FERTILE GROUND
cultivating thought, harvesting ideas
Dear Friends,

As you read this issue of Review magazine, you’ll see that UC Santa Cruz remains fertile ground for innovation and creativity. The people behind our programs are thought leaders who take the initiative, ask bold questions, and change the world.

I feel great pride reading these articles and seeing every day the vibrancy of our campus. Yet I must acknowledge the budgetary challenges facing the campus this spring. I have real concerns about how we will retain our distinctive programs and nurture this unique ecosystem that encourages people to question, explore, discern, and discover.

We face threats that are unprecedented in the 50-year history of California’s Master Plan for Higher Education. As you likely know, California is wrestling with a $26 billion budget deficit. The best-case scenario for the University of California will be a $500 million cut in the fiscal year that begins July 1; the worst-case would be a cut of $1 billion. This will be the third major cut to the university in the past four years.

If you want to learn more, I encourage you to read our campus’s coverage of a recent UC Regents meeting, during which I discussed the impacts on UC Santa Cruz of the state’s ongoing disinvestment in the university (go to www.ucsc.edu/budget-update and see updates from March 16).

These are serious cuts. Our challenge is to implement these budget reductions without sacrificing what matters most: the distinctive experience we offer undergraduates, the top-flight research conducted by extraordinary faculty, and our commitment to access and diversity.

Although I am hopeful that the state of California will overcome its persistent budget problems, I do not expect the state to return to previous levels of investment in the university anytime soon. I believe the only way to maintain quality and access is to take our destiny into our own hands and build a long-term vision for the future based on diminished state support. To that end, faculty and staff are joining campus leaders in an internal campus discussion beginning this spring that will chart our course for the future.

As we begin the five-year countdown to our 50th anniversary, we must work harder than ever to ensure that future generations will have access to what we offer at UC Santa Cruz. We owe it to our founders, our alumni, and our current and future students.

Sincerely,

George R. Blumenthal

From the Chancellor
Your turn

A sampling of reader reaction to recent issues of the UC Santa Cruz Review.
E-mail us at review@ucsc.edu.

UC SANTA CRUZ REVIEW

FEEDBACK ON “OH BROTHER, WHERE ART THOU?”
Ex. Director: We received numerous letters expressing an emotional response to our story on UCSC’s pioneering art professors, “Oh brother, where art thou?” in the Fall 2010 Review (page 16), including the ones below.

I especially enjoyed the fall 2010 issue of UC Santa Cruz Review, in particular the article about past art instructors with whom I studied—in particular Don Weygandt. I am still painting and etching, exhibiting, and teaching a kids’ arts and crafts workshop at the Activities Center at Park La Brea, Calif., and I also published an illustrated children’s book.
—DEBRA GILLMAN (Porter ’74, French literature, art minor)

Thank you for bringing back some very fond memories of Don Weygandt and his art classes. While I did not make art a career, it has remained a very important part of my life, in part due to lessons learned from Prof. Weygandt’s palette.
—TOM FRAD, pioneer class of ’69 (psychology)

I was so happy to see the article about art at UCSC and have often wondered what had become of some of the teachers I dealt with.

I was there in 1973, when I transferred as a junior working toward a B.A., mainly in painting. At the time I was just over 40 years old, so I was close in age to the professors.

Don Weygandt was my favorite of the bunch. He had a way of making you feel as though you were special and that you had promise in what you were doing.

The whole experience at UCSC was great, and it gave me the feeling that my need to express my art was a true one.

I have long since thought that UCSC has moved away from art, as I knew it then; it is good to know that it still exists there.
—GERALD AVENMARG (Porter ’68, art)

The article on Don, Doug, and Jack moved me to tears on the train this morning.
—SUSAN STAUBER (Porter ’76, art)

HAS UCSC LOST ITS EDGE?
In the 45th anniversary issue of the Review (fall 2010), I looked in vain for celebration of the unique educational experiment that UCSC represented from its inception. You discuss the university’s founding solely in terms of the local climate, and you highlight every milestone of enrollment growth. I suggest you keep a copy of The Perpetual Dream (1978), by Gerald Grant and David Riesman, in your offices and make it required reading for your writers and editors.

Universities are subject to “regression toward the mean,” and radical institutions like the early Santa Cruz gradually lose their distinctiveness over the years. The early Santa Cruz atmosphere cannot be recaptured, and that’s probably just as well. But it should be honored. To quote Michael S. Brown’s letter (fall, p. 2, “Your turn”), this is “UCSC’s heritage and soul.”
—WINLOW ROGERS, parent of current student, Grass Valley, Calif.

MAKE EVALS STUDENT OPTIONAL
Regarding “Narrative evaluations become instructor optional” (spring 2010, p. 25), I consider this an unfortunate move, and would rather see the Academic Senate make narrative evaluations student optional.
Even looking back after 28 years, I can read my narrative evaluations and see why graduate schools, and later medical schools, recognized that I was an optimal candidate for their programs.

My narrative evaluations would have translated into a 4.0 GPA virtually anywhere if graded, but they would say next to nothing about me other than about my academic prowess. I urge the Academic Senate to reconsider this misguided subversion of UCSC’s core mission.
—MARK GARY BLUMENTHAL (College Eight ’81, independent major)

What makes a place different from anywhere else?
You know the feeling when you’re in one of these spots: There’s a quality to the air, an energy in the atmosphere, an aesthetic, a magnetic something that pulls you in. Think of a novel with a sense of place so strong that the setting becomes a character in its own right.

UC Santa Cruz is one of those places. Your weakness may be the redwood groves, the rolling meadows at the base of campus, the marine layer over the hills. Perhaps it’s the bustling plaza, a brilliant professor, a laboratory, a secret spot, a classroom, or some other place where youthful idealism and good ideas rise to the surface.

Maybe it’s a combination of all these things. Anyone who’s spent time on campus knows the feeling.

It’s a place that supports an exceptionally large number of flora species, from native wildflowers to Douglas firs—and, of course, an organic farm and garden. But this place also encourages a strong diversity of thought. Just bring up here encourages the mind to wander outside boundaries and across disciplines. Something about the place encourages adventure and risk. It’s fertile ground for the imagination.

To illustrate, we present stories about the ways UCSC has attracted and nurtured some of the most gifted creative thinkers over the years (page 8), how it’s enriching bright young minds (page 20), and how it’s recently cultivated a growing crop of entrepreneurs (page 24).

UCSC’s founders dreamed of the campus as an experimental institution of learning—marked by progressive, cross-disciplinary undergraduate education and innovative teaching methods. Some of the fruits of their labor—evidenced in profiles of 50 of our alumni—can be seen on pages 12–19.

We can’t wait to see what blooms at UC Santa Cruz next.
—GWEN MICKELSON, editor

From the Editor
Six small planets orbiting a Sun-like star amaze astronomers

A remarkable planetary system discovered by NASA's Kepler mission has six planets around a Sun-like star, including five small planets in tightly packed orbits. Astronomers at UC Santa Cruz and their colleagues analyzed the orbital dynamics of the system, determined the sizes and masses of the planets, and figured out their likely compositions—all based on Kepler's measurements of the changing brightness of the host star (called Kepler-11) as the planets passed in front of it.

“Not only is this an amazing planetary system, it also validates a powerful new method to measure the masses of planets,” said Daniel Fabrycky, a Hubble postdoctoral fellow at UC Santa Cruz, who led the orbital dynamics analysis.

So far the group has set aside $100,000 for this purpose. The Carbon Fund uses money raised by Measure 44, a student-approved ballot initiative that raises money through a $3-per-quarter student fee. The fee itself is not new; it has been in place since 2006, when students imposed a previous renewable energy ballot measure. Measure 44 simply redirects that money to the Carbon Fund.

“Amid the changing brightness of the host star we observed as the planets passed in front of it, we could detect light from the glowing gases in the planet’s atmospheres,” said Richard E. (“Ed”) Green, a UCSC professor of physics, whose lab uses thin-film technologies for solar energy.

Sue Carter, a UCSC professor of physics, is pursuing a variety of strategies to develop cheaper and more efficient solar cells. She was awarded five new grants last year totaling more than $1 million to fund her research on new materials and technologies for solar energy.

Carter’s research focuses on lowering the cost of solar cells and reducing the energy “payback time”—how long it takes a solar cell to generate the amount of energy that was used to manufacture it. Her lab uses thin-film technologies and printable semiconductor materials that enable the production of solar cells using less material and less energy compared to standard manufacturing processes.

Research on thin-film solar cells heats up

Michael Scherer, the White House correspondent for Time magazine and a UC Santa Cruz alumnus (Oakes ‘98, creative writing), returned to campus in November to describe his journey from UCSC to riding Air Force One with the president.

Scherer had good news for the creative writing majors who attended his informal talk at Kresge College. “It’s not as gloomy as people tell you,” he said. Opportunities are there if you are willing to work cheap and really hard.”

He worked for a small New Hampshire daily newspaper for a couple of years, then Mother Jones magazine in a job that didn’t pay enough to live on. A master’s in journalism from Columbia University followed, then another stint at Mother Jones, a jump to Salon.com, and finally during the 2008 presidential campaign a call to join Time in covering Republican candidates.

