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The Promise of Berkeley

University of California, Berkeley
University Relations
2080 Addison Street #4200
Berkeley, CA 94720-4200

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Public service — at the heart of a Berkeley education
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Cover: Still Life and Blossoming Almond Trees, Diego Rivera, 1931, located at Stern Hall. Image courtesy of Rafael Doniz © TASCHEN GmbH. See story, page 3.

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**Former Chancellor Al Bowker dies**

Former Chancellor Albert Hosmer Bowker, an expert in statistics and an innovative administrator during his decades-long career in higher education across the country, died January 20 at the age of 88. Working as Berkeley’s fifth chancellor from 1971-80, Bowker established the UC Berkeley Foundation and actively courted alumni support to compensate for losses in state financial support.

[.promise.berkeley.edu/bowker](promise.berkeley.edu/bowker)

**Governor’s proposed budget cuts**

Gov. Arnold Schwarzenegger last month proposed a 2008-09 state budget that includes across-the-board cuts in state spending, including at the University of California, to address a projected $14.5 billion state budget deficit. The proposal would increase funding under his “compact” with the UC system but then apply a reduction of $332 million, or 10 percent. The Legislature will respond with its own proposed budget this spring.

[.promise.berkeley.edu/budget](promise.berkeley.edu/budget)

**Chancellor’s editorial on college costs**

USA Today recently published Chancellor Birgeneau’s editorial “Bravo for Yale and Harvard, but what about the rest?,” which discusses the cost of education.

[.promise.berkeley.edu/oped](promise.berkeley.edu/oped)

**Cal Athletics ranked No. 1**

UC Berkeley’s athletic program is ranked No. 1 in the country in the final fall U.S. Sports Academy Directors’ Cup standings, marking the second year in a row the Golden Bears have stood atop the rankings at the end of the fall seasons. Cal accumulated a total of 370 points in six sports, led by a national championship in men’s water polo and a national semifinal appearance in volleyball.

**Hass wins 2007 National Book Award**

Robert Hass, a UC Berkeley professor of English and former U.S. poet laureate, is the 2007 winner of the National Book Award in poetry for *Time and Materials*, a collection of poems that are “grounded in the beauty and energy of the physical world, and in the bafflement of the present moment in American culture.”

**Cal research in year’s top 100 science stories**

Two UC Berkeley research discoveries — one on a hyperlens with a unique way of altering light and the other on the body positioning of dinosaurs in the throes of death — were honored as two of this year’s top 100 science stories by Discover magazine. The list appeared in the magazine’s January issue, “The Year in Science.”

[discovermagazine.com](discovermagazine.com)

**For more on these stories and the latest campus news, visit the NewsCenter or subscribe to Berkeley Online at cal.berkeley.edu.**
By Chancellor Robert J. Birgeneau

Berkeley students are engaged and engaging. One quality that strongly defines our campus is the degree to which our students uphold the ideals and practice of public service. Through the knowledge they help create and disseminate, and through direct leadership and volunteerism, they truly are reshaping our world by their efforts.

These advances continue to enhance Berkeley’s reputation. Using measures of social mobility, research, and public service to rank universities, *Washington Monthly* found that, “By our yardstick, University of California, Berkeley is about the best thing for America we can find. It’s good by all of our measurements.”

Involved in an incredibly diverse array of projects, from rebuilding the Gulf Coast to developing cell phone games that teach English in rural India, the Cal community — including students, alumni, faculty, and staff — has heeded the call to serve others with intelligence, conscientiousness, and compassion. In a recent poll, 46 percent of undergraduate students said that they had been involved in community service in the previous year. Berkeley has the largest number of volunteers — 3,236 — throughout Peace Corps history. Last year, more than 4,000 students participated in projects through the Cal Corps Public Service Center, including working for after-school literacy programs, summer internships in Washington, D.C., and clinics that provide medical and legal services for the homeless.

We are proud of Berkeley’s rich tradition of activism and public service, and I am energized by the prospect of using our tremendous breadth of expertise and resources to partner with people in need to help them change their lives for the better.
A Legacy of Public Service

Created by workers’ rights supporter Diego Rivera, and commissioned by civic-minded philanthropist Rosalie Meyer Stern, the lush fresco Still Life and Blossoming Almond Trees helps represent the spirit of public service celebrated in this edition of The Promise of Berkeley.

The mural, painted in 1931, depicts Stern’s grandchildren in the foreground. It is now located in the Stern Hall women’s dormitory, which was primarily funded through a generous gift from Stern. Her daughter, Elise Stern, married Walter A. Haas ’10, and gave birth to three children: Walter A. Haas Jr. ’37 (tending the ground on left), who later married Evelyn Haas; Rhoda Haas ’46 (girl on right), who later married Richard N. Goldman ’41; and Peter E. Haas ’40 (boy in middle), who later married Mimi Haas. The girl on the left is Rhoda’s imaginary friend.

Generations of the Stern, Goldman, and Haas families have helped create a legacy of philanthropy on the campus by supporting a range of public causes. Emblematic of their support is the Peter E. Haas Public Service Award, which was created by Mimi Haas to recognize outstanding alumni who contribute to the betterment of society. Peter Haas once said, “If we had money… it was really not ours alone. It was our obligation to use it wisely to help others.”

Rivera was considered perhaps the greatest Mexican painter of the 20th century. He felt that the large format of murals and their accessibility to the public helped bring art and the themes of history and progress to the common people.
A ghetto. A historic burial site. An acclaimed fine arts museum. No matter who you are or where you are, Walter Hood M.Arch. ’89, M.L.A. ’89 believes you should be inspired by public spaces like these.

