

A nighttime photograph of the UCLA Campanile building, a large brick structure with two prominent towers. The building is illuminated with warm yellow lights, and several blue light beams cut across the dark sky from the top left. The title 'UCLA COLLEGE REPORT' is overlaid in the top right corner.

UCLA COLLEGE REPORT

Winter 2013 | Volume Nineteen

From the Deans of the **College of Letters and Science**

Dear Friends,

On 12/12/12, Judith L. Smith, who has dedicated her academic career to the university since 1969, retires as dean and vice provost for Undergraduate Education. As the interim executive dean of the college in 2002-02, she initiated the **College Report** to highlight and celebrate the extraordinary work of College faculty and students.

We dedicate this volume to Judi and are proud to feature her thoughtful and reflective comments on *Transforming UCLA's Undergraduate Education*.

Judi began at UCLA as an assistant professor in physiological science. Early in her career, she was recognized for innovative teaching and received a UCLA Distinguished Teaching Award in 1973. She chaired her department from 1980 to 1985 and was a co-founder of the undergraduate neuroscience major. Her research on limb dynamics and spinal cord physiology was continuously funded by NIH for nearly three decades, and in 1990, she received the prestigious Javits Neuroscience Investigator Research Award.

In 1993, Judi was elected by the faculty to be the chair of UCLA's Academic Senate; in 1996, she was selected to be the first vice provost for Undergraduate Education; and in 2009, the chancellor appointed her the first convener of the College Cabinet of Deans.

Judi founded UCLA's Division of Undergraduate Education in 2006 and has been responsible for establishing a number of innovative programs, including the Freshman Cluster Program, the Fiat Lux Freshman Seminar Program, the Center for Community Learning, the Center for Educational Assessment, UCLA's Undergraduate Research Centers and the Capstone Initiative.

Judi has also been a strong advocate for programs that foster the academic development of underrepresented minorities and first-generation college students. Over the past 16 years, she has raised more than \$80 million in scholarships for UCLA students who participate in research, College Honors, the Transfer Alliance Program and UCLA's Academic Advancement Program.

With major accomplishments in teaching, research and administrative service, Judi's professional achievements epitomize UCLA's mission. It's hard to imagine UCLA without her. She leaves behind a legacy of excellence and historic achievement that will inspire us and guide us as we step confidently into the future.

Sincerely,

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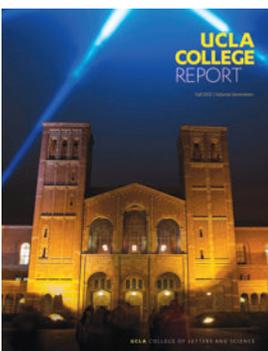
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Regents UC 2012

Unless otherwise indicated, all
original photos by Reed Hutchinson.



On the cover

Royce Hall's timeless beauty is illuminated in a nighttime shot as blue spotlights arch overhead.

Honors Update

LIFE SCIENTIST Elissa Hallem selected as a MacArthur Fellow

UCLA life scientist Elissa Hallem has been selected as a 2012 MacArthur Fellow in recognition of her “exceptional merit and promise of continued creative work,” the John D. and Catherine T. MacArthur Foundation announced. Hallem and her research team focus on parasitic nematodes, commonly known as roundworms, and another tiny worm known as *Caenorhabditis elegans* in their research. “Elissa’s research takes a novel approach to studying the neural circuitry of odor-driven behaviors that allow parasitic nematodes to find their hosts,” said Victoria Sork, dean of the UCLA Life Sciences Division. “Her findings provide critical details for understanding human parasitic diseases.”

XINSHU XIAO awarded National Human Genome Research Institute grant

Xinshu (Grace) Xiao, UCLA assistant professor of integrative biology and physiology, is among 15 outstanding scientists nationwide to be awarded a grant from the National Human Genome Research Institute (NHGRI) to expand the Encyclopedia Of DNA Elements (ENCODE), a comprehensive catalog of functional elements that control the expression of genetic information in a cell. The ENCODE project’s goal is to provide the scientific community with information to better understand the role that the genome plays in health and disease. Her research project aims to understand functions of genetic variants, such as mutations, in our genomes.

UCLA BIOCHEMIST Sabeeha Merchant elected to National Academy of Sciences

Sabeeha Merchant, a UCLA professor of biochemistry whose research is providing insights into the complex machinery of the cell, was elected to the prestigious National Academy of Sciences. Merchant was the lead author on a three-year, 115-scientist research project published in the Oct. 12,

2007, issue of the journal *Science* reporting a “gold mine” of data on a tiny green alga called *Chlamydomonas*, with implications for human diseases. The single-celled *Chlamydomonas*, a slimy organism that grows in soil and ponds, has approximately 15,000 genes, and scientists now know more than 95 percent of the sequence of its genome. “Sabeeha has blazed new pathways that have allowed us to better understand how organisms allocate, use and re-use metal ions to create useful energy for biosynthesis,” said her colleague, Steven Clarke, UCLA professor of chemistry and biochemistry.

THREE UCLA SCIENTISTS win Presidential Early Career Awards

Three exceptional young UCLA scientists—two of them College faculty—have been honored with Presidential Early Career Awards for Scientists and Engineers by President Barack Obama. The faculty members are among 94 individuals to receive this year’s awards, the highest honor bestowed by the United States government on science and engineering professionals in the early stages of their research careers. Sixteen federal departments and agencies nominate scientists and engineers whose early accomplishments show the greatest promise for assuring America’s preeminence in science and engineering. Along with Avdogan Ozcan, an associate professor of electrical engineering and bioengineering whose innovative research in photonics, and its applications in nanotechnology and biotechnology, is aimed at creating smart global health systems, the honorees are:

Xiangfeng Duan, an assistant professor of chemistry and biochemistry who studies nanoscale materials and devices and their applications for future electronics, energy science and biomedical science. Earlier this year, Duan was ranked No. 41 among the world’s top 100 chemists—and No. 20 among the top 100 materials scientists—of

the past decade by Thomson Reuters.

Joseph Teran, an associate professor of mathematics whose research interests include computational biomechanics and virtual surgery. Teran is using computational geometry, partial differential equations and many-core computing to enable surgeons to practice on a 3-D “digital double” of a patient before performing an actual surgery. Teran was named one of the 50 “Best Brains in Science” in the December 2008 issue of *Discover* magazine.

PROFESSOR DAVID JEWITT wins prestigious Kavli and Shaw prizes in same week

UCLA’s David Jewitt won the Shaw Prize in astronomy and the 2012 Kavli Prize in astrophysics in the same week for his role in the 1993 discovery of the Kuiper Belt beyond Neptune. Each prize comes with a \$1 million award, which Jewitt shared with two colleagues. Jewitt, a professor in the UCLA Department of Earth and Space Sciences and the UCLA Department of Physics and Astronomy, directs UCLA’s Institute for Planets and Exoplanets. His research focuses on the exploration of the small bodies of the solar system, which provide clues to the origin and evolution of planets. The discovery of the Kuiper Belt beyond Neptune’s orbit, which contains more than a billion objects and was once believed to be empty space, has fundamentally changed the modern perception of the solar system. Jewitt shared both prizes with his former graduate student Jane X. Luu, now a scientist at MIT. The Kavli Prizes—a partnership between the Norwegian Academy of Science and Letters, the Kavli Foundation in the U.S., and the Norwegian Ministry of Education and Research—are awarded biennially to scientists for “seminal advances” in astrophysics, nanoscience and neuroscience. The Shaw Prizes are awarded by the Shaw Foundation to honor significant breakthroughs in astronomy, the life sciences and medicine.

Patricia Turner Arrives as Dean and Vice Provost for Undergraduate Education



UCLA'S NEW DEAN and vice provost for undergraduate education, Patricia Turner, discovered her field of study while she was a doctoral student in rhetoric at UC Berkeley.

"I attended a lecture on the ways in which a culture's most popular proverbs are a reflection of that culture's worldview," she recalled. "It stirred memories of my childhood—listening to sermons, hearing stories of past African-American experiences. I realized then

that I could apply rhetorical theory to African-American folklore."

Today, Turner is a scholar of racial politics as reflected in folklore and popular culture and has authored four books on the topic, including *I Heard It Through the Grapevine*, which shows how misperceptions about African-American culture can move quickly to popular belief, and *Crafted Lives*, which follows the traditions of African-American quilt making, an art that is rich in folklore, artistry and diversity. She also has consulted on a number of documentary films, including the Emmy-winning *Ethnic Notions*, and is highly sought for interviews in prominent national newspapers and radio and television programs.

Turner's UCLA appointment was effective Dec. 17, 2012, when she succeeded Judith L. Smith, who had held the position since 1996. Turner also holds joint faculty appointments in Afro-American Studies and World Arts and Cultures.

For the last 13 years, she served as vice provost for undergraduate education at UC Davis, where she was known as a tireless advocate for students. Yet she is no stranger to UCLA, having collaborated for three decades with colleagues on the Westwood campus in folklore and mythology, Afro-American studies, and world arts and cultures.

Turner received her Ph.D. from UC Berkeley in 1985 and spent the next five years teaching at the University of Massachusetts Boston. She joined the UC Davis faculty in 1990 and served as director of the American Studies program from 1997 to 1998 and director of African-American and African studies from 1998 to 2000.

She also has served on the National Association of State Universities and Land-Grant Colleges' Commission on Access, Diversity and Excellence and on the executive board of the American Folklore Society. And she chairs the UC Education Abroad Program's governing committee.

"I want each [student] to feel academically challenged and fulfilled," she says. "What goes on in the labs, the lecture halls and the classrooms should take the best a student has to offer."

David Schaberg Appointed Dean of Humanities

DAVID SCHABERG, who served as interim Humanities dean since September 2011, can now take the "interim" off of his title. The former chair of the Department of Asian Languages and Cultures was named humanities dean by UCLA Executive Vice Chancellor and Provost Scott L. Waugh.

"I look forward to his continued leadership, confident that the division will continue to thrive under his capable direction," said Scott Waugh in a statement about Schaberg's appointment.

A member of the Asian Languages and Cultures faculty since 1996, Schaberg also served as co-director of the Center for Chinese Studies from 2005 to 2011 and chair of the East Asian Studies interdepartmental and masters programs from 2004 to 2009.

Schaberg has published articles on early Chinese literature, historiography and thought, as well as Greek-Chinese comparative issues, focusing more recently on the history of oratory in early China. He is the author of *A Patterned Past: Form and Thought in*



Early Chinese Historiography, which was awarded the 2003 Levenson Prize for Books in Chinese Studies (pre-1900 category). He is also a contributor to a new translation of China's first great historical work, *The Zuo Tradition*, to be published by the University of Washington Press.

He is a member of the Association for Asian Studies, the American Oriental Society, the Society for the Study of Early China and the Modern Language Association, and he has lectured at a number of overseas institutions including Cambridge, Oxford, Fudan, National Taiwan, Shanghai and Suzhou universities; and domestically at Columbia, Cornell, Harvard, Princeton, Stanford, UC Berkeley, University of Chicago, University of Pennsylvania, University of Washington and Yale.

