Launched by a series of generous gifts from philanthropist Jack Baskin, UCSC’s first professional school is beginning to make its mark through innovative research and the outstanding work of its alumni.
These profiles underscore that UC Santa Cruz remains focused on fostering a unique intellectual environment, one that inspires progress driven by our faculty, undergraduate and graduate students, and alumni. This tradition of innovation is also exemplified in the articles you will read in the following pages.

In October, UC Santa Cruz will convene nationally prominent leaders in higher education for the Clark Kerr Symposium focused on the student experience at UC Santa Cruz. In a period of reduced state support, ideas generated and funds raised over this weekend will ensure that young scholars like Jenny Jiang continue to thrive at UC Santa Cruz. Please join us in supporting tomorrow’s leaders!

M.R.C. Greenwood
Chancellor

From the Chancellor
By M.R.C. Greenwood

As I listened to undergraduate Jenny Jiang deliver her commencement speech during Cowell College’s graduation ceremony last June, I was filled with pride at the achievement of our students and the positive difference a UC Santa Cruz education makes in their lives.

“I was encouraged—even compelled—by faculty members to take all that I’ve learned into the outside world, and to really become an active member of this community,” Jenny told her commencement audience.

Jenny discovered a passion for public service during internships in the Santa Cruz District Attorney’s Office, the Public Defender's Office, and the offices of former California Assembly Speaker Pro Tem Fred Keeley and Assemblyman John Laird. Inspired by faculty mentor Isbell “Ronnie” Gruhn of politics, she pursued her interest in public policy. Jenny’s work culminated in her senior thesis in the first permanent international court created to try cases of human rights violations, genocide, and war crimes.

Graduating from UC Santa Cruz in legal studies with a minor in East Asian studies, Jenny Jiang has enrolled this fall at UC Berkeley’s Boalt Hall School of Law. Her story is just one example of the exceptional educational experiences available to the young scholars who attend UC Santa Cruz. I invite you to read about a few of them in a new ongoing series of student profiles posted at: www.ucsc.edu/students/profiles

M.R.C. Greenwood
Chancellor

To help support students like Jenny Jiang, contact our Development Office at (800) 933-SLUG or visit give.ucsc.edu/
The symposium, taking place Friday, will be followed by the Saturday dedication of Colleges Nine and Ten. “UCSC has pioneered the role of the colleges within the public research university, and the college is at the heart of the UC Santa Cruz student experience,” said Greenwood. During the gala benefit dinner Saturday evening, Atkinson will be presented with the first UCSC Foundation Medal in recognition of his Program. Alumni, students, parents, and friends of UCSC are invited to attend the festivities. Advance registration is required for some events; for details, see kerrsymposium.ucsc.edu.

We are proud to host these esteemed leaders for a discussion of ways to strengthen education and enhance the student experience in the 21st century,” said UCSC Chancellor M.R.C. Greenwood. “This is an extraordinary opportunity to celebrate the campus and our unique undergraduate colleges.”

Linguist elected to American Academy of Arts and Sciences

UCSC linguistics professor Geoffrey K. Pullum has joined Supreme Court Justice Antonin Scalia, journalist Walter Cronkite, philanthropist William Gates Sr., Nobel Prize-winning physicist Donald Glaser, recording industry pioneer Ray Dolby, and U.S. Secretary-General Kofi Annan, as a newly elected member of the American Academy of Arts and Sciences. The 2003 class includes four college presidents, three Nobel Prize recipients, and four Pulitzer Prize winners.

Making science more engaging for undergraduates was the goal of a $1 million grant from the Howard Hughes Medical Institute to Manuel Ares, a professor of molecular, cell, and developmental biology. UCSC’s New Teacher Center received $22.7 million in private support in the form of gifts and grants during 2002–03, the second-largest total ever raised by the campus. A record $24.4 million was raised in 2000.

Individual donors also provided crucial support to the campus. Gifts to the Annual Fund, including gifts from UCSC Foundation trustees, alumni, parents, and friends, totaled $2.6 million. This included $100,000 for the Alumni Association Scholarship Fund. Trustees of the UC Santa Cruz Foundation, which supports the campus through advocacy and private fundraising efforts, gave $1.3 million this past year, with 100 percent participation from board members.

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In Memoriam

Richard Hooper, a politics major who graduated with honors from UCSC in 1985, was killed in August when a bomb exploded outside United Nations headquarters in Baghdad. At presstime, other details concerning his death were not known. Hooper, a U.N. expert on Arab affairs, was 40.

UCSC scientist part of team decoding gamma-ray burst mystery

Scientists have pieced together the key elements of a gamma-ray burst, from supernova death to dramatic black hole birth, thanks to a March explosion considered the “Rosetta stone” of such bursts. The results were described in the June 19 issue of Nature, in an article coauthored by Stan Woody, professor and former chair of astronomy and astrophysics at UC Santa Cruz.

The telling March 29 burst in the constellation Leo, one of the brightest and closest on record, reveals for the first time the inner workings of the explosions — the most energetic explosions known in the universe — occur essentially simultaneously, a quick and powerful one-two punch. The burst was detected by NASA’s High-Energy Transient Explorer and observed in detail with the European Southern Observatory’s Very Large Telescope in Chile.

“The March 29 burst changes everything,” said Woody. “With this missing link established, we know for certain that at least some gamma-ray bursts are produced when black holes, or perhaps very unusual neutron stars, are born inside massive stars.”

The research team said that just as the Rosetta stone helped us understand an ancient language, this burst will serve as a tool to decode other gamma-ray bursts.

Woosley and his graduate student, Weiqun Zhang, created computer simulations of a gamma-ray burst using one of the fastest unclassified computers in the world, at Lawrence Berkeley National Laboratory. Using 128 computer processors simultaneously, Woosley said the simulations took about two weeks — or about 25,000 processor hours.