Time’s White House correspondent returns to campus

By Sara Malm

Karen Tei Yamashita, professor of literature and co-director of the Creative Writing Program, was nominated for a 2010 National Book Award.

Yamashita was one of five finalists in the fiction category for her novel I Hotel. One of the most significant honors in American literary life, the National Book Awards are presented annually by the National Book Foundation. For more on Yamashita, see page 10.

A Writer’s Life

As part of UCSC’s 2011 Day by the Bay weekend, the Humanities Division will host a writing symposium on Sunday, May 1. The symposium will feature UCSC alumni writers—novelists, journalists, and screenwriters—coming together for a community event to focus on the joys and challenges of writing for a living, the business of writing, and trends for the future. The event is called A Writer’s Life: A Celebration of Writing at UCSC.

For information and registration, visit writerslife.ucsc.edu.
John Laird named to key post

John Laird (Stevenson ’72, politics) is the new secretary of the California Natural Resources Agency, which is charged with protecting the state’s natural, historical, and cultural resources. It is a key position overseeing the state’s environment. He was appointed by Gov. Jerry Brown. Laird is a former three-term member of the state Assembly, where he served as chair of the Budget Committee. The Alumni Associations of UC named him Legislator of the Year in the Assembly for 2008. He is also a former Santa Cruz mayor, city councilmember, and member of the Cabrillo College board of trustees.

Distinguished history graduate wins prestigious scholarship

Recent graduate Cynthia Thickpenny won a Marshall Scholarship—one of the most prestigious awards that American undergraduates can receive—to study at the University of Glasgow in Scotland. “I pretty much had to pick myself up off the floor when the phone call came from the British Consulate,” recalled Thickpenny, who studied history. Thickpenny is only the second student in the 45-year history of UC Santa Cruz to be honored with a Marshall; the first was in 1969. The two-year award covers living expenses, tuition, and research travel expenses that come to about $36,000 per year. She plans to specialize in early medieval Scottish history.

Kent Nagano wins Best Opera Grammy

Renowned conductor and UC Santa Cruz alumna Kent Nagano received a Grammy Award for Best Opera Recording: “Saartako: L’Amour De Loin” at the 53rd Grammy Awards. The recording with the Deutsches Symphonie-Orchester Berlin and the Rundfunkchor Berlin features singers Ekaterina Lekhina, Marie-Ange Todorovitch, and Daniel Belcher. Nagano graduated with degrees in music and sociology in 1974. This is his third Grammy Award.

Rod Ogawa wins lifetime achievement award

Rodney Ogawa, professor of education, was named winner of one of the most prestigious awards in the field of education research. Ogawa is the 2010 winner of the Roald F. Campbell award for lifetime achievement by the University Council for Educational Administration. It is “probably the most prestigious award we give in our field,” said Alan Shoho, UCEA president. Ogawa is a former secondary teacher who taught at UC Riverside before joining UC Santa Cruz in 2002. He is a previous chair of UCSC’s education department.

Friends and colleagues remembered Zimmerman as a seasoned community organizer with a strong sense of social justice and conflict resolution. “People have to engage,” said sociology professor Paul Lubeck, who vividly remembers Zimmerman’s eager presence in three of his classes. “They have to get out there on the ground, get out into the community, go out and get their hands dirty. He exemplified that.”

The Gabriel Zimmerman Scholarship Fund

Moved by Zimmerman’s death, UCSC alumnus Jonathan Klein established a scholarship fund in the young congressional aide’s honor and offered an initial gift. In March, the fund exceeded the $50,000 level needed to endow it. The Gabe Zimmerman Scholarship will provide funds for outstanding students in the Division of Social Sciences who wish to pursue public service. For information on contributing, contact Marcus Frost at jmrfrost@ucsc.edu or (831) 502-7274. You may also donate online; visit giving.ucsc.edu and designate Gabriel Zimmerman Scholarship Fund.

 Possibly the most distant galaxy ever seen

Astronomers studying ultra-deep imaging data from the Hubble Space Telescope have found what may be the most distant galaxy ever seen, about 13.2 billion light-years away. The study pushed the limits of Hubble’s capabilities, extending its reach back to about 480 million years after the Big Bang, when the universe was just 4 percent of its current age.

“We’re getting back very close to the first galaxies, which we think formed around 200 to 300 million years after the Big Bang,” said Garth Illingworth, UCSC professor of astronomy and astrophysics. Illingworth and UCSC astronomer Rychard Bouwens (now at Leiden University in the Netherlands) led the study. Using infrared data gathered by Hubble’s Wide Field Planetary Camera 3 (WFPC3), they were able to see dramatic changes in galaxies over a period from about 480 to 650 million years after the Big Bang.
UCSC’s fertile environment has nurtured an impressive crop of creative projects and thinkers

UC Santa Cruz is a rich environment for growing things. Coastal live oak, giant slugs, raccoons, and redwoods flourish. The campus is home to deer so tame, they might come up and nip a tortilla chip from your fingers. Organic vegetables do well up here, too. But UCSC is fertile ground for far more than flora and fauna. It’s also a place where animated films, prize-winning novels, and tomorrow’s computer games germinate and thrive. Sometimes, the projects begin on campus. Other times, the university inspires projects that flourish elsewhere.

These people and projects may not seem to have much in common. But all of them are connected in one important way: Each flourished because the UCSC campus gave them the necessary nutrients to thrive. Perhaps it was the presence of other colleagues offering inspiration and critical insight. It might have been the way the campus encourages people to question assumptions, recognize a rising talent, and draw outside disciplinary lines. Or it could be the sheer beauty of the campus, and the way the setting inspires creativity.

Here’s a quick look at some of the talents, projects, and creative expression that have prospered at UCSC. But first, a disclaimer: This is by no means an exhaustive list; consider it a crop sampler.

Growing games

UCSC is known for an atmosphere that allows creative work to happen and prosper. That’s what lured innovative game designer Michael Mateas to campus.

Now the director for UCSC’s Center for Games and Playable Media, he is planting seeds for a new generation of games. Instead of just preparing students for today’s gaming, he wants them to look beyond the realm of zombie shooters and rescue missions. “I want innovation and new experiences,” Mateas says. “And I want to get those experiences into the hands of as many people as possible.”

But what does that future look like? Mateas believes it will be a time for “interactive dramas,” self-contained, social network-driven projects featuring fully conversational characters, who will work with players to shape the storyline. Perhaps we’ll get closer to the “holodeck,” the interactive room that sent Captain Jean-Luc Picard and his crew into the Wild West in Star Trek: The Next Generation.

In 2005, a year before his arrival at UCSC, Mateas—along with co-creator Andrew Stem—solidified his reputation with a quirky interactive drama called Façade. Challenging design clichés, it rebelled against the idea of an “open world” game in which characters range across vast spaces. Instead, the action unfolds at an awkward party hosted by the unhappily married Grace and Trip. The player is the third wheel in their nasty disputes.

The New York Times and Atlantic Monthly hailed the game’s innovation, including the unusual depth of its artificial intelligence and the fluent language of its characters. It has much more in common with an Edward Albee play than a Sylvester Stallone movie.

“The game was a contrarian stance,” Mateas says. “And I want to do more of that.”

In 2008, Mateas was drawn to UCSC because it was creating an innovative undergraduate degree program—the first of its kind in the UC system—and he saw the campus as a place that was flexible enough to put itself at the forefront of a new field of study. In return, UCSC gave him the resources to recruit strong faculty and establish the Center for Games and Playable Media—one of the largest technical game research groups in the world. The campus also has fostered collaborations with the Art and Digital Arts and New Media departments.

Now Mateas is creating rich soil for students and colleagues to grow ideas of their own, including a soon-to-be-released game called Prom Week, which was designed entirely by UCSC game design graduate students. Mateas and Noah Wardrip-Fruin are the design team’s advisors.

In Prom Week, players try to manipulate characters including the nerdy Zack, who wants to be Prom King. In one scenario, he impresses a classmate, Naomi, by flexing his biceps, only to blow his chances by showing off an ill-timed light saber trick. “You’re weird!” Naomi declares.

In doing so, the player changes the social dynamic of the school, but only to a point. “You can’t make these characters do anything they don’t want to do,” Mateas says. Like Façade, Prom Week will be released free of charge.

UC Santa Cruz Review / Spring 2011

Roots of greatness

American short story writer and poet Raymond Carver (May 25, 1938–August 2, 1988) is considered a major American writer of the late 20th century and a force in the revitalization of the short story in the 1980s. When Carver arrived as a lecturer in 1971, the writing scene was thriving. George Hitchcock, influential editor and founder of the literary magazine Kayak, was here. So were authors Jim Hutton and Page Stegner.

A master of dialogue, Carver turned conversations into games of misdirection. Dialogue should be “non sequitur,” he told his students. Many early stories of this celebrated writer are sad and bruising, but his brief period at UCSC was productive and enjoyable for him, bolstering his confidence, starting lifelong friendships, and inspiring some of his early works. His friend and colleague, David Swanger, says Carver’s outgoing, low-key personality melded with the writing scene on campus.
Working relationships were not bureaucratic, official, or competitive," says Swanger, now a UCSC professor emeritus of education and creative writing. "We were all starting out and we were all in it together, and he was a man whose friendships counted."