Schaberg holds a PhD in comparative literature from Harvard University and a BA in comparative literature from Stanford University. He also studied Chinese literature at National Taiwan University from 1986 to 1988.

UCLA's student math team defeats 448 others, *but who's counting?*

By Stuart Wolpert

AS A HIGH SCHOOL STUDENT IN ROMANIA — WHEN HE WON THREE GOLD MEDALS WITH PERFECT SCORES IN INTERNATIONAL MATH COMPETITIONS — CIPRIAN MANOLESCU ALREADY KNEW ABOUT THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION FOR UNIVERSITY UNDERGRADUATES.

"I FOUND OLD PROBLEMS from the Putnam competition in a University of Bucharest library, and I used them to prepare for the high school Olympiad," recalled Manolescu, who is now the coach of UCLA's Putnam competition team.

The preparation certainly paid off: As a Harvard undergraduate, he finished in the top five for each of three years, competing against thousands of undergraduates who took the Putnam exam. (Putnam does not reveal the order of the top five finishers, so Manolescu still doesn't know what his scores were or where in the top five he placed.)

Established in 1938, the annual Putnam exam consists of 12 mathematical problems to be completed in six hours, with a break midway between two sessions. If that sounds like a long time for a math test, in truth, it's not nearly long enough.

The test is fiendishly difficult, and the grading is strict. Students can receive up to 10 points for each problem, but if they make even a small mistake, they get almost no points.

"It's important to solve the problem completely," said Manolescu, professor of mathematics.

In the most recent Putnam competition for which the scores have been revealed, the median individual score—out of a possible 120 points—was 1. Many areas of mathematics are covered, including advanced calculus, differential equations, number theory and probability. One problem in number theory was solved by none of the students; every one received a score of 0.

You don't have to be Terence Tao to figure out that with Manolescu as coach, UCLA's three-student Putnam team is likely to be very successful.

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Still, UCLA's mathematics department had fairly modest expectations for the team. For while UCLA's mathematics faculty is world-class and its graduate program is ranked nationally in the top 10, the undergraduate program had lagged behind.

When the results of the competition were announced last year, the UCLA team's performance likely raised some eyebrows. Of the 460 university teams from the U.S. and Canada that competed, UCLA finished 12th—the university's best result since 1970, nearly a decade before the 33-year-old Manolescu was born.

The UCLA team consisted of freshman Tudor Padurariu, sophomore Francisc Bozgan and junior Cheng Mao. Manolescu and his students seemed pleased but not thrilled.

"It's a very good result for the department, but we hope we can do better," Manolescu said. "It would be nice to be in the top 10. I think it can be done."

(Above) Ciprian Manolescu; (Right) As a Harvard undergrad, Manolescu was a top five finisher in the Putnam exam for three straight years. Photo by Reed Hutchinson.

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"I'm glad for the result, but I hope we can do better next year," said Padurariu, who is from Romania, as is Bozgan.

UCLA competed again in December—the results will be announced in late March—this time with a team that includes an outstanding freshman named Ufuk Kanat from Turkey. In high school, Kanat won a gold medal at the International Math Olympiad.

One reason why UCLA is doing better, Manolescu said, is that Sorin Popa, professor and former chair of UCLA's mathematics department, started an initiative in 2010 called the UCLA Math Undergraduate Merit Scholarships to attract outstanding high school students and raise the caliber of UCLA's undergraduate mathematics program; Padurariu, Kanat and Bozgan all came to UCLA on this merit scholarship.

"The scholarship provides a great opportunity to come to UCLA and be taught by the best mathematicians in the world," Bozgan said.

The mathematics department hopes to attract a donor to endow the UCLA Math Undergraduate Merit Scholarships so that UCLA can elevate the undergraduate program to national prominence, as UCLA has already done with the graduate program. Harvard, the Massachusetts Institute of Technology and Princeton offer many undergraduate scholarships.

Manolescu gives the credit for the team's success to the students.

"Tudor [Padurariu], Francisc [Bozgan], and [Cheng] Mao and Ufuk [Kanat] are outstanding young mathematicians, and they have worked very hard," he said. "They have devoted much more work in preparing for the exam than I did in coaching them, and they deserve to be proud of their hard-earned success."

Preparing for the annual Putnam competition is an important part of the students' education.

"It's very useful," Bozgan said. "Training for the Putnam exam, we develop our problem-solving skills, which are very im-

portant for a mathematician, and we learn how to manage our time during the exam."

"This is very helpful, and I can use what I learn here in other math classes," Padurariu said.

"Working on difficult problems helps us improve our technique, and we learn not to fear such problems; we learn we can solve them," said Cheng, who is from Nanjing, China. "I came to UCLA as an engineering major, but I prefer math now."

Cheng hopes to become a mathematics professor, as do Padurariu and Bozgan.

Manolescu said that coaching is quite different from teaching.

"It took me a long time to figure out what is the best way to coach the Putnam team," he said. "I'm still not sure if I've found the right way of coaching. I'm experimenting with various methods. It's about problem-solving rather than explaining a theory. You cannot just be at the blackboard and explain the theory to the students; you have to make them work the problem. I ask the students to look over books during the week and bring problems to our meetings. I try to get the students much more involved than in a usual class and ask them to present their own solutions."

Manolescu, who has won a distinguished teaching award in UCLA's mathematics department, teaches a problem-solving course for about 16 of UCLA's best undergraduates and a second course with several top undergraduates, who meet weekly to solve mathematical problems and review practice tests.

The kinds of mathematics problems Manolescu works on now in his research are "quite different" from when he was winning student competitions, but the way of thinking he developed helps. He works in two extremely difficult branches of mathematics: topology and symplectic geometry.

In mathematical research, problems often take months, not hours, to solve.

"In more advanced research, you have a bigger problem that you have to solve over many months, and you break it into

dozens of small problems," Manolescu said. "The little problems can sometimes be attacked by methods similar to the ones we use on Putnam problems."

Manolescu wants to continue improving undergraduate mathematics education.

"We hope we will attract more excellent undergraduates to come to study math at UCLA, including more American students, especially from California," he said.

UCLA mathematics "is a great department and is getting better, in terms of research and the graduate students and undergraduate students that we are attracting," he added.

In a meeting in Manolescu's office, his students said they are very grateful for the opportunity to study with him.

"I don't think it is possible to have a better coach," Bozgan said.

A bit embarrassed by the compliment, Manolescu tried to change the subject, but Padurariu indicated the topic had been fully covered.

"I think," Padurariu said, "Francisc just said everything that we all feel."



BRINGING

by Stuart Wolpert



Bob Goldberg

WHEN NEWSWEEK'S COLLEGE GUIDE WROTE AN ARTICLE TITLED "IN SEARCH OF GREAT PROFESSORS," ABOUT THOSE WHO CAN "CHANGE YOUR LIFE FOREVER," UCLA LIFE SCIENTIST BOB GOLDBERG WAS THE FIRST PROFESSOR PROFILED. WHEN THE DAILY BEAST SELECTED "AMERICA'S 10 HOTTEST CLASSES," THERE HE WAS AGAIN, IN AN ARTICLE THAT NOTED GOLDBERG "HAS BEEN LAUDED ON MANY OCCASIONS FOR BEING ONE OF UCLA'S BEST TEACHERS." HE HAS RECEIVED MANY TEACHING AWARDS, INCLUDING A HOWARD HUGHES MEDICAL INSTITUTE AWARD TO IMPROVE UNDERGRADUATE EDUCATION.

AND LAST SUMMER, Goldberg taught a remarkable online course titled "Genetic Engineering and Society." Offered through UCLA Summer Sessions, it's a Life Sciences general education course designed for non-science majors.

From Skepticism to Enthusiasm

GOLDBERG ADMITS WHEN HE WAS FIRST APPROACHED ABOUT THE IDEA, he had no trouble containing his enthusiasm.

"I was very skeptical," said Goldberg, UCLA distinguished professor of molecular, cell and developmental biology. "I didn't believe in the online learning experience. Many online courses just film a class and put it online; my view had been that it's education-on-the-cheap if it's not done right."

Then he got to work with a talented group led by Raoul O'Connell, Director of TFT Online, a unit of the UCLA School of Theater, Film and Television in which filmmakers, programmers and multimedia professionals produce innovative, technologically sophisticated online courses.

"They're phenomenal, so committed to educational excellence," Goldberg said. "They're the most creative people I've ever come across in education."

The 50-Paragraph Approach

THE 50 STUDENTS IN HIS COURSE had frequent interaction with Goldberg and his teaching assistants, who are outstanding former students of his. When the students watched his video lectures, they were required to stop watching more than 50 times and write a paragraph before watching more. Goldberg would ask them, for example, "Describe a simple experiment that tests whether DNA is the genetic material" and "What do you think about a business patenting your genes?"

Now he is sold on the idea that students can receive a first-rate online educational experience, if it is done right.

"We brought science alive online," said Goldberg, who has taught innovative courses for many years. His students share the sentiment.

"Dr. Goldberg is an extraordinary teacher who cares deeply about his students and their learning process," said Tyler Cherry, a second-year UCLA political science major who took the online course. "I learned the basic ins and outs of genetic engineering and the role that genetic engineering technology plays in society today. More importantly, however, I learned of society's need for and benefit from genetic engineering."

"Taking Dr. Goldberg's course on genetic engineering opened my eyes to the many practical, useful discoveries that have been made possible by the advent of biotechnology," added Lilit Arabyan, who has now graduated from UCLA as a political science major. "Such things as decreasing the likelihood of diseases among infants are made possible through genetic engineering. The entire course was an absolute success, from start to finish. The format of the online course was designed to allow maximum interaction between the student, Professor Goldberg and his excellent teaching assistants. This was my last course at UCLA as an undergraduate, and it was a great way to end my undergraduate career."

"I was very impressed by the quality of the lectures, and I'm a visual learner, so I found the accompanying animations incredibly helpful," said Anne Schneider, who has now graduated from UCLA as an architectural studies major and is working as an architectural designer in San Francisco. "While I learned a lot of 'hard science' during the class, my takeaway was about society's complex relationship to genetic engineering. From health care to criminal investigations to the food we eat, there's almost no aspect of our lives that isn't affected by genetic engineering. This class assuaged a lot of my fears regard-

SCIENCE ALIVE

Bob Goldberg Teaches His First Online Class

ing that and especially regarding genetically modified foods.”

In high-definition video conferences, Goldberg called on students by name and asked them to explain and defend their views—which he already knew from reading their paragraphs. He gave each student two oral exams.

The vast majority of his students are UCLA undergraduates, but many participated from summer trips to New Delhi, Shanghai, Cairo, New York, San Francisco and elsewhere.