“This is the first time our models have accurately simulated the explosion of a star that is at least as massive as the Sun,” said Woosley.

When such stars die, their nuclear fuel, they no longer have the energy to support their mass. Their cores implode, forming either a neutron star or (if there is enough mass) a black hole. The surface layers of the star blast outward, becoming brighter than the light of a billion stars as luminous as the Sun.

Scientists have suspected gamma-ray bursts and supernovae were related, but they have had little observational evidence, until March 29.

woody named UCSC chancellor

Dynes said he believes the best model of governance is the one that has existed over the past two decades at UC San Diego, where he served as chancellor.

“UCSD is the model of the modern research university,” Dynes said. “It balances the needs of the academic community with the needs of the public, in a way that maximizes diversity and inclusion.”

Dynes added that he hopes to bring the campus “closer to its community” and create a “new model for public engagement.”

Dynes is shown with his wife, Mary, an emeritus professor of physics at UC San Diego, at a press conference after his selection. Dynes is shown with his wife, Mary, an emeritus professor of physics at UC San Diego, at a press conference after his selection.

UC Santa Cruz Review / Fall 2003
WHEN IT WAS FOUNDED IN 1997, UCSC’s Baskin School of Engineering had already established a reputation for excellence in computer science and computer engineering. But in the six years since its founding, the campus’s first professional school has added a number of disciplines, emerging as a distinctive engineering school with a unique focus on some of the most exciting areas of technological innovation.

The faculty are conducting vital research in the core areas of information technology, biotechnology, and nanotechnology, and 12 of them were featured at the school’s first Research Review Day in May (see story, pages 12 and 13).

Graduates and students of the School of Engineering are also helping to build its reputation through their own accomplishments in industry and academia. In the pages that follow, we profile four of these people.

The subjects of the four profiles represent the school’s founding departments, computer science and computer engineering. The quality of their work, however, speaks to the promise of the school’s new departments and programs in applied math and statistics, biomolecular engineering, electrical engineering, information systems management, network engineering, and software engineering.

To accommodate the expansion of the engineering school’s programs, a new building is under construction adjacent to the existing Baskin Engineering Building. With 90,000 square feet of new office, laboratory, and classroom space, the Engineering 2 Building is scheduled for completion in fall 2004.

Jack Baskin, whose $5 million gift helped launch the engineering school six years ago, has continued his support with a $1 million gift this year to help fund the new building and to create an endowed chair in biomolecular engineering. Baskin’s donations to the School of Engineering now total almost $8 million.

“That we have come so far in such a short amount of time is due in large part to Jack Baskin’s vision and support,” says Chancellor M.R.C. Greenwood.

“I expect to see tremendous developments in our core areas of information technology, biotechnology, and nanotechnology, with significant impacts to society for decades to come.”

STEVE KANG
Dean, Baskin School of Engineering

“UC Santa Cruz is developing a school that will meet the engineering challenges of the 21st century. I am delighted with the engineering school’s progress and consider it to be my greatest legacy.”

JACK BASKIN
Retired engineer and philanthropist

ENGINEERING SUCCESS
KIMMEN SJÖLANDER
UC SANTA CRUZ EDUCATION:  
B.A., computer science, 1993;  
Ph.D., computer science, 1997
CURRENT POSITION:  
Assistant Professor of Bioengineering  
UC Berkeley

Kimmie Sjölander's specialty, bioinformatics, brings the methods of computer science to bear on problems in molecular biology. Her current work includes efforts to understand disease resistance in plants and, more broadly, the nature of innate immunity in both plants and animals.

The interdisciplinary nature of Sjölander's work is reflected in her affiliation with two departments at UC Berkeley: bioengineering and plant and microbial biology.

"It's easy for computer scientists to stay very theoretical, but by working closely with the biologists you find out what's really important to them," Sjölander says.

Proteins, with their extraordinary diversity of structure and function, pose some of the toughest problems in bioinformatics, and Sjölander has made key contributions to the arsenal of computational tools available for protein analysis. Her software programs can sort out the evolutionary relationships among proteins, allowing scientists to infer the structure and function of a newly discovered protein on the basis of its relationship to known proteins.

Sjölander began this work as an undergraduate working with bioinformatics pioneer David Haussler, UC Santa Cruz professor of computer science and Howard Hughes Medical Institute Investigator. After earning her Ph.D., also under Haussler's guidance, Sjölander worked in industry for several years. As chief scientist at the Molecular Applications Group (MAG), she oversaw the development of the Panther protein classification system, which included methods she had developed for her Ph.D. thesis.

When MAG's Panther group was acquired by Celera Genomics, Sjölander found herself working on the analysis of the human genome sequence. While Sjölander was at Celera, the public Human Genome Project recruited Haussler's group to help analyze its sequence. While Sjölander was at Celera, the public Human Genome Project recruited Haussler's group to help analyze its sequence. Although the media tended to focus on the competition between Celera and the public consortium, Sjölander says those involved just laughed about it.

"I think whatever competition there was got hyped up by the media," she says. Nevertheless, she is thrilled to be back in academia, with greater freedom to do research in a collaborative environment. She was recently awarded a prestigious research grant from the National Science Foundation's Faculty Early Career Development (CAREER) program. And she was busy this summer organizing a research conference on bioinformatics held at Oxford University.

It is ironic that Sjölander ended up at UC Berkeley, having turned down generous offers from Berkeley in favor of UCSC for both undergraduate and graduate studies. The opportunity to study with Haussler was a big factor in those decisions, but there were other reasons as well, she says.

When Sjölander went back to a problem with one of the network's core routers, enabling the company to fix the problem before it affected customer service. That experience paved the way for the monitor's deployment in AT&T's national backbone network.