Carver and Swanger frequented a Santa Cruz restaurant that provided free dinners to poets who read their work out loud.

"It was big deal for Ray and me," Swanger recalls. "Reading was not something we took for granted. It was celebratory."

"Life spread before Ray like a buffet in Santa Cruz," writes Carol Sklenicka in her Carver biography. "His letters, typed on university letterhead, ... convey the excitement of a kid in a candy shop."

This excitement included Quarry West, the literary magazine Carver launched here.

"This guy who became the American Chekhov was so thrilled about this small university literary magazine that he ran into the cafeteria during lunchtime to show me a review that had been written about it," Swanger recalls.

Soon after his UCSC stint, Carver became a much-launched writer, but he stayed in contact with Swanger. Artifacts from that friendship—26 letters, notes, and cards that Carver penned to Swanger—now have a permanent home in UCSC’s Special Collections.

Cross-disciplinary currents

Acclaimed writer and UCSC literature professor Karen Tei Yamashita refuses to squelch herself away when creating fiction. She puts herself in the world, allowing life and learning to inform her work.

This campus turned out to be the ideal place for her creative expression to thrive; UCSC’s world of ideas, and its thinkers from various disciplines on campus, helped inform and grow her work.

In 1997, the year she was hired to teach at UCSC, she began work on her book / Hotel, which was shortlisted last year for the National Book Award.

"It is a small miracle that the long work of this book and the stories of these people and this history were honored by the NBA," says Yamashita, who believes the book "would not have happened" without her UCSC job.

UCSC gave her access to the Bay Area and the diverse Asian American community that populates her book, which concerns a standoff over evictions at San Francisco’s International Hotel.

Wisdom gleaned from UCSC lectures, conferences, and graduate seminars made its way into her work. So did the scholarship of colleagues like Daniel Linger in anthropology, who shared research about Brazilian migrant workers in Japan, and professor emerita of American studies Judy Yung, who helped her re-create the culture of San Francisco’s Chinatown in the 1960s.

Yamashita found it striking that the book covers the same time period when UCSC began to take shape in the 1960s.

The time correlation is perhaps "not a coincidence," she speculates now. Some of the ideals that informed the creation of the campus can also be found in her work.

"The founding history of UCSC is embedded in this time period. Those ghosts of change must also be present."

Incubating Freedom


Franzen craves quiet while at work, and he found that space at UCSC, where he frequently used offices at Cowell College during the years he was working on his critically acclaimed 2010 best-seller, Freedom. The secluded, forested campus turned out to be an ideal spot for him to create. (Franzen does not teach at UCSC, but he lives in Santa Cruz part-time.)

"UCSC is a great place to write fiction, especially in the summer months, when the campus is very quiet and the days often start out very foggy," writes Franzen via e-mail. "I can go from the fog of sleep and the foggy drives to a dark office, put in a good morning in the dream state of fiction-writing, and then emerge to a beautiful blue sky in the early afternoon.

Franzen is not the only creative mind to find UCSC a stimulating place to work out loud.

Cold War-era turned his back on his career and later became a UCSC math lecturer while collaborating on campus musical productions. The late Spalding Gray, actor and comic monologist, took part in a performance group workshop on the UCSC campus in 1978 and performed here well into the 90s.

Seeds of magic

Pixar animator Mark Henne adds weight, impact, and movement to digital characters—and his years at UCSC led to a creative partnership that continues to inspire his work more than 20 years later.

Consider the robots swimming through the Axiom starliner, and the overweight human “gnomes” zipping around in self-propelled lounge chairs in the computer-animated movie Wall-E.

In 1990, Henne graduated from UCSC’s computer science masters program, where the seedlings of his Pixar career were planted. Much of his current work grows out of his mentorship with Jane Wilhelms, the UCSC professor who stretched his understanding of animation’s potential.

He remembers Wilhelms investigating the possibilities of movement during a summer conference he attended. She had animated gymnast characters twirling on parallel bars, and bogy, bug-like beings swarming through an environment.

“She wasn’t directing their path,” Henne says. “It was kind of an AI (artificial intelligence) approach where they somehow could reason about where they were and the obstacles in front of them."

Her ideas influenced Henne, who still thinks about crowd dynamics when animating groups of characters. To show crowd movement, he says, you must start with the individual and build outward.

The classic example is a flock of birds. The flock doesn’t have a thought process, he says. The amalgamation of individual behaviors creates the crowd’s behavior: “Follow my neighbor but don’t let them get too close.” "If a gull has a fish, let’s try to take it.”

Henne, who wrote his UCSC master’s thesis about flexible digital skin for human characters, does not believe in technology for its own sake. But by showing him the possibilities of animation, UCSC taught him how to captivate a movie audience.

Sound of silents

The UCSC campus helped film and digital media professor Shelley Stamp—an expert on silent movies and early women filmmakers—start a small project that grew into an international franchise.

Along with her former colleague Amelie Hastie, now an associate professor at Amherst College, she coordinated a conference that would draw 60 film scholars to explore and celebrate the remarkable—but often overlooked—contributions of women to the silent films of the early 20th century.

The conference was the first of its kind. For years, women’s early contributions to film were neglected in film studies, in spite of the astonishing amount of influence and creative control they had in the industry.

But the idea took off. Since then the conference, designed as an open and friendly place to share research and ideas, spread from Santa Cruz to Montreal, Guadalajara, Stockholm, and Bologna. Another Women and the Silent Screen conference is already planned for Melbourne, Australia, in 2013.

UCSC’s long-standing, pioneering support for feminist scholarship made it a logical launching pad for the series of conferences, said Stamp.

“And although my current research takes me to archivists in New York, D.C., and Los Angeles, the community of feminist scholars here provides me with a sustaining and inspiring home base,” she says.

Aside from helping to grow a conference, Stamp helps her young UCSC students grow future careers by encouraging them to look into filmmaking’s distant past.

“Students come into the program with an incredible level of media literacy,” Stamp continues. “But several of them confessed to me that they’d never seen a black-and-white film, and some have never seen a film more than 10 years old. It is my job and also my great pleasure to get them excited about the older films. Their socks are blown off by the rich cinema culture that existed before 1928.”

Clearly, the students are paying attention.

One former student is the archivist at Francis Ford Coppola’s American Zoetrope Films. Another is vice president for development at Warner Bros. Pictures.

“The best students recognize that you can’t move forward without seeing what came before you,” Stamp says.

Contact Dan White at dwhite1@ucsc.edu
In celebration of UCSC’s 45th anniversary, we are pleased to introduce you to 45 successful and distinguished alumni—plus 5 more recent “up-and-coming” graduates in anticipation of our 50th.

These 50 alumni are leaders in public service, the arts, scientific research, literature, journalism, innovation, and much more. Says UCSC Chancellor George Blumenthal: “Across the spectrum, they credit UCSC with offering them the tools to get where they are today. And their success is one of the strongest measures of our success.”

View longer versions—as well as selection criteria—online at 45years.ucsc.edu/plus5
LEADERS