Better Learning Through Video

GOLDBERG’S LECTURES WERE ANIMATED with hand-drawn illustrations of the concepts he explains. The class included videos and tutorial sessions in which Goldberg and the students could see and hear one another, as well as filmed experiments and scientific demonstrations in his laboratory. It also included guest lecturers and interviews Goldberg conducted with experts such as the head of the Los Angeles Police Department’s DNA Unit and experts on stem cells, in vitro fertilization and genetic testing, and genetic engineering of foods in the developing world.

Goldberg, a member of the National Academy of Sciences and a fellow of the American Association for the Advancement of Science, covered a wide range of genetics and genetic engineering issues, from how genes work to sequencing the human genome, genetic testing and DNA fingerprinting, ethical issues surrounding genetic engineering, and how genetic engineering has

affected our lives and society. The course was similar in content to Goldberg’s popular Honors Collegium course “Genetic Engineering in Medicine, Agriculture and Law.”

“Using the independent filmmaker’s approach, we produce lecture videos that have beautiful lighting, excellent sound and are edited in the style of a Ken Burns documentary,” O’Connell said. “Our web interfaces are simple and elegant. We like to think of ourselves as the Mac of online higher education. Every professor is a storyteller. Online or in the classroom, their goal is to communicate and inspire.”

O’Connell and his team use carefully conceived animations to make concepts easier to grasp and processes easier to follow. (For more information, go to <http://www.online.ucla.edu/>)

“The animation makes the material so clear,” said Goldberg, whose current

teaching is funded by the National Science Foundation Plant Genome Program. “I don’t care if you’re the best lecturer on the face of the earth; you still can’t make the ideas come alive as well as Raoul and his TFT team can.”

Brian Copenhaver, who holds UCLA’s Udvar-Hazy Chair of Philosophy and History and is former provost of UCLA’s College of Letters and Science, worked with O’Connell on an online version of his course “Historical Introduction to Philosophy.”

“Bob is a brilliant scientist and a world-class teacher. I knew that he would be a great match for Raoul and the TFT team, who are equally dedicated and creative,” said Copenhaver, who recommended that Goldberg and O’Connell work together.

“It’s been a tremendous amount of work and took more energy than my normal classes,” Goldberg said. “I was happy to do it.”



Transforming UCLA's Academic Landscape

By Judith L. Smith, Dean and Vice Provost for Undergraduate Education



Judith L. Smith
Dean and Vice Provost for
Undergraduate Education

DURING MY 43 YEARS AT UCLA, I HAVE PARTICIPATED IN THE DEVELOPMENT OF A GREAT RESEARCH UNIVERSITY, ONE DEEPLY COMMITTED TO EDUCATION AND ITS UNDERGRADUATE STUDENT BODY. ALL TRANSFORMATIONS HAVE KEY BENCHMARKS, AND IN THE PAST FOUR DECADES, I WAS PRIVILEGED TO BE PART OF THE CREATION OF SEVERAL MILESTONES IN THE EVOLUTION OF UNDERGRADUATE EDUCATION IN WESTWOOD.

TO BEGIN WITH, we are much, much larger than we were four decades ago. Our student body has increased by 10,000 since 1970. And we are no longer a “commuter” school: 96 percent of freshmen and 70 percent of sophomores now live on UCLA’s residential hill.

We are among the most diverse campuses in the country, with nearly one-quarter of our undergraduates from underrepresented populations and 40 percent first in their families to attend college. Annual tuition is substantial, but aid also has risen: Last year, 40 percent of our undergraduates received enough grant and scholarship money to cover tuition fully. And nearly one-third received federal Pell Grants, available for those from the nation’s lowest-income families.

UCLA is the most popular university in the nation, receiving more applications than any other college. Last year, nearly 73,000 applicants applied for 5,800 freshman slots and 19,000 applied for 3,200 transfer student slots. Once admitted, 90 percent of matriculates earn a bachelor’s degree.

As dean and vice provost for the past 16 years, I have been UCLA’s advocate for undergraduates and have had the privilege and responsibility of working with faculty to improve teaching and learning. For this report, I review three critical areas in which we deliver on this mission: undergraduate engagement, new academic models and student success and levels of satisfaction.

Four Decades of Growth



Source: UCLA
Office of Analysis
and Information
Management

Stretching the Freshman Mind

OVER THE PAST DECADE, interest in programs for entering students has received much attention among research universities. In the late 1990s, UCLA created a number of general education courses designed to challenge first-year students by asking them to understand issues and solve problems from multiple perspectives. The Freshman Cluster Program emerged from these efforts.

Each year, the cluster program offers 10 different yearlong course sequences focused on thematic topics such as the global environment, interracial dynamics in America and the history of modern thought. Each cluster enrolls 120 to 200 freshmen taught by a team of faculty and advanced graduate student instructors. Students attend lecture courses and small discussion sections during the fall and winter terms. In addition, they enroll in a number of spring seminars that build on their experiences in the first two terms and challenge them to complete a substantive project of their own design.

The cluster themes are broad and interdisciplinary. They require freshmen to view subjects in different ways.

For example, students enrolled in the Interracial Dynamics cluster in 2011 were introduced to interracial dynamics in the United States by a teaching team drawn from American Literature, History, Sociology, and African-American and Asian-American Studies.

In addition to looking at complex and often controversial issues through the lens provided by different disciplines, freshmen are challenged with assignments that strengthen basic skills in critical thinking and writing.

More than three-quarters of former cluster students report that cluster courses had pronounced effects on their critical thinking skills, capacity to present ideas effectively, write well and work collaboratively with other students. Most also report their spring seminars to be a highlight of their year, providing them with an academic space to explore course material in greater depth, as well as to relate it back to what they had learned over the two previous quarters as they created a seminar project or paper.

Clusters also attract some of our best faculty. They report that although teaching in these kinds of courses is very challenging, it is also one of their best experiences at UCLA. As a result of their experiences in the cluster, faculty members have initiated new research projects with one another and established new interdisciplinary programs, such as the Environmental Science major, Human Biology and Society major, and the minor in Social Thought.

New Academic Models

ALTHOUGH THERE IS A RICH variety of 125 major subjects for undergraduates to study, nearly 50 percent list themselves as majoring in one of 10 of UCLA's most populated departments, and 61 percent of our

seniors earn degrees from these same units. Ranked by the number of bachelor's degrees granted annually, Psychology is the most popular (2,700 majors and 757 degrees granted annually). Economics ranks second, followed by Political Science, English and History.

Most Popular Departments in the College

OFTEN AT THE URGING of their parents, students select majors that traditionally have been good bets for acceptance into professional schools and future employment: Political Science and English for Law; Physiological Science and Biochemistry for Medicine; Economics and Mathematics for business. But times are changing. A recent survey conducted by the National Association of Colleges indicates employers hire seniors who have outstanding levels of analytic and communication skills and collaborative (or teamwork) experience, regardless of their majors.

In recent years, UCLA has developed a number of interdisciplinary majors that encourage students to integrate knowledge from a range of fields. For example, students majoring in Human Biology and Society receive a rigorous interdisciplinary education in current issues at the intersection of human biology, genetics and society, where bridging the institutional divide between the life sciences and human sciences (humanities and social sciences) is necessary.

The Environmental Science program is a collaboration between the Institute of the Environment and Sustainability (IoES) and departments in Engineering, Life Science, Physical Science and Social Science. The program has two main components. The first is a set of core courses grounded in the interdisciplinary study of the environment, and IoES faculty is primarily responsible for teaching them. The second component requires each student to complete a minor in a complementary subject, such as biology, engineering, health or geography. At the end of their course of study, seniors graduate with a major and a minor, preparing them for different approaches to the study of the environment.

Actually, this is a new twist on an existing model, as interdisciplinary programs have been part of UCLA for many years. In the 1960s, new programs for Women's Studies (now Gender Studies) and Ethnic Studies (African-American, American-Indian, Asian-American, Chicana and Chicano) attracted faculty and students attentive to the history, key challenges and achievements of populations often unheeded by traditional disciplines.

In the 1970s and 1980s, "area studies" emerged, creating majors in Latin American Studies and Southeast Asian Studies, as well as other regional studies. These programs drew faculty and students focused on the cultures, history and politics of nations within region-specific areas of the world.

UCLA Cluster Program 1998-2012

15 CLUSTERS COURSES DEVELOPED

16,322 FRESHMEN ENROLLED IN CLUSTERS

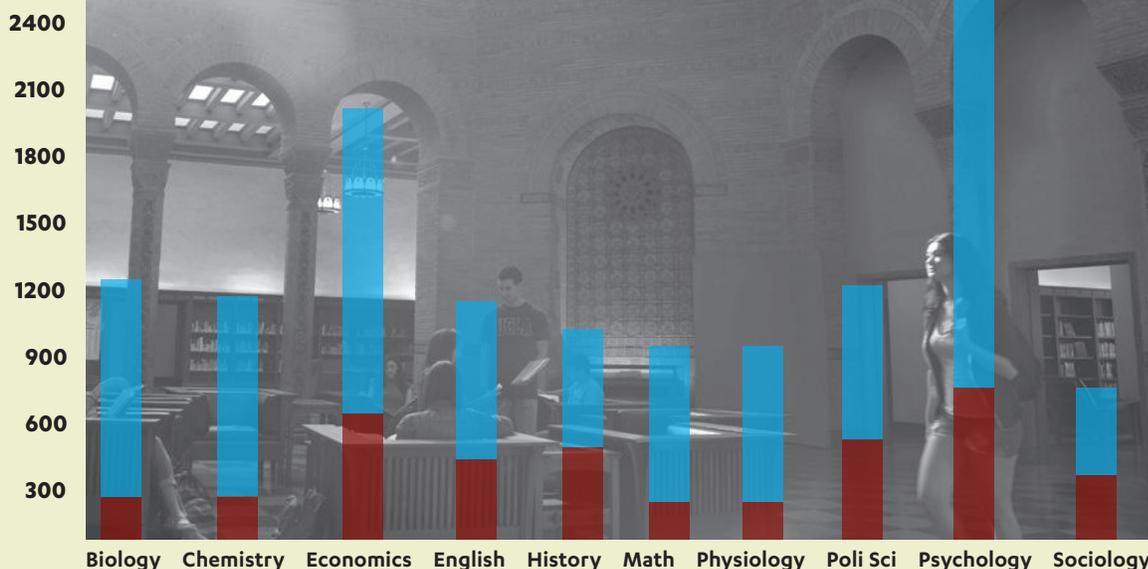
117 FACULTY INSTRUCTORS

372 ADVANCED GRADUATE INSTRUCTORS

Source: Office of Undergraduate Education Initiative

Most Popular Departments in the College

■ Majors
■ Degrees



Source: UCLA Office of Analysis and Information Management

Senior Satisfaction Ratings

OVERALL UCLA EXPERIENCE **94%**

OVERALL ACADEMIC EXPERIENCE **91%**

INTELLECTUAL CHALLENGE BY FACULTY **91%**

QUALITY OF INSTRUCTION IN MAJOR **89%**

FACULTY ACCESSIBILITY IN MAJOR **88%**

Source: UCLA 2011 Senior Survey

Today, some of these interdisciplinary programs have applied successfully for departmental status as they developed their own unique fields of study. Others continue as interdisciplinary programs, drawing support from traditional fields.