"As you can imagine, the barriers to such deployment are quite high, and getting to this point within such a short time is no small feat," says Shaikh's UCSC adviser, Anujan Varma, a professor of computer engineering. Varma used his industry connections to create the opportunity for Shaikh to do his thesis research at AT&T, which has provided almost $100,000 in funding to UCSC for the project.

"The OSPF monitor basically listens to LSA messages and analyzes them to assess the health of the network," he says. "It does the analysis in real time, but it also archives the messages, so you can go back and do a more detailed analysis offline."

AT&T first tested the monitor on a small research network, then deployed it in a large customer network that connects hospitals to a health services data center. Shaikh's OSPF monitor detected a problem with one of the network's core routers, enabling the company to fix the problem before it affected customer service. That experience paved the way for the monitor's deployment in AT&T's national backbone network.

"Aman Shaikh's work has been extremely well received in the networking research community," says AT&T's Greenberg. "It has been deployed in very large networks, where it has had significant real-world impact."

In addition to its practical value, the OSPF monitor is a useful research tool because of the data it collects, says Varma.

"We are getting a lot of information that we can use for subsequent research on network behavior," he says.

Shaikh continues to work on the project and plans to complete the requirements for his Ph.D. by the end of 2003.
Randal Burns is working to solve one of the great challenges of the digital age: how to manage efficiently the massive amounts of data stored in computer systems. It is a challenge that any large organization eventually confronts as data steadily accumulates and computer systems and networks evolve.

According to Burns, data storage accounts for most of the money spent on information technology and often represents the most valuable asset of a company or organization. A major focus of his research addresses the difficulty of moving data from one computer system to another.

“When data is stored in a certain system it tends to gain inertia, in the sense that it becomes harder to move it to a different system,” he says. “We’re ... inertia by developing tools that allow data to move between different software systems and different management domains.”

These tools enable data to migrate seamlessly between computers running different operating systems and software programs. That can be helpful for sharing data among different sites and for deploying new storage technologies.

“We want to allow data to outlive the software systems on which it is initially stored,” Burns says. Burns directs the Hopkins Storage Systems Laboratory in the Whiting School of Engineering at Johns Hopkins University. As a graduate student, he worked with Darrell Long, professor of computer science and director of UCSC’s Storage Systems Research Center. He also was on the research staff at the IBM Almaden Research Center in San Jose, both as a graduate student and after he earned his degree.

“One of the great things about my graduate career was the interaction with industry while I was at Santa Cruz,” Burns says. His work at IBM earned him six patents and a series of IBM awards for his inventions, including an IBM Outstanding Innovation Award. Since his arrival at Johns Hopkins in 2001, Burns has received two prestigious federal grants to support his research and teaching: an Early Career Principal Investigator Award from the Department of Energy and a Faculty Early Career Development (CAREER) Award from the National Science Foundation.

The NSF CAREER awards are meant to recognize and support those young faculty who are most likely to become the academic leaders of the 21st century. It’s not hard to see why Burns was among those chosen.

MIKE TZAMALOUKAS
UC SANTA CRUZ EDUCATION: M.S. and Ph.D., computer engineering, 2000
CURRENT POSITION: Founder, Circumnav Networks Inc.

Consumers in the United States have shown limited interest so far in navigation systems for cars, but Mike Tzamaloukas is developing a product that could change all that when it hits the market sometime next year.

Imagine having a device in your car that knows not only where you are and where you want to go, but also the current traffic conditions, and can map out the best route to get you around traffic jams and to your destination as quickly as possible.

That’s the idea behind Circumnav, a company Tzamaloukas started incubating in 2002 with help from Skymoon Ventures, a venture capital firm based in Palo Alto. The company was officially founded this year.

“We’ve developed a wireless device that enhances the navigation systems now available for cars in a very affordable manner, and can give you dynamic route guidance based on traffic conditions,” Tzamaloukas says.

Although Tzamaloukas is reluctant to reveal details of the technology behind his company’s product, Circumnav incorporates similar wireless networking technology to its navigation systems to provide constantly updated traffic information. For now, however, the source of the traffic information is a secret.

“We haven’t been giving all the details, but we have the technology to make it work,” Tzamaloukas says. Before launching Circumnav, he was chief scientist with AmbiCom, a Fremont-based company specializing in wireless technology.

With the high-tech industry suffering during the recent economic downturn, this would seem like a difficult time to launch a new company in Silicon Valley. But in the case of Circumnav, however, Tzamaloukas leveraged an idea that Skymoon Ventures was already exploring on its own. He now works out of the Skymoon offices in Palo Alto.

“ They had a great idea, and I knew how to make it happen,” he says.

R
UC SANTA CRUZ EDUCATION: M.S. and Ph.D., computer science, 2000
CURRENT POSITION: Assistant Professor of Computer Science, Johns Hopkins University
A ROUNDUP OF ENGINEERING RESEARCH

THE BASKIN SCHOOL OF ENGINEERING

held a Research Review Day this past May, presenting a sample of current research activities to an audience that included high-tech industry representatives from Silicon Valley. Some of UCSC’s leading engineering faculty discussed their work in the series of presentations outlined here.

Additional information about the talks described here is available on the web at soe.ucsc.edu/events/research_review_day.

INTERFACING THE PHYSICAL AND BIOLOGICAL WORLDS

MICHAEL ISAACSON
Nairinder Singh Kapany Professor of Optoelectronics

Isaacson develops novel techniques and tools for “nanobiotechnology,” using technology from the semiconductor industry to study biological systems and develop devices with biomedical applications. His projects include the development of devices for use in neural prosthetics.

INTRAOCULAR RETINAL PROSTHESIS

WENTAI LIU
Professor of Electrical Engineering

Liu has applied his microelectronics expertise in an interdisciplinary project to develop a retinal prosthesis for the restoration of sight in the blind. His research interests include biomimetic microsystems, molecular electronics, microelectronic sensor design, and computer vision and image processing.

