Winston Ko, dean of the Division of Mathematical and Physical Sciences and professor of physics, will retire in June after four decades at the university. His distinguished and uniquely American professional journey began 50 years ago: He recalls being 18, a student from Hong Kong, sailing through the Golden Gate Bridge to attend college in the United States.

Ko studied engineering and physics in Pennsylvania, then joined the UC Davis faculty in 1972 (he is a professor of physics). He became dean of Mathematical and Physical Sciences almost 10 years ago.

“Dean Ko’s accomplishments and his vision for mathematical and physical sciences have not only enriched UC Davis, they have truly expanded our knowledge,” Chancellor Linda P.B. Katehi said. “From his visionary research on particle physics to his leadership for our university, Ko’s 40 years here have given us unparalleled advancements. Under his deanship, new areas of scientific discovery have been pushed to exciting results. We will miss him as both a valued colleague and an invaluable dean.”

Divisional growth, prominence
Since becoming dean in 2003, Ko has recruited and retained 57 new faculty members—more than a third of the division’s faculty roster today. Graduate program enrollment has grown by a third. In the last nine years, the division has doubled its extramural research funding to $40 million a year. The division has brought in nearly $15 million in private donations, including three grants from the W. M. Keck Foundation, each greater than one million dollars.

The faculty has also developed innovative curricula, including one of the nation’s first “Calculus for Biology and Medicine” programs, and the Mathematics and Science Teaching program was expanded. Another notable accomplishment as dean was Ko’s development of UC Davis’ pharmaceutical chemistry program.

Ko’s tenure as dean also saw the opening of two new buildings: the Mathematical Sciences Building, and the Earth and Physical Sciences Building.

Campuswide initiatives
Ko led the campuswide initiative Universe@UCDavis, a multidisciplinary collaboration on the frontier of physics and information, devoted to astronomical probes of dark energy and dark matter, as well as of big data. He also participated in the Energy of the Future initiative.

Ko feels that UC Davis’ unique focus on interdisciplinary research continues to attract—and keep—top-notch scholars. “I feel that, as dean, I really represent my faculty (as all deans do), and the better the faculty, the louder I can say wonderful things,” he said. “In recent years, our faculty has been getting a lot of recognition, and I am very proud of that.”

Achievements
His achievements as a scientist are recognized worldwide.

As a Fulbright Senior Professor in Germany from 1992 to 1993, Ko and others at the European Organization for Nuclear Research, known by its French acronym CERN, developed the Compact Muon Solenoid (CMS) experiment for the Large Hadron Collider, which made history recently with the Higgs boson discovery.

Ko, who led the CMS early software effort, represented UC Davis as one of a handful of original American signatories on the experiment. It took 20 years to build, growing into a world-class effort involving 2,000 physicists.

When he retires, Ko is looking forward to spending time with his family. He also hopes to see more of the United States. “I’ve only had time to visit university towns,” he commented. He also plans to stay involved with research at UC Davis.

Join the matching challenge
In an effort to recognize faculty in the Mathematical and Physical Sciences (MPS), Winston and Katy Ko have generously offered to match all charitable gifts dollar-for-dollar, up to a maximum of $500,000. The money raised will support an endowed professorship honoring Dean Ko’s 41 years of service to UC Davis. The professorship will support a faculty member in MPS who is a national or international leader in science.

For more information, please contact Shari Kawelo at 530-754-2225 or sekawelo@ucdavis.edu.

Gifts to honor Dean Ko can be made payable to UC Davis Foundation, One Shields Avenue, Davis, CA 95616.

To give online, go to giving.ucdavis.edu/ls/KoProfessorship
Greetings,

As we write this letter, we are now beginning to see signs of spring on campus. And with the slightly warmer days, more classes are being held outside, students are playing on the quad (when it’s not soggy from rain), and we have a calendar full of events at the college.

We look forward to sharing many inspiring stories in this issue, not the least of which is on the cover. As a UC Davis geologist and graduate student in geology worked with the Mars Rover mission this fall, the world watched with bated breath to discover what we would find on Mars. We hope you will enjoy getting a view from the driver’s seat. We also have new books by alumni and faculty to share and want to extend a thanks to all alumni who send their accomplishments or news for our College Corner section. Keep them coming!

Finally, as Dean Winston Ko retires after more than 40 years of excellent service to UC Davis (and 10 of them as dean); we celebrate his accomplishments on page 2. We look forward to reporting a new dean for MPS in the fall issue.

Wishing you the best for a warm spring and summer season,

Sincerely,

Winston Ko
Dean, Division of Mathematical and Physical Sciences

George R. Mangun
Dean, Division of Social Sciences

Jessie Ann Owens
Dean, Division of Humanities, Arts and Cultural Studies

NOTES

CORRECTIONS

Fall College Currents magazine, page 11, covered an award given to Henry Spiller, an associate professor of music and chair of the Department of Music. He will be spending five months in Indonesia to research Sundanese music (Sundanese had been previously misspelled).

LETTERS

History Professor David Biale hits the nail on the head in equating students who struggle with low reading ability. Perhaps those who struggle can flourish as avatars in Professor Milburn’s “Video Games and Culture.”

Awesome, dude!

—Phil Downs, Dean of Students, St. Vincent de Paul High School, in reference to the fall magazine feature article quoting Biale.
Mayan Collapse

Decades of extreme weather crippled, and ultimately decimated, the political culture and later the human population of the ancient Maya, according to a new study by an interdisciplinary team of researchers that includes two UC Davis scientists.

“Here you had an amazing state-level society that had created calendars, magnificent architecture, works of art, and was engaged in trade throughout Central America,” said Professor of Anthropology and co-author Bruce Winterhalder. “They were incredible craftsmen, proficient in agriculture, statesmanship and warfare—and within about 80 years, it fell completely apart.”

The collapse of the Maya is one of the world’s most enduring mysteries. Now, for the first time, researchers have combined a precise climatic record of the Maya environment with a precise record of Maya political history to provide a better understanding of the role weather had in the civilization’s downfall. Their findings were published in the Nov. 9 2012 issue of the journal Science.

“Many psychologists and researchers have long held that children under the age of 7 cannot accurately report how they feel,” said Kristin Lagattuta, associate professor of psychology who led the study. So behavioral scientists frequently rely on the impressions of parents, teachers and other adults. However, several studies have shown that parents think their children are smarter than they really are—for example, parents often overestimate how well their children will perform on math, language or other cognitive tests.

“We thought this ‘positivity bias’ also might apply to how parents perceive their children’s emotional well-being,” Lagattuta said. She, along with Liat Sayfan, a postdoctoral researcher at the Center for Mind and Brain, and Christi Bamford, a former graduate student at UC Davis, made the discovery while conducting larger studies on individual differences in children’s social reasoning.

The researchers decided to assess kids’ views of their own emotions. They developed a picture-based rating scale that children could use to rate how often they felt different kinds of emotions. The team got the children used to the scale with basic questions such as how often they eat a particular food or wear clothes of a particular color.

In three separate studies involving more than 500 children ages 4 through 11, they found that parents consistently rated their children as being less worried and more optimistic than the children rated themselves. The questions involved common childhood anxieties such as being scared of the dark or worries about something bad happening to a family member.

The results show that secondhand evaluations by parents or other adults need to be treated with care. “Ideally, researchers should get emotion reports of children from multiple sources, including the child,” Lagattuta said. “Awareness of this parental positivity bias may also encourage adults to be more attuned to emotional difficulties children may be facing,” she noted. The findings were published in the Journal of Experimental Child Psychology.

Childhood Happiness

Parents consistently overestimate their children’s optimism and downplay their worries, according to new research by psychologists at the Center for Mind and Brain. The findings suggest that secondhand evaluations by parents or other adults of children’s emotional well-being need to be treated with caution.

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**FOOD STAMP BENEFITS**

A UC Davis economist has found that, when poor children have access to food stamps, they also receive long-term benefits, including significant reduction in the incidence of factors involved in metabolic syndrome (obesity, high blood pressure and diabetes). For girls, benefits also include an increase in economic self-sufficiency in adulthood. Hilary Hoynes, professor in the economics department and at the Center for Poverty Research, published these results in a working paper for the National Bureau of Economic Research.