Our challenge is to embrace these efforts while continuing to support traditional disciplines providing critical core knowledge. This is difficult to do during a period when funds for expansion are scarce. Nevertheless, developing new areas of study is critical to the continued success of a great research university in the years to come.

Senior Capstones and Academic Engagement

ACADEMIC ENGAGEMENT is achieved in a variety of ways, but education researchers often define it as the completion of an advanced seminar paper, involvement in an internship or investment in student research. Collectively, these experiences are called “capstones,” as senior students are challenged to marshal and integrate materials learned in a culminating project.

In 2006, UCLA launched an initiative to encourage all departments to consider requiring a capstone experience. About one-third of our programs already had a compulsory capstone-like experience and were certified as Capstone Majors. Another third were interested in initiating the requirement, and many of these are now certified or in the process of making application to become a Capstone Major. The remaining third were reluctant to embrace the initiative, fearing they “lacked resources,” or worried that not all students would be interested in or capable of executing a capstone project.

Currently about 40 percent of our undergraduate students are either required or elect to complete a senior thesis, a research or internship project, or a senior seminar with a term paper. Those who complete a capstone tell us the experience was the “most memorable experience at UCLA” and note they “became a colleague, not just a student” and “learned to work effectively with others.”

Students also report that working on capstone projects provided a strong intellectual challenge and helped them better understand and integrate concepts taught in related courses. In addition, they are confident their projects made a meaningful contribution or created new knowledge.

We will never have the low student-faculty ratios that the top privates enjoy, which permits most students to complete a capstone project. But resources are only a part of the battle. Some of our largest departments—English and History, for example—have required senior-level seminars for a number of years. Size need not be a deterrent. Faculty’s willingness to re-examine the curriculum and create ways of engaging students is of equal importance.

In a recent *Chronicle of Higher Education* article, I noted that when UCLA admits some of the best students, we ought to expect the best, and majors without capstone expectations may encourage a pedestrian attitude. I received criticism for this statement, but too often students can walk through lecture coursework without much engagement, particularly in our largest majors. We can and should do better.

Graduating with Satisfaction

DESPITE THE GROWTH in our student body from when I first arrived to now, 90 percent of our matriculates earn a bachelor's degree, up from 55 percent for the entering class of 1975. The percentage of those who graduate in normative time (four years for freshmen) increased from 27 percent to 70 percent in the same period.

In the 1970s and 1980s, students typically took five years to graduate. By the mid-1990s, when UCLA reached its (then) target undergraduate population of 23,000, access to entering students was beginning to be compromised as a growing cohort of fifth-year seniors started to limit the number of new students who could be admitted. In my first years in office, I initiated a series of academic reforms and counseling guidelines that encouraged and facilitated graduation in four years.

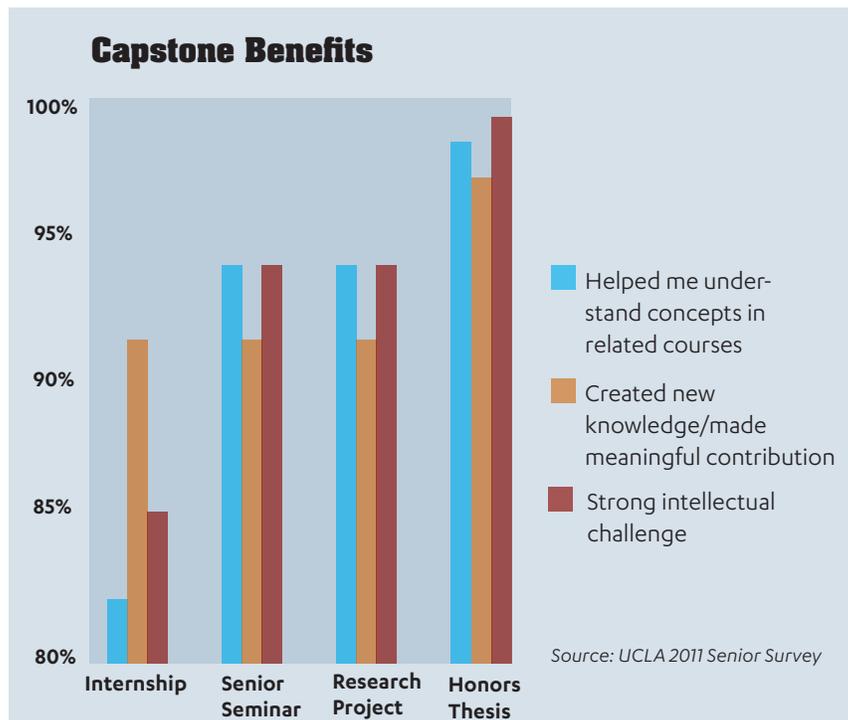
Today, UCLA's graduation rates and time-to-degree statistics are the best in the University of California system, and we aspire to match the best privates, aiming for a graduation rate of 95 percent, with 85 percent of seniors finishing in normative time. These goals have been set to help reduce the cost of education for individual families and to increase access for a growing number of qualified applicants. With more students graduating in four years (freshmen) or two years (transfers), UCLA will be able to open its doors to more entering students without increasing the overall size of our student body.

Since 2005, the *Washington Monthly* has made predictions about graduation rates (based solely on incoming SAT scores and Pell Grant percentages) and compared them to actual rates as part of their rankings of national universities. Last year, the *Monthly* predicted that 75 percent of our students would graduate. But actually, 90 percent did. The difference between the predicted and actual rates suggests UCLA students are in an environment that leads to a higher-than-expected graduation rate. We do a great deal to nurture academic success by providing a wide array of options for academic engagement, as well as programs such as the Academic Advancement Program and the Student Retention Center, which build strong academic communities and provide peer mentoring and leadership opportunities for undergraduate students.

In addition, UCLA undergraduates are very satisfied with key aspects of their experiences on campus. And virtually all (97 percent) of respondents indicate they are "proud to be a UCLA graduate." Tellingly, three out of four report wanting to stay involved with UCLA after graduation.

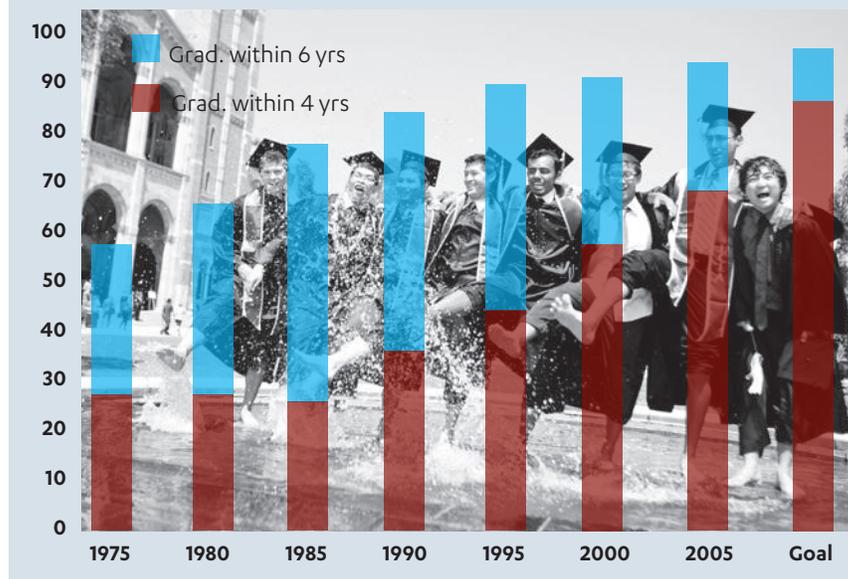
Senior Satisfaction Ratings

LOOKING BACK on 43 years at UCLA (27 years as a faculty member and 16 years as Dean and Vice Provost for Undergraduate Education,) I have witnessed chal-



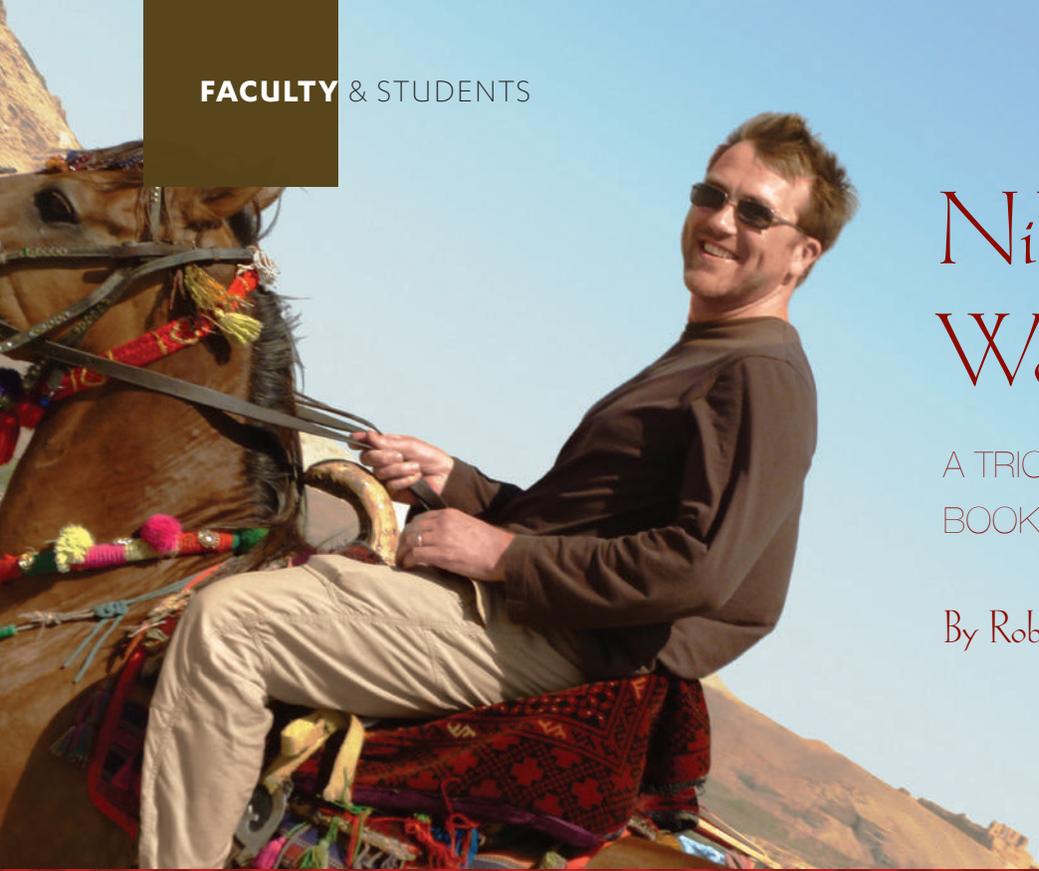
Time to Graduation

(Percentage of entering freshmen graduating within four and six years)



lenge and opportunity, the yin and yang of academic life. As our student body has grown, we have worked to build new programs, many of which emphasize student academic engagement. We have been challenged by an ever-worsening budget crisis but continue to use this as an opportunity to review core values and invest in new programs while supporting traditional programs and values. UCLA is a better place for undergraduate education than it was when I started in 1969, and I have high expectations that it will be even better in 2055—43 years from now.