“Everyone deserves the same kind of environmental experience with ideas that can inspire and cross demographics,” says Hood, an esteemed Berkeley professor of landscape architecture since 1990.

It’s a tenet that’s apparent throughout Hood’s large body of work, from environments as complex as the three magnificent, interrelated gardens he designed at Golden Gate Park’s de Young Museum to smaller parks in urban areas with complexities such as homelessness and drug dealing.

No matter where he is, Hood is fascinated by mundane practices of life. “Whether walking, sitting and talking with someone, or just ‘chilling out,’” he says, “sometimes we just want to be in a space. Sometimes I just want an environment that is revelatory in a simple way, like how water goes through it or the relationship of the sky to the ground.”

Hood says, “Berkeley instills in you the value that you owe a lot to the public realm.” He feels that public projects like the de Young provide opportunities for designers to give back on a different scale. “They are not spaces just created for a private client that only 12 or 20 people will experience that year,” he says. “It’s amazing to have an impact on so many people — you can’t ask for anything more.”
For John Harte, the lines between scientist and teacher are blurred. A professor in the Energy and Resources Group and the College of Natural Resources, he has been researching the interactions between climate change and mountain ecosystems for decades. While the outlook is grim, Harte is eager to educate everyone he encounters.

In one pioneering experiment, Harte has been shining infrared lamps onto a Colorado Rockies meadow since 1990 — day and night, year round — to observe the real-time, real-world effects of heat. The most obvious outcome is that sagebrush, a coarse, woody bush, is wiping out the wildflowers.

“If we do nothing to stop global warming,” says Harte, “mountain meadows everywhere will turn into deserts.”

To further dispel misinformation about our troubled planet, Harte has voluntarily taught special classes outside of his typical lineup. Last summer he brought a group to the Russian Arctic that included veteran journalist Forrest Sawyer.

“When we lesser souls felt depressed about the magnitude and intractability of our problems,” says Sawyer, “we needed only to gather around John like a hearth. He inevitably found a way to warm us again.”

Kate Cheney Davidson M.J. ’07, who took an investigative reporting course on the human impacts of global warming, says Harte helped her understand extremely complex issues.

“His thoughtful advice on how scientists work and think made our reporting experiences that much richer,” she says.

While Harte’s body of research is remarkable, his ability to chip away at the biases of anyone — student, tourist, or reporter — is essential to his commitment to our planet.
With the 2008 elections dominating the news these days, two programs at the Graduate School of Journalism are helping students make sense of the upcoming elections and their likely implications.

The Political Reporting program, headed by Senior Lecturer Susan Rasky, turns students into reporters who are knowledgeable about government and the electoral process — and who can help educate the public on election issues. “I believe you need to know how to report on the processes of government in order to be any kind of functioning reporter,” she says.

After covering California’s February primary, Rasky’s students are now spending time in Sacramento exploring the legislative process and writing pieces on the state’s June legislative primaries. Some students will likely file stories from Washington or key congressional districts later this year.

Equally exciting, Rasky says, is Berkeley’s participation in News21, a journalism-education consortium funded by the Carnegie and Knight Foundations. A founding member of the initiative, Berkeley is one of four participating schools (along with Columbia, Northwestern, and USC); this summer, its students will generate election coverage for an interactive Web site on the theme of “What’s at Stake.”

Rasky’s teaching made a big impact on Elizabeth Ahlin M.J. ’05, who was sent to South Dakota to cover Sen. Tom Daschle’s unsuccessful reelection bid in 2004.

The experience “helped me understand more about the political landscape and what questions should be asked,” says Ahlin, now a political reporter at the Omaha World-Review. “It gave me a lot of confidence when I left grad school and started covering political races.”

An election-year education

The engaged university

An election-year education
Increasingly the answer to this question is "yes." From the supermarket parking lot to a busy intersection, if you are in public, you are very likely under the gaze of video surveillance.

This raises important questions: Who is watching? Why? How can we prevent abuses of this technology?

Under the leadership of Clinical Professor Deirdre Mulligan, students at the Samuelson Law, Technology & Public Policy Clinic at the Boalt School of Law are striving to answer these questions while working to fill a gaping policy vacuum. David E. Snyder, a third-year student at Boalt and clinic participant says, "A lot of cities are really increasing use of cameras without a lot of thought about preventing nefarious uses."

Snyder and other students have helped communities as disparate as Fresno and Richmond, California, to assess the impact of video surveillance on residents, and to develop clear guidelines for its use.

As cameras become more sophisticated, the issues and potential solutions become more complex. "These cases are at the boundaries of law and technological development," explains Mulligan. In fact, the clinic frequently works with the College of Engineering and School of Information to research the uses and abuses of surveillance, and to develop technological as well as legal safeguards.

This semester, the clinic will be working with the Center for Information Technology in the Interest of Society (CITRIS) to evaluate the effectiveness and impact of San Francisco’s surveillance program — research that Mulligan believes is crucial to the debate. "It's not just about privacy," she says, "it's about whether this is the right technology for the job."
Instead of spending spring or winter break sleeping in, socializing, or getting a tan, participants in the Cal Corps Public Service Center’s Alternative Breaks program spend the week working. And what’s their complaint? A week isn’t nearly enough.

These students tackle projects such as educational outreach with Native Americans in San Diego, immigration issues on the Tijuana border, housing for migrant laborers in California’s Central Valley, and the rebuilding of hurricane-ravaged New Orleans.

“All of a sudden,” says Megan Voorhees, director of the popular program, “we had 86 students going to New Orleans for three weeks.” In May and June, the students provided more than 10,000 hours of service, handling physical infrastructure needs, as well as fixing such problems as the Homeland Security Web site, which wasn’t linking needy residents directly to Federal Emergency Management Agency assistance.