1. William D. “Bro” Adams
Ph.D. history of consciousness
President, Colby College

2. William T Fujioka
B.A. sociology
CEO of Los Angeles County

3. Ronald R. Gonzales
B.A. community studies
Dean of Business and Public Affairs

4. John Laird
B.A. politics
California Secretary for Natural Resources

5. Julie Packard
B.A. biology
Managing director of the Monterey Bay Aquarium

6. Francisco J. Rosado-May
Ph.D. in biology
President and founder of the Intercultural Maya University of Quintana Roo

7. Art Torres
B.A. politics
California public servant

8. Gary Heit
B.A. individual major (psychology)
Neurosurgeon and researcher

9. Kenneth S. Kendler
B.A. biology and religious studies
Psychiatrist and researcher

10. Deborah Madison
B.A. sociology
Co-founder of the legendary Greens Restaurant

11. Cheryl Scott
B.A. biology
Award-winning medical epidemiologist

12. Michael Wilson
B.A. biology
Leader in green chemistry

13. Adilah Barnes
B.A. individual major
Award-winning actor, writer, and producer

14. bell hooks
Ph.D. literature
Noted visual artist and cultural critic

15. Kent Nagano
B.A. music
Conductor

16. Jock Reynolds
B.A. philosophy
Noted visual artist and Western civilization

17. Lawrence Weschler
B.A. philosophy
Acclaimed writer and cultural critic

HEALERS

1. William D. “Bro” Adams
Ph.D. history of consciousness
President, Colby College

2. William T Fujioka
B.A. sociology
CEO of Los Angeles County

3. Ronald R. Gonzales
B.A. community studies
Dean of Business and Public Affairs

4. John Laird
B.A. politics
California Secretary for Natural Resources

5. Julie Packard
B.A. biology
Managing director of the Monterey Bay Aquarium

6. Francisco J. Rosado-May
Ph.D. in biology
President and founder of the Intercultural Maya University of Quintana Roo

7. Art Torres
B.A. politics
California public servant

8. Gary Heit
B.A. individual major (psychology)
Neurosurgeon and researcher

9. Kenneth S. Kendler
B.A. biology and religious studies
Psychiatrist and researcher

10. Deborah Madison
B.A. sociology
Co-founder of the legendary Greens Restaurant

11. Cheryl Scott
B.A. biology
Award-winning medical epidemiologist

12. Michael Wilson
B.A. biology
Leader in green chemistry

13. Adilah Barnes
B.A. individual major
Award-winning actor, writer, and producer

14. bell hooks
Ph.D. literature
Noted visual artist and cultural critic

15. Kent Nagano
B.A. music
Conductor

16. Jock Reynolds
B.A. philosophy
Noted visual artist and Western civilization

17. Lawrence Weschler
B.A. philosophy
Acclaimed writer and cultural critic

EXPRESSIONISTS

1. William D. “Bro” Adams
Ph.D. history of consciousness
President, Colby College

2. William T Fujioka
B.A. sociology
CEO of Los Angeles County

3. Ronald R. Gonzales
B.A. community studies
Dean of Business and Public Affairs

4. John Laird
B.A. politics
California Secretary for Natural Resources

5. Julie Packard
B.A. biology
Managing director of the Monterey Bay Aquarium

6. Francisco J. Rosado-May
Ph.D. in biology
President and founder of the Intercultural Maya University of Quintana Roo

7. Art Torres
B.A. politics
California public servant

8. Gary Heit
B.A. individual major (psychology)
Neurosurgeon and researcher

9. Kenneth S. Kendler
B.A. biology and religious studies
Psychiatrist and researcher

10. Deborah Madison
B.A. sociology
Co-founder of the legendary Greens Restaurant

11. Cheryl Scott
B.A. biology
Award-winning medical epidemiologist

12. Michael Wilson
B.A. biology
Leader in green chemistry

13. Adilah Barnes
B.A. individual major
Award-winning actor, writer, and producer

14. bell hooks
Ph.D. literature
Noted visual artist and cultural critic

15. Kent Nagano
B.A. music
Conductor

16. Jock Reynolds
B.A. philosophy
Noted visual artist and Western civilization

17. Lawrence Weschler
B.A. philosophy
Acclaimed writer and cultural critic
InnoVAToRS

RISk TAkERS AnD pIonEERS

20. Drew D. Goodman
College Eight
1983—B.A. environmental studies/environmental design
Innovator in organic farming, co-owner of Earthbound Farm, the largest grower of organic produce in the world.

22. Drummond Pike
Porter College
1974—studied philosophy, literature, and pre-med
Founder and “president for life” of Bonny Doon Vineyard, a legend in the U.S. wine industry for his adventurous, biodynamically produced wines and irreverent marketing.

24. Joseph Lyman DeRisi
Crown College
1992—B.A. biochemistry & molecular biology
Pioneering medical researcher and a 2004 MacArthur Fellow. Currently professor (and Gordon Tomkins Chair) of Biochemistry & Biophysics at UC San Francisco and a Howard Hughes Medical Institute Investigator.

25. Victor Davis Hanson
Cowell College
1975—B.A. literature
Noted historian, scholar, and best-selling author. Currently Martin and Ille Anderson Senior Fellow in Residence in Classics and Military History, Hoover Institution, Stanford University.

26. Steven A. Hawley
1971—Ph.D. astronomy and astrophysics
Leading U.S. astronaut who logged a total of more than 770 hours in space. Currently a crucial role in sequencing the human genome, creating the UCSC Genome Browser. Currently a research scientist at UCSC.

28. Geoffrey W. Marcy
1982—Ph.D. astronomy and astrophysics
An internationally respected astronomer, Marcy and his team have discovered more extrasolar planets than anyone else. Currently professor of astronomy, UC Berkeley, and adjunct professor, San Francisco State University.

30. Richard White
Cowell College
1969—B.A. history
Leading scholar in three related fields: the American West, Native American history, and environmental history. A MacArthur Fellow (1999) and currently Margaret Byrne Professor of American History, Stanford University.

31. Laurie Garrett
Merrill College
1975—B.A. biology
Best-selling author of The Coming Plague: Emerging Diseases in a World Out of Balance. The only writer to receive all three “Big P’s” of journalism—the Peabody, Polk (twice), and Pulitzer prizes. Currently senior fellow for Global Health, Council on Foreign Relations.

34. George Robert Perkovich
Cowell College
1981—B.A. politics
Leading expert in nuclear arms strategy and nonproliferation; currently vice president for studies/director of the Nuclear Policy Program, Carnegie Endowment for International Peace.
STORYTELLERS
38. Shannon M. Brownlee
College Eight
1979—B.S. biology
1963—M.S. marine sciences
Prominent writer and essayist; currently senior research fellow, New America Foundation and instructor, Dartmouth Institute for Health Policy and Clinical Practice.

39. Richard Harris
Crown College
1980—B.A. biology
Award-winning National Public Radio science correspondent and past president of the National Association of Science Writers.

40. Laurie R. King
Kresge College
1977—B.A. religious studies
Best-selling mystery novelist known for her historical series about Mary Russell and Sherlock Holmes. Her books have won the Edgar, Cousse, Wolfe, Lambda, and Macavity awards.

41. Jayne Ann Krentz
Stevenson College
1970—B.A. history

42. Steven P. Martini
Cowell College
1968—B.A. politics
Best-selling mystery novelist who brings his experience as a journalist and attorney to his popular series featuring fictional attorney Paul Madrani.

43. Joe Palca
1982—Ph.D. psychology
Award-winning science correspondent for National Public Radio; in 2009, the first science writer in residence at the Huntington Library in San Marino, Calif.

44. Dana Priest
Merrill College
1981—B.A. politics
Author and Pulitzer Prize–winning investigative journalist. She has worked over 20 years for the Washington Post.

45. Katy Roberts
Kresge College
1974—B.A. politics

46. Cary Joji Fukunaga
College Eight
1999—B.A. history
Award-winning film director; awards for his recent film Sin Nombre included best director at the 2009 Sundance Film Festival.

47. Maria C. Geha
2003—Ph.D. astronomy and astrophysics
Dubbed “The Star Chaser” by Popular Science magazine, she explores the formation, evolution, and destruction of dwarf galaxies. Currently assistant professor of astronomy and astrophysics, Yale University.

48. Azadeh Moaveni
Oakes College
1998—B.A. politics
Author of Lipstick Jihad
and co-author, with Nobel Peace Prize winner Shirin Ebadi, of Iran Awakening. Currently a Time magazine contributing writer on Iran and the Middle East.

49. Maya K. Rudolph
Porter College
1995—B.A. art
Actor, singer, and comedian known for her work on Saturday Night Live (2000–2007). Recent films include Grown Ups and MacGruber (both 2010).

50. Danielle L. Soto
College Ten
2008—B.A. environmental studies
In 2008 (while still a UCSC undergraduate), she ran for and won a seat on the City Council of Pomona, Calif., her hometown.

View longer versions—as well as selection criteria—online at 45years.ucsc.edu/plus5
For photo credits, see page 34.

STORYTELLERS
35. Jason Rao
Porter College
1993—B.A. chemistry
Has pioneered new programs in international science diplomacy, bringing thousands of scientists together to meet challenges in health, energy, security, and the environment. Currently senior policy advisor for global science engagement in the White House Office of Science and Technology Policy.

36. M. Sanjayan
1997—Ph.D. biology
Lead scientist for The Nature Conservancy, specializing in human well-being, conservation, Africa, and wildlife ecology. He also holds a research faculty appointment with the Wildlife Program at the University of Montana.

37. Julia E. Sweig
Porter College
1986—B.A. Latin American studies
Leading expert on U.S. policy relating to Latin America, especially Cuba; currently Nelson and David Rockefeller Senior Fellow for Latin America Studies, Council on Foreign Relations.

40. 43.
41. 44.
45. 46.
47. 48.
49. 50.

EDITED BY VICKI BOLAM

STORYTELLERS
42.
43.
44.
45.
46.
47.
48.
49.
50.

45+5

UC Santa Cruz Review / Spring 2011
After shaking out small strips of paper from test tubes, the phage hunters bend over the table in concentration, moving pieces around until the strings of A’s, C’s, G’s, and T’s that form DNA start matching and overlapping. Under the fluorescent lights of the laboratory, the phage hunters are solving this puzzle on their path to tackling greater mysteries in the biomedical world.

This is the Phage Genomics class, and the phage hunters—freshmen just beginning their college careers—are already conducting original investigations. “Phage hunting” is the art, science, and adventure of finding phages (viruses that infect bacteria) in the wild, breaking down and studying their DNA, and figuring out what genes they hold.

Along with 11 other universities, UC Santa Cruz has offered the three-quarter Phage Genomics course for three years as part of the Science Education Alliance, developed and funded by the Howard Hughes Medical Institute (HHMI). Molecular, cell and developmental (MCD) biology professors Grant Hartzog and Manuel Ares lead the lab, where freshmen learn laboratory skills, independence, and critical thinking, but most of all, a love of meaningful research.