Source: UCLA Office of Analysis and Information Management



Nile Green's Inner Worlds of Islam

A TRIO OF NEWLY PUBLISHED BOOKS FROM A GLOBAL HISTORIAN

By Robin Keats

TALES OF REMARKABLE ADVENTURE SPIN FORTH FROM NILE GREEN: TREKKING WITH TRIBESMEN IN THE WILDS OF YEMEN, CAMPING WITH BAKHTIARI NOMADS IN THE MOUNTAINS OF IRAN, MAKING HIS WAY THROUGH PAKISTAN'S LAWLESS BALUCHISTAN REGION, WHERE SMUGGLING IS A TRADE AND WHISKEY A MAJOR COMMODITY, IN THE BACK OF A PICK-UP TRUCK. IN AFGHANISTAN, HE VISITED A HOTEL THAT WAS ATTACKED BY SUICIDE BOMBERS TWO DAYS AFTER HIS DEPARTURE.

GREEN, UCLA professor of South Asian and Islamic history, as well as the director of the university's Program on Central Asia, first ventured into the Islamic world as a 17-year-old English schoolboy riding a train across Europe to Istanbul. Since then, he has been all over the Muslim map from Morocco to Malaysia.

Matching up what he learned on expeditions to Africa and Asia with a path through academia, Green received his B.A. degree from London University, his master's from Cambridge University and his PhD from London University in 2002. He went on to serve as a Milburn research fellow at Oxford University and then taught at Manchester University before coming to UCLA in 2007.

Green is the author or co-editor of seven volumes, and in 2012, he was a triple threat, writing or co-edit-

ing *Making Space: Sufis and Settlers in Early Modern India*, *Sufism: A Global History* and *Afghanistan in Ink: Literature between Diaspora and Nation*.

Two new works co-edited by Green are due out in 2013: *Global Islam in the Age of Steam and Print, 1850–1930* and *Globalizing Central Asia: The Writing of Travel at the Crossroads of Asia*. He is currently working on *The Mirza and Mr. Darcy: An Iranian Student in Jane Austen's England*.

An Englishman Immersed

"THE PART OF ENGLAND I GREW UP IN had a large South Asian community," Green explained. "It was part of my boyhood to be surrounded by and go to school with kids from the Indian subcontinent. The big defining moment for me was in 1989, when I arrived in Turkey and I realized 'this is a world I want to understand.'"

Undergraduate years at London University were ahead of him, and so were trips deep into myriad Islamic cultures. Green was hired by an adventure tour company to lead small groups of hardy travelers, from 1992 through 1996, up feral Asian rivers and into mountains where striped hyenas still prowl and the fossil bones of Neanderthals have been found.

Traveling during an era bookended by the fatwa on Salman Rushdie and the tragedy of 9/11, Green's

journeys covered the same ground across the lands of sultans and swamis upon which Islam spread. Each destination promised discoveries.

“What struck me when I got to India was the continuity of Islamic culture and history between India and these other countries,” he recalled. “That shaped the subsequent trajectory of my career.” He credits these passages—through regions of very divergent cultures, linguistics, histories, terrain and architectural styles—with giving him what he calls the “evidence on the ground” needed to enrich the books that were to come.

The Bakhtiari of Iran provided an anomalous perspective. Once one of Persia’s most powerful tribes over a century ago, they shared their food and sense of historical time with Green. “I traveled with the nomads in the mid-1990s, where there were no cell phones, no computers, no post,” he said. “They asked me about Winston Churchill because, for them, he was still the prime minister of England.”

An Islam for the books

WHILE GREEN STILL TRAVELS INTO THE HEARTLANDS OF ISLAM (visiting Kabul in 2011), he doesn’t do so as extensively anymore. He continues, however, to penetrate and explore myriad corners of Islam’s diverse realms through his writing. His most recent work draws upon Islamic history, firsthand observation and the works of Afghani writers to paint a multi-dimensional view of Islam and its multiple cultures in the part of the world that has everyone’s attention.

In *Making Space*, Green takes on a huge question that’s lingered in India for centuries and is presently posed by Indian right-wingers. “Do India’s Muslims, 180 million of them, belong there, or are they foreigners ... are they, basically, a Pakistani Fifth Column?” Green affirms their rightful place in Indian society: “I detail the process by which they came to relate to the soil of India and feel at home there.”

Looking for the real Afghanistan

“I MAKE THE CASE in *Afghanistan in Ink* that you can only understand the politics, and the wars, of the last 30 years by understanding the culture and the way that culture is politics,” said Green about Afghanistan. “Unless one does deep cultural, historical reading, one cannot understand what makes politics and wars happen.”

Afghanistan has absorbed three military and cultural invasions in modern history, he pointed out. “The British invaded, then the Soviets, then America. Each time, the Afghans were left to grapple with ideas that were brought to them as well as concepts picked by Afghan students who studied in London, Paris, Delhi, Moscow,

Tehran or the United States and returned home.”

These were imperial, communist, theocratic, democratic ideas that make up the cauldron of ideologies and religious fervor that are frothing now in Afghanistan. “There will be no peace,” he said, “until we recognize the roles of both the internal actors and the external forces. That’s what I’m trying to make clear with my work, that it’s not just that the world came to Afghanistan but that Afghanistan also came to the world.”

He’s troubled by Afghani schoolbooks. “What they’re emphasizing in school—the history of throwing out foreigners—is destabilizing. It’s the stories of Afghanistan against the world, told in simplistic terms.” He points out a divergence between the positive, nation-building messages being sent out by the government, intellectuals and the police and the negative, nationalism-infused-with-resentment attitude that’s being circulated by the educational system.

A visit, last year, to a girls’ school did not make him optimistic about the fate of female students. “One can’t leave the culture static and do educational development,” he lamented.

The Catholic Islam

GREEN’S *SUFISM: A GLOBAL HISTORY* deals with what he calls Catholic Islam. It was the dominant form of worldwide Islam until the late 19th century. “When we comprehend not only the riches of this heritage but also the problems and the internal criticism many Muslims had of this form,” he argued, “we can understand the path of Muslim history and reform.”

Sufism, he says, was not only mystical but also highly hierarchical, anti-democratic, venal and corrupt. “What I argue in this book is that when printing presses and new forms of organization came to be, then the Muslim Brotherhood and eventually Al Qaeda came about to challenge it. It spurred what’s been called reform and given rise to fanaticism ... Still, there are hundreds of millions of Muslims for whom Sufi Islam is Islam.”

Envisioning more fragmentation in the faith, Green sees an increasing number of religious leaders, organizations and what he calls “religious firms”—groups such as Al Qaeda that are involved with both money and faith. “I think governments should be wary of what they are dealing with,” he said. “I think that one has to focus on specific religious firms to remove the dangers of generalizing about Muslims because Islam is opaque and intangible.”

That’s why Nile Green writes—to make Islam tangible. “If it’s all about theology,” he said, “you can’t touch it.”

FUTURE PHDs BEGIN CLASSES

A New Generation of Chicana/Chicano Studies Scholars

by Robin Keats

IN THE FALL OF 2012, AS AMERICA BEGAN TO FULLY RECOGNIZE THAT HISPANIC VOTERS WOULD BE CRUCIAL TO THE SELECTION OF THE PRESIDENT, SEVEN STUDENTS WHO COMPRISE UCLA'S FIRST CLASS OF PHD CANDIDATES AT THE CÉSAR E. CHÁVEZ DEPARTMENT OF CHICANA/O STUDIES BEGAN THEIR GRADUATE SCHOOL CLASSES.

IT WASN'T PURE SERENDIPITY that was involved in the concurrent timing; both the growth of the nation's Latino community and the inauguration of the graduate program were long in the making.

"We've emerged as the 'majority minority' population of this country," said Dr. Abel Valenzuela, the department's chair. "Having this PhD program elevates UCLA's stature in Latino studies even further."

The seven students were drawn from about 60 applicants—three more than what was expected due to budget cuts and funding issues. "We were amazingly lucky and blessed to have been able to take the seven—four of them are Cota Robles scholars, which is phenomenal; most departments only get one," said Alicia Gaspar de Alba, one of the program's principal founders.



The doctoral students have chosen two out of four areas of study: Border and Transnational Studies; Expressive Arts; History, Culture and Language of the Americas; and Labor, Law and Policy Studies. Completion of the program requires, at minimum, a reading fluency in Spanish.

A Turbulent Beginning

THE FIELD OF CHICANO/CHICANA STUDIES has been around for about 40 years, but advanced doctoral programs are few and far between. “As an ethnic studies field, UCLA has laid a foundation for the study of Latinos, Chicanos, Mexicans, Hispanics—all of these terms are highly fraught,” de Alba explained, although “we prefer [the term] Chicano/Chicana.” That group was, after all, the first focus of academic exploration of the Latino experience in America.

In 1993, nine UCLA hunger strikers undertook civil disobedience to emphasize their demands for the establishment of a department of Chicana/o Studies to replace the underfunded and poorly staffed program that was in danger of being shut down at the time. Their action led to the development of the Center for Interdisciplinary Instruction (CII), which would house a degree-granting program in Chicana/o Studies with its own autonomous curriculum and six new full-time faculty positions with 100 percent appointments in Chicana/o Studies. The new faculty was charged with rebuilding the curriculum, reorganizing, and stabilizing the major while working with community and advancing their own tenure-track careers.

In the years since, the program has added new faculty members, attracted more and more majors and minors and conferred an incremental number of B.A. degrees. With almost 200 majors and more than 2,000 course enrollments, the CII was renamed the Cesar E. Chavez Department of Chicana and Chicano Studies in 2007. The PhD in Chicana/o Studies at UCLA was approved by UCOP in 2010—the second PhD program in the world that specializes in Chicana/o Studies (the first being UC Santa Barbara).

As the Population Goes, So Goes the Program

“THE PROGRAM WILL CERTAINLY be a key player in addressing the social transformations taking place in California, the Southwest and the United States in general due to the increase in the Chicano/Latino population,” claimed de Alba. “From public, social and economic policy standpoints, we see an urgent need to educate graduate students ... the social, demographic and technological changes in the country demand that the university train experts to deal with these changes and social tensions related to race, gender, sexuality, language, and national identities and relations.”

At 10 percent of the electorate, the country and its Latino communities need highly trained experts and educators. It’s expected that most of this inaugural class will go on to become professors.

Those receiving their doctorates will be able to choose to work in government positions, for think tanks, research institutes or policy institutes, or they may opt for careers in administration, counseling, law, health, television, museums and management in both for-profit and non-profit organizations.