Each year some 4,400 Berkeley students initiate, promote, and operate a wide variety of service programs through Cal Corps, a one-stop shopping center that serves as a liaison between students and the community. With 300 partner agencies targeting K-12 education, health care, community development, and social justice, Cal Corps facilitates one-time events and ongoing programs, and supports faculty in community-based research.

Students seek out service opportunities, not only because they look great on the résumé (they do), but also because, as one participant in New Orleans said, it’s “amazing, enlightening, effective — an unforgettable experience that contributes to one’s growth and identity.”

Everyone profits, says Voorhees. “Faculty get reenergized, and community partners get inspired. As a public institution, our call is to train young people to be effective leaders, to benefit others. Public service ensures that Berkeley is relevant to a lot of different audiences.”

 Volunteer vacations

The engaged
In India, where English is one of two national languages — and used in 90 percent of the country’s indigenous Web content — English proficiency is critical for employment, upward mobility, and accessing technology. Yet English literacy remains out of reach for an estimated 160 million Indian children in rural areas and slums.

One answer? Cell phones. In India, cell phone use is exploding, even by the poor. By 2010, an estimated half-billion people in India will be using mobile phones.

Combining market opportunity with educational need, Berkeley computer sciences doctoral student Matthew Kam has been developing English language-learning games for cell phones, a project called Mobile and Immersive Learning for Literacy in Emerging Economies (MILLEE).

In field studies, Kam and other MILLEE team members discovered that getting kids interested in playing with cell phones was easy. Making the lessons effective, however, meant localizing content and game design, says Divya Ramachandran, a computer sciences Ph.D. student who participated in field studies in northern India.

To teach the concepts of “stop” and “go,” for example, the design team initially used green and red traffic lights. “The scenario was completely irrelevant,” says Ramachandran. “Many children haven’t driven in cars, and there aren’t traffic lights everywhere.” The solution was a picture of a traffic cop — still a common figure in India — using hand signals for stop and go.

So far MILLEE has focused on rural India, but the concept is applicable to other languages and developing regions. “It’s so satisfying,” says Ramachandran, “to use computers for public service, in the real world.”

Phone-fueled fluency
Hurricane Katrina was the most costly peacetime disaster to hit an urban area in U.S. history, yet the city’s flood protection system — more than 400 miles of levees and floodwalls — was ostensibly built to withstand this type of Category 3 storm.

It was a disaster that needn’t have happened, according to Berkeley civil and environmental engineers Raymond Seed and Robert Bea. Together they helped lead a team that analyzed the levee breaches just a month after Katrina.

California could face a similar catastrophe. “California has the highest national risk for flooding in terms of the amount of potential flooding and the number of people that could be affected,” says Seed, who has studied the Sacramento and San Joaquin River Delta levees for 27 years. “An earthquake could lead to the loss of so many levees all at once that it could take many years to repair them, creating a massive longtime outage for California’s principal water delivery systems that, in turn, could be devastating for the ecosystem.”

Critical levee engineering work and repair have been stymied by complicated, interlocking issues. “The ecosystem and water delivery are equally important. We need to choose a coherent solution for the entire system and implement it at the same time,” Seed says of recent findings of Governor Schwarzenegger’s Blue Ribbon Panel for the Delta, of which he is a member.

Seed believes that water use may be “the single most contentious issue in history of California,” but the various stakeholder groups involved know that things must change. “Everyone understands that it can’t continue like this. For the first time, an inclusive stakeholders working group has been created to achieve resolution because they recognize this issue can only be resolved collaboratively,” he says.
Stories of abuse or addiction among incarcerated women are bleak reminders of societal realities. But to Nina Billone, a Ph.D. candidate in the Department of Theater, Dance, and Performance Studies, these stories present powerful opportunities to create art.

Possessing lifelong experience in ensemble-based improvisational theater, Billone is interested in how the arts inspire the penal welfare system — and the people within it — to change. Deeply committed to integrating theory and practice, she is volunteering with several Bay Area organizations as a scholar, collaborating artist, and activist.

“Theater has had a profound impact on me,” says Billone. “Now I’m questioning what it can do for others.”

Billone has worked primarily with The Medea Project: Theater for Incarcerated Women, founded by Rhodessa Jones in 1992. Comprising professional artists and women from the San Francisco County Jail, the group creates large-scale performances both inside and outside of the jail that are based on their own life tales.

In 2006, Billone began translating the novel My Life in the Bush of Ghosts, by Nigerian author Amos Tutuola, into an urban American retelling called My Life in the Concrete Jungle. She met regularly with the core ensemble to discuss the book, lead theater games and writing exercises, and help Jones shape the show. Jones eventually named Billone assistant director.

“Nina brought a cool, intellectual, creative intensity to the project,” says Jones. “The female offenders found her engaging, informative, and nurturing.”

One challenge was moving the show away from personal testimony toward an ensemble piece. It continued to change until opening night.

“The final production was the icing on the cake. The real work happened during the process,” says Billone. “Ultimately it’s about women saving their own lives. We call it creative survival.”
There is no end to the need for social workers in our world. Luckily for students in the School of Social Welfare, opportunities abound to blend their education with practice. Fieldwork gives them an unparalleled chance to test their skills in real-life situations and help the most vulnerable people.

Allison Ruby Reid-Cunningham, for one, received her M.S.W. in 2006 at Berkeley and is working toward a Ph.D. Having been raised in a family that holds justice and service as its core values, social work is not just a job. “To me, it is a way of life, a faith, and a daily practice,” she says.

