Campus Update

Climate change, green technology are focuses of Foundation Forum

TERRY VAN

Participating in the UC Santa Cruz Foundation Forum were (l-r) keynote speaker Lisa Sloan, Acting Chancellor George Blumenthal, keynote speaker Steve Westly, former UCSC Foundation president Anu Luther Maitra, current Foundation president Gordon Ringold, and student Tommaso Boggia.

Climate change expert Lisa Sloan and green technology proponent Steve Westly were the keynote speakers at the sixth annual Foundation Forum at UC Santa Cruz in June.

Sloan kicked off the forum, *Global Warming and California's Future,* with a discussion of regional climate change in California. A professor of Earth and planetary sciences and director of the Climate Change and Impacts Laboratory at UCSC, Sloan described likely climate conditions across California in the next 50 to 100 years and the impact such changes will have on residents and the state's ecosystems.

Westly, a former California state controller and Democratic candidate for governor, discussed the past, present, and future of green technology. As controller, Westly led the effort to commit more than $1 billion to clean technology investments. Now, as a prominent Silicon Valley venture capitalist, he is helping entrepreneurs build the clean technology companies of the future.

In addition, Acting UCSC Chancellor George Blumenthal and student activist Tommaso Boggia discussed the greening of UCSC. They showcased the campus's use of green technology and UCSC's emergence as a leader of the sustainability movement.

Mock trial team makes it to nationals

In only its third year, the UCSC mock trial team made it to the semifinal round of the national college mock trial championship this past spring, facing off against powerhouse teams from Yale, the University of Pittsburgh, and Loyola University Chicago.

The accomplishment was even more impressive given that UCSC's team is entirely student-led, without any coaches.

"It took a lot of hard work, said program coordinator and varsity team captain Doug DiCicco. Every member of this team wanted to succeed."

JENNIFER MCNULTY

Doug DiCicco

Many schools field teams coached by law-school faculty members, attorneys, and judges, noted DiCicco, who started UCSC's mock trial club four years ago and first fielded a team with eight members in 2005.

Mock trial competitions are a popular way for students to explore the work of trial attorneys and learn about the judicial system. Participants spend six months acting out all aspects of a civil or criminal trial based on a fictional case provided each August by the American Mock Trial Association. Team members rehearse the roles of plaintiffs, defense attorneys, and witnesses, and they sort through affidavits, evidence, and exhibits. Team members exchange roles and "play both sides" of the case.

HP joins UCSC and NASA in new joint venture

HP has joined UC Santa Cruz and NASA in a new venture focused on developing revolutionary science breakthroughs in the coming decades.

As the first industry affiliate of the Bio-Info-Nano Research and Development Institute (BIN-RDI), a collaborative venture led by UCSC at its NASA Research Park–based Silicon Valley Center, HP will play a key role in establishing the institute's policies and priorities. The collaboration with HP provides new momentum to BIN-RDI programs, which are focused on the converging fields of biotechnology, information technology, and nanotechnology.

"BIN-RDI is an institution that has potential to have tremendous impact on a broad range of research we'll be pursuing in the future," said Stan Williams, HP senior fellow and director of quantum science research at HP Labs.

Current research activities at the BIN-RDI include projects on thermoelectric materials and fuel cell technology.

Stan Williams, director of quantum science research at HP Labs, will speak at UCSC's Silicon Valley Center on October 25 as part of the engineering school's Distinguished Lecture Series.

COURTESY OF THE SEYMOUR CENTER

UCSC's Seymour Marine Discovery Center at Long Marine Laboratory was featured on the popular television quiz show *Jeopardy!* in June. To prepare for the show, *Jeopardy*'s "Clue Crew" had spent a blustery January day at the Seymour Center, where they filmed about 12 video clips for the show, recalled center director Julie Barrett Heffington. "It was windy and cold, but they were like a well-oiled machine," said lab administrator Teri Sigler. "They really liked our center." Seymour staffers, including aquarium curator Peter Macht, were sworn to secrecy regarding the content of the show, but they had high praise for the seven-member Clue Crew team, including on-camera actors Jimmy McGuire and Sarah Whitcomb, pictured above.

Hinrich Boeger named Pew Scholar

The Pew Charitable Trusts has named Hinrich Boeger, assistant professor of molecular, cell, and developmental biology, a Pew Scholar in the Biomedical Sciences. Boeger will receive $240,000 over four years to support his research on the mechanisms involved in regulation of gene activity in cells.

TIM STEPHENS

Hinrich Boeger

The Pew Scholars Program in the Biomedical Sciences, funded by the Pew Charitable Trusts, is designed to support young investigators of outstanding promise in the basic and clinical sciences relevant to the advancement of human health. Nominations for the prestigious awards are invited from a limited number of institutions selected on the basis of the scope of their work in biomedical research.

Boeger's lab studies gene regulation in yeast cells, focusing on a regulatory element in the DNA called a promoter. He has shown that activation of the promoter involves the complete unfolding of the nucleosomes in that section of DNA. Furthermore, his studies suggest that nucleosomes are continually removed and reassembled during promoter activation.

With support from the Pew Scholarship, Boeger plans to further investigate this process, trying to understand the mechanisms involved and to what extent it is a general phenomenon in gene regulation.

Faculty member receives UC-wide award

William Domhoff says the best thing that ever happened to him professionally was being hired as a founding faculty member at UC Santa Cruz in 1965. The second-best thing was retiring early, which gave him the freedom to focus on his research.

JENNIFER MCNULTY

William Domhoff

Since he retired as professor of psychology and sociology in 1994, Domhoff has pursued two scholarly interests—dreams and power relations—with the zeal of a graduate student. His contributions were recognized this spring when Domhoff received the University of California's Constantine Panunzio Distinguished Emeriti Award.

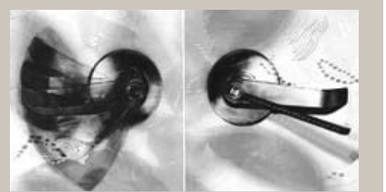
The award, which honors the postretirement contributions of UC faculty, was presented this year to Domhoff and Robert Collins, professor emeritus of history at UC Santa Barbara.

Domhoff is widely regarded as the foremost authority on the structure of power in the U.S. His book *Who Rules America?* is a classic in the field of sociology. Two new books, *Diversity in the Power Elite* and *Blacks in the White Elite,* co-authored with R. L. Zweigenhaft, examine how people get to the top—or not—when they are from groups with limited access to power.

Since retiring, Domhoff has also published two books on dreams, *Finding Meaning in Dreams* (1996) and *The Scientific Study of Dreams* (2003).

Artists exchange exhibits with Japanese colleagues

Fuse, a group show that featured new work by 12 UCSC art faculty, traveled to Japan this spring for an exhibit at galleries at Tokyo Zokei University and Kyoto University of Art and Design. The exhibition explored the influence of digital media and technology on the artists' practice.



The Two Doors by Jimin Lee

In exchange, UCSC's Sesnon Gallery will host an exhibit of faculty work from both Japanese universities in fall 2008.

UCSC faculty in the show were Elliot Anderson, E. G. Crichton, Frank Galuszka, Melissa Gwyn, Dee Hibbert-Jones, Jimin Lee, Norman Locks, Jennie McDade, Ed Osborn, Jennifer Parker, Elizabeth Stephens, and Lewis Watts. The exhibit featured digital works on paper; paintings with acrylic, mica, and ink-jet prints; DVDs projected on walls/monitors; and installation work.

Two humanities faculty awarded prestigious Guggenheims

Two UC Santa Cruz humanities professors have been honored with 2007 Guggenheim Fellowship awards.

History professor Gail Hershatter and history of consciousness professor James Clifford were among the 189 artists, scholars, and scientists selected this year from 2,800 applicants for awards totaling $7,600,000.

Guggenheim Fellows are appointed on the basis of distinguished achievement in the past and exceptional promise for future accomplishment.

Hershatter has been director of UCSC's Institute for Humanities Research since 2002 and codirector of the Center for Cultural Studies for the past

James Clifford

JIM MACKENZIE

Gail Hershatter

11 years. An expert on Chinese history, her research since 1996 has centered on rural Chinese women during the period of early socialism. She will use the fellowship, in conjunction with an award from the Center for Advanced Study in the Behavioral Sciences at Stanford, to write a book based on this research titled "The Gender of Memory: Rural Women and China's Collective Past."

Clifford was the founding director of UCSC's Center for Cultural Studies. He is best known for his historical and literary critiques of anthropological practice, travel literature, and cultural performances. The Guggenheim Fellowship will enable him to take a full year sabbatical to finish writing a book on "Indigenous Cultural Politics." Clifford's new book will complete a trilogy—the first volume *The Predicament of Culture* (Harvard University Press, 1988) wove together his essays on 20th-century ethnography, literature, and art; and the second, *Routes: Travel and Translation in the Late 20th Century* (Harvard University Press, 1997) explored issues of dwelling and travel in anthropology, travel, tourism, and a range of cultural performances.

COURTESY OF SPECIAL COLLECTIONS, UNIVERSITY LIBRARY

This historic photo shows the Cowell lime works, ca. 1910, now the main entrance to the UCSC campus.

Campus entrance on National Register of Historic Places

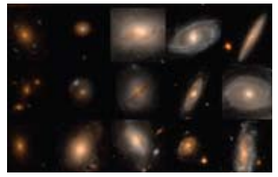
The state Historical Resources Commission granted approval in May for listing UCSC's Cowell Lime Works Historic District on the National Register of Historic Places.

The historic district, which was nominated by UCSC, is an area of about 30 acres around the main entrance to the campus on either side of Coolidge Drive. The district includes historic buildings and lime production features and related support facilities that date to the latter half of the 19th and early 20th centuries, when industrialist Henry Cowell operated the complex.

The historic buildings and features comprising the campus's historic district are of particular significance because they represent the full range of facilities needed in a historic rural industrial operation, including lime-processing facilities and also ranch and worker-support buildings.

Survey reveals new principle governing galaxy formation

Faced with the bewildering array of galaxies in the universe, from orderly spirals to chaotic mergers, it is hard to imagine a unifying principle that describes them all with mathematical precision. But that is just what astronomers have now discovered. The relation between a galaxy's mass and the orbital speed of its stars and gas is remarkably consistent over a wide range of galaxy morphologies and over billions of years of galaxy evolution, according to new results from a major survey of distant galaxies.



This mosaic of galaxy images from the AEGIS survey shows a range of normal galaxy types.

The findings show that certain fundamental properties of galaxies have actually changed very little over the past 8 billion years (about half the age of the universe) said Sandra Faber, University Professor of astronomy and astrophysics at UCSC. Simply put, the more massive a galaxy is, the faster the stars and gas within it move.

Postdoctoral researcher Susan Kassin described this relation by analyzing new data from ground-based and space-based telescopes for 544 distant galaxies with a range of morphologies. The results were published in the May 2007 special issue of *Astrophysical Journal Letters* devoted to initial results from AEGIS, a collaborative effort involving nearly 100 scientists in half a dozen countries.

TERRY WOE

Seven faculty members and 10 teaching assistants who have demonstrated exemplary and inspiring teaching have been honored by UCSC's Academic Senate with 2006–07 Excellence in Teaching Awards. Pictured here with Committee on Teaching chair Murray Baumgarten (far left) and Acting Chancellor George Blumenthal (center back) are faculty winners (l–r) David Draper, Andrew Szasz, Adriane Steinacker, Mara Mather, Bruce Lyon, and George Brown (not pictured: Brad Olson).

Microsoft gift boosts UCSC computer science program

A gift to UC Santa Cruz from Microsoft will enable computer science students to spend more time on computer games—developing computer games, that is, not necessarily playing them.

BRITTANY GRAYSON

James Whitehead (left) with Geon Lee and Matvei Stefarov, students in his game design course.

Teaching students how to program computer games early in the curriculum is a good way to get them interested in computer science and keep them engaged, according to James Whitehead, associate professor of computer science at UCSC.

Whitehead and Charles McDowell, professor of computer science, are leading the effort to increase the amount of computer game programming taught to undergraduates. The $80,000 gift from Microsoft will enable beginning computer science students to start doing computer game programming in an entry-level course, and will establish an optional game-programming project in a general education course.

"Our concern was that the current projects might not be as interesting to the students as game projects, or that they might not see the relevance," Whitehead said. "The game component might get them excited about computer science and keep them involved."

New book looks at self-deception

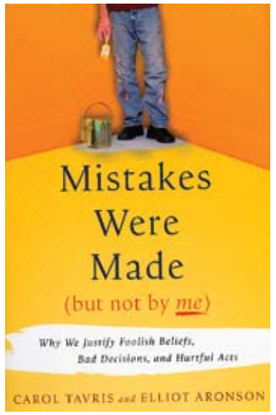
Right up there with hunger, sex, and greed, one of the most powerful forces shaping human behavior is cognitive dissonance, the discomfort we experience when we make mistakes that jar our feelings of self-worth.

As with hunger, when we experience cognitive dissonance, we hasten to reduce it—in this case, by attempting to justify the mistake. Because our brains are hard-wired to reassure us, most of the time we don't even realize the psychological gymnastics that are taking place.

Which is precisely the problem, according to preeminent social psychologist Elliot Aronson, coauthor of the new book *Mistakes Were Made (But Not By Me): Why We Justify Foolish Beliefs, Bad Decisions, and Hurtful Acts* (New York: Harcourt, 2007).

In *Mistakes Were Made,* he and coauthor Carol Tavris spell out how the protective psychological mechanism of self-justification puts us on a slippery slope of self-deception that frequently gets us into enormous trouble when we are unable to acknowledge our mistakes.

A lively and engaging book, *Mistakes Were Made* is packed full of examples of people who've been ensnared by the all-too-human trap of self-justification. The authors chronicle President Bush's inability to change course in the war against Iraq despite the absence of



weapons of mass destruction and the escalating financial and human costs. They also discuss how rank-and-file soldiers gradually came to mistreat prisoners at Abu Ghraib and why prosecutors refuse to drop charges against wrongfully convicted criminals even after new DNA evidence establishes their innocence.

Students monitor peregrine falcons

MAGGIE MACDONALD

Released adolescent falcons

Three peregrine falcons released this spring by the UCSC Predatory Bird Research Group (SCPBRG) tested their wings around Long Marine Laboratory under the watchful eyes of a group of UCSC students.

Charged with monitoring the young falcons as they learned to fly, feed themselves, and survive in the wild, the students peered through binoculars and spotting scopes and used radio-tracking equipment to monitor the birds when they flew out of sight.

Supervising the operation was Glenn Stewart, coordinator for the SCPBRG.

UCSC researchers achieve atomic spectroscopy on a chip

Researchers at UCSC have performed atomic spectroscopy with integrated optics on a chip for the first time, guiding a beam of light through a rubidium vapor cell integrated into a semiconductor chip.

Atomic spectroscopy on a chip was achieved using this device, which features interconnected waveguides, rubidium vapor cells, and fiber-optical access.

Atomic spectroscopy is a widely used technique with diverse applications. Based on the interactions of light and matter, spectroscopy is often used to identify substances by the wavelengths of light they absorb or emit.

Conventional systems have many large components, whereas the compact, fully planar device developed at UCSC enables the study of atoms and molecules on a chip-based platform with integrated optics, said Holger Schmidt, associate professor of electrical engineering.

Schmidt's group and his collaborators at Brigham Young University described the first monolithically integrated, planar rubidium cell on a chip in a paper published in the June issue of *Nature Photonics*. The first author of the paper is Wenge Yang, a postdoctoral researcher in Schmidt's lab at UCSC's Baskin School of Engineering.

According to Schmidt, potential applications of this technology include frequency stabilization for lasers, gas detection sensors, and quantum information processing.

Screenings document 1982 slaying


Vincent Chin

To commemorate the 25th anniversary of the murder of Vincent Chin, UCSC filmmaker Renee Tajima-Pena's award-winning documentary film *Who Killed Vincent Chin?* was being screened in cities across the U.S. this past summer.

Tajima-Pena is an associate professor in the Community Studies Department's new Social Documentation Program. Her Academy Award–nominated film tells the story of the 1982 murder of Chinese American Vincent Chin, who was slain in Detroit by two white autoworkers in the midst of a recession some blamed on Japanese car imports. A hate crime motivated by anti-Japanese sentiments, the murder served as a rallying cry for the Asian American community.

The film was shown in New York, Los Angeles, Detroit, Chicago, and other cities.


PHOTO COURTESY OF WASHINGTON UNIVERSITY

Tennis team captures sixth national title

For the sixth time in school history, UCSC's men's tennis team has captured an NCAA Division III national championship. The latest jewel in the decorated team's crown was added when the Slugs defeated Emory University of Atlanta 5-1 in the D-III championship game in May at Washington University. "They're all different every time," Coach Bob Hansen said of his six title teams. "They're all fantastic." UCSC's tennis team also captured the D-III crown in 1989, 1995, 1996, 1998, and 2005; the 2005 title was won at UCSC.

Student film about renowned physicist wins Steck Award

Sebastian Burke has received UCSC's 2007 Steck Award for *The Creative Process,* a film about legendary physicist Richard Feynman and his perspective on the nuclear bomb. The award is presented each year for the most outstanding senior thesis/research project.


MATT HITT

Sebastian Burke

Burke is a student in UCSC's dual degree engineering program, a five-year course of study offered in association with UC Berkeley that gives students the opportunity to receive two bachelor's degrees—a B.A. in the social sciences, humanities, or arts at UCSC, and a B.S. in engineering from the College of Engineering at Berkeley. Burke decided to pursue his UCSC degree in the field of film and digital media.

A Nobel Prize–winning scientist, renowned for his maverick lifestyle and popular books on mathematics and physics, Feynman assisted in the development of the atomic bomb and was a prominent member of the panel that investigated the space shuttle *Challenger* disaster in 1986.

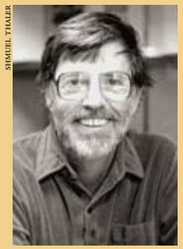
"I thought it was interesting that after the atomic bomb was created, Feynman thought the world was going to end in the near future. I wanted to know why he thought that way," said Burke.

The film weaves Feynman's stories and anecdotes together to portray the physicist's time at Los Alamos National Laboratory.

Contributions from the family of Loren Steck (Porter '73) make the award possible.

Robert Edgar elected to National Academy of Sciences

Robert Edgar, professor emeritus of molecular, cell, and developmental biology at UC Santa Cruz, has been elected to the National Academy of Sciences in recognition of his distinguished achievements in original research.


SHMUEL THALER

Robert Edgar

Election to the academy is considered one of the highest honors for U.S. scientists and engineers.

Edgar is known for significant contributions in two areas of molecular biology—the genetics and self-assembly of viruses and the genetics of a tiny worm, the nematode *Caenorhabditis elegans,* which Edgar helped establish as one of the most useful model organisms for biological research.

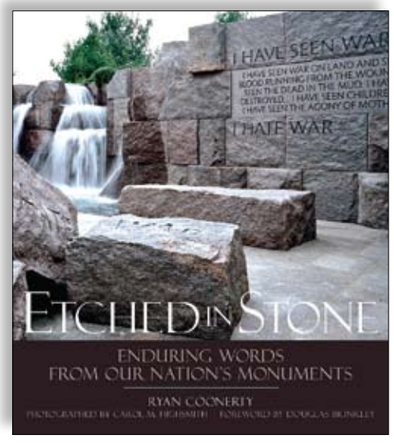
Lecturer publishes tribute to memorials and monuments

Anyone who has ever gotten goose bumps visiting the Lincoln Memorial will be drawn to the new book *Etched in Stone: Enduring Words from Our Nation's Monuments.*

Author Ryan Coonerty, a lecturer in legal studies at UCSC, calls attention to the words and phrases that adorn 50 monuments across the country. *Etched in Stone* (Washington, D.C.: National Geographic, 2007) takes a broad view of monuments, encompassing tributes to public figures and ordinary heroes, as well as to events that must not be forgotten and ideals such as the promise of freedom.

"Part of what I wanted to do with this book is provide an accessible history of our country," said Coonerty, who is also vice president of Bookshop Santa Cruz.

Included in the collection are familiar landmarks like the Thomas Jefferson Memorial and the Vietnam Veterans Memorial, as well as lesser-known works such as the Slavery Monument in Savannah, Georgia, the Salem Village Witchcraft Victims' Memorial, and the Clayton Jackson McGhie Memorial in Duluth, Minnesota, a tribute to the victims of a lynching in 1920.



Digital arts/new media students collaborate across time zones

"Just wait until we do this from different planets," someone remarked, seconds before the performance began.

The occasion was a live concert in March featuring four different musical ensembles improvising simultaneously over the Internet across three different time zones.


JIM MACKENZIE

Cynthia Payne performed at UCSC with her ensemble, E2.510.

As part of her M.F.A. thesis in digital arts and new media (DANM), UCSC graduate student Cynthia Payne performed with her group, E2.510, from a studio she set up on the fifth floor of the Engineering 2 Building.

Her collaborative partners from across the country included the Weave Soundpainting Orchestra from Loyola University in Chicago; Pauline Oliveros's Tintinabulate Ensemble from the Rensselaer Polytechnic Institute in New York; and the SoundWIRE Group from the Center for Computer Research in Music and Acoustics at Stanford University.

Using live audio and video streams, the four groups performed together in real time using high-speed Internet2 and software that reduces delay.

"I would describe the music as abstract, experimental, ambient . . . in the ear of the beholder," Payne observed. "I would compare it to free jazz."

In Memoriam

- **Philip Wilkes Bell,** 82, economics professor and founding provost of Merrill College, died in August in Kennett Square, Pennsylvania. Bell was a capable administrator and a devoted teacher who inspired students at UCSC and other campuses.
- **Brian Walton,** 55, whose leadership of the UC Santa Cruz Predatory Bird Research Group was highlighted by the pivotal role the group played in the restoration of the peregrine falcon on the West Coast, died in June at a Santa Cruz hospital. Walton served as the coordinator of the program for 31 years.
- **Gurdon Woods,** 92, a visionary arts educator who helped design and create UC Santa Cruz's first curriculum and facilities in the arts, died in July at his Aptos home.