UCLA now has a critical mass of scholars and professors working within and for the Chicano-Latino community. “We have some feeder colleges—the Cal State colleges—that have master’s degree programs, but they have no PhD for them if they want to continue,” noted de Alba. “We have been building ourselves up to this moment ... We needed to prove that there is a lot of interest not only locally but from other parts of the country.”

Looking Toward Tomorrow

“WE’VE LONG HELD THAT OUR DEGREE is bridging academic resources and knowledge with community needs and interests,” said Alba. “The two things that make our programs unique are this bridging and our focus on Los Angeles.”

“Doctoral education is the final building block that will solidify and advance the scholarship in this research area,” wrote Chavez Department professor Rosina Becerra in her 2007 letter endorsing the program. “The creation of this advanced degree program will be instrumental in providing visibility to significant issues faced by a major population of the state as well as provide the university with an opportunity to more fully contribute to the needs of the state.”

Dr. Valenzuela sees a bright future for UCLA’s newest PhD program. “It allows us to compete and to recruit not only outstanding faculty but other graduate students in the future,” he said. “It portrays a more contemporary university that is engaged in the production of knowledge and discovery with regard to the Latinos in the United States so that we have folks who look at issues ranging from poverty to employment to immigration to literature, the arts, language, public policy, health, film and history.”



Dr. Abel Valenzuela

UCLA WRITING PROGRAMS: SCHOLARSHIP STUDENTS LEARN THE “WRITE” STUFF FOR COLLEGE

BY JUDY LIN

Writing skill is a deal-maker or breaker for college applicants. Pressure to display first-rate writing ability is intense on college-bound high school students taking exams like the SAT essay and in crafting personal statements for college applications. Three years ago, UCLA Writing Programs launched a three-week summer writing workshop for teens entering their senior year of high school. The program drew on two decades of experience working closely with UCLA undergraduates to develop their writing skills to meet the university level.

DOZENS OF STUDENTS SIGNED UP the first summer for a class that covered everything from the components of good writing to the painstaking process of revision. But there was one problem with that inaugural session, said program director and teacher Bruce Beiderwell: the students who could benefit the most weren't signing up, including teens who attended underserved high schools or those whose families simply couldn't afford the \$1,044 tuition for the two-college-credit course.

So, two years ago, UCLA Writing Programs solicited contributions from campus units and donors, and a scholarship program was created. This summer, scholarships enabled deserving students like aspiring screenwriter Tavion Britt and six others selected from a field of 22 applicants to attend the class that ran July 10–31.

"This class was very inspirational. It has prepared me for my 12th-grade English class, which is nothing but writing essays," said Britt, a student at South Los

Angeles charter high school Park View Prep. "The class has also prepared me for my personal statement when I apply to UCLA." Britt hopes to attend the School of Theater, Film and Television.

Said his mother, Tina Redmond, of the scholarship he received, "It really helped us a lot, because I know I couldn't afford to send him." She and her son recently moved from Atlanta to Los Angeles, where she is working temp jobs while caring for her ill mother. Theirs were among the many heartfelt remarks made during the reception.

"It's not every day that a person like me gets an opportunity like this," said Berkeley High School student Anastasia Magana, who has bounced back and forth between the Bay Area and Los Angeles following her parents' divorce. Her eyes misting, she told her scholarship benefactor, Fereshteh Diba, a member of the UCLA Foundation, "I'd really like to thank you from the bottom of my heart, because it really means a lot."

The Friends of English, the College of Letters and

HER EYES MISTING, SHE TOLD HER SCHOLARSHIP BENEFACTOR, FERESHTEH DIBA, A MEMBER OF THE UCLA FOUNDATION, “I’D REALLY LIKE TO THANK YOU FROM THE BOTTOM OF MY HEART, BECAUSE IT REALLY MEANS A LOT.”

Science, Summer Sessions and the Writing Programs also funded the scholarships.

“That first year, before we had the scholarships, it was a very good class, but they didn’t look like a UCLA class,” said Beiderwell. The broader-based enrollment—which includes a growing number of out-of-state and international students—also reinforces his view that the workshop is much more than a writing class, particularly for the scholarship recipients.

“It’s an opportunity to be exposed to a place that is really very new to them,” said Beiderwell, who recalled taking all 46 students for a walk around campus with co-instructor Teddi Chichester on their first day of class.

For students who have grown up in an environment in which higher education is a given, a campus tour is hardly novel. But for the scholarship recipients, seeing UCLA students deep in research at Powell Library or writing papers at Kerckhoff Coffee House was very new.

“We want them to see that the university is a special place,” said Beiderwell. Touring the campus orients students to the significance of not just the written word, he added, but also “every comment you make in class and every email you write to an instructor.”

“It really improved my writing skills,” said Dylan Adkins, who attends Notre Dame High School in Sherman Oaks. His family has experienced job layoffs and cancer in the past year, as well as the death of his beloved grandfather, a church pastor, whom he wrote about in his application for the scholarship. “My grandfather enjoyed writing his sermons,” Adkins wrote. “I remember him saying that he improved over time. ... With practice, he became more confident in his writing.”

Of his own growing self-assurance, Adkins said, “I thought I was an okay writer, but after this, I’m more confident about my writing. I won’t be nervous about writing a paper. I think I can just get it done without having too many issues.”

Dean of Humanities David Schaberg offered some advice to Britt, recipient of the division’s scholarship, over lunch at a reception in August for the students, parents and donors. “Once you know how to write well,” Schaberg said, “You can write your own ticket. Writing well is one of the things that can move you most quickly, most amazingly, from a position of relative disadvantage to a position of power and opportunity.”

Armine Sanosyan, who attended the reception as an alumna of last summer’s scholarship group, said that her world, previously limited to attending private Armenian schools, expanded in the class.

“Getting to know people of different cultures and races was unbelievable,” Sanosyan said. What’s more, she excitedly added, “it prepared me for this fall ... because I’m going to be a Bruin in September!”



Top:
Students Tavion Britt (from left), Gennevieve Silprasit and Dylan Adkins.



Middle:
Student Tavion Britt (center) and his mother, Tina Redmond, chat with Bruce Beiderwell, director of UCLA Writing Programs, during a reception to honor scholarship recipients and donors.



Bottom:
Student Anastasia Magana (bottom) and Fereshteh Diba, who provided her scholarship, meet at the reception.

STRENGTH IN NUMBERS

THREE STANFORD FACULTY JOIN UCLA'S PIONEERING
ENVIRONMENTAL HUMANITIES PROGRAM



By Rebecca Kendall

The subject of the environment has been fertile ground for scholars and scientists since at least the 18th century, when Jean-Jacques Rousseau famously observed that “the fruits of the earth belong to us all, and the earth itself to nobody.” But never in human history, perhaps, has environmental study had such immediate resonance as it does today.

UCLA IS COMMITTED TO TAKING A LEADERSHIP ROLE in that inquiry in many ways. Most recently, it is with the arrival of three new faculty members from Stanford University, each an acclaimed scholar on environmental issues, who will work within the departments of English and History and the UCLA Institute of the Environment and Sustainability (IoES). The trio, Jon Christensen, Ursula Heise and Allison Carruth, have come to UCLA to help bolster the university's rapidly growing expertise in environmental humanities, an emerging interdisciplinary field that includes historians, literary and new media scholars, philosophers and art historians.

Their work focuses on the many roles that culture—and cultural differences—play in how societies define nature, understand particular ecosystems and respond, both politically and scientifically, to environmental crises. In that endeavor, the three new faculty join UCLA colleagues Professor Rob Watson and Associate Professor Elizabeth DeLoughrey, both from the Department of English.

Ali Behdad, chair of the Department of English, said he is excited to be ushering in a new era that puts UCLA at the forefront of this field. He said that Heise and Carruth were his top picks for the senior and junior faculty openings. Christensen, who joined IoES and the Department of History as an adjunct assistant professor and Pritzker Fellow, was an amazing bonus hire, he said.

“We were looking to recruit stars, and now we have arguably created the best environmental humanities

department in the country,” he said, noting that Los Angeles is the perfect location for this work because of its dense and diverse populations and the city's mix of environments, ranging from a thriving metropolitan region and ocean settings to desert landscapes and mountain ranges.

“We're in a period in the humanities where we're rethinking the things that we do for our students, for scholars around the world and for the public in general,” said David Schaberg, dean of the Division of Humanities. “The common denominator is always rediscovering the human and rediscovering the relevance of the humanities at the center of the other kinds of scholarly enterprises we have on campus.”

Christensen, who in addition to his academic work has three decades of experience as an environmental and science writer, was director of Stanford's Bill Lane Center for the American West and principal investigator of Stanford's Spatial History Project and the City Nature digital-humanities project. He told *The Chronicle of Higher Education* that “UCLA is a great public university, with a visionary Institute of the Environment and Sustainability [that intends to] “reinvent how we study the crucial environmental issues of our time.”

By having historians, literary scholars and artists work alongside engineers, biologists and physicists—layering expertise in nontraditional ways—there is the potential to frame research questions in more innovative ways and approach them from many different perspectives, said Christensen, who will be teaching a course on environmental journalism,

science communications and new media during the winter quarter. Thanks to a Mellon Foundation grant, he is also conducting experiments with colleagues at Stanford on “crowdsourcing,” engaging the broad public in helping to compile, catalog and organize sources to build a more diverse, inclusive picture of how different people and communities relate to the environment.

Christensen and Heise both noted that another factor that drew them to UCLA was the strength of its digital humanities program. Heise founded the Environmental Humanities Project at Stanford and is currently finishing a book entitled “Where the Wild Things Used to Be,” with a planned publication date sometime in 2014. Her work includes research on scientific databases like the Encyclopedia of Life and the International Union for the Conservation of Nature Red List of Threatened Species.

“You cannot even begin to think about these issues without knowing something about the sciences,” said Heise, who also works on endangered species laws in different countries. “In addition, you often have to know something about certain social sciences and about the legal, governmental and historical dimensions that frame our concerns with endangered species. Sometimes it’s really challenging work because you have to choose how to bring these

things together, and you have to talk to a lot of people to make sure you get it right.”

Carruth, an assistant professor in the Department of English and a scholar of contemporary food culture, has just completed a book entitled *Global Appetites*, which offers a cultural history of industrial agriculture and its imagined alternatives since the First World War. The focus is on how writers have responded to and shaped developments such as the supermarket, the Green Revolution and the engineering of plants for specific traits, she said.

The book “explores the political ramifications of industrial agriculture through the lens of various cultural materials ... showing that food has become central ... to American global power ... and to how the United States conceptualizes its power,” Carruth said.

Until now, literary scholars have largely been left out of the debate regarding the environment, a field mostly dominated by scientists. But the three new environmental humanities faculty and their UCLA colleagues are determined to change that.

“I really believe, and I think my colleagues believe, that we have a lot to contribute as literary scholars in this debate,” concluded Behdad, “and in preparing citizens to make better decisions in an era of incredibly rapid environmental and social changes.”



Adding Star Power:
Heise, Christensen
and Carruth.

New technique lets scientists peer within nanoparticles and see atomic structure in 3-D

By Kim DeRose

UCLA researchers are now able to peer deep within the world's tiniest structures to create three-dimensional images of individual atoms and their positions. Their research, published in the journal *Nature*, presents a new method for directly measuring the atomic structure of nanomaterials.

"THIS IS THE FIRST EXPERIMENT where we can directly see local structures in three dimensions at atomic-scale resolution—that's never been done before," said Jianwei (John) Miao, a professor of physics and astronomy and a researcher with the California NanoSystems Institute (CNSI) at UCLA.

Miao and his colleagues used a scanning transmission electron microscope to sweep a narrow beam of high-energy electrons over a tiny gold particle only 10 nanometers in diameter (almost 1,000

times smaller than a red blood cell). The nanoparticle contained tens of thousands of individual gold atoms, each about a million times smaller than the width of a human hair. These atoms interact with the electrons passing through the sample, casting shadows that hold information about the nanoparticle's interior structure onto a detector below the microscope.

Miao's team discovered that by taking measurements at 69 different angles, they could combine the data gleaned from each individual shadow into a 3-D reconstruction of the interior of the nanoparticle. Using this method, which is known as electron tomography, Miao's team was able to directly see individual atoms and how they were positioned inside the specific gold nanoparticle.

Presently, X-ray crystallography is the primary method for visualizing 3-D molecular structures at atomic resolutions. However, this method involves measuring many nearly identical samples and averaging the results. X-ray crystallography typically takes an average across trillions of molecules, which causes some information to get lost in the process, Miao said.

"It is like averaging together everyone on Earth to get an idea of what a human being looks like—you completely miss the unique characteristics of each individual," he said.

X-ray crystallography is a powerful technique for revealing the structure of perfect crystals, which are materials with an unbroken honeycomb of perfectly spaced atoms lined up as neatly as books on a shelf. Yet most structures existing in nature are non-crystalline, with structures far less ordered than their crystalline counterparts—picture a rock concert mosh pit rather than soldiers on parade.

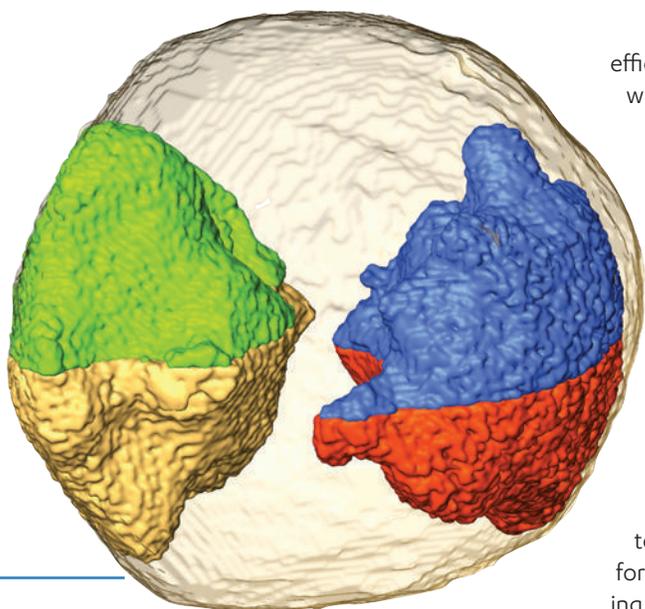
"Our current technology is mainly based on crystal structures because we have ways to analyze them," Miao said. "But for non-crystalline structures, no direct experiments have seen atomic structures in

3-D view inside a gold nanoparticle:

The tomography method developed by Jianwei Miao and colleagues allows them to see the four three-dimensional grains (green and gold; blue and red) that form two pairs of twin boundaries inside this nanoparticle.

Credit: Jianwei Miao/
UCLA Physics &
Astronomy, CNSI





three dimensions before.”

Probing non-crystalline materials is important because even small variations in structure can greatly alter the electronic properties of a material, Miao noted. The ability to closely examine the inside of a semiconductor, for example, might reveal hidden internal flaws that could affect its performance.

“The three-dimensional atomic resolution of non-crystalline structures remains a major unresolved problem in the physical sciences,” he said.

Miao and his colleagues haven’t quite cracked the non-crystalline conundrum, but they have shown they can image a structure that isn’t perfectly crystalline at a resolution of 2.4 angstroms (the average size of a gold atom is 2.8 angstroms). The gold nanoparticle they measured for their paper turned out to be composed of several different crystal grains, each forming a puzzle piece with atoms aligned in subtly different patterns. A nanostructure with hidden crystalline segments and boundaries inside will behave differently from one made of a single continuous crystal—but other techniques would have been unable to visualize them in three dimensions, Miao said.

Miao’s team also found that the small golden blob they studied was in fact shaped like a multifaceted gem, though slightly squashed on one side from resting on a flat stage inside the microscope—another small detail that might have been averaged away when using more traditional methods.

This project was inspired by Miao’s earlier research, which involved finding ways to minimize the radiation dose administered to patients during CT scans. During a scan, patients must be X-rayed at a variety of angles, and those measurements are combined to give doctors a picture of what’s inside the body. Miao found a mathematically more

efficient way to obtain similar high-resolution images while taking scans at fewer angles. He later realized that this discovery could benefit scientists probing the insides of nanostructures, not just doctors on the lookout for tumors or fractures.

Nanostructures, like patients, can be damaged if too many scans are administered. A constant bombardment of high-energy electrons can cause the atoms in nanoparticles to be rearranged and the particle itself to change shape. By bringing his medical discovery to his work in materials science and nanoscience, Miao was able to invent a new way to peer inside the field’s tiniest structures.

The discovery made by Miao’s team may lead to improvements in resolution and image quality for tomography research across many fields, including the study of biological samples.

This research was conducted at CNSI’s Electron Imaging Center for NanoMachines and funded by UC Discovery/Tomosoft Technologies. Tomosoft Technologies is a start-up company based on Miao’s work.

Other UCLA co-authors included Chris Regan, an assistant professor of physics and astronomy and a CNSI researcher; graduate students Mary Scott, Chien-Chun Chen, Matthew Mecklenburg and Chun Zhu; and postdoctoral scholar Rui Xu. In particular, Chen and Scott played an important role in this work. Peter Ercius and Ulrich Dahmen from the National Center for Electron Microscopy at Lawrence Berkeley National Laboratory are also co-authors.

Miao’s technique images breast tumors in 3-D with great clarity, reduced radiation.

In a second study Miao also published in 2012, scientists used a technique he developed with European colleagues to produce three-dimensional images of breast tissue that are two to three times sharper than those made using current CT scanners at hospitals. The technique uses a lower dose of X-ray radiation than a mammogram.

These higher-quality images could allow breast tumors to be detected earlier and with much greater accuracy. One in eight women in the United States will be diagnosed with breast cancer during her lifetime. This research was published Oct. 22 in the early edition of the journal *Proceedings of the National Academy of Sciences*.

“A three-dimensional view of the breast can be generated by a CT scan, but this is not frequently used clinically, as it requires a larger dose of radiation than a mammogram,” Miao said. “It is very important to keep the dose low to prevent damage to this sensitive tissue during screening.”

This work is still in the research phase, and further technological advances will be required before patients can benefit from this new approach, Miao said.

Miao’s technique images breast tumors in 3-D with great clarity, reduced radiation.



The two-year-old UCLA International Research and Training Center in Cameroon has been so successful as a base for international researchers to establish interdisciplinary, long-term collaborations with African colleagues on regional threats like disease and climate change that it has already doubled in size.

A NEW PARADIGM FOR CENTRAL AFRICA

BUILDING A PERMANENT RESEARCH AND TRAINING FACILITY IN ONE OF THE WORLD'S MOST LONG-SUFFERING REGIONS

BY JACK FEUER

CENTRAL AFRICA SUFFERS FROM SOME OF THE WORLD'S LOWEST PER CAPITA INCOMES AND HIGHEST HUMAN DISEASE BURDENS. THE ENVIRONMENT IS DETERIORATING DUE TO DEFORESTATION, OVERGRAZING AND AGRICULTURAL PESTS. ALL OF THIS IMPEDES REGIONAL DEVELOPMENT—AND THE AREA IS PREDICTED TO BE MORE SEVERELY AFFECTED BY CLIMATE CHANGE THAN ANY OTHER PLACE ON EARTH. THE REGION FACES WATER AND FOOD SCARCITY, WITH ALMOST 500 MILLION PEOPLE EXPECTED TO SUFFER SEVERE WATER SCARCITY BY 2025, AND INCREASED THREAT FROM BOTH CURRENT AND EMERGENT DISEASES.

THERE IS ONLY A LIMITED PUBLIC HEALTH INFRASTRUCTURE in the region, and it is ill-equipped to address crippling pandemics such as HIV/AIDS. Moreover, many African researchers, the best and brightest minds on the continent, give up trying to conduct research in such a disadvantaged environment, or they leave the region permanently for careers in the developed world. In fact, it is estimated that only 20 percent of African scientists and scholars who study in the U.S. and Europe return to their native countries.

But an ambitious UCLA-led effort is underway to combat these grand challenges in Cameroon, the geographic and cultural “hinge” between Western and Central Africa. Led by Thomas Smith, UCLA professor in the Department of Ecology and Evolutionary Biology, Institute of the Environment and Sustainability and director of the UCLA Center for Tropical Research, the UCLA International Research and Training Center (IRTC) in Yaoundé, Cameroon, is the first permanent facility in the Congo Basin for visiting and native scholars and scientists. It is proving to be a game-changer for human health, the environment, higher education and development in the region. The IRTC is booming, doubling in size since it began in 2010.

The center offers a fully equipped research facility that also serves as a base for international researchers to establish productive long-term collaborations with African researchers and to train a new generation of experts.

“We need to reinvent how we do development in these countries,” said Smith. “We need to build centers of excellence to support academicians and scientists, something integrative and permanent.”

The UCLA experts are working with a consortium of highly experienced partners to secure funding for a greatly expanded vision of the IRTC to be called the Center for Integrative Development—Cameroon (CID). The CID will leverage, expand and amplify the IRTC to create a sustained and well-supplied source of training, equipment and expertise serving Gabon, the Republic of Congo, Nigeria, Chad, the Central African Republic, Equatorial Guinea and Democratic Republic of Congo. It will be a test bed for novel development technologies and catalyzing and scaling up innovations.

The partnership includes the International Institute of Tropical Agriculture, a global leader in finding solutions for hunger, malnutrition and poverty; the Central and West African division of

the World Agroforestry Centre, which is dedicated to improving food security and increased resources for energy, sustainable agriculture and ecosystem services; Le Centre Pasteur du Cameroun, a major contributor for more than 60 years to the prevention and treatment of infectious diseases in Cameroon through research, teaching and public health initiatives; and Global Green Carbon Corporation, whose innovative projects transform communities through smart conservation and carbon-financed initiatives linking profitability with sustainability.