“It’s hard for motivated undergrads to find research opportunities,” Hartzog says. Phage genomics is a good entry into research because the technical manipulations at the beginning are quite simple, he says, but as students get deeper into the project, the techniques and questions grow in sophistication.

On this day in mid-February, the students have just received data from a DNA sequencing center and are about to start analyzing their phage DNA sequence. The exercise using paper strips with letter strings—representing bases, the building blocks of DNA—gives them a chance to work through the process computers undertake to combine the many DNA fragments obtained by the sequencing center into an entire phage genome sequence. The class is studying mycobacteriophages, viruses that infect mycobacteria. An infecting phage can kill the bacteria or it can integrate its DNA into the host chromosome. Once integrated, the phage can stay inside the bacteria without causing harm; in this way, phages can be used to manipulate bacteria. Although the students are studying a harmless mycobacterium that lives in soil, it is related to a mycobacterium that causes tuberculosis; understanding mycobacteriophages has been a key to understanding tuberculosis genetics. Phages are abundant in nature, but their genetic diversity and complexity have only recently been recognized. The contributions of this class of phage hunters will add to the growing bank of phage, mycobacteria, and possibly tuberculosis knowledge.

“This helps people understand the genome of the bacteria, and has applications in bacterial infections,” says student Julia Froud, 19, of Cowell College. “I like the idea of finding out something no one in the scientific community has ever seen.”
Gene finding

Phage Genomics gives freshmen the chance to go out into the field and collect soil samples, use powerful lab tools such as electron microscopes to view their samples magnified many thousands of times, and analyze phage DNA to find genes and their possible functions.

"Gene finding is a bit of an art," says Hartzog. "Just because a student sees their gene prediction matches that for a related gene in a database doesn’t mean either prediction is necessarily valid. They need to critically evaluate the data, and not just trust [the database]."

Student Adrian Ruiz works on his DNA sequence. Ares believes research universities provide a different flavor of education than schools focused solely on teaching; professors at research universities are practitioners of their field, and can expose students to the roots of how we know what we know.

"If we produce students who know fixed facts, their knowledge is static and stagnant. But if we incorporate an experimental basis of understanding, now we’ve produced students who can continue to learn and teach themselves," Ares says.

Such self-directed learning can be challenging. For enterprising phage hunters, when the going gets tough, the tough use the Phage Hat. A wearable talisman Hartzog made to inspire stymied students, the Phage Hat is an impressive contraption of foil, cardboard, and good vibes. No one has failed to isolate a phage yet, so the Phage Hat must be working. On the other hand, perhaps it is simply dedication and hard work at play.

Draw for the science-minded freshman

Victoria McElroy collected more than 45 soil samples before finding success, even driving off campus with her mother on her search. At the beginning of the course, she didn’t know what to expect and found it rather nerve-wracking. She jumped on the learning curve from day one, picking up basic lab techniques such as pipetting. Now such skills are second nature, and she’s found herself in the lab at midnight, putting in hours for her favorite class.

"I can’t wait for Tuesdays and Thursdays," says McElroy, a Crown College MCD biology major.

Courses like Phage Genomics are a draw for future UCSC science-minded applicants. "Most other colleges don’t have the opportunity for freshmen to do research," says Froud. The chance to conduct undergraduate research was a large factor in Froud’s decision to come to UCSC.

The UCSC course has been so successful that, although the three-year HHMI grant is ending, it will continue under UCSC (and possibly National Science Foundation) funding. From next year, it will be a two-quarter class offered to sophomores, reaching out to students early in their college education, but after they have taken basic biology and writing courses. Phage Genomics will add a scientific writing component, a must-have skill in the research world.

Phage expert William Jacobs of HHMI developed the original phage class for young students ("Phage Phinders") when he worked with his local high school. Phage hunting, he says, is "a life-changing experience even if you don’t go into research. You learn that you, a high school kid, can discover something new and unique."

In his pioneering research, Jacobs used phages as tools to genetically manipulate mycobacteria, a technique that enabled a greater understanding of tuberculosis and other bacterial diseases. Of the UCSC phage hunters, Jacobs says, "Anybody sequencing a phage is fine in my book. Just by using phages, we’re developing all the tools we need to manipulate TB. The trick to overcoming every obstacle, I found in a phage."

Two years after taking Phage Genomics, junior Kimberly Davis, 20 (Cowell, biochemistry), remembers his decision to come to UCSC. "The chance to conduct unimportant," she says. Without the class, "I wouldn’t be where I am now, doing my second year of research."

Hartzog and Ares guide their students even after the course has ended, helping them find research opportunities on campus and hoping they go on to productive scientific careers.

"It’s fun to do science!" Ares says. "We do it because we like it. And we want to give them the same feeling."

Jane Liu is a freelance writer and UC Berkeley research scientist. She graduated from the UCSC science communication program in 2008 and is now based in San Francisco.

Helping minority students pursue research

Two programs that support minority students pursuing biomedical research careers are active and thriving on the UCSC campus.

Launched nationally by the National Institutes of Health, the Minority Access to Research Careers (MARC) and Initiative for Maximizing Student Diversity (IMSD) programs have been a part of campus life for several decades. Molecular, cell and developmental professors Alan Zaleber and Barry Bowman helm MARC and IMSD, respectively.

MARC is exclusively an undergraduate honors program, focusing on students who have an early commitment to graduate research. IMSD accepts undergraduate and graduate students. Though separate, the programs share many resources, and a few students transfer from IMSD to MARC every year. MARC awardees receive a monthly stipend, while IMSD students are given an hourly salary. MARC and IMSD are not simply financial aid. Programs staff director Malika Bell and assistant Yulianna Ortega offer both academic and personal support. The programs provide everything from equipment for printing conference posters to tutoring. The program staff know each student personally, and have even had students stay with them on occasion.

Shevlin Tekeste (Oakes ‘08, MCD biology), now a third-year doctoral student at UCLA studying HIV proteins, credits her love of research to the program. The friendly environment, regular seminars, opportunities to attend national conferences, tutoring, and private meetings with Bell helped build her confidence as a young scientist, she says.

The success of these programs is reflected in the impressive achievements of their alumni. In the last five years, for example, 50 percent of MARC students have gone on to Ph.D. programs. Together, the programs are about to celebrate their 100th Ph.D. awarded.

Juan Noveron (Ph.D. ’00, bioinorganic chemistry) benefited from both programs as a student, and calls them critical to his success. "As an undergraduate student, it allowed me to network with people in research careers and inspired me to pursue a college-level teaching career. As a graduate student, the MARC-IMSD program provided the financial support to focus on my research projects."

Now, as associate professor of chemistry at University of Texas at El Paso, Noveron works with his local MARC-IMSD program and young students just starting their scientific careers, paying forward the support he received at UCSC.
And eight years after the university created Silicon Valley Initiatives, a true culture of entrepreneurial spirit has gripped the campus—thanks to an intentional focus on innovation, a growing crop of young entrepreneurs, and the stewardship of Silicon Valley veterans.

“It’s an opportune time to build our network and form the alliances that will really help boost our reputation and presence in the Valley,” said Gordon Ringold, head of Silicon Valley Initiatives, a set of educational and research activities that increase the presence of UC in Silicon Valley. “There’s a lot of intellectual capital we can tap into to bolster our resources in a challenged economic environment.”

Ringold, who earned his bachelor’s in biology from UCSC in 1972, became director last summer. A former professor at Stanford University, he has started a handful of companies in genetics and biofuels, including Codexis, which manipulates enzymes to improve the conversion of sugar cane into fuel. It’s based on technology—also created by a Ringold company—used to heighten drug performance.

For Silicon Valley Initiatives, Ringold is focused on the big industries on the peninsula and the South Bay: computer science, computer engineering, and material sciences. Of course, if Silicon Valley Initiatives is to be a nexus of innovation between the Valley and the campus, there has to be something to connect.

Enter the Center for Entrepreneurship, a campus outfit born last fall (see page 28) and, just as important, a growing cadre of UCSC grads gaining influence in Silicon Valley, the Bay Area, and beyond.

“The cohort of UC Santa Cruz alumni who are entrepreneurs in the Valley has really started to grow,” Ringold said. “Because of that, we can tap into a network that even five or 10 years ago would have been harder to accomplish. There aren’t many of us who have been around for a long time.”

But alumni with fewer gray hairs than Ringold are making names for themselves in a broad array of fields, everything from farming to pharmaceuticals, to bikes and Internet mapping.
We feature four of them:

**Brandon Allgood and Nigel Duffy, Numerate**
Brandon Allgood and Nigel Duffy radiate confidence. According to Allgood, who earned a master’s degree in physics from UCSC in 2001 and a Ph.D. in 2005, their use of the cloud—a network of computers linked in cyberspace—is “a fundamental paradigm shift” in pharmaceutical design.

In traditional drug development, researchers make incremental changes to chemical compounds and wait to see if the effects are good, bad, or indifferent. Numerate (www.numerate.com), based in San Mateo, uses a network of up to 2,000 computers to conduct simultaneous virtual screenings of chemical combinations to find what works, much faster and cheaper than the old ways, the company says.

“We’ve solved the problem of getting a computer to design a small molecule,” said Duffy, who obtained his doctorate in computer science in 2001 at UCSC. “We partner with people with insight into what a therapeutic should do to treat a disease, and we deliver to them molecules that implement their biological insight.”

Allgood and Duffy work with some big pharmaceutical companies they can’t name publicly and universities including Stanford and Cornell. They’re excited at the prospect of more technology licensing and development at UCSC, and Allgood will use his new position on the UC Santa Cruz Foundation board to fan the entrepreneurial flames.

“There’s an overall creativity you find at UCSC that you don’t find at other places,” he said. “It lends itself to thinking outside the box, which is an absolute necessity for an innovator.”

**Bernt Wahl, Factle**
Anyone who’s ever obsessed over ZIP code prestige has a friend in Bernt Wahl. So do real estate agents.

Wahl (Crow ’86, mathematics and physics) lives in Berkeley and teaches entrepreneurship to engineers at UC Berkeley. He’s also CEO of Factle (factle.com), which specializes in hyperlocal mapping and location intelligence.

“I was involved in search engines,” Wahl said by way of explaining the germination of Factle and his failed attempt to take over the former search engine Infosseek. “I noticed that things were getting more hyperlocal. I consulted with a real estate company, breaking down regions into smaller units.

“The cities were fine, but nobody had aggregated the neighborhood boundary data. We pioneered it.”

Factle’s technology allows searches so granular they take a lot of guesswork, and legwork, out of the home-buying process. For example, a house hunter who lives out on a home in a particular San Francisco neighborhood can get an e-mail alert the moment another house in the same area goes on the market. The technology is malleable enough to do foreclosure or public health analysis, and track damages and repairs house by house after a catastrophe like last summer’s San Bruno pipeline explosion or the March earthquake and tsunami in Japan.

**Rob Forbes, PUBLIC**
Already known for starting Design Within Reach, the avant-garde-gone-mainstream furniture store launched as a web-direct business in 1999, Rob Forbes now has “a mission to bring the same level of intensity, education, and value to our public spaces and cities as DWR has brought to our personal and private environments.”

As the web site for his urban bike design company PUBLIC (public一千es.com) makes clear, the people at the company don’t hate cars—they just want bikes to overtake cars as the preferred American way of getting around.

They aim to take back public spaces with bikes affordable enough to fit middle-class budgets and cool enough to be used on the Google and Apple campuses. It’s exactly the kind of company that would be operated by someone who graduated with a degree in aesthetic studies from Porter College (1974). And to hear Forbes tell it, every bike he sells is a consumer good and a purchase for the public good.

“We believe the quality and usage of our public spaces is the measure of the success of our democracy,” he said.

**Drew Goodman, Earthbound Farm**
Drew Goodman and his wife Myra didn’t start Earthbound Farm (www.earthboundfarm.com) in Carmel Valley on a whim, but it was close.

“We started the farm based on the romantic notion of living on a farm,” the New York City native said. “That it would be fun before we got on with our career thing. We ended up staying and pursuing it.”

And a little raspberry patch they tended in exchange for free rent is now the second-biggest organic vegetable brand in the country. It’s a development Goodman (College Eight ’83, environmental studies and environmental design) attributes to their innate tenacity and the values he absorbed on the UCSC campus.

“As an entrepreneur, you need to think through where you’re going, but at some point you need to take the plunge and know you’re going to be able to navigate,” he said. “For those with the appetite, it’s all down seven times and pick yourself up eight. You have to feel like you’re going to figure it out.”

And as UCSC evolves into an entrepreneur-minded institution, Goodman thinks it’s the logical leader of “do good and do well” business.

“There’s a great opportunity for entrepreneurs to finance businesses that can help push us to a more sustainable way of doing things and making money in the process,” Goodman said. “It would be nice to see UCSC take the lead in that.”
Dan Heller and Rebecca Braslau hope the Center for Entrepreneurship at the Baskin School of Engineering will help bring novel ideas to the market.

Center cultivates innovation to propagate home-grown businesses

The City of Santa Cruz is watching the center’s activities with interest. It’s essential to the local economy for us to support the commercialization of research as well as empower the entrepreneurial component of the UCSC faculty,” said Peter Koht (Stevenson ’05, music and history), economic development coordinator for the City of Santa Cruz. “By creating the space for entrepreneurship, you create opportunity for resilience and innovation in an economy undergoing rapid transformation.”

The center is so young there’s not yet any tie between it and the school’s Silicon Valley Initiatives. In the early stages, Heller is focused on professionalizing the school’s business plan design contest and working with faculty with innovative ideas.

One idea that’s already been patented is the brainchild of chemistry professor Rebecca Braslau, who invented a spray that, in conjunction with a basic fluorescent light, will detect the presence of poison oak and ivy oils on tools or clothing. The methodology is patented to UCSC, but the development of the product to a level that it can be licensed or produced by a startup company has not been pursued due to lack of funding, and lack of connections by the inventor—me,” Braslau said.

There are many researchers at UCSC with great ideas who are not interested or experienced in the business world, Braslau continued.

With the center’s help, Braslau hopes the many novel ideas germinating on campus will lead to great innovations in the market.

Matt King is a freelance writer based in San Jose.

He finally had had enough.

Like millions of other young Arabs, Mohammad Bouazizi, age 26, had been repeatedly humiliated. He could not find a decent job. To survive, he sold vegetables on the street of the Tunisian town of Sidi Bouzid. The authorities repeatedly harassed and abused him. Finally, he immolated himself in protest on December 17, 2010. And thus the match was lit and touched to the tinder of a young, savvy, and enraged generation. The fire spread, as other youth in the town protested against penury and oppression, corruption and humiliation. The regime resorted to violence—but the rebels were underdressed. The revolt spread to the capital, Tunis, and after weeks of demonstrations, the dictator Ben Ali fled to Saudi Arabia in February.

Critically, this generational revolt spread next to Egypt, home of one-third of all Arabs. Years of struggle and organizing by opposition movements, liberal, socialist, and Islamist, culminated in the dramatic 18 days in which the corrupt, brutal regime of Hosni Mubarak was toppled. Similar revolts have spread (as of this writing) to Bahrain, Oman, Yemen, and Libya, as well as to Morocco, Algeria, Jordan, Iraq, and Iran.

Why did this happen? What are its implications for Americans? Two kinds of causes may be identified—immediate (“sparks”) and structural (“tinder”): The sparks are sketched above—and a key component, in each case, is the triumph over fear—when an illegitimate, widely despised regime resists to violence, and the protestors refuse to back down, the regime is doomed. Structural causes are numerous. They include the fact that some 60 percent of Arabs today are younger than 30. They are by far the most educated generation in the region’s history. Millions are unemployed, and food prices are rising. In both Tunisia and Egypt, the revolutions of 2011 were preceded—and accompanied by—widespread labor protests.

Most fundamentally, however, most Arabs despise their regimes—for their corruption, nepotism, violence, and complicity in American and Israeli abuses of power. Arab dictators have humiliated their peoples for decades. Finally, when the spark was struck, the tinder ignited. Modern social media facilitated the spread of revolt.

Two UCSC faculty members provide a perspective on the generational revolution sweeping the Arab world.

Alan Richards, left and Edmund Burke

In today’s world, everyone knows what is going on, everywhere. Some say that today’s Arab revolution confronts Americans with a choice between our values and our interests. Our values are, of course, democratic. But Arab democracy does not threaten our “interests,” if our interests are the interests of the vast majority of Americans, rather than those of the (very well-heeled) minorities that profit from an Empire of foreign bases, pretensions to “control oil,” and mindless support of unsustainable Israeli occupation policies.

From contending Arab nationalists with friends of the USSR during the Cold War to positing non-existent WMD in Iraq, the U.S. record of interventions in the region is one of countering threats that did not in fact exist. Arab democracy is no threat. On the contrary, the revolt of Arab youth against humiliation should make anyone pledging allegiance to the principles of 1776 very proud, indeed.

Moments such as the present where many vectors of change come together in unpredictable ways are fraught with peril. This is no time for ill-conceived U.S. interventions, which can seriously harm our long-term interests. In the face of this massive uncertainty and unpredictability, we should recall the Hippocratic Oath: “First do no harm.”

Alan Richards, professor emeritus of environmental studies, is an economist and an expert on energy politics. In 1989–91, he was an Education Abroad Program director in Cairo.

Edmund Burke III is research professor of history, emeritus, and director of the Center for World History.
Steve Gliessman: Planting the roots of agroecology deep in Santa Cruz

The term dates back to the late 1920s, but when Steve Gliessman and two Mexican colleagues began using “agroecology” nearly 35 years ago they pronounced it in Spanish: “agroecología.”

Gliessman was teaching at the Colegio Superior de Agricultura Tropical in Tabasco, Mexico, and studying the traditional Mayan techniques that form the foundation of sustainable small-scale farming that respects the land, farmers, and their culture. Three years later, in 1980, Gliessman joined the UC Santa Cruz environmental studies faculty and founded the UCSC Agroecology Program. In 1997, he wrote the textbook Agroecology: The Ecology of Sustainable Food Systems and published a second edition 10 years later. Today, agroecology is an interdisciplinary concept that extends beyond organic farming, and is widely known and taught in universities (often using Gliessman’s textbook) across the nation and around the world.

“Steve is one of the pioneers and founders of agroecology worldwide,” said professor Miguel Altieri, A. Francis, director of the Center for Environmental Science, Policy and Sustainability, as Gliessman defines it, is an approach to life based on sustainability, as Gliessman defines it, is an approach to life based on sustainability, it works with the environment and the people who live in it to improve their quality of life. Agroecology is the practice of farming in a way that respects the land, farmers, and their culture.

Today, Gliessman, holder of the first endowed chair at UC Santa Cruz, the Ruth and Alfred E. Heller Chair in Agroecology, is scaling back ever so slightly. After all, he is supposed to be retired as of last July. But that hasn’t seemed to slow him down. He spent two weeks teaching in Spain this winter. He’s organizing the 12th annual International Agroecology Shortcourse that will bring 35 to 40 participants from around the world to UCSC in July for two weeks of intensive instruction and practice in transforming food systems from field to table.

He continues to be editor-in-chief of the Journal of Sustainable Agriculture, and his Agroecology publisher is lobbying hard for a third edition because the book is selling better than ever.

Gliessman’s dream of establishing a “green kitchen” at the Program in Community and Agroecology (PICCA), where he has focused his attention since 2002, is nearing fruition. Located at the Sustainable Living Center in UCSC’s lower quarry, PICCA brings students from diverse disciplines to live in a community where they learn firsthand the principles of sustainable agriculture through classroom learning and community gardens. The modular kitchen building will demonstrate the latest in green building, alternative energy, and reducing the carbon footprint, Gliessman says. He envisions it as a sustainable living laboratory for students from multiple majors to experience, learn about, and even research sustainable technologies.

Sustainability, as Gliessman defines it, is an approach to life based on treating the land in an ecologically sound way. It must also encompass a just system socially and economically that treats people, land, animals, and water in “a way that lasts forever.”

“Social change doesn’t happen overnight. The goal is to create transformative action and a whole new way of thinking about the entire food system.”

Azadeh Moaveni: The seeds of a writer were sown at UCSC

When I enrolled at UC Santa Cruz as an ambitious 18-year-old from Cupertino, I imagined many career paths for myself, all of them deeply glamorous to my adolescent, suburban mind: human rights lawyer, public policy, diplomacy at the United Nations. I was intensely ambitious and had some lofty ideas about changing the world, and yet, becoming a writer never occurred to me. This is partly because I grew up in an Iranian family, and Iranians, generally, don’t believe in “just writing,” unless the kind of writing in question is poetry, and you happen to have the talent of Rumi. Ordinary mortals who wished to write should become something else first—perhaps a nuclear physicist or a heart surgeon—and then do their writing on the side.

This rather stern view rested on the belief, not altogether mistaken, that society needed us to contribute much more than our thoughts on paper, and that in the process of learning and practicing a craft, we would be accumulating the insight and experience that would enrich our writing.

I chafed at that cultural logic at the time, but it turned out to be not so particularly or tediously Iranian as I thought. The literature I encountered for the first time at UCSC, in the core course of Oakes College, reflected a similarly demanding and activist view of the writer’s place in the world. It was first at Oakes, and later in other classes, that I recognized and began to understand all the inchoate feelings that had underpinned my growing up Iranian in America. The fashionable shorthand for this process was “consciousness raising” and its effect on me was profound and electric.

I suddenly had an intellectual language to consider all that had befallen my family and my country; I was able to articulate in a terse, 200-word paragraph why I grew up despising Sally Field (she had starred in the crudely anti-Iranian film ‘Nin Without My Daughter’). My core course instructor, Dave Dodson, was the mentor whose approach helped ground me as I took this new awareness out into the disciplines that had always attracted me. In his classroom I learned what a potent tool writing could be in narrating, and thus owning, my experience in America. I also learned to value humility, and in the process, how to avoid the navel-gazing and self-righteousness that would get in the way of people wanting to hear my story.

If at Oakes I was inspired with the political power of a tale, then it was at City on a Hill Press, under the tutelage of writing instructor Coni ‘Ringo’ Hallinan, my adviser at the paper, where I learned how to craft a story. By the time I arrived at the newspaper, I had already endured the kind of rigorous editing in literature classes that had beaten out all the high-school laziness in my writing. I learned in those literature classes the painstaking, sentence-by-sentence crafting of a polished piece of work. It was under Ringo that I learned to love the genre that would become my life’s work: literary journalism. A news story, Ringo taught us, is a formula anyone can learn. It’s the long form journalism that is intellectually vibrant, that makes a contribution to history, that elevates reporters to writers. This belief inspired me to become a journalist and to write books “on the side,” a career that has managed to fulfill both me and that pesky Iranian dictum.

—By Azadeh Moaveni
We’d like to hear from you. ➤ Send an e-mail to review@ucsc.edu
➤ submit a note via the web at alumni.ucsc.edu (go to online community/class notes)
➤ or get social on Facebook: facebook.com/ucscant cruz

COWELL COLLEGE
‘75 Susan MORGENTHUR directed The Psychik at the Falcon Theatre in Toluca Lake. The Socialization of Ruthie Shapiro at the Theatre West in Los Angeles, and Happy Days, A New Musical at the Cabirio Musiclo Theatre in Thousand Oaks.

‘91 Susan SILBER has worked for 20 years as an environmental educator, introducing children to the importance of caring for the environment; she operates a consulting business for environmental and educational nonprofit organizations.

‘09 Teague TUBACH is pursuing a master’s in education and a multiple-subject teaching credential at the University of Phoenix; he currently teaches second-grade reading and writing.

STEVENSON COLLEGE
‘68 Raymond STEINER is teaching philosophy online at a community college after being semiretired for a few years.

‘09 Joan FITTING Scott and her husband Skinni the Cat: A Baby Boomer’s Guide to the New Retiree Lifestyles, and then took her own advice and retired. She divides her time between Fort Worth, Tex., and the San Francisco Bay Area.

‘70 Jonathan GREEN attended a course on global health at the College of Public Health of the University of Tennessee, Knoxville, in January 2010 and later participated in a medical mission in Constanța, the center of the earthquake and tsunami.

‘73 Carol-Joy HARRIS graduated from court-reporter school in 2007 and provides one-on-one captioning for deaf and hard-of-hearing students at UC Berkeley, Sonoma State University, and other colleges—a “perfect job for a life-long learner.” Charles A. PERRONE was a visiting professor at Stanford University in 2004. His latest book is Brazil. Lyric and the Americas, which was published last year; he is a professor of Spanish and Portuguese Studies at the University of Florida.

‘79 Pamela REVLING is about to receive a master’s degree in public health from San Diego State University. Her daughter, Emily, graduated from San Francisco State last year and her son is transferring to San Marcos State this fall to study history.

‘80 Donna GRAVES moved to Berkeley last summer after a year at Harvard’s Graduate School of Design as a Loeb Fellow; she works as a consultant in public history and community planning, is married, and has two children.

‘83 Maggie KRAFT left for Botswana in early April for two years as a Peace Corps volunteer; she is working at the community level there to help address the HIV/AIDS epidemic.

‘89 Kay WOLVERTON works both as the administrative director of the California Literary Arts Society and as a substitute teacher. She organizes an annual toy drive for homeless shelters and foster agencies. She and her family live in Ventura County.

‘97 Katy BIGELOW is the second woman in the state of Washington to become a registered consulting arborist through the American Society of Consulting Arborists; she lives on Bainbridge Island.

‘10 Harmony LAMBERT works for the Washington, D.C., headquarters of Greenpeace as a grassroots-organizing fellow in major East Coast cities. She credits her UCSC education with making her career possible.

‘93 Bill ALLAYAUD is employed by the Environmental Working Group, a nonprofit organization focused on children’s health and safety. He served as director of governmental affairs for California. He reports that his five-year-old daughter is learning to ski.

‘92 Randy FLAPPAN is a registered physical medicine and rehabilitation specialist with the Department of Neurosurgery at Stanford Hospital and Clinics in Los Gatos; he is a graduate of UC Davis Medical Center. Michelle GOLDEN and Alex Jay Hoyden were married in Tuscon last October; although Arizona does not recognize the union because both are women, “it is a marriage in the deepest sense.”

‘98 Peter HILSENRAHT is the Joseph M. Long chair in Health Care Management and professor of economics at the University of the Pacific in Stockton; he is married and has two children.

‘92 Maggie KRAFT left for Botswana in early April for two years as a Peace Corps volunteer; she is working at the community level there to help address the HIV/AIDS epidemic.

‘99 Bob SMITH took his own advice and retired. She divides her time between Fort Worth, Tex., and the San Francisco Bay Area.

MERRILL COLLEGE
‘92 Wendy FLAPPAN is a registered physical medicine and rehabilitation specialist with the Department of Neurosurgery at Stanford Hospital and Clinics in Los Gatos; she is a graduate of UC Davis Medical Center. Michelle GOLDEN and Alex Jay Hoyden were married in Tuscon last October; although Arizona does not recognize the union because both are women, “it is a marriage in the deepest sense.”