PHOTONIC MATERIALS AND DEVICES FOR OPTICAL FIBER COMMUNICATIONS

CLAIRe GU
Professor of Electrical Engineering

Gu’s research on photonic technologies for fiber optic networks includes the use of light-sensitive materials to design and implement optical filters, switches, and other devices.

NANOSCALE DEVICES FOR OPTO- THERMO-ELECTRONIC CONVERSION

ALI SHAKOURI
Associate Professor of Electrical Engineering

Shakouri’s projects, including microcalors for computer chips and devices for direct thermal to electric energy conversion, are based on the engineering of optical, thermal, and electric properties of nanostructured semiconductors.

WIRELESS INTERNETING

J. J. GARCÍA-LUNA-ACEVES
Professor of Computer Engineering

A leading expert on computer communication, Garcia-Luna has developed new technologies for establishing ad-hoc networks of mobile wireless devices. He is working on new protocols to support wireless networks and enable seamless interconnection with the wired Internet.

RECENT RESEARCH DEVELOPMENTS IN THE UCSC VISUAL COMPUTING GROUP

HAI TAO
Assistant Professor of Computer Engineering

Tao has a variety of research projects involving image enhancement, video processing, and facial modeling. Applications include improved teleconferencing, video surveillance, and enhanced image resolution for digital photos.

INTERFACES FOR COMPONENT-BASED DESIGN

LUCA DE ALFARO
Assistant Professor of Computer Engineering

Embedded software runs a growing array of products, from cell phones to satellites, and reliability of embedded systems is a major issue. De Alfaro addresses this through component-based design of embedded software.

STORAGE RESEARCH IN THE UCSC STORAGE SYSTEMS RESEARCH CENTER

SCOTT BRANDT
Assistant Professor of Computer Science

The Storage Systems Research Center focuses on key challenges for next generation storage systems, including huge capacity and scalability, performance, security, portability, new storage technologies, and large-scale information management.

THE HUMAN GENOME PROJECT

JIM KENT
Research Scientist, Center for Biomolecular Science and Engineering

Kent wrote the software to assemble the human genome sequence and created a widely used web-based browser for exploring the genome. He discussed the promise of genomics to revolutionize medicine and concerns about some potential uses of the technology.

NANOPORE ANALYSIS OF NUCLEIC ACIDS

MARK AKESON
Codirector, UCSC Biophysics Laboratory

UC Santa Cruz researchers have pioneered the use of “nanopores” for the analysis of single RNA and DNA molecules. The nanopore device promises to have broad utility for biomedical research and diagnostic tests.

THE PROMISE AND PERILS OF MODERN GENETIC ENGINEERING

J. J. GARCÍA-LUNA-ACEVES
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In her new book *Breathing Spaces: Qigong, Psychiatry, and Healing in China*, Chen, now an associate professor of anthropology at UC Santa Cruz, bears witness to the story of qigong. Like so many chapters of modern Chinese history, it is a tale of alienation, suffering, and survival as the hopes and needs of the Chinese people collided with the government’s desire for control. A holistic blend of breathing, mental imagery, and movement, qigong emerged in the 1950s, and today it is sweeping the nation, with scenes like this playing out across the country.

On a cold and gusty morning in late spring 1991, a Beijing stadium is filled with the attentive faces of thousands of people. They have come to experience qigong, a form of meditative breathing that has developed a loyal following among the ailing and infirm. Clad in drab, dark colors, the crowd looks oddly dated, like the clock stopped 40 years ago. But this audience is animated, eager, and expectant. Not since the days of the Cultural Revolution have crowds gathered with such passionate fervor.

The qigong (pronounced chee-GONG) master who takes the stage is renowned for using only his voice to convey qi, the “life force” energy associated in Chinese medicine with healing, longevity, and prosperity. Having paid the equivalent of one week’s wages, many in the audience are hoping for relief. Most have heard stories of dramatic healing during these gatherings: stroke victims who recover the ability to speak, wheelchair-bound individuals who rise and walk across the stage. Riveted, they watch as the master embarks upon a six-hour lecture delivered without pause or interruption, even for a sip of water.

At first, the audience is silent, listening with deep concentration. A few individuals begin to move their arms in slow, graceful gestures to “receive” the master’s qi energy. Soon, many are swaying, trembling, or shuddering. Several run up and down the aisles, appearing overcome with emotion.

Watching from the sidelines, anthropologist Nancy Chen is reminded of the evangelical faith healers she watched perform while growing up in Louisiana. Chen is in Beijing to conduct fieldwork for her dissertation on mental health and psychiatry in China. “Qigong fever” is sweeping the nation, and scenes like this are playing out across the country.
offering the hope of relief from ailments ranging from arthritis to cancer. The practice surged in popularity, however, during the post-Tiananmen era that began in the early 1990s when many Chinese experienced profound physical and psychic distress as reforms convulsed the socialist nation. “Qigong offered a sense of belonging and an urgently needed opportunity to express belief in something outside state ideology,” says Chen. “It was promoted by charismatic masters and embraced by tens of thousands of Chinese as an antidote to state-induced chaos.”

With the 1989 Tiananmen Square massacre and six months of martial law as a backdrop, China’s move toward a market economy ushered in an era of profound economic change. New government policies transformed China, creating the nouveau riche and establishing a drive for consumer goods that struck at the core of Maoist traditions. Many displaced poor were left to struggle with new, rampant material desires without the support of state-provided services. As the country’s wide-spread health care system was overhauled into a fee-for-service structure. The changes took a grave toll on China’s citizens, 79 percent of whom now lack basic insurance.

For many suffering from chronic or even acute illness, self-medication became the only option, and Chen expresses little wonder at the widespread appeal of qigong and its charismatic leaders. Compared to government bureaucrats, one of whom was lampooned in a 1990 political cartoon holding the tail of a tiger that was poised to pounce on him, qigong masters were viewed as the embodiment of ultimate power and able to “ride the tiger.”

Practiced in urban parks under the supervision of a master, qigong promised physical relief, a much-needed sense of community, and a respite from the distress of living in a country in transition. Before long, parks became social centers “like cafes in 19th-century France,” says Chen. Beijing bookstalls were packed with qigong-related magazines, novels, movies, and texts. Workers scrimped to attend lectures by well-known masters, the more entrepreneurial of whom produced videotapes, audiotapes, and toured the country to build their followings. Dog-eared copies of hard-to-find qigong texts were passed from friend to friend, and masters jetted to be photographed with movie stars who would enhance their cachet. As qigong grew, its dedicated followers became adept at using e-mail and the Internet to expand the appeal of their charismatic leaders beyond China’s borders.

The state’s initial support of qigong seized on what it called “qigong deviation,” or q-i-induced psychosis, as evidence of the risks of qigong practice. The establishment of a new psychiatric category to classify symptoms among a growing number of qigong practitioners, including disturbing visions and auditory hallucinations, vertigo, hyperventilation, insomnia, extreme heat, and what was described as “uncontrollable qi energy.” Although qigong masters and practitioners of Traditional Chinese Medicine (TCM) viewed these symptoms as preventable, manageable, and responsive to treatment, the state seized on what it called “qigong deviation,” or qi-induced psychosis, as evidence of the risks of qigong practice. The...
**ENVISIONING a new community for the ARTS**

By Scott Rappaport

UC Santa Cruz hopes to transform this idyllic scene into reality under a comprehensive arts and community access plan now being developed for the campus. This visionary effort, led by Arts Division dean Edward Houghton, has involved faculty, students, and staff, as well as outside architectural consultants. These groups have been working together for the past year to come up with a conceptual framework that will form the basis for future architectural plans. The end result will be a master blueprint—designed to dramatically enhance the Performing Arts area of the campus.

"This is where our artists are, where some of the most creative activities occur on campus," Houghton notes. "It’s where the campus intersects with the community, where people come to see performances and experience the arts—music, dance, theater, film. So it’s absolutely crucial that we plan wisely in this area."

The development of such a plan is not without significant challenges. How do you create a space for new construction that will work well with both existing buildings and the landscape, and at the same time provide a more enticing gateway to the campus? In order to consider the best approach to these issues, UCSC hired a group of consultants led by Thomas Hacker Architects and Walker Macy. Both companies have a long history of designing plans for art centers and universities, collaborating on ventures such as Lewis & Clark College’s Signature Project, Southern Oregon University’s Center for the Visual Arts, and the Yellowstone Art Museum.

One of the trickiest hurdles the consultants face is determining how to build a pedestrian-friendly arts center that also meets the need for easy community access and parking. In response to this concern, architect Thomas Hacker has proposed removing the current parking lot in the Performing Arts area and building a new parking structure tucked among trees at the southern edge of the site. The center of the area would then be developed with a large auditorium space and museum, creating a central arts village that would connect the northern theater arts area with the southern music buildings.

"We are seeking a heart and soul for the area," observes Houghton. "The focus would be on taking cars out of the center and putting buildings and plazas in their place where people—major artists, emerging young artists, students, teachers, and audiences—can move and interact."

Driving this push for a long-range arts area plan has been a rapid rise in the number of UCSC students interested in the arts. Since the mid ’90s, arts enrollments have been growing at a rate significantly faster than the total growth of the campus. "Students are applying to our programs in unprecedented numbers," says Houghton. "Five years ago, for example, we didn’t have a Department of Film and Digital Media. Now we have over 400 students in that major alone."

In fact, to provide for the influx of new students, two new structures are already in the planning stage. A state-funded $25 million arts building is slated to house the expanding digital arts program, as well as provide 10 studios for art faculty, a photography studio, and expanded space for music and theater arts classes. That building is expected to be completed by 2008.

"The Arts Division has also received money from the campus to plan for a donor-funded art museum that would feature world-class touring art shows, teaching exhibits, and a permanent collection. The estimated cost is approximately $10 million. "A museum is a critical part of a research university," notes Norman Locks, chair of the UCSC Art Department. "An important part of creating art is showcasing that work. It enables the artist to connect with other people, and to see how others react to what’s been created. What a museum will do is put contemporary art research in a visible place in the university, and the campus has never had that before."

It will take many years and a combination of state and donor funds to bring this ambitious arts area plan into full fruition. At this point, it remains a work-in-progress, and no timetable has been set for its ultimate build-out. But Houghton stresses that now is the time to develop a vision to shape the future of this special area of the campus.

"A significant contribution we can make to tomorrow’s students is to develop an exceptionally good plan today," he says.

For more information about the arts area plan, see arts.ucsc.edu/dean/areastudy/
When 24-year-old junior Emily Atencio sat down in history lecturer Tom Hogan’s class about the Holocaust last winter quarter, she was surprised at what she encountered. “I was expecting all these movies and awful photos,” she recalls. “But he told us on the first day of class: ‘We’re already past that; we’ve already seen that.’ Now we need to focus on how this actually happened and why it lasted so long.'”

Hogan’s course, The Holocaust: Industrial Murder, Institutional Complicity, took an alternative approach to teaching about this critical and horrific chapter in human history. “You can look at the camps and the extermination, the deportations, the extermination. But you can’t stop a genocide when the camps are already built and the trains are rolling,” he adds. “You have to recognize it in the boycotts of ethnic businesses, the restrictions of civil liberties.”

Although the Holocaust is one of the most gruesome and well-documented examples of genocide in the recent past, there are many other less widely known instances that have occurred in the last 100 years. Hogan teamed up last spring with Michael Thaler—another professor emeritus at UC San Francisco School of Medicine, as well as an authority on the study of Nazi medicine—to teach a course that examined 20th-century genocides in Armenia, Rwanda, the Balkans, and Cambodia, as well as Germany.

But it is the prospect of 21st-century genocides that has UCSC’s Humanities Division exploring the possibility of creating an Institute for Comparative Genocide. “Historically, UCSC has taken pride in combining scholarship and public activism,” Humanities Dean Wlad Godich notes. “Genocides are the most horrific actions carried out by humans. Educating students about them addresses a dimension of human experience that we often find difficult to describe, but must learn to analyze in order to protect ourselves and others.”

Even though UCSC is now taking a more comprehensive and analytical look at the development of genocide, the subject still elicits an intense emotional reaction from students like Atencio. This personal impact was never more apparent than on the day Hogan brought in survivors of Auschwitz and witnesses from the ghettos of Warsaw and Lodz to speak to the class.

“Students need to see how institutions were first corrupted, and then utilized in sync to create a system of mass murder,” Hogan says. “Each student dove in to really look at how the fabric of German society changed to create social death for Jews—and then actual death.”

By Scott Rappaport

Deconstructing

GENOCIDE

“You can’t stop a genocide when the camps are already built and the trains are rolling. You have to recognize it in the boycotts of ethnic businesses, the restrictions of civil liberties.”

— Tom Hogan

By Scott Rappaport

Holocaust Studies at UC Santa Cruz

UCSC began offering classes in Holocaust studies during the mid-1980s after a campus visit by Leopold Page, Schindler’s List survivor number 173. Page’s visit took place several years after he had told his story to Australian author Thomas Keneally, but nearly a decade before Steven Spielberg turned Keneally’s best-selling novel into the Academy Award-winning film. “Leopold Page came to a conference on the 40th anniversary of the liberation of Auschwitz,” recalls Murray Baumgarten, UCSC professor of English and comparative literature. “Before he left, he suggested we should teach a course about the Holocaust.”

That suggestion led to the birth of The Holocaust: The Destruction of European Jewry, an annual upper-division class with a popularity that has surprised even its teachers, Baumgarten and history professor Peter Kenez. “As Peter always says, when we started, we thought there would be less and less interest in the subject as time passed, but we couldn’t have been more wrong,” says Baumgarten.

And current history, especially the surge in anti-Semitism in Europe and the Middle East, has made the Holocaust a hot item.” Using funds given by Page from the “1939” club, a Los Angeles Jewish organization founded by Holocaust survivors, Baumgarten and Kenez began to bring in guest speakers, present film screenings, and organize conferences on the UCSC campus. They also made it a point to have survivors of the Holocaust visit their classroom. One of those survivors was UCSC Foundation Trustee Anne Neufeld Levin.

Anne Frederika Neufeld and her family escaped from Austria and immigrated to the United States in 1939. Nearly 60 years later, she donated the Neufeld Family Archive to the UC Santa Cruz library’s Special Collections and established the Neufeld Levin Endowed Chair in Holocaust Studies at the campus. Professors Baumgarten and Kenez are co-holders of the Neufeld Levin Chair.

Because of this endowment and significant gifts from such organizations as the Koret Foundation and the Diller family, UCSC has been able to expand its Holocaust curriculum, adding additional courses exploring its relationship to music, film, art, and literature. This led to the establishment in 2000 of UCSC’s interdisciplinary Jews Studies Program, which today offers 20 courses, as well as a minor in the study of Jewish culture.

Last spring, the Jewish Studies Program presented a major three-day conference titled “Rethinking Anti-Semitism: The Holocaust and the Contemporary World,” bringing together prominent scholars from around the globe. The event featured Yehuda Bauer, one of the world’s premier Holocaust historians and director emeritus of Yad Vashem, the Israeli Holocaust Museum. — SCOTT RAPPAPORT
Gary Novack chosen as UC alumni Regent

Gary Novack's loyalties run deep. He will hold his student ID card from his days as an undergraduate at UC Santa Cruz, from 1970 to 1973. And when he returned to UCSC for a meeting earlier this year, an old alumni volunteer name badge was in his pocket.

Those loyalties will be put to good use in the next two years. Novack has been selected to serve as one of two alumni members of the University of California Board of Regents. The selection in February by the UCSC Alumni Association Council capped an 18-month process that attracted alumni candidates from around the nation. UC’s alumni Regents are drawn from the various UC campuses on a rotating basis.

“I am proud that a UCSC graduate will be serving again as an alumni Regent, and especially proud that we will be represented by Gary Novack,” said UCSC Chancellor M.R.C. Greenwood. “His scientific expertise and obvious commitment to UCSC and the university as a whole will make him a valuable asset to the Board of Regents.”

Novack will be the third UCSC graduate to serve on the Board of Regents. His predecessors are Los Angeles Superior Court Judge Allen Goodman Stevenson (67), from 1973 to 1981; and San Francisco Bay Area attorney Paul Hall (Merrill ’72), from 1991 to 1993.

During Novack’s first year as an alumni Regent—from July 2003 to June 2004—he will attend all meetings and participate in policy discussions as a Regent-designate, without voting rights. During this time, Novack will also serve as treasurer of the Alumni Associations of the University of California Alumni Association Council and served as its president in 1993–94. He is a trustee of the UCSC Foundation and is a member of the Dean’s Advisory Council for the Division of Physical and Biological Sciences at UCSC. He has lobbied the legislature as a volunteer advocate for UC and helped create a UCSC Alumni Association scholarship endowment that has granted awards to 110 financially needy students since its establishment in 1992.

Speaking like the scientist he is, Novack joked that he may have a “genetic predisposition” for UC service. “My parents were Cal alumni,” he explains. “I’m proud to continue the UC heritage.”

Novack is a board-certified clinical pharmacologist. He has had a major role in the investigation of over 50 new drugs for the treatment of human diseases. Since 1991 he has published more than 220 abstracts and publications in pharmacology, ophthalmology, neurology, dermatology, and medical communications.

As a founder, Novack is also involved in the nonprofit Foundation Fighting Blindness and of Inspire Pharmaceuticals, a public drug discovery and development company.

Novack will become a voting Regent.

California. In the second year, Novack will become a non-voting Regent and serve as vice president of the UC alumni organization. Novack, founder and president of the pharmaceutical and drug consulting company Pharmalogic Development Inc., has a long history of involvement with UC. A biology major at UCSC, he graduated in 1973 with honors, after just three years. He received his Ph.D. from UC Davis in 1977 in pharmacology and environmental toxicology, and has written more than 220 abstracts and publications in pharmacology, ophthalmology, neurology, and medical communications.

Novack is on the boards of the nonprofit Foundation Fighting Blindness and of Inspire Pharmaceuticals, a public drug discovery and development company.

Bill Dickinson (Cowell ’88), a former forestry youth, created the Page and Eloise Smith Scholarly Society four years ago to honor Cornell’s founding provost and his wife. The society, which is affiliated with the UCSC Alumni Association, seeks ways and means to help homeless, foster, and runaway youths, orphans, and wards of the court to dream bold dreams for their lives, to see higher education as a desirable and available path toward achieving those dreams, and to clear the way for a successful educational experience.

The society provides UCSC students, called Collegiate Fellows, with scholarships and mentors.
Commanders. The series, “The Priest has traveled widely with danger, but did have “some hair-raising experiences.” One time in Nigeria, she took a two-hour ride Priest, who took a leave from The Mission, director of the Center for International Policy, and their two children. Still, Priest keeps a hectic pace—she barely ... major intelligence stories that appeared in newspapers around the nation in the days leading up to the invasion of Iraq. Those stories made her a frequent guest on TV news and discussion programs during the war and its complicated aftermath, and she is now an analyst for NBC.

—Louise Gilmore Donahue

toward soldier-peacekeepers, her high regard for the troops is clear throughout the book. In fact, Priest sees bridging the civilian- military gap as her own personal mission as an author. She cites two key trends she has witnessed as a reporter: “The military was taking Washington Post’s months on the newspaper’s investigative reporting team for a series about America’s regional military mission nonprofit in Baltimore; friends may contact him at rober@toscanaexec.com.

Stevenson College

Dana Priest interviews an Afghan farmer in the mountains above Shahen in Afghanistan.

Tracking the military is her ‘mission’

I t’s nothing but a trip, asks Washington Post reporter Dana Priest—if you can catch her. Her first book, The Mission: Waging War and Keeping Peace with American Military arrived in bookstores this past spring just as jittery Americans prepared for war in Iraq. She then headed out on a book tour, with stops in eight cities in two weeks, interviews on morning TV shows and C-SPAN, and a Council of Foreign Relations speeches. Her vivid account of life with America’s military—much is based on her reporting for the Washington Post—strikes a chord. “The reception was just great,” she says. “A lot of bad to do with the timing of the book—a lot of people were trying to read about and were wondering about the military.”

In the book, Priest warns of a dangerous trend toward having the military handle quasi-educational missions, filling a vacuum left by underfunded civil agencies. “The face of America is becoming a face with a helmet on,” she observed on one TV program. “They don’t want to be doing it, and yet they have this very American can-do spirit about them so they’re not going to sit around and do nothing.”

But despite the soldiers’ best efforts, Priest says, “they make some mistakes, and they make some bad mistakes, which gives me pause about what they are doing there.” As an alternative, Priest proposes the creation of civilian nation-building forces that are as well organized and well funded as the military. “The U.S. experience in postwar Iraq has, of anything, strengthened her view. The U.S. government “grossly underestimated” the need for peacekeepers and a civilian component in rebuilding Iraq, she said. “They didn’t send in a lot of troops that could just keep the peace. I wish everything were working better, but I think it will get a lot worse before it gets better—if it gets better at all,” she said in June. While Priest critiques the trend toward soldier-peacekeepers, their high regard for the troops is clear throughout the book. In fact, Priest sees bridging the civilian- military gap as her own personal mission as an author. She cites two key trends she has witnessed as a reporter: “The military was taking...
teaching junior high science in Washington and helping to design a local environmental learning center; she earned her teaching certificate, received her B.A. from Western Washington State University and was on track to finish her master’s in creative arts and learning in May 2003.

32 Michael SHIPLEY has been working for several years as a writer/producer on TV shows such as Family Guy, Andy Richter Controls the Universe, and Friends. He is currently living in Eugene, Ore., since 1985 and working with computers, Intranets, and the Internet; he stopped by the hospital on his way home from Germany to Taiwan.

33 John YEWELL is an attorney and his wife, Neve Campbell, are work-ing at MODVEC, a film/video company run by fellow alum Rick SIEM (Merrill ’87), who stopped by the hospital on his way from Germany to Taiwan.

34 Chris CHANG (Merrill ’87), who stopped by the hospital on his way from Germany to Taiwan.

35 Dung NGUYEN has been in Scotland for a year and have bought their first flat in Stirling.

36 Daria PENNINGTON, called Monday Night at the Movies, has her own restaurant, Friday Night at the Movies, and he is teaching art at Keheley Elementary School in Marietta.

37 Jerusalem MILLER ‘86 received the Rites of Shaman in 1995 and is now exploring American Sign Language at Ohlone College ‘98.

38 Josephine Kavarra CORR ‘81 went back to school and earned a Pupil Personnel Services Credential and a counseling certificate from San Jose State University ‘95.

39 Robert NATTER has been in Scotland for a year and has been chosen as a writer in residence at the Salt Institute for the Arts and received a $500 prize.

40 Luke HURWITZ was from Oakland and works for an educational nonprofit doing professional development with middle and high school teachers; he taught high school French for four years in San Francisco and cowrote a book titled Reading for Understanding: A Guide for Improving Reading in Middle and High School Classrooms (Jennifer-Bass, 1999). Dana PENNINGTON is teaching English at Menlo-Monterey High School and living in San Francisco. Sabrina SOLIN Wall became editor-in-chief of Camarillo’s City Times in November 2002, leaving her position as executive editor of Congaree magazine; she is the author of Wise Mistakes: Twice Speak Out About The Trouble

41 Chris STOLL from Berkeley is in his second-year internship as a therapist with HIV-positive gay men.

42 Robert GRIFFS is taking care of his mother in Waslize, Ethiopia.

43 Tosti AVILA HUZAIKEN is the technology coordinator at her school in Sacramento, California.

44 Jeffrey GLUCKSIN Brain received a grant from an Oregon foundation to create and produce an e-commerce test kit and he is working on the development of a computer consulting business.

45 Susan HAND is a landscape architect in North America.

46 Joe DePAGA is a massage therapist, health consultant, and long-distance cyclist; she completed the 116-mile Tour de France in November 2002 and raised $2,700 for the Leukemia and Lymphoma Society.

47 2003: B.A. in English from CSU, Chico and is now a fourth-degree black belt and a national judge; she is also an attorney and has a women’s trio that plays Afro-Cuban music.

48 Rick SIEM works at a film/video company run by fellow alum Chris CHANG (Merrill ’87), who stopped by the hospital on his way from Germany to Taiwan.

49 Rick SIEM, who stopped by the hospital on his way from Germany to Taiwan.

50ucursalucrime.com.

51 Jocelyn MARKLE ‘95 became editor-in-chief of the UC Santa Cruz Review in winter 2002–03, Marin with her 15-year-old son, Sean AARON, and his wife, Michelle, who have been in Scotland for a year and have bought their first flat in Stirling. Susannah COPI and Jim DAVIS (’91) met at UCSC in 1990 and are married and living in Malibu next to Vicki TRENTE, who started juggling at UCSC, is now a fourth-degree black belt and a national judge.

52 Jake AKIN and his wife, Kim, have launched a new clothing line, damofash, which promotes the beauty in diversity, and is environmentally sound business practices, and sells shirts manufactured in a non- sweatshop environment. Find out more online at www.damofash.com.

53 Sarah PRATT is working as a biological scientist for the Department of Agriculture in San Mateo County, monitoring for exotic insects and inspecting nursery shipments.

54 William EVERSON has taken a counseling position at Foothill High School; former classmates can contact her at 8v8m@att.net. Jennifer HENDERSON-Mayer and her husband have settled in Phoenix, Arizona. She has worked in her grad studies in education; old friends from Stevenson may e-mail her at jay166@asu.edu.

55 Luke HURWITZ was from Oakland and works for an educational nonprofit doing professional development with middle and high school teachers; he taught high school French for four years in San Francisco and cowrote a book titled Reading for Understanding: A Guide for Improving Reading in Middle and High School Classrooms (Jennifer-Bass, 1999). Dana PENNINGTON is teaching English at Menlo-Monterey High School and living in San Francisco. Sabrina SOLIN Wall became editor-in-chief of Camarillo’s City Times in November 2002, leaving her position as executive editor of Congaree magazine; she is the author of Wise Mistakes: Twice Speak Out About The Trouble

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kicks, and still bike racing.

95 After selling her fiction thesis to a mainstream publisher, Shelley BATES sold two more books in the inspirational women’s fiction market, the first of which is due to be released in March 2004 from Steeple Hill Books in trade paperback. Joan PODOLSKY Sinclair is living in San Francisco and looking for classmates and those connected to the legendary Blue House.

97 Cynthia SCONTRIANO Schildhauer received an M.A. in expressive therapy from Lesley College in Cambridge, Mass., (1982) and an M.F.A. from CSU Chico (2002); she is a painter, whose work has been widely exhibited, and she is the founder of a center for art therapy.

98 Hope BARB Smith is coaching middle school distance runners for cross-country in the fall and track in the spring.

91 Mark BLUMENTHAL is medical director for four rural counties in Tennessee; he and his wife, Minds, have two daughters, Nila (6) and Ila (4). Roland WRIGHT retired from the U.S. Air Force as an F-16 pilot at Hill Air Force Base in Utah in December 2002, and he and his family have moved to North Las Vegas.

92 Jane CANO is self-employed as a personal trainer; her goal is to become the next famous fitness trainer and to serve the Spanish-speaking community.

Graduate Studies

76 Glenn LINDEY is vice president of R&D for International Dairy Queen in Minneapolis. In Jan. 2003, he won a Menu Strategist award from Restaurant Business, an industry publication, for his innovations to Dairy Queen’s menu.

88 The American Antiquity Association has awarded Robert IRION (cows, science communication) a prestigious journalism prize for an article on the mysteries of the inner lives of neutron stars, which was published in the September 27, 2002, issue of Science magazine; Irion is a freelance science journalist in Santa Cruz and a contributing correspondent for Science magazine.

89 Louie BEATTIE is a lawyer with John Hancock Insurance, a passionate fan of heavy-metal bands, and an avid traveler, died in a nightclub fire in Warwick, R.I., on February 20, 2003; he was 33.

90 Erik ALM (Kresge ’92), live in Fremont with their one-year-old daughter.

94 Since 1997, Carolina RAMOS has been living in Sofia, Bulgaria, where she is working as a contractor at the U.S. Embassy; previously she spent two years in Oslo.

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