Master’s students are required to complete 1,120 hours of fieldwork over a two-year period. Each year, 180 students contribute more than 102,000 hours of combined service to more than 85 Bay Area organizations. Reid-Cunningham did an extended stint with the Child Trauma Research Project at San Francisco General Hospital.

Today she is interested in how women recover from the trauma of war. She traveled to Bosnia-Herzegovina last summer, where the ravages of last decade’s war are still painfully palpable, to interview women who had survived rape or concentration camps or had lost the men in their families. She is going back this summer.

Among many moving stories, Reid-Cunningham said that her guide, Lejla Camdzic, was playing in a park as a child when an exploding shell hit her leg. Had it not been for the soldier who rescued her, “Lejla might not have been sitting with me,” she says.

Reid-Cunningham has faced the darkest parts of human nature, but is continuously amazed by the resilience of the spirit.

“Recovery is possible,” she says. “People can learn to trust, love, forgive, heal, and move on.”

You can read more about Reid-Cunningham’s research at rubyinbosnia.blogspot.com.
The Blum Center for Developing Economies is making a real-world impact — and doing so remarkably quickly.

Launched a little over a year ago with a significant gift from Richard C. Blum ’58, M.B.A. ’59, the center has already inaugurated two hands-on initiatives that sent students into the field last summer to address the real challenges affecting the world’s poor.

The two projects included the Safe Water and Sanitation Initiative, which sent 38 students to a half-dozen countries, including India, Ecuador, and Mexico, and the Wireless-Enabled Health Care Innovations initiative, which brought nine Berkeley students to Uganda to integrate cell phone technology into health care services in that African nation.

Consistent with the Blum Center’s objectives, the projects use Berkeley-developed technologies and expertise, and provide hands-on service-learning opportunities for students. The projects also leverage existing partnerships in host countries to increase the likelihood of success, broaden impact, and promote sustainability.

These initiatives, says Blum Center executive director George Scharffenberger, reflect “the breadth and depth of the University’s capacity to contribute significantly to efforts to address the issue of global poverty.”

SAFE WATER AND SANITATION: A TEAM EFFORT

A multidisciplinary team representing the College of Engineering, Energy and Resources Group, College of Natural Resources, School of Public Health, and Haas School of Business developed an initiative to design and implement technologies and management systems to aid the 1.3 billion people worldwide who live without access to safe water and the 2.4 billion without access to sanitation services.

Thus far, The Safe Water and Sanitation Initiative has focused on the development and use of low-cost, small-scale water treatment systems.
One project took students to the Mexican state of Baja California Sur, where Ph.D. student Fermin Reygadas worked with three other students last summer to promote household use of La Mesita Azul (“the little blue table”), a tabletop water filtration system he helped adapt from a technology originally developed at the Lawrence Berkeley National Laboratory.

“The small scale of this technology gives us the flexibility to go to many places,” says Reygadas, a Baja California Sur native. “And the user acceptance has been amazing.”

The lack of central water systems in rural areas means that some people — but by no means all residents — disinfect their own drinking water by using chlorine bleach or boiling. Reygadas’s invention streams collected water under a 15-watt ultraviolet light to kill pathogens, cleaning a family’s daily water supply in about 10 minutes without changing the water’s temperature or taste.

Keeping the cost of the technology down was a primary issue for Reygadas’s team, but he feels they reached a happy medium with the end product, which costs about $40. “We took the risk of making it a bit more expensive, but nicer and easier to use,” he says. “People have responded to it very well.”

Reygadas and his colleagues will resume their work in Baja California Sur next summer. And they have found other areas of Mexico to help, as well — in November, Reygadas took the technology to the state of Tabasco, installing systems to provide safe water for families affected by catastrophic flooding. Funding for that emergency work came in part from the Blum Center.

**Improving Health Care via Mobile Technology**

Poor access to information and communications, underdeveloped transportation networks that hamper access to health care, under-trained medical personnel — health care services to poor
communities in developing countries often suffer from these and other critical challenges, resulting in unnecessary death and suffering.

The Blum Center’s Wireless-Enabled Health Care Innovations initiative aims to dramatically upgrade health care. Last summer, a team of nine Berkeley students went to Uganda to develop cell phone-enabled systems and procedures to support medical personnel, improve healthcare access, and collect and manage critical health-related data. Participants worked with the Nakaseke District of Uganda, in partnership with the Ugandan Ministry of Health and Mbarara University.

Faculty from the College of Engineering and the Haas School of Business oversee the multidisciplinary initiative.

During their three weeks in Uganda last summer, the project’s two teams of students provided input into software design and suggested ways to use advanced cell phones for communication, data collection, and information sharing. The students also worked with area health professionals and volunteers to leverage the local cell phone network to improve healthcare access.

Participants next summer will further these efforts and monitor the Bodas for Life project, which trains local motorcycle taxi drivers (called “bodas”) with cell phones to provide transportation for patients in remote areas.

Meera Chary, a Haas M.B.A. student and program participant, enjoyed having “the opportunity to interact with a diversity of stakeholders, from health officials to local village leaders to traditional birth attendants. We had to tie all of those critical perspectives into the recommendations that we ultimately presented to the Ministry of Health and the Blum Center board.”

To learn more about the Blum Center for Developing Economies, including giving opportunities to support its initiatives, visit blumcenter.berkeley.edu.
Within six years, Malcolm Potts hopes to halve the number of women dying each year of postpartum hemorrhaging. Each year, more than 200,000 mothers — most in developing countries — bleed to death because of a lack of basic medical care and medicine. Potts, Bixby Professor of Population and Family Planning, is using low-cost technologies — such as misoprostol, an inexpensive, stable drug that helps prevent and treat postpartum hemorrhaging — to combat the problem. His work in maternal health is just one of many initiatives being advanced by the School of Public Health’s new Center for Global Public Health (CGPH).