Her team’s study was the first to examine the impact of a positive and policy-driven change in economic resources available to children both in utero and throughout childhood. Their findings indicate that the food stamp program has beneficial effects decades after initial exposure, with substantial internal and external benefits of the safety net that have not previously been quantified.

**BACTERIA + SUNLIGHT = FUEL**

Chemists have engineered blue-green algae to grow chemical precursors for fuels and plastics—the first step in replacing fossil fuels as raw materials for the chemical industry. “Most chemical feedstocks come from petroleum and natural gas, and we need other sources,” said Shota Atsumi, assistant professor of chemistry and lead author of the study published in the *Proceedings of the National Academy of Sciences*.

The researchers identified enzymes from online databases that carried out the reactions they were looking for and then introduced the DNA for these enzymes into the cells. Working one step at a time, they built up a three-step pathway that allows the cyanobacteria to convert carbon dioxide into 2,3 butanediol, a chemical that can be used to make paint, solvents, plastics and fuels. Co-authors of the paper are graduate student John Oliver, postdoctoral researcher Iara Machado and Hisanari Yoneda, a visiting researcher from Asahi Kasei Corp.

**FASTER, SMALLER ELECTRONICS**

For the first time, UC Davis researchers have looked inside gallium manganese arsenide, a type of material known as a “dilute magnetic semiconductor” that could open up an entirely new class of faster, smaller devices based on an emerging field known as “spintronics.” Materials of this type might be used to read and write digital information not by using the electron’s charge, as is the case with today’s electronic devices, but by using its “spin.” Understanding the magnetic behavior of atoms is key to designing spintronics materials that could operate at room temperature, an essential property for applications.

The new study used a novel technique, hard X-ray angle-resolved photoemission spectroscopy or HARPES, developed by Charles Fadley, distinguished professor of physics at UC Davis and the Lawrence Berkeley National Lab (LBNL), and recent UC Davis doctoral graduate Alexander Gray, together with colleagues at LBNL and in Germany and Japan.

The research represents the first major application of the HARPES technique.

**WRINKLE IN SPACE-TIME**

Mathematicians at UC Davis have come up with a new way to crinkle up the fabric of space-time—at least in theory. “We show that space-time cannot be locally flat at a point where two shock waves collide,” says Blake Temple, professor of mathematics at UC Davis. “This is a new kind of singularity in general relativity.”

The results are reported in two papers by Temple with graduate students Moritz Reintjes and Zeke Vogler, respectively, both published in the journal *Proceedings of the Royal Society*. Einstein’s theory of general relativity explains gravity as a curvature in space-time. “But the theory starts from the assumption that any local patch of space-time looks flat,” Temple notes.

Temple and his collaborators study the mathematics of how shockwaves in a perfect fluid can affect the curvature of space-time in general relativity. In earlier work, Temple and collaborator Joel Smoller, the Lamberto Cesari professor of mathematics at the University of Michigan, produced a model for the biggest shockwave of all, created from the Big Bang when the universe burst into existence.
Patients look up their illnesses online to become better informed and prepared to play an active role in their care—not because they mistrust their doctors, a recent study suggests. The study surveyed more than 500 people who were members of online support groups and had scheduled appointments with a physician.

“We found that mistrust was not a significant predictor of people going online for health information prior to their visit,” said Xinyi Hu, who co-authored the study as part of her master’s thesis in communication. “This was somewhat surprising and suggests that doctors need not be defensive when their patients come to their appointments armed with information taken from the Internet.”

With faculty co-authors at UC Davis and the University of Southern California, Hu examined how the study subjects made use of support groups, other Internet resources and offline sources of information, including traditional media and social relations, before their medical appointments.

The study found no evidence that the users of online health information had less trust in their doctors than patients who did not seek information through the Internet. In addition, Internet health information did not replace more traditional sources of information. Instead, patients used the Internet to supplement offline sources, such as friends, health news reports and reference books.

A meteorite that exploded as a fireball over California’s Sierra foothills in spring 2012 was among the fastest, rarest meteorites known to have hit the Earth, and it traveled a highly eccentric orbital route to get here. An international team of scientists presented these and other findings in a study published in the journal *Science*. The 70-member team included nine researchers from UC Davis, along with scientists from the SETI Institute, NASA and other institutions.

The researchers found that the meteorite that fell over Northern California was a carbonaceous chondrite. It is composed of cosmic dust and presolar materials that helped form the planets of the solar system.

The scientists learned that the meteorite formed about 4.5 billion years ago. It was knocked off its parent body, which may have been an asteroid or a Jupiter-family comet, roughly 50,000 years ago. That began its journey to Sutter’s Mill, the gold discovery site that sparked the California Gold Rush.

As it flew toward Earth, it traveled an eccentric course through the solar system, flying from an orbit close to Jupiter toward the sun, passing by Mercury and Venus, and then flying out to hit Earth.

The minivan-sized meteorite entered the atmosphere at about 64,000 miles per hour. The study said it was the fastest, “most energetic” reported meteorite that’s fallen since 2008, when an asteroid fell over Sudan.

“If this were a much bigger object, it could have been a disaster,” said co-author and UC Davis geology professor Qing-zhu Yin. “This is a happy story in this case.”

When the meteorite fell, Yin, whose lab contains some of the country’s most specialized equipment to measure the age and composition of meteorites, searched for and collected pieces of the fallen meteorite with students and volunteers. He also led a 35-member subgroup of international researchers to study and share information about the meteorite’s mineralogy, internal textures, chemical and isotopic compositions, and magnetic properties.
COMMUNITY SWAYS VOTES
Neighbors’ lawn signs, public opinion polls and even a conversation in the next restaurant booth can affect how people vote in an election, suggests a new UC Davis study. But it all depends on how far away the election is.

“Research like this highlights the fact that we are social creatures,” commented Alison Ledgerwood, assistant professor of psychology and author of the study. “We clearly use other people to help us make our decisions, but what this research shows is that we rely on different people’s opinions for near-future and distant-future events.”

Ledgerwood’s study—using both New York University and UC Davis student subjects in simulated votes and opinion surveys—found that, when it comes to decisions about the distant future, peer group opinions carry a lot of weight. “When thinking about an election that will occur next year rather than tomorrow, or when voting by absentee ballot rather than in person at the voting booth, individuals may be especially likely to adopt whatever opinions seem to be endorsed by a majority of their group members,” Ledgerwood noted.

But, as an election nears, the views of individuals become more influential. “As we get closer to voting day, polls affect us less and less,” Ledgerwood added. “Meanwhile, what one other person happens to think might affect us more and more. The point is, we are always influenced by what other people think, but who influences us most is going to depend on timing.”

Ledgerwood’s article was co-authored by UC Davis graduate student Shannon Callahan and published in the journal Psychological Science.

CARBON CORE
Using computer simulations, researchers from UC Davis and the Chinese Academy of Sciences in Beijing have helped to solve a mystery that scientists have puzzled over since the early 1950s: What accounts for Earth’s core density?

Their discovery: The Earth’s core contains 0.1-0.8 percent carbon, the largest reservoir of carbon on the planet. The findings were published in the journal PNAS Early Edition. “We knew the density of the core, and we knew that metal iron and nickel alone couldn’t account for that density,” said UC Davis geology professor and study co-author Qing-Zhu Yin. “You need something lighter.”

ELECTION POLLING APP
When President Obama and Republican challenger Mitt Romney squared off in their first debate, college students across the country tested a new smartphone application that promises to make live polling possible for the first time on a large scale.

“Most polling is done after a debate occurs,” stated Amber Boydstun, assistant professor of political science at UC Davis and co-developer of the app, called React Labs: Educate. “There is very little data in the political science world that deals with real-time reaction, and this will help us get that information.”

Boydstun hopes the app will help to engage the Facebook generation in politics and has developed a variety of teaching resources for instructors to use in talking with students about the debate. In the future, Boydstun believes the app could also be used to get instant reaction to other types of live events, from state-of-the-union addresses to football games.

PROFESSOR IN PLOUGHSHARES
An essay by Lynn Freed, professor of English, was published in the Fall 2012 issue of Ploughshares, one of the most prestigious literary journals in the country. Ploughshares is based at Emerson College in Boston. Since its founding in 1971, each issue is guest-edited by a prominent author. Freed’s essay, “Gloria Mundi,” appears in an all-nonline issue.
FROM THE GROUND UP

A half century ago, a team of young artists, including Wayne Thiebaud and Robert Arneson, arrived at UC Davis to help build a new art department—and changed the art world.

The university is honoring that legacy by tapping three innovative architect-contractor teams to compete in the creation of a design for the Jan Shrem and Maria Manetti Shrem Museum of Art—a museum whose vision is as bold as Thiebaud’s pop imagery or Arneson’s irreverent ceramics.

“Our slate of architects reflects the founding philosophy of the UC Davis art department, built by untested individuals who rose to prominence with the work they made here,” explains Chancellor Linda P.B. Katehi.

“We are thrilled to name these three visionary teams who will honor our distinction as an international center of innovation and propel us into the future.”

“These are innovators who are defining the discourse in architecture today,” notes Jessie Ann Owens, dean of the Division of Humanities, Arts and Cultural Studies. “The competition and the museum embrace the spirit of experimentation that has been an enduring tradition at UC Davis.”

The charge to the teams is to design a building in which faculty can teach art and from which they can teach architecture. The building is envisioned as a center for instruction that will promote multidisciplinary and interdisciplinary research and teaching. Each of the teams represents the best of the field’s up-and-coming talent and celebrates innovation. Two have reputations for redefining traditional assumptions of what museums can and should be. The third represents the birthplace of Scandinavian design and the currently vibrant architectural scene in Denmark.

The teams were evaluated based on a number of criteria, including art-exhibition experience, design ability, familiarity with UC Davis, understanding of the art world and the academic community, and team cohesiveness and creativity. Also important was a demonstrated ability to advance the standards for sustainability in art museums and extend UC Davis’ leadership and expertise in this arena.

“The teams we are working with are committed to not only meeting the University of California’s green building standards, but surpassing them,” says Tim McNeil, associate professor of design and director of the Design Museum who served on the selection committee that chose the three finalists.

The competition will culminate in public presentations and an announcement of the winning design. “UC Davis’ artist faculty and alumni are renowned for the spirit of experimentation that defines their art, be it work made in ceramics, photography or conceptual art,” says Museum Director Rachel Teagle. “We celebrate that spirit by launching the first design-build competition for an art museum in the United States. This proven project-development model is new to the world of art museums where aesthetic concerns predominate. It introduces to the design process a transparency and openness that is deeply aligned with UC Davis’ mission.”

The museum at UC Davis is named in honor of Jan Shrem, proprietor of Clos Pegase winery in the Napa Valley, and his wife, arts patron Maria Manetti Shrem. In 2011, Jan Shrem gave $10 million to the university to establish a museum that would be a new teaching and cultural resource for the region.

“Maria and I are excited to see the design process unfold at UC Davis,” states Jan Shrem. “We believe the competition will produce the best new ideas, and we applaud the collaborative nature of the design-build approach.”

The museum will be constructed on a 1.6-acre site adjacent to the Robert and Margrit Mondavi Center for the Performing Arts, the UC Davis Conference Center and Maurice J. Gallagher Jr. Hall, home of the university’s Graduate School of Management. It will be the capstone of a planned “arts district” at the university’s new front door alongside Interstate 80.

The final design selection will be announced later this spring.
HISTORY TEACHES
The History Project at UC Davis has earned two prestigious grants from the National Endowment for the Humanities for a summer series for teachers in 2013: “Roots of the Arab Spring: Understanding the Historical Context for the Arab Uprisings” and “The Transcontinental Railroad: Transforming California and the Nation.” Associate Professor of History Omnia El Shakry will direct the Arab Spring institute on the UC Davis campus this summer. Associate Professor Ari Kelman and Professor Eric Rauchway will co-direct the series on the Transcontinental Railroad, a Landmarks in American History & Culture workshop. The NEH grant will fund two weeklong workshops at historic sites in Sacramento.

GENDER BIAS IN SCIENCE?
Discrimination against women in science continues to be a problem, even in fields dominated by female researchers, suggests a new study from UC Davis that found a startling gender disparity in who is chosen to speak at scientific conferences. The study was published in the journal PLOS ONE.

Lead author Lynne Isbell, a professor of anthropology at UC Davis, initiated the study after being struck by the scarcity of female speakers at the annual meeting of the American Association of Physical Anthropology. “I started wondering if this was a fluke or something we hadn’t noticed before,” Isbell commented.

To answer the question, Isbell and two UC Davis colleagues—fellow anthropology professor Alexander Harcourt and Truman Young, a professor of plant sciences—went through programs from 21 annual meetings of the association, focusing on sessions on Isbell’s own field, primatology.

They tallied the genders of speakers at symposia; those giving shorter oral presentations; and those presenting posters. (Symposium talks are sometimes seen as being more prestigious than short oral presentations, with posters—often given by junior researchers and graduate students—being seen as the least prestigious.)

The team found that symposia organized by men had half the number of female speakers, 29 percent, as those organized by women, 64 percent, or by men and women, 58 percent. Women were far more likely to make poster presentations than give talks, while men presented more talks than posters.

“It’s especially surprising,” Isbell noted, “because primatology—the study of lemurs, monkeys and apes—is dominated by women, and there are many senior women, following pioneers like Diane Fossey and Jane Goodall, with long and distinguished careers. If it can happen in primatology, what’s happening in other fields with fewer women?”

CHILDHOOD OBESITY
Curbing obesity among Mexican-heritage children in California’s Central Valley is the focus of a new center which opened its doors in the Fresno County town of Firebaugh last fall.

Called “Niños Sanos, Familia Sana” (Healthy Children, Health Family), the center is a collaborative effort of UC Davis, the University of California Cooperative Extension, and local communities and organizations.

“Opening this center really gives us an opportunity to work with the community—to be there for children and families and show we are committed to promoting good nutrition and physical activity,” explains Adela de la Torre, professor of Chicana/o studies and director of the Center for Transnational Health at UC Davis. “We want to help them learn the best approaches to preventing obesity now and in the long term.”

Part of a five-year, $4.8 million study aimed at identifying effective approaches to combating obesity, the center will address a problem that affects more than four in 10 children born to parents of Mexican heritage, putting them at greater risk of early diabetes, high blood pressure and heart disease.

NASA KUDOS
Physics Professor John Rundle was a co-investigator for the development of the software program QuakeSim. Developed at NASA’s Jet Propulsion Laboratory in Pasadena, Calif., QuakeSim is a comprehensive, state-of-the-art software tool for simulating and understanding earthquake fault processes and improving earthquake forecasting. It was a co-winner of NASA’s 2012 Software of the Year Award along with NASA’s first mobile app.

GORMAN MUSEUM GRANT
The C. N. Gorman Museum has received a grant from the National Endowment for the Humanities (NEH) to go toward a general preservation assessment of the museum’s permanent collection, an assessment of works on paper, and the purchase of environmental monitoring equipment.
FACTOR HONORS

The Atlantic has named Professor Arnold Bauer’s Time’s Shadow: Remembering a Family Farm in Kansas one of its five 2012 Books of the Year. A coming-of-age memoir, it blends local history with personal reflection to paint a realistic picture of farm life and families. The Atlantic writes: “Bauer’s portrait of life in rural Kansas from the 1930s to the 1950s conjures with extraordinary thoughtfulness and grace a world we have lost.”

Scott Carrell, a professor of economics, won the prestigious IZA Young Labor Economist Award for 2012 from the American Economic Association. Carrell was co-author of a paper that explores whether children from troubled families generate negative spillovers on the educational achievements of their peers. Academic records show that children from troubled homes not only have lower test scores themselves, but they also decrease the performance of their peers. The paper also shows that addressing family violence has a double dividend—while improving the life of the most troubled students, it can also positively affect these children’s peers.

Jacquelyn Gervay-Hague, a professor and chair of the Department of Chemistry, has been appointed as Director of the Division of Chemistry at the National Science Foundation, a rotating position of up to four years. She will start the position in July.

Physics Professor Chris Fassnacht has been appointed to the advisory committee for the UC Observatories (UCO), a system-wide body that runs the major telescopes used by UC astronomy faculty, researchers and students. These include the Keck Observatories in Hawaii and the Lick Observatory near San Jose.

An emerita professor of anthropology, Sarah Blaffer Hrdy has been named recipient of the 2012 W. W. Howells Book Prize, from the American Anthropological Association, for her book Mothers and Others: The evolutionary origins of mutual understanding. In the book, Hrdy examines the emergence of a type of child-rearing called “cooperative breeding” in the line of apes leading to modern humans. She proposes that long ago, before the appearance of language or large brains, our ancestors became interested in the thoughts and feelings of others.

Michael Siminovitch, professor of design and director of the California Lighting Technology Center, has been named by the Sacramento News and Review as one of 15 local scientists and policymakers who are “vital” in the effort to decrease global warming and its effects.

New AAAS Fellows

Six faculty members from the College of Letters and Science have been elected to the American Association for the Advancement of Science:

Professor David Britt of the Department of Chemistry was elected for contributions in the field of electron paramagnetic resonance spectroscopy applied to biochemical and biomimetic reactions, particularly the chemistry of photosynthetic water splitting.

Jacquelyn Gervay-Hague, professor and chair of the Department of Chemistry, is an expert on organic synthesis. She was honored for her distinguished contributions to the field, particularly for the development of glycosylation methodologies and the synthesis and characterization of biomimetic macromolecules.

Louise H. Kellogg, professor, Department of Geology, was honored for “fundamental contributions to understanding mantle and deep Earth dynamics, stratified mantle convection, kinematic mixing and homogenizing the mantle, and 3-D visualization of mantle processes.”

Professor Steven J. Luck of the Department of Psychology and director of the UC Davis Center for Mind and Brain, is an expert on perception and cognition. His research focuses on the neural and cognitive mechanisms of attention and working memory in healthy young adults and dysfunction of these mechanisms in psychiatric and neurological disorders, such as schizophrenia.

Isabel Patricia Montañez, professor in the Department of Geology, was elected for “distinguished and paradigm-changing science in the field of deep-time climatology and environmental change, and for unfurled contributions to the profession of sedimentary geology.”

Howard J. Spero, professor and chair of the Department of Geology, was elected for “fundamental contributions to the understanding of the isotope and trace metal geochemistry of marine microfossils and, ultimately, the history of life and climate in the past.”
Personality and Social Psychology Awards Go to UC Davis Scholars

Two UC Davis psychology professors have earned prestigious awards from the Society for Personality and Social Psychology, the world’s leading professional society for the field.

Phillip Shaver has won the Career Contribution Award, which honors a scholar who has made major empirical contributions to social and/or personality psychology, or to bridging these areas.

“The Society for Personality and Social Psychology contains the top people in my field, so it’s a huge honor to receive a Career Contribution Award from them,” notes Shaver, whose work focuses on emotional attachments in close relationships. He has about 300 publication titles to his name.

Rick Robins has won the 2012 Diener Award in Personality, funded by a gift from Ed and Carol Diener to recognize outstanding contributions to the field of personality psychology by scientists in their mid-career.

“When I think of all of the outstanding scholars in my field, I am truly honored to receive this recognition. The field of personality is unique because it integrates multiple levels of analysis, encompassing everything from the study of individual genes to how cultural factors shape personality,” Robins says. “I have benefited tremendously from being at UC Davis because we have one of the top personality programs in the country, and I owe a great deal of my success to the wonderful colleagues I have here.”

ALUMNI NEWS

Artist Uta Barth (B.A., Art Studio, ’82) has won a 2012 MacArthur Fellowship. Barth is a conceptual photographer and professor emeritus at the University of California at Riverside. Her work explores the nature of vision and the difference between how a human sees reality and how a camera records it.

Allan Johnston (M.A., Ph.D., English, ’80, ’88) has a new poetry collection, Departures, being published by Finishing Line Press. These poems share the richness of life growing up in Southern California. Johnston’s poems have appeared in Poetry, Poetry East, Rattle, Rhino and many other journals. He has received an Illinois Arts Council Fellowship, a Pushcart Prize nomination and other awards. Originally from California, he now teaches writing and literature at Columbia College and DePaul University in Chicago, and serves as a reader for Word River and for the Illinois Emerging Poets competition.

A Mused Collective, a live music and dance ensemble with four performers who are UC Davis graduates, performed at the Edinburgh Fringe Festival in Scotland. Davis resident Shelly Gilbride (Ph.D., Theatre and Dance, ’09) traveled there with troupe members Jenjen Wong; artistic director Abby McNally; and the musical director, Tony Poeck (B.A., American Studies, ’08).

Scholar Represents U.S. for Important Bicentennial

Alan Taylor, professor of history, spoke on a tour commemorating the bicentennial of the War of 1812 on behalf of the United States Embassy in Canada. The Pulitzer-Prize winning historian appeared in Ottawa, Kingston, Toronto and Halifax.

“When Americans take little interest today in this conflict, it matters greatly to English-speaking Canadians as foundational to their national identity,” Taylor commented, referring to the U.S. invasion of Canada and the borderlands struggle between New York and that nation.

Fawzi Haimor (B.A., M.A., Music, ’05, ’07) has been named assistant conductor of the Pittsburgh Symphony Orchestra. The violinist earned master’s degrees in conducting from the UC Davis Music Department and Indiana University.

Steve Burton (B.A., Psychology, ’68), a marina development specialist, was hired by Abu Dhabi’s flagship real estate development company in 2007. He was tasked to complete a complex project within a seemingly impossible deadline while immersed in a culturally diverse country surrounded by the most politically volatile region in the world. His memoir Staying Afloat: Three Years in Abu Dhabi is a personal account of the challenge.

Tom Stanton (B.A., B.S., Chemistry, Political Science and German, ’65) has written Why Some Firms Thrive While Others Fail: Governance and Management Lessons from the Crisis (Oxford University Press, 2012), which examines the inner workings of a dozen large firms during the recent economic crisis and mines crucial insight from the ones who weathered the storm.

Tom Garrison (M.A., Political Science, ’76) has published the ebook Why We Left the Left: Personal Stories by Leftists/Liberals Who Evolved to Embrace Libertarianism, which examines the political question of why people identify with a certain ideology and/or political party.

Stacy Jameson (Ph.D., Cultural Studies, ’11) has been awarded an Andrew W. Mellon postdoctoral fellowship, which has placed her at the Jackman Humanities Institute of the University of Toronto for two years.

STUDENTS

The American Society of Composers, Authors and Publishers (ASCAP) honored graduate student Will Cooper with its top student prize, the Leo Kaplan Award, in the 2012 Morton Gould Young Composers Awards. In addition, Cooper’s first full-length opera, Hagar, premiered in Indianapolis in November.

Natalie Telis, a double major in Mathematics and Cell Biology, is one of two Beckman Award recipients for the 2012–13 academic year.

Jeremy Mock, a UC Davis graduate student who has worked on the Large Underground Xenon experiment for seven years, is part of the team that is hoping to detect dark matter through the $300 million project. His work was published in The New York Times.

The City of Davis adopted Design major Deena Freel’s proposal for new signage around town, a project she produced through the Environmental Graphics program in collaboration with the GNU Group. Installation of the new signs began this winter.

Keith Hennessy, internationally known performance artist, UC Davis doctoral candidate in Performance Studies and a 2011 recipient of the Bilinski Fellowship, was recently awarded a prestigious 2012 United States Artists Fellowship for his contribution in the field of dance. Each year, the organization honors 50 of America’s finest artists across eight disciplines with individual fellowship awards of $50,000 each.
Good Reads

Snow White and the Seven Dwarfs by American Studies Professor Eric Smooldin (Palgrave Macmillan/British Film Institute). Published to celebrate the 20th anniversary of the BFI Film Classic series, this book presents a history of the events that led up to the Snow White film, its reception and impact on contemporary culture.

Annals of the Omega Project—A Trilogy by Thomas A. Cahill (EditPros LLC). A physicist pens his first fiction. In this science fiction thriller, Cahill unfolds a tale of good conquering evil when a UC professor and a group of psychic students form what they call the “Omega Project” to battle evil coven members who invoke horrifically lethal “feedings” on the minds of their telepathic victims.

The Hiplife in Ghana: West African Indigenization of Hip-Hop by Halifu Osumare (Palgrave Macmillan). In this book, one of the few U.S.-based experts on global hip-hop explores Ghana, West Africa, where hip-hop music and culture have morphed over two decades into a form of world music called “hiplife.” The associate professor and director of African American and African studies draws on 30 years as a dancer and scholar of black popular culture in this investigation.

German History in Modern Times: Four Lives of the Nation by William W. Hagen (Cambridge University Press). With 159 illustrations, including new maps, this book provides an interpretive history of the social and political history of German-speaking Europe through four centuries. Hagen, a scholar of modern European history, is an emeritus professor of history.

Jose Marti: Images of Memory and Mourning by Emilio Bejel (New York & London: Palgrave Macmillan). Bejel, a distinguished professor of Spanish, explores how visual images of Marti, a 19th century Cuban national hero, have seduced people across ideologies and have figured in Cuban history and culture.

Romanticism and the Question of the Stranger by David Simpson (University of Chicago Press, 2006). Simpson, the G.B. Needham Distinguished Professor of English, calls to mind post-9/11 and homeland security fears and practices, pointing out that the view of the stranger as the enemy is not new to the early 21st century.

Drugs for Life: How Pharmaceutical Companies Define Our Health by Joseph Dumit (Duke University Press). This book discusses how the pharmaceutical industry has made people feel they are inherently ill and in need of chronic treatment for everything. Dumit is a professor of anthropology and director of Science & Technology studies.

Raising Expectations (And Raising Hell): My Decade Fighting for the Labor Movement by Jane McAlevey and Bob Ostertag (Verso). This book was co-written by Bob Ostertag, a professor of cinema and technocultural studies, focusing on veteran labor organizer Jane McAlevey. It has gained nationwide attention and was listed by The Nation as the “Most Valuable Book of 2012.”
UC Davis unveiled one of the most advanced outdoor lighting systems in the country in 2012, designed by the California Lighting Technology Center, which is housed in the division of Humanities, Arts and Cultural Studies. The Adaptive Campus Control system integrates more than 1,600 individually addressed, dimmable LED luminaries with various applications—streetlights, wall packs, area lights and post tops—into an advanced, wireless lighting controls network. Individual lights within the network automatically respond to daylight and occupancy patterns. The network’s software allows UC Davis personnel to remotely monitor, program and adjust light levels for individual luminaries, groups of them, or the entire campus—right from their desktops. Preliminary data indicate that the adaptive aspect of the new “smart” lighting system has achieved energy savings 60 percent greater, on average, than what a static installation would have yielded. This first-of-its-kind system represents the next step forward in energy efficiency through dynamic lighting technology.

**Ann Huff Stevens**, economist and director of the Center for Poverty Research, was featured on a radio show to discuss the new numbers from the Census Bureau showing California has the highest national poverty rate in the nation under their new supplemental poverty measure.

Statistics professor **Paul Baines** appeared in the media last fall to discuss easy strategies for winning bets—a subject receiving heightened public interest after statistician Nate Silver’s highly accurate predictions for the presidential election.


**Mixed Martial Artist and UC Davis alumnus Urijah Faber** (known to fans as the *California Kid*) toured the UC Davis Center for Mind and Brain last fall. From left to right, Steve Luck, professor of psychology and director of the Center for Mind and Brain; Urijah Faber (B.A., Human and Community Development, ’03); and George R. Mangun, dean of the Division of Social Sciences.
THE FIRST TIME DAWN SUMNER saw a high-resolution, full-color image of Mount Sharp, her tears surprised her.

The geobiologist was staring at a landscape of clearly stratified hills and cliffs jutting against the sky. But these weren’t just any hills. Mount Sharp is on Mars.

“It is as beautiful as anything in any national park on Earth,” Sumner describes. “The views from the ground on Mars are no more real than a picture from an orbiter, but they are on a human scale. There’s such an exciting sense of discovery to be able to explore another planet virtually—it’s just a picture, but it’s such a picture,” Sumner adds.

What’s more, those images were taken by a robotic camera in a location Sumner had helped choose—Gale Crater, where NASA’s Curiosity rover had set down in a celebrated, first-of-its-kind landing last August. Curiosity is on a two-year mission to investigate whether the red planet has ever been suitable for, or perhaps even hosted, life.

The image also represented the culmination of 10 years’ work on Sumner’s part.

Sumner, a professor in the UC Davis Department of Geology, is a key player in NASA’s Mars Science Laboratory (MSL) project. As a long-term planner on the MSL team, Sumner is responsible for shaping the overall structure of the mission, including directing where Curiosity should go, prioritizing different science investigations, and encouraging her 400-plus team members to work together to interpret the data coming back.

She is also fully immersed in the work of assessing whether the environments recorded in the rock were habitable, using her skills as a sedimentologist to shed light on the environments on early Mars.

“Really I am involved in this mission because I want to know whether or not there was life on Mars,” Sumner says. “If there is life in the universe, and particularly as close as our neighbor planet Mars, it changes our sense of who we are. To me, that’s one of the most important questions scientists can ask—to understand who we are.”

This mission is NASA’s most ambitious Mars project yet. Curiosity is about twice as long and five times the weight of its predecessors, Spirit and Opportunity.

In addition to color cameras, the rover features a host of gadgets—165 pounds of them—that Mars has never seen before. A rock-zapping laser—one of Sumner’s favorite tools—can vaporize rock to study its chemical composition. Other equipment allows Curiosity to sample rocks and soil, process them and begin to analyze them.

Early mission days
Sumner’s involvement with Mars exploration actually stems from research much closer to home. One of Sumner’s areas of research is to interpret Earth’s early environment and the evolution of life here. It was because of that experience that in 2002 she was asked to work with the Mars community to see how people would search for evidence of life on Mars.

Sumner was co-chair of a committee to chart the program’s scientific research goals in searching for evidence of life on Mars through the Mars Exploration Program Analysis Group (MEPAG). About that same time, the scientific goals for NASA’s Mars Science Laboratory were in development, and they focused on assessing whether or not ancient Mars was habitable.

“People who’ve looked for evidence of life on early Earth can translate some of their observations and skills into the planetary science community,” Sumner notes. “This mission adopted the path toward looking for life that I helped write. This includes looking for environments with water and a carbon source that persisted through time.”

As planning progressed, the MSL team decided to go to a place that has sedimentary rocks—Sumner’s expertise.

Sedimentary rocks—which are formed layer by layer through geologic time—are key because hints of organic matter and microbial communities might be preserved within them.

For most of Earth’s history, the only life-forms have been bacteria and archaea, and scientists have a genetic record of how they evolved but not the typical fossils that can be found for shelled organisms.

Instead, the microbial communities build mats, or slime, and construct rock-like structures called stromatolites. Their fossil remains contain information about what
environments stromatolites form in and how they reflect the evolution of those microbial communities. And on Earth, such fossils are found in sedimentary rock.

One of the reasons the MSL team really liked Gale Crater for the rover's landing location is that it features whole series of sedimentary rock. Each one was deposited in an environment that was present in that crater and, like a history book, each layer represents a chapter in the Gale Crater's history.

So, if microbial life has ever been present on Mars, evidence of it might be found in a place just like Gale Crater (see sidebar).

To Pasadena and beyond
A few years after her work on MEPAG, Sumner was a co-investigator on a proposal to build and run four cameras for MSL. NASA accepted that proposal, and she began to plan for a two-year field season on Mars.

Sumner spent the mission’s first months living and working at headquarters, NASA’s Jet Propulsion Laboratory in Pasadena. The agency moved all of its 400-plus MSL science team members there, having them work together and live on Mars time, with days that are 40 minutes longer than Earth days.

“The plan was for us to form a community and really get to know each other in the beginning, because now we are spread all over the world and have to do all of the same work on telephones and with webshare, email and chat,” Sumner says.

The mission base, as one would imagine, features areas such as the Mars Yard. There, the project engineers house two rovers—the Scarecrow and the Vehicle System Test Bed (what Sumner calls “the twin”) for testing. While the Scarecrow is like a shell of the rover with just the suspension and driving gear, the twin is almost a full duplicate of Curiosity, instruments and all. It is used 12 to 18 hours a day to test new rover commands, such as putting a drill bit down on a rock to test the pressure or setting it on a slope to seeing how it behaves at a slant.

But the control room we see whenever there is news coverage of Curiosity on Mars? It is for the engineers, not the instrument teams like Sumner’s.

“Most of the time when we are working, we are in a big dark classroom with tables and computer screens, and modular furniture,” she laughs. There, the team analyzes incoming data, solves unexpected issues that arise, maps out the rover’s next actions, and holds daily science meetings to discuss all of the above.

So although Mars days—called sols—are longer than Earth’s to begin with, the working hours are longer still. “We were in Los Angeles, but there were a fair number of us who did very little of the cool things there are to do in L.A.,” Sumner says. “And I got enough sleep most of the time, but I was working all the time I wasn’t sleeping.”

Hints of life?
Six months into the mission, NASA has so far reported that Curiosity’s mass spectrometer has indeed detected “hints of organic compounds” on Mars, but are they martian? Detecting martian organic compounds and proving that they are martian will be very difficult.

“It’s likely that Mars has some organics from abiotic processes,” Sumner says. “So we think they should be there even if there wasn’t life, but finding them is the first step in the search.”
SOL DAYS AND NIGHTS

By Dawn Sumner

Curiosity is working on another planet—one with a longer day. Most of the rover’s work needs to be done during daylight hours when it is warmer. People on Earth have to tell it what to do, and Curiosity can get much more work done if we tell it what to do every Mars day (called a sol). Thus, for the first three months of the mission, the scientists and engineers worked on a day that was about 24 hours and 40 minutes long.

Curiosity first landed at a little after 10 pm last August. Many of us stayed up all that night to evaluate the images and make sure the plan for the next day was ready to go. We then went to sleep the following afternoon and went back to work late that night. Thus, we started working on the grave-yard shift. Eventually, our longer day put us starting work at a very reasonable 8 am. We had dinner parties almost every night—because restaurants actually served dinner at our dinner time.

However, after a couple of weeks, we were back working late into the night. Then it was hard to buy an after-work beer at the end of your shift—at 7:00 am. Do you drink it with eggs? Do you really want to have a party at 10:00 am? Usually, the answer was “no,” so these times were less social.

It is hard to sleep through everyone else’s daily activities. I was living alone, so it was only the neighbors’ lawn mowing or car repair that disrupted my sleep. However, those living with their families had a much harder time. How do you tell a 3-year-old that even though it’s morning, you are not getting up?

Now that we have experience with planning for the rover, we stay on “Earth time,” working during the day and into the evening, but not late at night. This means that we don’t always know what Curiosity did the prior sol when we are planning a new one. It makes the rover less efficient, but the people driving Curiosity much happier. When you are running a mission for years, it’s nice to have a schedule that lets you see your family and friends!

To begin with, meteorites such as the chondrite that fell in the Sierras last year contain organic compounds that are not from life, and those would have fallen on Mars. In addition, ancient Mars had both active volcanoes and running water, and geothermal processes can also create organic compounds.

However, “hint” refers to the fact that further tests need to be done to confirm whether the organic matter is indeed Martian and not from Curiosity itself.

“Earth has organic compounds everywhere except possibly in the deep interior, so it’s impossible to realistically clean everything that includes the rover,” Sumner says. “The mass spectrometer, SAM, is extremely sensitive to organic matter because, if there is any on Mars, we think it is in extremely small quantities.”

“So these first analyses of the solid samples by SAM have simple organic compounds in them. The problem is that we know that we brought organics with us—plastics are organics and those are on the rover—and the molecules stick to all the metal surfaces.”

When Curiosity took its first soil sample with its scooper, it picked up and dumped Martian soil three times with the hope that the Mars sediment would carry any Earthly organic matter away. On the fourth scoop, SAM analyzed the soil.

The compounds detected in it are consistent with those possibly brought by Curiosity, so further tests and analysis are needed to confirm the source of these organics.

“We have to be very, very careful about assessing where the compounds are from. If it’s coming from the sample processing system, the organic content should go down through time because we’re diluting it,” Sumner says.

“We’ve measured organics and we’re fairly certain some of it is contamination, there’s the possibility that some of it isn’t, but we don’t know. We’ll definitely keep sampling the soil and rocks because that’s Curiosity’s purpose—to understand if there are organics indigenous to Mars and, if so, what their structure is.”

Roving into the future

While Curiosity continues its red-planet exploration with new activities like drilling samples and taking night photos, Sumner is now back on the UC Davis campus full-time. She is teaching Sediments and Strata for winter 2013 and, for spring, a graduate seminar about Mars sedimentology plus a first-year seminar on evaluating habitability there. It’s a good bet that all classes will include new examples from Gale Crater this year.

“The Mars mission is extraordinarily relevant for geology students here,” Sumner says. “One of the important parts of this mission for me is to inspire students to ask big, important questions and participate in human endeavors, like exploration of other planets.”

Meanwhile, she has learned to balance her on-planet and off-planet careers.

“My defined job for the Mars mission is very, very small—a couple of weekly meetings and then a few longer days a month. But the amount of work to do is infinite,” Sumner explains.

After her Mars adventure, Sumner believes her long-term research will lead her back to Earth. “I’ve always enjoyed planetary science because of the exploration and the excitement of it, but it has to be done remotely,” she says, adding, “I really like working with rocks that I can hold in my hands.”
Linnea Lomax
Student

Nineteen-year-old Linnea Noel Lomax was confirmed to have passed away after being missing since June. Lomax was a first-year student attending UC Davis.

“She was a bright light, a dear friend, a loving sister, devoted daughter and a sweet, open spirit,” her obituary stated. “She lived boldly, full of love and faith.”

Family spokeswoman Amanda Ernst said that Lomax, a straight-A student in high school, balanced her study time with soccer and as a guide for her family’s river rafting adventure camp. She was contemplating a career in nursing and took advanced first-aid courses, Ernst added. “She wanted to do something that would help people.” Lomax is survived by her parents, Craig and Marianne Lomax; her 17-year-old sister Joy; 15-year-old brother Collin; grandmother Emma Lomax of Placerville; and grandparents Mildred and Reino Haider of Sweden.

Bill Thurston
Professor Emeritus, Mathematics

Former UC Davis faculty member and world-renowned mathematician Bill Thurston passed away in August. He was 65.

The brilliant scholar was a Fields Medal award-winner—mathematics’ version of a Nobel Prize—best known for his Geometrization conjecture, which states that all possible three-dimensional spaces are comprised of eight types of geometric pieces. Thurston compared the breakthrough to finding eight outfits that could fit anybody in the world.

Thurston was born on Oct. 30, 1946, in Washington, to Paul and Margaret Thurston. He attended New College in Florida and earned a Ph.D. in mathematics at the University of California, Berkeley, in 1972.

Thurston was in his mid-30s when he received the Fields Medal in 1982 for his work in deepening the connection between geometry and topology. (The medal is awarded every four years by the International Mathematical Union.)

“Growing up, there were many beautiful mathematical pictures in the house,” he said. “He was a very visual thinker; he had powers to see spaces that no one before him could, and he was always drawing pictures of what he could see and doodles in notebooks, and we would talk about it,” he added.

“Math was always very fun for him.”

In addition to teaching at UC Davis from 1996 to 2003, Thurston spent time on the faculty at Princeton and UC Berkeley. He worked at Cornell at the time of his death.

Thurston is survived by his wife, Julian Muriel Thurston; children Dylan, Nathaniel, Emily, Hannah, Jade and Liam; his mother, Margaret; a sister, Jean Baker; brothers Robert and George; and two grandchildren.

“In memoriam
Linnea Lomax
Student

Bill Thurston
Professor Emeritus, Mathematics

“The inner force that drives mathematicians isn’t to look for applications; it is to understand the structure and inner beauty of mathematics,” Thurston told The Wall Street Journal in 1983.

In addition to teaching at UC Davis from 1996 to 2003, Thurston spent time on the faculty at Princeton and UC Berkeley. He worked at Cornell at the time of his death.

Thurston is survived by his wife, Julian Muriel Thurston; children Dylan, Nathaniel, Emily, Hannah, Jade and Liam; his mother, Margaret; a sister, Jean Baker; brothers Robert and George; and two grandchildren.

Thurston’s son Dylan, a faculty member at Columbia University and also a mathematician, told The New York Times that his father was personally very warm.

“Growing up, there were many beautiful mathematical pictures in the house,” he said. “He was a very visual thinker; he had powers to see spaces that no one before him could, and he was always drawing pictures of what he could see and doodles in notebooks, and we would talk about it,” he added.

“Math was always very fun for him.”
Under the rain of confetti and to the roll of drums, campus officials celebrated the start of a project to clear a site for a $15-million new music recital hall and classroom building on Nov. 15, 2012. The milestone was made possible by philanthropic support from local arts patrons.

When the facility is completed, it is expected to become one of the region’s most active concert venues, offering more than 100 performances annually by such groups as the UC Davis Chorus, University Chamber Singers, Empyrean Ensemble, UC Davis Jazz Band and UC Davis Baroque Ensemble. It will also provide much-needed classroom space for the university.

“This is a tremendously exciting day and the culmination of years of work and planning,” said Jessie Ann Owens, dean of the Division of Humanities, Arts and Cultural Studies and a musicologist.

“This project is the realization of a long-held campus dream—the beginning of a building that will benefit generations of music students and scholars and bring further distinction to UC Davis and to our community.”

Grace and Grant Noda and their adult daughters, who gave $1 million toward the project in 2008, recently pledged an additional $500,000. The Nodas were introduced to the project by their longtime friend, Barbara K. Jackson, who is well-known for her gift to name the concert hall in the Robert and Margrit Mondavi Center for the Performing Arts at UC Davis. She has also generously supported the recital hall project. The recital hall lobby will be named in honor of the Noda family and the facility’s main stage will be named for Jackson.

In all, philanthropic support will fund $5 million of the cost of building the new facility. With the latest gifts from the Nodas, nearly half of that total has been raised—a threshold that allowed demolition to begin.

The university is seeking an additional $2.6 million in philanthropic support to keep the project on schedule. Campus officials are optimistic that groundbreaking for the Classroom and Recital Hall will begin in 2014 and have a target completion date of 2015.

“This is a community that has been very generous to music at UC Davis, and we hope they will step forward to allow us to complete this much-needed concert venue and teaching facility,” Owens said.

The university will use tax-exempt bonds to finance the remaining $10 million construction cost, which will be paid from campus funds. No student tuition, fees or state funds will be used.

The Classroom and Recital Hall will include an intimate, acoustically superb 375-seat concert venue for chamber, vocal and solo music recitals. The facility will also feature four new teaching studios, recording controls, artist and audience amenities, an outdoor plaza and a production office.

The Department of Music has grown dramatically since the current Music Building was built in 1966, with the number of undergraduate music majors growing from 11 to nearly 100. The faculty has increased in size from six to 14. In addition to music majors, the department teaches more than 1,400 students annually.

D. Kern Holoman, distinguished professor of music, makes clear the importance of the project. “Students deserve to be able to hear the results of their labors in a proper acoustical environment. The public—taxpayers, patrons, parents—deserves to be accommodated in welcoming surroundings of sufficient size and modernity. The music itself deserves such a venue, especially that music produced by our own student instrumentalists and singers, our world music ensembles, and our top-rated professional composers-in-the-making.”

Gifts to the Classroom and Recital Hall are part of The Campaign for UC Davis, the university’s first comprehensive fundraising campaign which seeks to raise $1 billion from 100,000 donors by 2014.
TEMPLETON FOUNDATION FUNDS MEDITATION RESEARCH

The John Templeton Foundation has awarded a grant of $2.3 million over three years to continue and extend the Shamatha Project, the most comprehensive investigation yet conducted into the effects of intensive meditation training on mind and body.

The Shamatha Project is led by Clifford Saron, associate research scientist at the Center for Mind and Brain and Mind Institute at UC Davis.

This inaugural Templeton Prize Research Grant, “Quantifiable Constituents of Spiritual Growth,” was announced Nov. 18, 2012, during a special session at the annual meeting of the American Academy of Religion in Chicago in honor of His Holiness the 14th Dalai Lama, winner of the 2012 Templeton Prize, who gave a videotaped presentation.

“This project represents a true long-term perspective on the developmental consequences of intensive meditation training. Nothing quite like this has been done before,” Saron commented.

At several meetings sponsored by the Massachusetts-based Mind Life Institute, Saron has presented results from the Shamatha Project to the Dalai Lama, who has endorsed the project. Saron and his colleagues have also shared results from this research with scientific and lay audiences around the world. To view Saron presenting to the Dalai Lama, see http://youtu.be/hWYG6oVYe00.

Other co-investigators and trainees on the Templeton Foundation grant team at UC Davis are: Professors Emilio Ferrer, Phillip Shaver and Karen Bales, Department of Psychology; graduate students Stephen Aichele, Anahita Hamidi, Brandon King, and Anthony Zanesco; Erika Rosenberg, consulting scientist with the Center for Mind and Brain, and research associate Rachel Whitworth.

The foundation launched the Templeton Prize Research Grant initiative this year to honor each year’s Templeton Prize laureate specifically by funding scientific research in disciplines related to the laureate’s life’s work.

Campaign Tracking Well

The College of Letters and Science is on track to raise $70 million by the end of The Campaign for UC Davis, which is scheduled to be completed in the next year. So far, $67 million has been raised, from 6,447 donors. As we draw ever closer to the end of the campaign, we want to take the opportunity to thank all of you for your contributions. Your donations, no matter the kind or the size, impact the college tremendously. Philanthropic contributions are ever more important in this fiscal climate; your donations go directly to the areas you designate—benefiting students, faculty, research and programs. Thank you!

The Deans’ Advisory Council functions as the main advisory body for the College of Letters and Science, focusing on advancement efforts and outreach. Members serve as community ambassadors, helping to plan and implement strategies for philanthropic priorities, improve donor relations, and increase visibility for the college’s programs and initiatives. The volunteer board welcomed one new member this winter, Alan Wong (Ph.D., Physics, ‘96), bringing the group’s total to 17. Originally from Hong Kong, Wong works for the Baskin School of Engineering at UC Santa Cruz as an associate director of development. Prior to his position at UCSC, Wong was a technologist and group manager at Intel Corporation, with nine U. S. patents in the area of silicon metrology. He has served as the President of the Corporate Asian American Employee Network and as a board member of the Advancement Council at San Jose State University.

Poetry Professor Donates Quilt Collection

UC Davis Professor Emerita Sandra McPherson has donated 67 quilts to the Design Collection, a gift worth $121,000. The quilts include a Depression-era crazy quilt featuring “Sunbonnet Sue” figures, one made entirely of men’s neckties, and an hourglass-pattern quilt sewn in Georgia around 1880.

UC Davis Students Will Be Calling You Soon!

Will you pick up the phone? Our students are calling you as part of the College of Letters and Science’s annual fund drive, which raises funds for the college to support students and faculty through scholarships and recognition awards, classroom and lab enhancements, research projects and so much more. If you’d prefer, you can use the enclosed envelope to make your gift by mail, or you can donate online at www.ls.ucdavis.edu. Thank you in advance for making a difference.
CENTER FOR MIND AND BRAIN CELEBRATES 10TH ANNIVERSARY

The Center for Mind and Brain (CMB) at UC Davis is celebrating the 10th anniversary of its founding this year. The center was founded by George R. Mangun, now the Dean of the Division of Social Sciences, who is also a neuroscientist. The center’s goal is to better understand the human mind through empirical science—how has the mind evolved, how does it develop in individuals, and what arises from the myriad of mental functions that humans possess? Since its inception in 2003, the center has delivered countless studies and new information on the mind. A lecture series discussing the pioneers of the mind and brain will be occurring all year long at the center.

“At dawn, shoots of pale baby blue awaken the sky, and I sometimes see deep dark indigo, pinks and shades of soft yellows.”

It is images like these that the fourth-generation weaver turns into lasting treasures of natural beauty—she calls them tapestries—created in a blend of traditional weaving techniques and contemporary design. Eighteen of them comprise the C.N. Gorman Museum’s winter exhibition, *The Weavings of D.Y. Begay*, which opened in January and runs through March 15.

This was the first show of the museum’s 40th anniversary year, a celebration that focuses on Navajo art—honoring the Navajo artist for whom the museum is named, Carl Nelson Gorman, a founding member of the Native American studies faculty. Additional shows for spring and summer are listed in the calendar section of the magazine.

WORKFORCE DEVELOPMENT: COMMUNITY COLLEGE FACTOR

The Center for Poverty Research hosted an interdisciplinary gathering of scholars, educators and policymakers to discuss new research on community colleges and the role they play in workforce development. The conference took place in January.

Ann Stevens, Center for Poverty Research Director and Chair of Economics at UC Davis, said that education should be considered as important to issues of poverty as public welfare and healthcare programs. “It’s routinely critical that we think about education as part of that safety net,” noted Stevens.

The conference was a collaboration with the California Community Colleges Chancellor’s Office and supported financially by the UC Davis School of Education and the Division of Social Sciences.
UPCOMING EVENTS: SPRING AND SUMMER

What: UC Davis Science Café
When: Monthly
Where: TBD
More information: http://chemistry.ucdavis.edu/science_cafe.html
The UC Davis Science Café is an opportunity for members of the community to learn about the societal impact of science at UC Davis. Speakers include faculty members from the departments of physics, math and chemistry.

What: Online Workshops from the California History-Social Science Project
When: March, April
More information: http://chssp.ucdavis.edu/
March 20: Reading Critically; April 3: Teaching Vocabulary; April 24: Using Evidence. Free and open to the public.

What: D.E.X.: Davis Extravaganza Philosophy Conference
When: March 25–26
Where: Location TBD
More information: http://philosophy.ucdavis.edu
Features speakers from universities across the country.

What: Views on Migration: Jacob Lawrence and Elizabeth Catlett
When: March 28–May 19
Where: Nelson Hall
More information: http://nelsongallery.ucdavis.edu/
Jacob Lawrence painted the Migrations series between 1940–41. Events are in connection with Campus Community Book Project and Office of Campus Community Relations.

What: Together Again: Lillian Pitt, Gail Tremblay, Joe Feddersen and Rick Bartow
When: April 2–June 21
Where: C.N. Gorman Museum
More information: http://gormanmuseum.ucdavis.edu
Features recent works in a variety of media by these established artists. Having previously participated in exhibitions at the Gorman Museum, Lillian Pitt (Warm Springs, Wasco, and Yakama), Gail Tremblay (Mi’kmaw and Onondaga), Joe Feddersen (Colville) and Rick Bartow (Wiyot and Yurok) have each contributed to the museum’s rich exhibition history and are returning in celebration of the 40th anniversary.

What: Museum Design Competition: Final Designs Installed
When: April 4
Where: Nelson Hall
More information: http://nelsongallery.ucdavis.edu
The three design-build teams that are competing to build the new Jan Shrem and Maria Manetti Shrem Museum of Art will install their final designs at Nelson Hall. Visitors are welcome to view the final designs and participate in community forums.

What: Solo Explorations
When: April 5–6, 8:00pm
Where: Arena Theatre, Wright Hall
More information: http://theatredance.ucdavis.edu
Four new individual works by graduating Master of Fine Arts candidates in the Department of Theatre and Dance. Free of charge.

What: The Frontiers of Physics: Higgs, Dark Energy, and Black Holes
When: Saturday, April 6, 10:00am–4:00pm
Where: UC Davis Conference Center
More information: http://physics.ucdavis.edu/
A day of exciting public lectures from prominent physicists. Keynote speaker is 2004 Nobel Prize winner Frank Wilczek (MIT). Lunch is provided. This is a ticketed event.

What: Annual UC Davis Statistics Workshop of Complex and Massive Data
When: April 13, 5:00pm–8:00pm
Where: Mathematical Sciences Building, Colloquium Room
More information: http://anson.ucdavis.edu/

What: ItDP: El Coloquio de Los Perros
When: April 13, 8:00pm

What: Wyatt Pavilion Theatre
More information: http://theatredance.ucdavis.edu
Written by Miguel de Cervantes and directed by Adrienne Martin, ItDP is a satirical comedy in which two dogs discover that they have the gift of human speech. From the Department of Theatre and Dance.

What: Viewing of “Switch” and Q&A
When: April 23, 6:30pm
Where: Giedt Hall 1001
More Information: http://switchenergyproject.com
The Department of Geology hosts a viewing of the documentary film “Switch,” which involves our energy future. Scott Tinker, the State Geologist of Texas, will moderate the film and host a Q&A afterward.

What: The Edge Performance Festival
When: April 25–28, May 2–5
Where: Various locations at Wright Hall
More information: http://theatredance.ucdavis.edu
The Edge Performance Festival, from the Department of Theatre and Dance, includes Main Stage Dance, Hour of 5s, Undergraduate One-Acts and “Rocky Horror Picture Show” Sing-Along. Tickets are $10 per event.

What: Gary Jacobson, UC San Diego
When: May 2, 5:00pm
Where: AGR Hall, Walter A. Buehler Alumni and Visitors Center
More information: http://nelsongallery.ucdavis.edu/

What: Commencement for College of Letters and Science Graduates
When: June 15, ceremonies at 9:00am, 2:00pm, and 7:00pm
Where: UC Davis Pavilion

What: Navajo Summer: Selections from the Permanent Collection
When: June 25–September 13
Where: C.N. Gorman Museum
More information: http://gormanmuseum.ucdavis.edu
Continuing its 40th year anniversary celebration, the summer exhibition will highlight the Navajo (Dine) artworks held in the museum’s permanent collections.

in 2009 whose first cosmological results will be out in March.
Author Sean Carroll will speak on May 22.

What: 13th Annual Film Festival
When: May 22-23, 8:30pm
Where: Davis Varsity Theatre, 616 Second Street, Davis
More information: http://theatredance.ucdavis.edu
Features a wide array of short films produced by UC Davis students. Tickets available at Varsity box office starting May 15.

What: Mars Rover: A Talk by Dawn Summer, Department of Geology
When: May 30
Where: AGR Hall, Buehler Alumni and Visitors Center
More information: www.ls.ucdavis.edu
Dawn Summer, a professor of geology will present the latest results from the NASA Curiosity Rover, which is making exciting discoveries about ancient environments on Mars. She will also reflect on her experience as one of the Long Term Planners for the mission and the impact of the mission on society.

What: MFA Exhibition
When: May 31–June 22, opening June 7, 5:30pm–7:30pm
Where: Nelson Hall
More information: http://nelsongallery.ucdavis.edu/

What: Comics and Society
When: May 31
Where: UC Davis Pavilion
More information: http://gormanmuseum.ucdavis.edu/

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A VALUED TREASURE

The UC Davis Department of Anthropology is home to one of the world’s most comprehensive and rare collections of California Native American basketry. The baskets were collected by C. Hart Merriam (1855-1942), an American naturalist. Merriam collected the baskets between 1894 and 1938, often purchasing baskets directly from the makers. Nearly 1,300 baskets are held in a secure “clean room” at UC Davis. The Department of Anthropology opens the collection to researchers, weavers, and descendants of the basket makers, but they are not open for public viewing due to the fragile nature of the baskets themselves.

The baskets, along with the rest of anthropology museum collections, await a home to be built that would alleviate the concerns of humidity, water and seismic damage, and the department would graciously accept donations to build such an establishment and move the collections to a more suitable, modern museum facility.

These three mortar hoppers are all from different tribes. From left to right: Pomo, purchased 1906; Yana, purchased 1907; Achumawi, purchased 1903.