‘00 Jennifer SMYTHE works as an immigration attorney with Gali, Schaham, Gordon, & Warner. Sam is currently pursuing a master’s in public health from San Francisco State to receive a master’s degree in public health from San Francisco State University in 2004. His latest book is Brazil. Lyric and the Americas, which was published last year; he is a professor of Spanish and Portuguese Studies at the University of Florida.

‘04 David CRAGO has completed 20 years of active commissioned service with the U.S. Public Health Service, where he holds the rank of captain; he and his wife, Ann, adopted a 2-year-old girl and are the biological parents of four additional children.

‘84polemical chain” that he ran through to exhibit her paintings. Kay WolVERTON is a professor of Spanish and Portuguese Studies at the University of Florida.

‘10 Jeremy MARLEY graduated from the University of California, Santa Cruz in 2003, and received an M.F.A. in English in 2004. His latest book is Batek Binary.

‘11 Ito Ito was named Environmental Teacher of the Year 2010 by the Environmental Education Association of New Mexico.

‘79 Cory NAKAJI works for Xilinx as a systems applications engineer in technical support. His UCSC education has given him the tools necessary “to live a wonderful life.” He lives in Livermore, Calif., with his wife and two children.

MERRILL COLLEGE
‘92 Wendy FLAPPAN is a registered physical medicine and rehabilitation specialist with the Department of Neurosurgery at Stanford Hospital and Clinics in Los Gatos; she is a graduate of UC Davis Medical Center. Michelle GOLDEN and Alex Jay Hoyden were married in Tuscon last October; although Arizona does not recognize the union because both are women, “it is a marriage in the deepest sense.”

‘00 Jennifer SMYTHE works as an immigration attorney with Gali, Schaham, Gordon, & Warner. Sam is currently pursuing a master’s in public health from San Francisco State University in 2004. His latest book is Brazil. Lyric and the Americas, which was published last year; he is a professor of Spanish and Portuguese Studies at the University of Florida.

‘04 David CRAGO has completed 20 years of active commissioned service with the U.S. Public Health Service, where he holds the rank of captain; he and his wife, Ann, adopted a 2-year-old girl and are the biological parents of four additional children.

‘84 polemical chain” that he ran through to exhibit her paintings. Kay WolVERTON is a professor of Spanish and Portuguese Studies at the University of Florida.

‘10 Jeremy MARLEY graduated from the University of California, Santa Cruz in 2003, and received an M.F.A. in English in 2004. His latest book is Batek Binary.

‘11 Ito Ito was named Environmental Teacher of the Year 2010 by the Environmental Education Association of New Mexico.

‘79 Cory NAKAJI works for Xilinx as a systems applications engineer in technical support. His UCSC education has given him the tools necessary “to live a wonderful life.” He lives in Livermore, Calif., with his wife and two children.
UCSC Alumni Regent sought

If you’d like to help shape the future of the University of California, now is your chance.

UC Santa Cruz alumni are being sought to fill a spot as a voting member of the UC Board of Regents. These alumni regents are selected for two-year terms on a rotating basis from the system’s 10 campuses. The successful applicant will be the fourth UCSC alum to represent the campus on the Board of Regents.

The first year, the appointee will serve as an alumni regent designate and secretary of the Alumni Association of the University of California (AAUC). The second year, the regent will serve as president of the AAUC and become a full voting member of the Board of Regents.

Deadline to apply is July 1, 2011. For information or to get an application, email Carolyn Christopherson, executive director of UCSC Alumni Association, at carolync@ucsc.edu or visit ucsc.edu/alumni-regents.


Image this page and opposite by Steve Kurtz.

UC Santa Cruz Scholarship Benefit Dinner that took place in Silicon Valley, where UCSC faculty and alumni continue to contribute to the innovative research, educational programs, and cutting-edge technologies that define the Valley.

Attendees and sponsors raised over $160,000 for undergraduate scholarships at the dinner—one of UCSC’s premier fundraising events—which sold out several weeks in advance.

1. UC Santa Cruz Campus Provost/Executive Vice Chancellor Alison Galloway (right) and Student Baskin; 2. UC Santa Cruz Foundation member Michael Graydon (center), spouse Sally Graydon, and Smith Renaissance Society founder Bill Dickinson; 3. California Secretary for Natural Resources John Laird (Stevenson ’72) and major campus philanthropist Jack Baskin; 4. Alumni Councilor and Volunteer Committee member Jerry Ruiz (Crown ’79) and UC Santa Cruz Foundation President Gary Novick (Kresge ’73); 5. Student singers Natalie Enrike (Porter ’12) and Allie Jessing (Stevenson ’12) performing the “Flower Duet” from the opera Lakmé; 6. Former San Jose mayor and event co-chair Susan Hammer, UC Santa Cruz Chancellor George Blumenthal, and co-chair Mary Doyle; 7. Volunteer Committee member Michael Graydon (center), spouse Sally Graydon, and Smith Renaissance Society founder Bill Dickinson; 8. Student singers Natalie Enrike (Porter ’12) and Allie Jessing (Stevenson ’12) performing the “Flower Duet” from the opera Lakmé; 9. Former San Jose mayor and event co-chair Susan Hammer, UC Santa Cruz Chancellor George Blumenthal, and co-chair Mary Doyle; 10. Volunteer Committee member Paul Simpson (Kresge ’02) with mother Rosalind Simpson (left), UC Santa Cruz Vice Chancellor for Student Affairs Felicia McGinty, and evening emcee Stephen Abreu (Kresge ’99); 11. Assistant Secretary of Commerce nominee and event keynote speaker Kathryn Sullivan (Cowell ’73) and campus supporter Nancy Austin; 12. World-renowned nature photographer and UC Santa Cruz Foundation Trustee Frans Lanting (right) with partner Chris Eckstrom; at left, Larry Minden (Crown ’79) and Linda Pendziwol.
Philanthropy Focus

Stephen Bruce gives back by looking to the future

For the past two years, Bruce (Cowell ’79, economics) has brought international scholars to UCSC to discuss the global economic crisis as part of the Bruce Initiative on Rethinking Capitalism. The conference returned to campus April 7–9.

It makes perfect sense that the campus that inspired him is now “neutral territory” where professors from different universities are happy to put aside rivalries, shake hands, and talk. The multidisciplinary approach of the campus’s curriculum also makes it the perfect place to host an eclectic mix of scholars whose disciplines include economics, accounting, finance, and political science as well as anthropology, geology, literature, art, and public policy.

“We could have easily done it in San Jose, but we wanted to have it in Santa Cruz,” Bruce said. “We wanted to have the students involved.”

The conference is only the latest in Bruce’s collaborations with his alma mater. Bruce increased his involvement with UC Santa Cruz after he sold his successful asset management firm five years ago.

His contributions have included initiatives as diverse as helping the Center for Integrated Water Research bring a reverse osmosis water treatment unit to the city of Watsonville to sponsoring a two-year supplies in under-resourced schools in Watsonville and Salinas.

Bruce also established the Robert Meister Scholars Fund to support graduate students in politics and bring the “best and the brightest” to UCSC. His $250,000 gift in 2006 funds a $50,000 fellowship that has been awarded three times so far.

To date, Bruce has given more than $1 million to UCSC.

Along the way, Bruce has contributed yet another valuable resource: his time and expertise. For three years he served as chair of the Board of Councilors, an advisory group to Division of Social Sciences Dean Sheldon Kamieniecki.

Now Bruce is helping to guide the campus’s comprehensive campaign effort while serving on the advisory board for the Santa Cruz Institute for International Economics, the South Asia Studies Initiative, and the Sury Initiative for Global Finance and International Risk Management.

His advice for other alumni: Re-establish your old links to the campus. Rekindle old mentorships. If possible, show up there in person. Get involved. Contribute in a way that will drive and inspire future generations.

“They should hunt down old professors, talk to students, fund a scholarship, or fund a speaker series. It’s so easy to get engaged.”

—Stephen Bruce

“A gift is a powerful thing. Take the Seymour Center at Long Marine Lab. Every year, thousands of people visit the center, home to approximately 400 marine animals. Children can hold a sea star, marvel at the world’s largest whale skeleton—and learn to think like a scientist. The next generation will become the stewards of our coastal regions.

Their values start here. How did the Seymour Center begin? With a planned gift.

People like you support UCSC research teams as they develop solutions to critical environmental and social problems. People like you contribute to the education and training of future leaders—those who will become scientists, entrepreneurs, and visionaries. Their impact will extend globally for decades to come. Begin your legacy with a planned gift to UCSC. Shape and improve our world. Our planet. Our home. UCSC Planned Giving professionals can help. To get started, visit giving.ucsc.edu/plannedgiving.

How will you build your legacy?
Slugs have a culture of giving. Our success isn’t defined by what we have, but by what we change. You have a place within a special community of supporters at UCSC. Become a member of the Chancellor’s Associates. Support the funds that allow the campus to address urgent priorities that benefit students. Your fellow Slugs are already there. Join us.

Visit giving.ucsc.edu or call 800.933.SLUG (7584) and give back today.