Established last July, the center was created to engage various units conducting long-term international research and provide them with opportunities to address large-scale public health issues that slice across different disciplines. It is the public health component of the new Berkeley Initiative for Global Health, a campus-wide effort to solve major global health challenges through the integration of life sciences and bioengineering with public health.

“More than half of the School of Public Health faculty currently engages in global health research and training with populations on five continents,” says Eva Harris, associate professor and associate dean of research, who is leading the effort. “The Center for Global Public Health will synergize and expand on this research to ensure that the collective output is greater than the sum of its parts.”

CGPH will also partner with other departments and centers on campus, universities including UCSF and UC Davis, and nonprofit and governmental organizations. “The center will serve as a forum for engaging with other related initiatives,” says Dean Stephen Shortell of the School of Public Health, “such as the Blum Center for Developing Economies and UCSF’s Global Health Science initiative.”

By bringing together clinicians, scientists, sociologists, economists, anthropologists, and others to collaborate, evaluate, translate, and implement their research products throughout the world, the center will help educate and stimulate debate to raise awareness of issues in global public health and potential paths toward solutions. It also will support students’ international fieldwork.

Ripe for partnership

With global slum populations estimated to reach two billion in less than 30 years, global warming contributing to increases in environmental hazards, and new innovations in technology that can improve health programs in developing countries, the formation of a global public health nucleus is timely.

Faculty members have already been conducting studies addressing diverse issues in Latin America, Africa, Asia, and the Middle East for
decades. Sharing the data from these studies among colleagues in the center offers new possibilities. Harris explains, “We can take what’s already been done and look at it from a different perspective — integrating another discipline or another disease.”

To help the world’s one billion people who live in slums, for example, a multidisciplinary research core will partner with nongovernmental organizations, local governments, and other campus organizations to identify key diseases affecting these areas that could be targeted by locally available intervention strategies. Pilot studies in Salvador, Brazil, and Mumbai, India, will be used to develop strategies that can be generalized to other urban slum communities of the world to alleviate health problems and poverty.

“The potential to take action and improve health on a global scale is just enormous,” says Harris. “We have a chance to do something beyond our own research projects and serve a larger purpose.”

From discovery to delivery: New Berkeley initiative

In an effort to integrate the discovery of medicines for developing-world diseases with the delivery of health solutions for people living in poverty, Berkeley is launching the new Berkeley Initiative for Global Health. This overarching initiative will combine the strength of the Center for Global Public Health with a new infectious disease discovery center led by researchers in the basic sciences. More information on the initiative will be available this summer at newscenter.berkeley.edu.
Nobel Prize largesse helps launch new cosmology center

Faculty contribute prize money back to campus

W hen UC Berkeley astrophysicist George Smoot received the 2006 Nobel Prize in Physics a year ago, his dreams for spending his $700,000 share of the prize ran far beyond purchasing a sporty car or a new home. Instead, he wanted to create a lasting center where he and other scientists — in particular, young postdoctoral researchers — could tackle cosmic questions whose solutions would be worthy of future Nobel Prizes.

That dream, the Berkeley Center for Cosmological Physics, has become reality, with a $500,000 endowment gift from Smoot and additional gifts totaling $8.1 million. These gifts include $1.5 million from the Gordon and Betty Moore Foundation and $5.5 million in private gifts and other support for endowed chairs at the center and for postdoctoral and graduate student support. Physics professor Saul Perlmutter, who, like Smoot, is also a researcher at Lawrence Berkeley National Laboratory (LBNL), has also contributed to the center, using a portion of his 2007 Gruber Cosmology Prize to seed a fund for future research that, with the addition of other funds, will total approximately $600,000.

“It’s an exciting time in cosmology when we are making breakthroughs that are tremendous intellectual
achieve achievements, and I really believe we have to prepare the next generation to follow in our shoes,” says Smoot, a professor of physics. These breakthroughs include the discovery of the seeds of today’s galaxies in the infant universe, for which Smoot won the Nobel Prize; the more recent discovery that a mysterious “dark energy” is accelerating the expansion of the universe; and the realization that an enigmatic “dark matter” determines the large-scale structure of the universe.

Smoot, the center’s director, and the University plan to raise at least $4 million to $5 million in endowment on top of the $8.1 million to ensure an ongoing center with resident postdoctoral fellows and scholars at UC Berkeley and LBNL, an active visitors program, educational outreach to K-12 science teachers, and several collaborative international workshops on cosmology each year.

Progress under way
The money has already allowed the center to hire two new postdoctoral fellows and to advertise for two more fellows for fall 2008. In July, the center hosted its first workshop for high school teachers and students, and the center’s first annual international winter cosmology workshop is planned for next January in Mexico.

Nearly 50 UC Berkeley, LBNL, and visiting scientists have joined the center, along with nearly 20 postdoctoral fellows and a dozen graduate students.

“We really need to have an atmosphere where there’s always something brewing, where people come in and talk to each other — that is the way new ideas emerge and the way science moves forward,” says theoretical astrophysicist Hitoshi Murayama, professor of physics and one of the center’s three deputy directors.

Smoot hopes that the new center will become a place where observational cosmologists like himself, theorists like Murayama, and phenomenologists like Chung-Pei Ma, professor of astronomy and another deputy director of the new center, come together with observers to solve the big questions of 21st century cosmology. These questions include whether the fundamental constants of nature, such as the gravitational constant and the fine structure constant, vary over time; whether and how inflation happened a split-second after the Big Bang; and why the universe has more matter than antimatter. Then there is Smoot’s own search for cosmic strings, which are proposed relics of the Big Bang; and the search for extra dimensions beyond the spacetime four.

“Berkeley has a unique combination of people and projects that span from the earliest epochs to the present, both in theory and observations,” says Smoot. “Berkeley has been the pioneer and leader in this area, and could continue to be with the center in place.”
On October 20, the University celebrated the dedication of a major new campus building — the C. V. Starr East Asian Library / Chang-Lin Tien Center for East Asian Studies. The magnificent four-story, $52 million facility, funded entirely through private support, was designed by world-renowned architects Tod Williams and Billie Tsien. Set to open this spring, it is the first freestanding building ever constructed on an American university campus specifically for East Asian collections. (To see a photo flip-book of the library’s construction, visit promise.berkeley.edu/starr.)
With approximately 47,000 square feet of book stacks plus a variety of spaces including a reading room, a rare book room, and an electronic media research area, the facility builds upon the University’s long-standing ties to East Asia, its superb East Asian collections, and the distinguished research and teaching conducted by its Institute of East Asian Studies and Department of East Asian Languages and Cultures.

The library is named for alumnus Cornelius Vander Starr. The Starr Foundation, which he established in 1955, made the lead gift for the library. The Center for East Asian Studies is named for former chancellor Chang-Lin Tien, the first Asian American to head a major American university and one of the most admired chancellors in Berkeley’s history. In all, gifts from more than 1,200 individuals, corporations, and foundations, on both sides of the Pacific, made the project possible.

The dedication ceremony, which featured remarks by Chancellor Birgeneau, former U.S. Secretary of Transportation Norman Mineta ’53, and Starr Foundation president Florence A. Davis, among others, was followed by a reception and self-guided tours of the new building.

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Rachel Barge, a junior majoring in conservation and resource studies and minoring in forestry, is among six young North American environmental leaders to win a 2007 Brower Youth Award.

Barge was honored for her work in boosting funding for environmental sustainability on the Berkeley campus, including spearheading projects such as The Green Initiative Fund (TGIF), a fee referendum recently passed by students. The fund secured more than $2 million over 10 years for campus sustainability projects, including clean energy, sustainable transportation, improved energy efficiency, water conservation, “green” internships, and improved recycling and composting programs; and it tripled the amount of sustainability funding available.

As director of sustainability on campus for the Associated Students of the University of California (ASUC), Barge founded the Sustainability Team, a 60-member group whose projects have included converting the campus’s transportation fleet to biodiesel and establishing Berkeley’s first student-run cooperative organic produce stand.

“Rachel is smart, impassioned and, above all, energetic,” says David Phillips, executive director of Earth Island Institute, which bestowed the award. “She isn’t waiting for environmental solutions to come down from those in power: She is taking action now to conserve, protect, and restore the earth.”

The Brower Youth Award is given annually to young environmentalists selected by the San Francisco-based organization, which was founded in 1982 by veteran environmentalist David Brower to support conservation and preservation projects and recognize leaders.

A ceremony to honor Barge and the other Brower winners was held last fall at the Herbst Theatre in San Francisco. Winners each received a $3,000 cash prize and are being called upon to participate in skill-building and mentoring workshops to develop future environmental leaders.

“The greatest honor was the opportunity to work with my incredible fellow Cal students to make TGIF happen,” Barge says. “I didn’t do it alone — I have them to thank, and they share this award with me.”
Straddling the divide between barrio and campus

“Hot and terrible” is how Alvaro Huerta recalled his summers, as a teen, pulling weeds with his father on the star-studded Malibu coast. Huerta’s parents, immigrants from Michoacán, Mexico, hoped the hard labor would nudge him toward choices they never had. It actually pushed him into academia.

A doctoral candidate in city and regional planning, Huerta has never left his roots behind. After earning a B.A. in history from UCLA, he spent nearly two decades working as an activist for Latino issues. In the mid-1990s, when L.A. gardeners faced a proposed ban on leaf blowers, Huerta cofounded the first U.S. organization of Latino gardeners. The ban became law, but with penalties far less draconian than had been originally proposed, thanks in part to the association’s efforts.

Last year Huerta received the Thomas I. Yamashita Prize, named for a Berkeley undergraduate who was sent to a World War II internment camp for Japanese Americans. The Institute for the Study of Social Change gives the award annually to a scholar activist who is engaged in social change, and not just studying it, at the grassroots level.

Today Huerta is researching how Mexican immigrant gardeners in L.A. use social networks to survive and sometimes thrive.

“They’re very sophisticated,” he notes.

“Some have 100 clients on a gardening route, do billing and receiving, and trade or sell their routes the way a doctor sells a professional practice.”

Huerta hopes to shed light on the informal economy — the undocumented immigrants and U.S. citizens who work “off the books” and outside the protection of labor regulations and benefits. These workers aren’t reflected in standard labor statistics, making data-based research more difficult. He plans to employ methods for participant interviews and observation.

César Chávez’s fight for farm workers made it into high school curriculums, but many other remarkable efforts remain unknown. Perhaps Huerta’s research can change that.
At age 18, Barbara Staggers ’76, M.P.H. ’80 had an epiphany that would set the course of her career. First, when she was teaching at a summer youth program in Hayward, California, a man drove up to take a 14-year-old-girl in Staggers’ class and put her to work on the streets. When staff demanded parental consent, the man phoned the girl’s mother, whose response was, “Let her go, we need the money.” A few months later Staggers’ uncle dropped dead of a heart attack in an emergency room because the receptionist was more concerned with payment than treatment.

That one-two punch taught Staggers that people of color — and teens in particular — face tremendous barriers in staying healthy. “After that,” she says, “I never wanted to do anything else but adolescent health care.”

Staggers piled up the diplomas, including an M.D. at UC San Francisco, and joined the staff at Children’s Hospital & Research Center Oakland, where she has been director of adolescent medicine for 18 years.

Under her guidance, Children’s Hospital Oakland established cutting-edge programs for high-risk youth, including health clinics at two schools in Oakland and at Alameda County Juvenile Hall. Taking health care to teenagers is critical, says Staggers, 53, a married mother of three. “By the time teens come to see me at the hospital, there’s usually a lot happening. You can do much more preventive work outside a medical setting.”

Staggers has been widely honored for her work, including a Peter E. Haas Public Service Award and the School of Public Health Alumna of the Year. She will serve the as 2008-09 president of the medical staff at Children’s Hospital Oakland, and in April she’ll receive the Regional Health Care Champions Award from the School of Public Health.

“I’ve seen teens who have had horrible things happen to them get their J.D. or Ph.D., and do great things in the community. You can’t put a price on life, but when you make a difference and they say, ‘Thank you,’ that’s worth a lot.”
Jake Kloberdanz ’05 hatched the idea for Hope Wine in December 2005, not long after earning his B.S. from the Haas School of Business. He had seen how for-profit companies benefited from supporting non-profit causes. “I wanted take it to the next step,” he recalls. “It’s easy to slap a pink ribbon on a product and increase sales for one month. I wanted to create a company that gives back to the community year-round.”

In June of this year, Kloberdanz and his partners launched Hope Wine (hopewine.com) — a company that donates 50% of its proceeds to charity. The orders and the accolades have been pouring in ever since. Kloberdanz was recently named one of the “Top 25 US Entrepreneurs Under 25” by BusinessWeek, while Hope Wine’s chardonnay, merlot, and cabernet are enjoying ever-growing sales throughout southern California. In its first five months of operation, the company has sold more than 800 cases, donating approximately $10,000 to charities battling breast cancer, AIDS, and autism. The company’s goal is to raise more than $250,000 for its partner charities in the coming year.

Kloberdanz, who hails from Fremont, was very active at Cal, where he played football and rugby, served as philanthropy chair for his fraternity — overseeing the annual “Derby Days” and other events that raise money for Children’s Hospital Oakland — and even ran for ASUC president. “Something that really stuck with me [from my education at Haas] was the concept of ‘intrinsic value,’” says Kloberdanz, “feeling good about the product you make and the work you do, not just sales results.”

By mid-2008, Kloberdanz foresees rolling out new varietals that benefit additional causes, and expanding distribution to restaurants and grocery stores throughout the West Coast. “It’s about giving back,” he says. “Profit will follow, but the causes will always come first.” ⚫
Berkeley’s East Asian collection began in 1896 with John Fryer’s deposit of his personal library of 2,000 volumes. Today, it stands as one of the largest and richest collections of Chinese, Japanese, and Korean materials in the United States.

A sampling of this remarkably rich collection is now on display at Doe Library, in an exhibit entitled “Missionaries, Merchants, and Movable Type: Collectors and Collections of the C.V. Starr East Asian Library.” The exhibit includes Chinese woodblocks and manuscripts; Japanese woodblock maps and miniature editions; Meiji era frontispieces handprinted from woodblocks; early movable-type printing from Korea; handwritten sutras dating to the seventh century; and Tibetan and Mongolian manuscripts.

The exhibition runs through Feb. 21 at Doe Library’s Brown Gallery.
Homecoming 2007

1. Peter van Houten ’56, C.Sing ’57, M.A. ’62, Ed.D. ’73, former associate dean of students, shares his encyclopedic knowledge of Cal history in a walking tour of campus.

2. Chancellor Birgeneau (center) welcomes Eileen and Simon Chow, chairs of The Cal Parents Fund, to a special reception at his home.

3. The 1992 Blue & Gold yearbook offers definitive proof of Marcquis Gordon ’92’s more youthful incarnation.

4. The 55th reunion repast was not complete without a visit from Oski and a rousing round of “Go Bears!” led by former yell leader Herb Moore ’52, J.D. ’55.

Save the date for Homecoming 2008, October 3–5. For details, visit homecoming.berkeley.edu.

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March 11 - Santa Monica • March 12 - Newport Beach • May 6 - Lafayette • May 7 - Sausalito

For registration and information, visit discovercal.berkeley.edu.

Save the date for Homecoming 2008, October 3–5. For details, visit homecoming.berkeley.edu.
At the opening of the Berkeley Center for Theoretical Physics in Old LeConte Hall, Sylvia and Bob Dickinson ’63, M.S. ’64 hear from Assistant Professor Yasunori Nomura (right) about ongoing research in theoretical physics.

The Blue Cross of California Foundation was recently honored for its support of the Bay Area Schweitzer Fellows Program and the Program in Medical Education for the Urban Underserved, part of the UC Berkeley-UCSF Joint Medical Program. Pictured (from the left) are Gibor Basri, vice chancellor for equity and inclusion; Caz Matthews, president of the Blue Cross of California Foundation; John Swartzberg, director of the UC Berkeley-UCSF Joint Medical Program and chair of the Bay Area Schweitzer Fellows board of directors; and Sam Nussbaum, executive vice president and chief medical officer of the Wellpoint Foundation.