The CID will expand existing facilities in Yaoundé to create a Research and Education Park that will provide distance learning for U.S. and African students, data repositories, a technology and innovation incubator, a remote-sensing research and training lab, a molecular genetics and disease screening lab, a lodging and conference center and a logistics office to assist international participants and help partner them with local researchers.

Already, the center is helping to train UCLA medical students in global health. Workshops sponsored by the National Institutes of Health and Sandia Labs (funded by the government) have been held through the IRTC/CID, and others are in the planning stages with NSF. The center recently held its first distance learning course, in environmental health, led by Hilary Godwin, professor of environmental health sciences at the UCLA Fielder School of Public Health. UCLA students and Cameroonian students took the course in real time. And this summer, a UCLA Studies Abroad course will be held at the facility.

In addition, the center has been awarded a \$5 million Partnerships for International Research and Education grant from the National Science Foundation for research and training, and additional proposals are in the pipeline. The project is also generating considerable interest from foundations and corporations who wish to partner with the effort.

The challenges facing Central Africa are daunting and increasing. “It’s not one project. It’s not one issue,” said Smith. “And there are problems we don’t even know yet.” Yet solutions can and are being found. The IRTC’s expansion into the CID will give the region even more resources to meet those challenges and keep African experts at home, working on solutions in their home countries.

“We are going to build it,” Smith said. “All the stars are aligned.”



CLUTTER CULTURE

LIFE AT HOME IN THE 21ST CENTURY

Walk into any dual-income middle-class home in the U.S., and you will come face to face with an awesome array of stuff— toys, trinkets, family photos, furniture, games, DVDs, TVs, digital devices of all kinds, souvenirs, flags, food and more. We put our stuff anywhere in the house—everywhere there’s a room, or even if there’s no room.

By Jack Feuer

WE ARE A CLUTTER CULTURE. But all that stuff also serves a serious purpose as source material for scientists and scholars. Today’s action figure is tomorrow’s historical artifact.

Yet while researchers record our purchases, take surveys, conduct interviews and even sift through our trash, a systematic documentation of the material worlds of contemporary American families has proven elusive, says linguistic anthropologist Elinor Ochs, director of UCLA’s Sloan Center on the Everyday Life of Families (CELF), a nine-year interdisciplinary research project and one of six Sloan Centers on Working Families. That’s because this area of research has heretofore stopped at our front doors.

Now, however, a new book entitled “Life at Home in the 21st Century: 32 Families Open Their Doors” takes the exploration of contemporary material culture inside American homes for the first time. Based on a groundbreaking, four-year ethnoarchaeological CELF study conducted in 2001 to 2005, “Life at Home” is an intimate look at the material worlds of 32 busy families in the greater Los Angeles region.

The “Life at Home” families—dual-income, middle-class households with school-age children—agreed to open their homes and their lives to a week of filming and detailed photography of

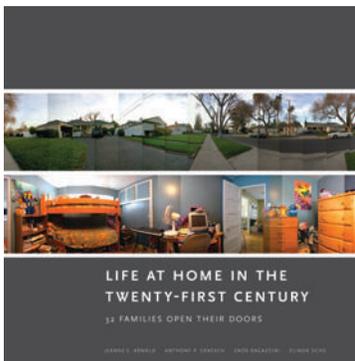
their houses and possessions. They live in all kinds of neighborhoods, earn varying levels of household incomes, are ethnically diverse and own their homes. And they represent a wide range of occupations: teachers, firefighters, nurses, small business owners, lawyers, airline pilots and contractors, among others.

“Life at Home” is co-authored by Ochs; Jeanne Arnold, UCLA professor of anthropology; Anthony P. Graesch, at the time an anthropological archeologist at UCLA and now an assistant professor of archeology at Connecticut College; and famed Italian photographer Enzo Ragazzini.

In addition to the book, the project generated almost 20,000 photographs, 47 hours of family-narrated video home tours and 1,540 hours of videotaped family interactions. But “Life at Home” is not just a scholarly catalog; it also delves deep into the psychological and social meanings of our possession obsession.

Too Much Is Never Enough

“THE AMERICAN WORKPLACE IS INTENSE AND DEMANDING; when we come home, we want material rewards, like people all around the globe,” Ochs says. “What distinguishes us is the normative expectation of hyper-consumerism ... We find food, toys and other purchases exceeding the confines of



the home and overflowing into garages, piled up to the rafters with stockpiled extra ‘stuff.’”

The CELF team’s psychologist colleagues, Darby Saxbe, postdoctoral fellow at the University of Southern California and UCLA Psychology Professor Rena Repetti, looked at the study participants’ levels of diurnal cortisol, a measure of stress, through saliva provided by the families. And they found that there did seem to be a link between how families, especially mothers, talk about their home spaces and their diurnal cortisol levels.

“It’s difficult to find time to sort, organize and manage these possessions,” says Graesch. “Thus our excess becomes a visible sign of unaccomplished work that constantly challenges our deeply ingrained notions of tidy homes and elicits substantial stress.” So the stress of the material world can get to anybody. Well, almost anybody.

“Fathers in their home tours would walk in the same rooms their wives had come through and often made no mention whatsoever of the messiness and were unaffected psychologically,” says Arnold. “This was pretty astonishing.”

For these dads, and many of the older children, Arnold observes, specific artifacts are a source of pleasure or pride, and so for these family members, the link between possession and contentment is a positive one.

Besides, she adds, “Who has time to clean up?”

Everything I Need to Know Is on My Refrigerator

CHEZ NOUS, the kitchen is command center. The study notes that “the kitchen is perhaps the most important space in daily family life: a site of frequent congregation, information exchange, collaboration, negotiation and child socialization. It is a crucial hub of logistical organization and everyday operations for dual-income households.”

And in the domestic command center, the refrigerator is mission control.

The typical “Life at Home” refrigerator’s front panel holds 52 objects (and sometimes stuff is stuck on the side panel as well). Some household fridges were fairly clear of clutter, but almost all had what the study calls “high-object densities,” and the most crowded refrigerator was covered with 166 different objects.

This stuck-on stuff, in fact, often covers as much as 90 percent of the fridge. It’s a multi-purpose, place-based, 360-degree representation of the family’s history and activities, highlighting the personal (photos, child’s art projects or school work, awards), the practical (calendars, schedules, coupons, invitations, rosters, phone numbers) or the pretty (the most common object displayed were decorative magnets).

“It’s difficult to find time to sort, organize and manage these possessions,” says Graesch. “Thus our excess becomes a visible sign of unaccomplished work that constantly challenges our deeply ingrained notions of tidy homes and elicits substantial stress.”

As they moved deeper into their study, the researchers noticed a correlation between the number of objects families put on their refrigerators and the rest of the stuff in their homes. They write that “the refrigerator panel may function as a measuring stick for how intensively families are participating in consumer purchasing and how many household goods they retain over their lifetimes.”

It’s Our Kids’ World, We Just Live in It

A FOCUS ON CHILDREN EXISTS IN EVERY CULTURE, of course, but Americans have, inevitably, taken the impulse to a whole other level. Indeed, the study found kids’ stuff crowding out their parents’ possessions to such an extent that even home offices and studies were crammed with toys and other child-related objects.

“Every good girl should have a whole ton of Barbies,” one “Life at Home” mom helpfully explains.

The kids’ role in clutter creation is not necessarily a sign that the toddlers have taken over the kindergarten, though. Sometimes, in fact, the relationship between our children and our possessions can even be touching. Arnold recalls one study father who positioned rocks near his front door that in some way reminded him of his three daughters, so he was happy every time he came home.

And Ochs adds that “at first we thought that children’s objects flooded the house, but then we came to realize that parents also liked these objects and displayed child-themed possessions (such as Disney figures in public areas (like living room shelves) and their own bedrooms.”

A Clutter Culture Coda

IF INVITED INTO THE SAME HOUSEHOLDS TODAY THAT THEY VISITED IN 2005, what do the researchers think they’d find?

Graesch doesn’t believe there would be any difference in the clutter level. Ochs says that if the CELF team visited the same families now, “most of the homes would look the same,” but “having said that, one family talked with us about our study and redesigned their home dramatically to allow for more open, less cluttered family living.”

No word on what they did or didn’t do to their refrigerator.



Arcadia Fund gives record \$10 million endowment

A Transformative Gift to the
UCLA Department of History

By Margaret MacDonald

THE UCLA DEPARTMENT OF HISTORY HAS RECEIVED ITS LARGEST GIFT EVER —\$10 MILLION IN ENDOWED FUNDS FROM THE ARCADIA FUND, A UK-BASED PHILANTHROPIC FOUNDATION.

THE MAJORITY OF THE ENDOWMENT will be used to attract and support top graduate students. In addition, a portion of the gift will enable the department chair to implement a wide range of priority initiatives, including lectures, seminars, conferences, alumni engagement and public history outreach. The gift will also support faculty and graduate student research.

“Arcadia’s extraordinary generosity is a shining example of how enlightened philanthropic leadership can strengthen an already great public institution like UCLA,” Chancellor Gene Block said. “At a time of unprecedented economic challenges in public higher education, this historic gift will help ensure UCLA’s excellence into the future.”

“We are truly delighted to be able to direct our philanthropy to the first-rate history department

at UCLA,” said Anthea Case CBE, the Arcadia Fund’s principal adviser. “It is gratifying to know that the brilliant work of the department’s faculty and graduate students will be better supported going forward.”

Alessandro Duranti, dean of the Division of Social Sciences, praised Arcadia for its support of graduate students. “This landmark gift from the Arcadia Fund has a special meaning for our faculty because it recognizes the fundamental role played by our unsung heroes, the graduate students,” he said. “These young scholars make up a huge part of our intellectual capital, and it is a great feeling to see their contributions recognized through this generous donation.”

History Professor David N. Myers, chair of the department, said: “The Arcadia Fund’s gift will have an enormous impact not only on our department’s core missions of teaching and research but also on our ongoing efforts to infuse historical knowledge into the broader community. It is our hope that this gift will attract additional major philanthropic support as an investment in the future of historical study.”

Myers added that the magnitude of Arcadia’s investment is a testament to the excellence of the UCLA Department of History and the importance



Photo of Kristen Hillaire Glasgow by Reed Hutchinson

of history. "This gift sends a powerful message that history is vital to understanding not only the past but the present, at UCLA and nationally," he said. "In fact, through this gift, the Arcadia Fund has become a champion of current and future history students everywhere."

The Arcadia endowment comes at a time of increasing need. Per-student state support to UCLA has been cut in half over the past 10 years as the university vies with other top-tier public and private universities—many with much larger endowments—for the best faculty and graduate students.

To ensure excellence and access in the future, UCLA is developing new funding models and revenue-generating strategies and enhancing efficiencies. This includes strengthening philanthropic partnerships and growing UCLA's total endowment to draw and support top faculty and students.

The Arcadia gift is designed to attract and support top graduate students to the Department of History, such as Kristen Hillaire Glasgow, teaching a College class in the photo above.

For more information about supporting the UCLA History Department, please contact Kim Morris, