggle,” said Kish (’88), a psychologist who has found success helping other blind people learn to get around independently. “I carry it lightly now, but for years I wouldn’t let the word ‘blind’ be used around me. I was resentful of how other people treated me as less than human. But in the end, it helped me understand what other people go through while they are adapting to blindness.”

Executive director of the Southern California-based nonprofit World Access for the Blind, Kish travels the globe teaching echolocation – the ability of humans to sense objects in

their environment by hearing echoes off those objects.

Kish’s students “click” with their tongues and listen as the echoes bounce back. They get a surprising amount of information that way, Kish said – including locations of walls and doorways, curbs and stairs, and obstacles such as furniture and other people. The technique lets them rely more on their own senses and less on other people’s, he said.

Kish’s goal for each student is a full life, from getting around town to playing team sports and riding bikes. Some of his students have amazed him with their accomplishments.

“One is a boy named Daniel I worked with in Mexico,” Kish said. “He’s 13 now. He was 6 when he became blind – hit by a truck while riding his bike.”

Daniel was badly injured, and doctors thought he might never walk again, but, Kish said, except for his vision, he has made a full recovery.

“He had become hard and angry, but in the work we did he was able to begin playing soccer again, able to regain his self-respect and standing in the community,” Kish said. “Now he plays soccer with his sighted peers and is at the top of his class in school. It was amazing how well he responded –

even having been so badly hurt, having been so angry, he saw what was good for him and was able to take it in and make it part of himself.”

The first blind person certificated on a national level to teach orientation and mobility, Kish has been widely featured in the media and is in worldwide demand as a speaker. He has written extensively, teaches students individually and in groups, and continues to lead other blind people on such expeditions as mountain biking tours and hikes in the wilderness.

Blind people have used echolocation for centuries but Kish has expanded on the technique in order to challenge the limitations a sighted society places on people who can’t see. His work demands most of his time and that’s the way he likes it.

“I’m really a 24/7 kind of person – talk about someone who takes his work home . . . I don’t have a specific process for decompressing, but I go hiking when I can and keep in touch with my spirituality.”

Kish started his UCR experience in music – a lyric baritone. He studied voice in depth and thought about becoming a professional musician, but found himself drawn to psychology.

He said his UCR undergraduate experience “kindled my interest in the scientific side of echolocation, gave me the background I needed in human perception and launched me to where I am now in terms of teaching and helping people.”

Psychology may have lured Kish away from music, but he’s thought about putting together a CD or two to raise money for World Access for the Blind.

“We’re outgrowing our funding,” he said. 📖

*To learn more about World Access for the Blind or to donate to the program, visit [www.worldaccessfortheblind.org](http://www.worldaccessfortheblind.org).*



## Behrouz and Nora Moti

By Kim Lane

Behrouz and Nora Moti met while attending Middle East Technical University in Turkey. They came to the United States in 1969 to further their education. The family, which included their young daughter and son, moved to Riverside so that Behrouz could attend UCR, where he earned a master’s degree in statistics and a Ph.D. in applied statistics. They have lived here since. Nora is a registered nurse.

### The Gift

The couple established an annual medical scholarship to honor their son, Arya, who suddenly passed away in August 2006 at the age of 36.

### Their Legacy

Valuing education. Daughter Pantea Peters followed her mother’s career path and is an emergency room nurse. Arya, who earned his B.S. degree in biology from UCR, turned his love of sports into a career by becoming an orthopedic surgeon who worked with national sports teams.

### Memory

Nora remembered her son’s humanitarian nature. When a local Girl Scout troop approached him to purchase cookies to send to the troops, Arya bought 500 boxes. He set up a scholarship for the daughter of a friend who died of cancer. Just a month before he died, he traveled to Turkey for a family reunion. While there he offered his orthopedic services at a free clinic.



# Never Give Up

That is the advice that **Robert Hine** gives to parents who face difficult challenges. He recently wrote “Broken Glass,” a book about the heartbreak – and triumph – of parenting a schizophrenic daughter.

By Robert Hine, UCR professor emeritus of history.



When I was asked to write about life with my daughter, Elene, who at the age of 51 has struggled with mental problems for much of her life, I asked myself if I was qualified to provide insight for other parents.

After all, every parent has a child who is different and most parents have a child who has some real problem, even if it's only being too short or having severe acne or proving unduly rebellious.

So is there anything I can add to simple sympathy for being a parent, for the rocks in the road, for the task we

accepted or were assigned as we added years to our teen ages?

My daughter was a beautiful child, smart (assigned to a gifted, ungraded program

after the second grade), talented (she could sight-read Mozart at an incredibly early age and her Chopin could bring tears). Her charcoal drawings rivaled Leonardo (in my eyes).

By her late teens we knew she was more than a gifted child; she had problems but no psychiatrist would diagnose anything serious. Her fears grew enormous, fears of microwave ovens, smoke alarms and an incredible array of technologies. By then she was living in Santa Cruz, a long way from our home in Riverside. She was becoming a frequent patient in the mental ward of the hospital. My wife and I visited constantly, trying to balance two lives 500 miles apart.

At one point she was lost, homeless, wandering somewhere on the streets. It was the early 70s, and the police were helpless before the number of homeless. My wife and I were distraught, determined to find her and bring her home. We began a long search into every park, street corner or likely neighborhood. One night we saw a lone young woman on a bench in a small park. I went over thinking it looked much like my daughter. It proved not to

be, but I apologized to her, saying I thought for a bit that she was someone else.

“You look like my dad,” she said. She was ragged, dirty, maybe stoned and altogether pitiful. “I’ll bet he’d like to see you,” I said. “Don’t you believe it,” she answered promptly. “He doesn’t want to see me. He threw me out.”

There wasn’t much more I could say except “I’m sorry.”

I know there are many parents who can’t cope with a mentally disturbed child. They try over and over, but eventually are wrung out and refuse to continue their support. If the child persists in acting strangely, then they cut the ties, forget the past and go on their way. It’s an all-too-frequent response and often seems abundantly justified. “Tough love” is the catch phrase of excuses.

**“My wife and I were distraught, determined to find her and bring her home. We began a long search into every park, street corner or likely neighborhood.”**

— Robert Hine

All I can say to such parents is “No. Never give up.” Support is important, not necessarily overt like cash, but just being there, giving the impression that you care, that you want things to be right again.

It’s little enough, but it can make all the difference in the world. 📖

For more information about Hine’s book, see the Page Turners section on pages 20-23.



Nearly 300 people, including 70 student scholarship recipients and their parents, attended the UCR Scholarship celebration, which was held Jan. 20. The annual event brings together scholarship donors with the students who benefit from those funds. During the event, Alumni Association President Jack B. Clarke Jr. ('80) announced the launching of a campaign to establish a \$2 million scholarship endowment.



More than 500 people gathered in the Raincross Ballroom of the Riverside Convention Center for the Valentine's Day Centennial Gala in celebration of the 100th anniversary of the Citrus Research Center-Agricultural Experiment Station. The following day there was a Centennial Symposium that examined the future of agricultural sustainability and new technologies.



## Enhance Your Success ... Join the UCR Alumni Association for Life



**Lloyd Levine ('92)**  
California State Assemblymember  
District 40

"My time at UCR was about far more than just my degree. It provided me with the base I needed to go on and win election to the California State Assembly in 2002. Since then, I've turned my personal passion for fitness into a crusade to improve the health and well-being of next generation Californians by creating my own fitness challenge for schools. As a proud Highlander and lifetime member of the UCR Alumni Association, I enjoy staying connected to my dynamic alma mater, as well as to those close college friends, mentors and fellow alums who recognize that winning a lasting victory depends on creating success for others."

### Become a lifetime member of the UCRAA today!

- Act now. Alumni Association membership rates are going up.
- Pay one fee and enjoy a \$95 discount per lifetime membership.
- Last year alone more than 250 fellow Highlanders joined.
- A great gift idea for Highlander friends and family.

To join, call (951) UCR-ALUM (827-2586)  
or go to [www.alumni.ucr.edu/membership](http://www.alumni.ucr.edu/membership)

To see life members who have joined in the last year visit  
[www.alumni.ucr.edu/membership/life.html](http://www.alumni.ucr.edu/membership/life.html)

## '50s



'58 **Charles D. Field**  
was elected to  
serve a four-year  
term on the

Western Municipal Water District Board of Directors. He retired in 2004 after 14 years with the Riverside County Superior Court. Since then, he has been working as a mediator with the Inland Valley Arbitration and Mediation Service (IVAMS), an alternative dispute resolution service based in Pomona. He also serves on the boards of the UCR Foundation, the Riverside Philharmonic, the Maloof Foundation, the Riverside Arts Council and the Mission Inn Foundation. Charlie and his wife, Virginia, live in Riverside.

## '60s

'64 **Barbara Buhler Lynes** ('67 M.A., '73 Ph.D.) is senior curator for the Georgia O'Keeffe Museum and the Emily Fisher Landau director for the Georgia O'Keeffe Museum Research Center in New Mexico.

'65 **Dale Lick** (Ph.D.) received the Lifetime of Academic Achievement award from Lapeer High School. Dale lives in Tallahassee, Fla. He has served as president of Georgia Southern, Maine and Florida State universities and is currently a professor at Florida State University.

'68 **Dean Jones** received his education specialist degree in educational leadership from the University of Idaho. His wife, Kathy, is a reading teacher in Boise schools. They have two children. Mike, 24, works for St. Luke's Hospital in Boise, and Ali, 18, is a freshman at the University of Idaho.

'69 **Randy Van Gelder** was appointed general manager and chief engineer for the San Bernardino Valley Municipal Water District (Muni). Randy is the seventh general manager since Muni was formed by an election in 1954. He joined Muni in 1979 as computer and information systems manager, and subsequently became director of finance and administration.

## '70s

'71 **Diane Mindrum** is the CEO of Mindrum Precision Inc., a glass and ceramic parts manufacturing

company in Rancho Cucamonga. She took over the business from her father, Paul Mindrum, who started the company in 1956 out of his garage.

'74 **Robert Gregory Taylor** is a retired presiding judge at the Riverside County branch of California Superior Court. He was selected to serve on a five-member committee that has been tasked with examining Riverside County's elections procedures after a range of glitches and delays cropped up in the November election.

'76 **Greg Brown** ('78 M.A.) spent six years working at Union and Getty oil after obtaining his master's degree. He spent the last 21 years at Boeing as manager of market research and has since retired and has gone back to school to study planetary geology ... **Chuck Libolt** is an advanced placement and international baccalaureate history teacher at North High School in Riverside. He was one of 15 high school teachers to earn a National Endowment for the Humanities grant to study in Europe this summer. Chuck, who was a medic in Vietnam, focused on medical practices during World War I, including the improvement of medical technology and methods of treating the wounded. He is a two-time recipient of a National Endowment for the Humanities grant.

### TAKE FIVE



## Ivory Rose Parnell

UC Riverside, Bachelor of Arts degree in Ethnic Studies, 2005

As volunteer/internship program director at Watts Labor Community Action Committee (WCLAC), Parnell oversees the recruitment, orientation, training, placement and recognition of volunteers throughout the organization, and has developed a corps of more than 300 volunteers and interns who give their time.

- 1. What's the most fun thing about being a volunteer/internship program director?**  
Helping people realize the skills, value and potential they possess is incredibly rewarding. It is so inspiring and motivating to help people awaken skills and talents they did not know they had.
- 2. Who was the most unusual/interesting volunteer who has worked for WCLAC?**  
I've worked with a group of young boys ages 10 to 14. Devonte, DeJohn, Lenard and Demeterius volunteer for the events and activities we sponsor. They've helped greet guests at our monthly blues and jazz event, conduct data entry tasks and brainstorm ideas for our youth leadership volunteer component. They have faced some of the most challenging circumstances but have persevered. They are an inspiration.
- 3. You traveled to South Africa during your time at UCR, helping out at an HIV/AIDS center. What about that experience contributes to who you are today?**  
My experiences in South Africa, combined with my overall experiences as a community organizer and scholar, really illuminated and solidified my life's purpose of helping correct the pervasive damage and suffering caused by social injustice manifested through racism and global poverty. South Africa was my first experience out of the United States and it really inspired a strong desire to continue to travel and live my life as a global citizen.
- 4. Where do you see yourself in 10 years?**  
This year, I will be switching career gears working with FORGE, an international non-governmental organization (NGO) and implementing partner of the United Nations Refugee Agency (UNHCR) that empowers and enriches the lives of refugees. Serving as a project facilitator with FORGE, in July, I will be traveling to Zambia, Southern Africa, and working in a refugee camp implementing a resource and education initiative that will support Congolese refugees in their transition back to the Democratic Republic of Congo. So, I imagine in the next 10 years I'll be involved in similar community-driven development work that supports disenfranchised and vulnerable people.
- 5. When you spoke at UCR a few months ago, you mentioned that UCR was a life-changing experience. How?**  
Because of the myriad opportunities I took advantage of – to learn, discover, think, lead and grow. At UCR, I gained an academic and real-world knowledge about society and its triumphs and challenges, and I learned about the responsibility I have to make a meaningful contribution to correcting social ills. Beyond that, UCR afforded me the opportunity to meet incredible people and also travel to South Africa, where I discovered so much about myself and my purpose.

Names printed in **Blue** indicate members of the UCR Alumni Association. To update your membership, or to share information and photos for possible use in Class Acts, visit [www.alumni.ucr.edu](http://www.alumni.ucr.edu).

## UCR Football Alumni Reunion



Don't miss this first-ever reunion for players, coaches and friends of the UCR football program. The reunion will be held June 22 and 23.

[www.alumni.ucr.edu/football](http://www.alumni.ucr.edu/football).

## The Best of the Best

The UCR Alumni Association will recognize outstanding alumni during the 21st Annual Alumni Awards of Distinction Banquet, 6-9 p.m., April 21 in the University Theatre. Reservations are requested by April 13.

Honorees will include: Edward J. Blakely ('60), Distinguished Alumnus Award; Jean M. Easum ('75), Alumni Service Award; Daniel I. Goldmark ('94), Outstanding Young Alumnus Award; Brian N. Hawley ('89, '91 M.S.), Honored Alumni Award for the Bourns College of Engineering; Joel R. Reynolds ('75), Honored Alumni Award for the College of Humanities, Arts and Social Sciences; William H. Fenical, ('68 Ph.D.), Honored Alumni Award for the College of Natural and Agricultural Sciences

## Travel with Friends

Take a trip to Ukraine and Romania in the company of fellow UCR alumni. The tour is scheduled for Aug. 3-16 for \$3,295. Looking for something different? Try Ireland's Ennis and Kilkenny, Sept. 1-12 for \$4,095; the Greek Isles, Sept. 22-Oct. 3 for \$4,195; or China and Tibet, Oct. 9-24 for \$3,999. All prices are per person, double occupancy.



**How to contact the UCR Alumni Association**  
**(951) UCR-ALUM or (800) 426-ALUM (2586)**  
[ucralum@ucr.edu](mailto:ucralum@ucr.edu)  
[www.alumni.ucr.edu](http://www.alumni.ucr.edu)



### 04.11

#### San Diego Area Alumni Reception

6-8 p.m. Meet and network with fellow alumni and hear about the latest developments taking place at UCR.



### 04.26

#### Alumni Association Spring Quarter Meeting

Executive committee meeting, 1:30-3 p.m., University Extension, Suite 6.

UCR Alumni Association spring board meeting, 3-6 p.m., University Village Conference Room 207.



### 04.28

#### Alumni Family Barbeque and UCR Baseball Game

4 p.m. family barbeque at the UCR Sports Complex; 6 p.m. first pitch vs. Cal State Fullerton at UCR Sports Complex; \$10 UCRAA members and kids 12 and younger, \$15 nonmembers.



### 04.28

#### UCR Parents Association Meeting and Luncheon

9 a.m.-1 p.m. at UCR. The UCR Parent of the Year award will be presented at this annual event. Reservations requested by April 19.



### 07.14

#### L.A. Alumni Chapter Annual Hollywood Bowl Event

Join the Los Angeles Chapter of the UCR Alumni Association at its annual Hollywood Bowl outing featuring "John Williams: Maestro of the Movies" with the Los Angeles Philharmonic, conducted by John Williams. \$36 UCRAA members; \$41 nonmembers.

For more information about these and other alumni events, visit [www.alumni.ucr.edu](http://www.alumni.ucr.edu).

'77 **Kay Cenicerros** ('79 M.

Admin.) was selected to serve on a five-member committee that has been tasked with examining Riverside County's elections procedures after a range of glitches and delays cropped up in the November election. Kay is a former Riverside County supervisor from the 3rd District.

'79 **Leslie Biesecker** is head of the genetic disease research branch of the National Institutes of Health's National Human Genome Research Institute. His research centers on human developmental syndromes that cause physical malformations, some of which are caused by rare genetic variations. He is interested in examining the genetic architecture of human disease, including both rare genetic diseases and more common ones, such as diabetes, high blood pressure and heart disease. Leslie provided pediatric care in St. Louis with the National Health Service Corps, a U.S. Department of Health and Human Services program that matches primary care clinicians with communities of need. He received an NIH Director's Award in 2002 for his participation on a panel that developed a process to use DNA to identify victims of the Sept. 11 World Trade Center attacks ... **Louis Vandenberg** is the general manager of KUCR, which was selected as one of

three college stations featured in the mtvU awards show. The MTV awards special honors the type of college/indie music featured on KUCR. KUCR was also awarded the Inland Empire Hispanic Image Award for its "Radio Aztlan" programming.

## '80s

'80 **Eron Manusov** has been a family physician for the past 26 years. He is at Presbyterian Intercommunity Hospital Family Practice residency training program in Whittier, Calif. Eron completed a fellowship in education and management at the University of North Carolina, Chapel Hill, and spent five years as an assistant professor at the Fred Hebert School of Medicine in Bethesda, Md. He is president of a rural health clinic in North Carolina and has experience as a leader in hospitals, multiple medical clinics and educational settings. Eron is fluent in Spanish and has been active in designing programs for the underserved, migrant workers and the poor.



'84 **Gregory Andranovich** (Ph.D.) was presented with the Outstanding Professor Award from California

State University, Los Angeles. Greg is a published author and expert in urban politics. At Cal State L.A., Greg serves on the Summer Academic Senate Executive Committee, and the Natural and Social Science Curriculum Committee. He currently chairs the political science department ... **Frank Assumma** is supervisor of the Riverside-Jurupa Regional Gang Task Force. Frank was honored by the Riverside Sport Hall of Fame's Wall of Distinction. He was a six-time All-American in track and cross country. Frank is also a lecturer at local colleges, teaching about street gangs and giving talks regionally for the federally funded National Youth Gang Center ...



**Ruben Barrales** is president and chief executive of the San Diego Regional

Chamber of Commerce. He previously served five years as the White House's liaison to state and local officials as deputy assistant to President George W. Bush.



'86 **Peggy Honein** is the branch chief for the Center of Disease Control's

Birth Defects Surveillance and Epidemiology Branch. She joined CDC in 1997 and has won a number of awards. Her publications include research on the role of smoking in birth defects, the impact of folic acid fortification on neural tube defects, the prevention of isotretinoin

embryopathy and medication use during pregnancy. Peggy has most recently served as the lead epidemiologist on the National Birth Defects Prevention Study and as acting team leader for the Birth Defect State Prevention Team. Peggy married Tony Honein in 1991 and lives in Atlanta, Ga., with their children, Chris, 11, and Jennifer, 9.

## '90s

'90 **Pedram Salimpour** is senior vice president of CareNex Health Services, a Los Angeles-based firm that provides patient management services to hospitals and health insurers. Pedram has authored 43 medical journal articles on a wide range of research projects and is working on his first novel, a story that chronicles life in medical school. He is a practicing pediatrician.

'91 **Kyle Brodie** was appointed to serve as a judge with San Bernardino County. Since 1994, Kyle was a deputy attorney general with the state Department of Justice. . . **Frank Dittmer** wants to hear from his friends from the class of 1991. He can be reached at [fiestaguy@aol.com](mailto:fiestaguy@aol.com).

'92 **Jacqueline (Jackie) Walden** (M.A., '95 Ph.D.) moved two



## Andrew Leeka

UC Riverside, Bachelor of Science degree in Biology, 1980

Leeka is president and chief executive officer of Good Samaritan Hospital in Los Angeles. The facility has approximately 2,375 employees, handles almost 100,000 outpatient visits and admits 17,000 patients a year.

- 1. As head of Good Samaritan Hospital, what's the most difficult decision you have made in the past year?**  
The community we serve is diverse both culturally and economically. Approximately 90,000 people are homeless in Los Angeles County and 2 million are uninsured. This places a tremendous burden on our emergency department, resulting in a \$10 million loss each year. The difficult decision we faced this past year was if and how we would keep our emergency department open. Working with state legislators, we created a new "Distressed Hospital Fund" for hospitals throughout California faced with similar challenges.
- 2. What advice about the hospital work environment would you like to share with newly minted M.D.s?**  
Celebrate "Be Kind to Your Administrator Week." You went into medicine to uphold the Hippocratic oath while showing compassion for each patient you touch. Even though the government doesn't always recognize your value in terms of your compensation, the nurses, technicians and administrators working alongside you sure do.
- 3. If you could build the ideal hospital, what element of success would be at the top of your list?**  
An ideal hospital combines elements of safety, efficiency and beauty. A healing environment lifts patients' spirits, makes them feel secure and allows for privacy during their most trying times.
- 4. You are an avid cyclist. How does it help you in your day job?**  
Riding clears my head and gives me a great cardiovascular workout. I have brought the same passion for bicycling to the hospital as well. Each year, I host the "Blessing of the Bicycles" at Good Samaritan that is presided over by a Catholic priest, Episcopalian reverend, rabbi, imam and Buddhist monk. Bicyclists are given their yearly blessing for safe travel and we remember and honor those who lost their lives riding.
- 5. What's one important life lesson you learned at UCR?**  
I was admitted to UCR under the High School University Program, attending senior year in high school and concurrently take a class at UCR. I chose to take calculus from Dr. Chalmers. My high school math teacher not only discouraged me but said I would flunk since I had never taken calculus and was competing against seasoned university students. I took advantage of Dr. Chalmers' office hours, worked with the TAs on assignments outside the normal course work and really applied myself. They had confidence in me and gave me a chance to succeed. I, too, want to give others a chance even though they may not have all the qualifications or experience. Oh, and upon graduation, I shared the news with my high school math teacher that I earned an A-plus as the top student.

years ago to the woodlands of Grants Pass, Ore., where she serves on the board of directors and ethics committee of the local Lovejoy Hospice. Her specialization in gerontology prepared her for these challenging positions. Jackie authored one of the chapters in Left Coast Press' new publication "Women in Anthropology: Autobiographical Narratives and Social History." In the book, Jackie gives thanks to the anthropology department and her friends at UCR for their help in her career.

'94 **Robert Lynch** graduated from Georgetown Law in May 1997 and has been working in civil litigation since. He is with the McMahon Law Firm in Riverside. On June 21, 2003, he married Donna and the couple honeymooned in Tahiti. ... **Kelin Wang** (M.S., '01 Ph.D.) received the Resident Clinical/Basic Science Research Award from the American Society for Therapeutic Radiation and Oncology (ASTRO). The award is a one-time award designed to promote clinical research by young scientists and is granted to the top three resident authors of significant annual meeting abstracts in physics, biology and clinical practice. The award includes an honorarium of \$1,500. Kelin won for his study of acute and chronic hypoxia in head and neck cancers based on

serial PET-FMISO images. He is a research fellow in medical physics at Memorial Sloan-Kettering Cancer Center in New York.

'95 **Robert Dorn** is directing the syndicated entertainment news show "Extra" ... **Jason Haukoos**



received a two-year, \$84,000 grant from the Centers for Disease Control to

study the clinical effectiveness clinical efficiency and the cost effectiveness, of routine, voluntary rapid HIV tests in the emergency room. The study will compare the emergency department test to a targeted HIV testing program. The results will determine best practices for identifying patients with HIV infection in the emergency department. Jason is a physician in emergency medicine at Denver Health (formerly Denver General Hospital) ... **Jennifer Johnson** passed the final exam for licensure as a marriage and family therapist. She is working as a program coordinator for the Community Reintegration Program at Gateways Satellite in Los Angeles, which provides treatment in lieu of jail time for chronically mentally ill adults.

'96 **Arthur Salazar** and **Laura (Camacho) Salazar** ('95) relocated to the Irvine area where Arthur has joined the public accounting firm of Wright, Ford, Young & Co. as a

tax manager ... **Anna Sampaio** (M.A., '00 Ph.D.) was elected to serve a two-year term on the National Council of the American Political Science Association. Anna is associate professor of political science at the University of Colorado at Denver and Health Sciences Center, where she teaches and researches in the areas of Latina/o politics, immigration, ethnic/racial politics, gender politics, post-colonialism and transnationalism. She has worked with and served on the boards of several nonprofit and community-based organizations serving the Latino population, including the Latina Initiative, Escuela Guadalupe, Escuela Tlatelolco and the Mexican American Community Service Agency ... **Robert Vargas** is a licensed psychologist with a private practice in Berkeley, Calif.



'98 **Chris Bitters** is the general manager of Your Delmarva

Shorebirds, a minor league baseball team based in Stockton, Calif. Chris has experience with minor league baseball, holding positions from ticket sales, operations, merchandise and sponsorship sales to assistant general manager. He oversaw the Rancho Cucamonga Quakes through two logo changes,

## TOP 5 REASONS TO JOIN THE UCR ALUMNI ASSOCIATION!

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stadium renovations including an expanded picnic area, updated luxury suites and the installation of a new video board. Chris and his wife, Melissa, have two daughters, Hailey and Emily... **Josefina Canchola** completed a master's degree in management in July 2006 from the University of



Phoenix ... **James Giacomazzi** is the men's basketball coach at

Sacramento's Cosumnes River College. James is a member of the National Association of Basketball Coaches (NABC) and the California Community College Men's Basketball Coaches Association (CCMBCA). He resides in Elk Grove with his fiancée, Kristi, and their dog, Hooper.

'99 **Kenneth Wentz III** was recently elected president of the California Young Lawyers Association, the nation's largest association of young lawyers. He is an associate with the law firm of Parish & Small in Stockton.

## '00s



'00 **Paul Cook** (M. A.) was elected to the California Assembly, 65th

District, in November. He served for 26 years in the U.S. military

before retiring from the Marine Corps as a colonel. Paul was honored with a Bronze Star, two Purple Hearts and numerous other awards for his actions in combat. He and his wife live in Yucca Valley, Calif., where he served terms as city councilman and mayor.



'03 **Eduardo Garcia** is the youngest person to serve as mayor of Coachella

since the city incorporated in 1946. He previously served as a councilman for the city of Coachella ... **James McElvain** (M.A., '06 Ph.D.) is a Riverside County sheriff's administrative lieutenant at the Perris station. James is a 10-year sheriff's veteran who also has worked for the Orange County Sheriff's Department ... **Bin Shuai** (Ph.D.) is a Wichita State University assistant professor in biological sciences. She was awarded more than \$77,000 by the National Science Foundation to develop a new course called "Learning Plant Molecular Biology Through Research-Oriented Investigations."

'06 **Briana Frazier** is a Realtor and first-time buyer specialist with The Frazier Group real estate firm.

### Marriages and Births

**Randall Bradley** ('81) was married Oct. 14 to the former Joanne Enomoto Beardwood. The couple reside in Placentia, Calif.

**John Leyman** ('90), and his wife, Kelley, announce the birth of their daughter, Jane, born in December 2006. John is government relations director for Horizon Blue Cross Blue Shield of New Jersey.

**Takashi Wada** ('90) announces the birth of his first child on Dec. 30. Joaquin Michael Hideyoshi Wada weighed 8.66 pounds and was 21 inches long at birth. Takashi is the chief public health officer for the city of Pasadena's Public Health Department.

**Ariel Vitali** ('94) married Terry Bingham on Sept. 22. He accepted a new position at Texas Tech University Health Sciences Center in Lubbock. He will be completing his residency in general psychiatry.

**Joanna (Dyrr) Wagoner** ('94) and her husband, William, welcomed their first daughter, Lauren Ariel, in July 2006. The family lives in San Francisco.

**Amanda (Harvey) Wolf** ('96) and her husband, Brian, welcomed a new baby in April 2006 named McKinney Riley. He joins older brother Shaun Curtis, age 4. Amanda is getting ready to return to the classroom as a high school English teacher after an extended maternity leave. She resides with her family in Orange County, Calif.

### WE REMEMBER

#### FACULTY AND STAFF

**Greg Bredbeck**, 44, associate professor of English and chair of the minor in gay, lesbian, bisexual and transgender studies died on Feb. 6. A nationally known teacher of queer studies, and Renaissance literature, Dr. Bredbeck joined UCR's English department in the fall of 1989. His research areas included examinations of Shakespeare and Milton, as well as E. M. Forster, Oscar Wilde and Frank O'Hara, the sexologists and 1970s disco.

**Xiao-Song Lin**, 49, UCR professor of mathematics, died on Jan. 14 in Riverside.

Dr. Lin was born in China. He received many awards, including the prestigious Sloan Fellowship and was supported continuously by the National Science Foundation. He was recently named Beijing University's Chang Jiang (Yangtze) Scholar by the Chinese Ministry of Education for 2006-08. He was on the editorial boards of several mathematical journals and was co-editor-in-chief of Communications in Contemporary Mathematics, which he also co-founded.

He is survived by his wife, Jean (Jian-Pin) He, electronic reserve coordinator at UCR Rivera Library; sons Kevin and Vincent; parents, Rei-Zhang Lin and Jing-Jun Pu; and brother Xiao-Jiang Lin of China.

**Thomas Thurlow McManus**, a retired UCR biochemist, died in December at the age of 71.

Dr. McManus retired in 1980 after working at UCR for 22 years. He also worked for 15 years at Lockheed Corp. in the jet and rocket fuel division.

Dr. McManus was an award-winning photographer who volunteered his time to the California Highway Patrol. His picture of lightning striking the UCR Bell Tower was published in The Press-Enterprise and The Los Angeles Times.

He is survived by his wife, Maria; and children, Michael, Michelle, Kristy, Cindy, Thomas Patrick, Ernesto and Carlos.

**Ernest Nicholson** died December 2006 in Cypress Gardens. He was 86. Nicholson worked at UCR for 30 years. When he retired, he held the position of Physical Plant superintendent.

**Herb Quick**, a UCR staff member for 30 years and an adjunct faculty member for the art department, died at the age of 81.

Quick had training from the Art Center School in Los Angeles and was a student of Edward Weston, Dorothea Lange, Fred Archer and Ansel Adams. He was one of the few people trusted by Adams to make archival prints of his iconic black-and-white portraits.

He left his estate, including photographs, negatives and books, to the regents of the University of California to be housed at UCR's California Museum of Photography.

#### ALUMNI AND STUDENTS

'67 **William A. Farmer**, founding chief engineer of KUCR, the campus radio station. July 2006

'69 **Frederick Robert Stowell II**, retired manager of postal operations, U.S. Postal Service, and designer at Staples Copy Center in North Conway, N.H. November 2006

'73 **Thomas W. Findley**, partner with the Law Offices of Dhillon and Findley in Alaska. October 2006

'76 **Howard Wiefels**, former mayor of Palm Springs and chairman of Desert Hospital Corp. December 2006

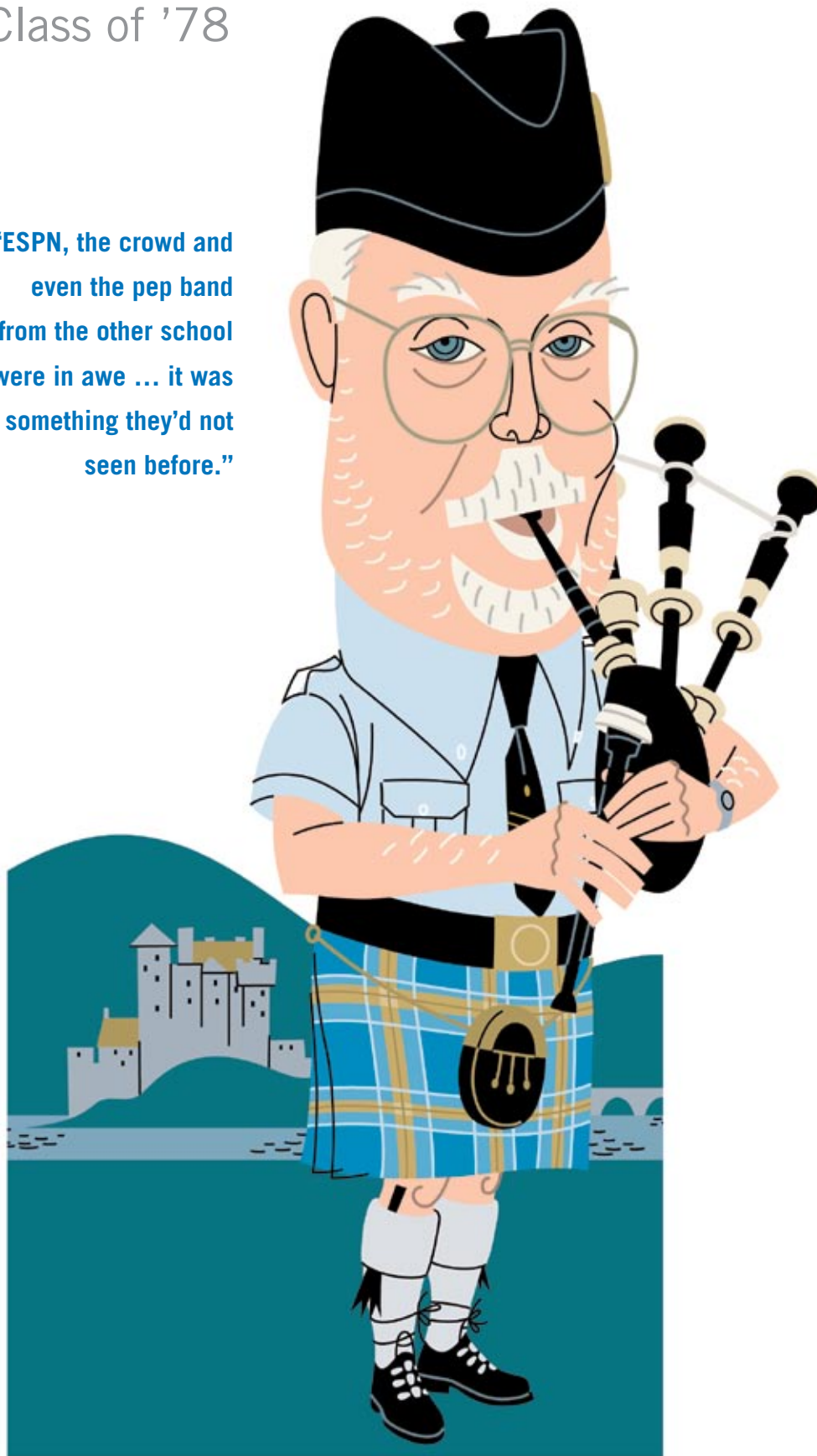
'89 **Jacquelynn "Jackie" Renee Moe**, a math teacher at Redlands High School since 1998. January 2007

'04 **Erika Booker**, a sales agent with Faith Mortgage Group. September 2006

# Mike Terry

Class of '78

**“ESPN, the crowd and even the pep band from the other school were in awe ... it was something they’d not seen before.”**



**Bagpipes make alumnus and UCR staff member Mike Terry a standout UCR supporter.**

By Litty Mathew

If you ambled past the University Club on a fine summer day in 1989, you might have heard something interesting. Not faculty gossip or the answers to an organic chem test but the bleat and wheeze of an unfamiliar instrument.

You can thank Mike Terry, assistant director of Physical Plant for that memory. He and Chris Hanlon ('76) often played the bagpipes at noon and tied UCR closer to the Scottish Highlands.

Terry started as a student in 1974. He worked on campus to put himself through school and graduated with a bachelor's degree in human development.

The 30-member Pipe Band, of which Terry is founder and the pipe major, made history when it represented UCR and the women's basketball team at the NCAA finals in March 2006.

“ESPN, the crowd and even the pep band from the other school were in awe ... it was something they’d not seen before,” notes Terry.

Terry is credited with many pipe-related firsts at UCR, which include establishing the Scottish Arts program offering a B.A. in bagpiping and a B.A. in Scottish drumming.

“We are seeking to attract world-class teaching talent for the program by creating endowed lecture positions in support of these Celtic arts,” says Terry. This, along with two scholarships — one privately funded by Terry — have made Terry the bagpipers' hero, transporting him and everyone within earshot of its haunting sound to the rolling hills of Riverside.