Alumni and friends of the School of Public Health came together at a reception in Washington, held in conjunction with the annual meeting of the American Public Health Association. Pictured, from the left, are Tom Rundall, executive associate dean; Dr. Giorgio Picagli M.P.H. ’91, president of the California Public Health Association-North; Jacque Duerr M.P.H. ’78, and Glenn Hildebrand M.P.H. ’57.

Jacqueline Jacobson talks with Edward Villella, founding artistic director and chief executive officer of the Miami City Ballet, at a lively reception for Benjamin Ide Wheeler Society members following a performance by the Miami City Ballet at Zellerbach Hall.
8. Chancellor Birgeneau (right) welcomes (from the left) Jack Lloyd ’59, Dr. Andrew Sessler of Lawrence Berkeley National Laboratory, and Lynn Lloyd ’59 to the recent Graduate Fellowships Luncheon, held at University House.

9. Andy Lee ’97 (center) and his wife, Polly Chow, mingled with Matt Lurie ’99 at a recent Berkeley Alumni Club of Beijing dinner.

10. (From the left) Professor Emeritus Frederic Tubach ’53, M.A. ’55, Ph.D. ’57 and his wife, Sally Tubach ’68, C.Sing ’69, M.A. ’72, Ph.D. ’80, with Gretchen Carlson M.P.H. ’78 and Charles Carlson Ph.D. ’74 at the recent Graduate Council Lecture reception.

11. Carol Liu ’63, C.Sing ’65, Cred. ’78, C.EAS ’82 (center; seated), former member of the California State Assembly and a visiting lecturer at the Goldman School of Public Policy, plays host to Willie Brown, former mayor of San Francisco.

12. College of Chemistry alumni (from the left) Charles Auerbach ’42, Robert Breuer ’43, and Daisy Yep Quan ’47 show their Cal spirit at the annual “G. N. Lewis Era” luncheon. This alumni era group funded an endowed chair, held by the College of Chemistry dean.
13. Michael Peevey ’59, M.A. ’61, president of the California Public Utilities Commission (standing), speaks with former California State Assemblyman William Bagley (left) and Peter Darbee, president of PG&E Corporation, at the Goldman School of Public Policy’s fall board meeting dinner.

14. Renee Budak ’72 (second from left) and her family awarded Jennifer Woo ’11 (seated) with The Pauline Korss Levie Achievement Award Scholarship at The Achievement Award Program (TAAP) Luncheon. Operated by the California Alumni Association, TAAP supports students from low-income communities.

15. Approximately 500 people filled the Berkeley Art Museum (BAM) for the recent opening of the digital art exhibition “RIP.MIX.BURN. BAM.PFA.” Pictured (from the left) are Ken Goldberg, engineering professor and director of the Berkeley Center for New Media; Richard Rinehart, digital media director of BAM and the Pacific Film Archive; artist Michael Joaquin Grey ’84; Eric McDougall ’90 and his wife, Claudia Ceniceros; Jane Metcalfe; and Lucinda Barnes, BAM senior curator for collections.

The Institute for Government Studies received a gift pledge from Darius Anderson and his wife, Sarah. This gift will support the IGS-sponsored Cal-in-Sacramento summer internship program, which sends 25 Berkeley undergraduates to work in summer internships at the California State Legislature, Governor’s Office, and other nonprofit organizations.

16. Sarah and Darius Anderson greet Cal in Sacramento interns at a reception in the State Capitol.

17. Cal in Sacramento interns pose with former Assemblywoman Wilma Chan on the floor of the California State Assembly.
My ponytail has fallen loose from my battered plastic hard hat. It slaps rhythmically against my neck as I swing my Pulaski tool ax, chopping through roots to clear a fire line. *We've been working for five days to contain this wildfire.*

A grand old cedar leans heavily over us, raining down embers and sparks from its glowing branches. We identified it as the ignition point during our aerial survey. It was probably struck by lightning.

To get here, our crew had to cut off the fire's advance up the ridge. We scraped away all the vegetation to encircle the burned area with 24 inches of bare soil. Only scattered hotspots remain. But I can still feel heat from the ground through my boots.

As we work, the forest shadows deepen. The temperature drops. The humidity soars. Gradually, the fire is cooling. By the time we reach the cedar, it's past midnight. Our incident commander decides to knock off for a few hours before we try to cut down the dangerous tree. *We spend the night spiked out inside the fire line, nestled in a burned-over hollow. I sleep with my boots on, just in case.*

Then, in the early hours of morning, the cedar explodes with a cascade of glowing sparks and awakens us. It cracks under the immense weight of its upper body and lands like thunder, right next to us. The tree has fooled us all. It looked healthy
from the ground, but it was hollow with age. As it burned on the outside, fire ate through its central cavity and weakened the trunk. It smoldered in the dark until it burned right through the roots that held the tree upright.

None of us who stood, weak-kneed and shivering, could have guessed that the cedar concealed such a treacherous secret. It had come within inches of killing us all.

There is no more sleep after that. I kick apart pockets of glowing embers, beginning the mop-up process that won’t end until we’re certain the fire can’t rekindle.

Finally, I can no longer smell smoke in the hot, dry air. We dig barehanded through mounded ash and seared earth for hotspots. The heat raises new blisters on my scarred fingertips. But I want to be certain that this time, the fire is completely out.

Climate change seems to bring hotter, drier weather with each passing year. In the American West, that change is partly manifesting as wildfires that burn bigger and faster, scorching millions of acres annually and claiming lives and property. Rachel Smith, a former smokejumper with the U.S. Forest Service and doctoral candidate in fire ecology and forest management at UC Berkeley, wrote this commentary. It aired on National Public Radio’s “Morning Edition” program last fall as wildfires roared through Southern California. Visit her Web site at rachelcsmith.com.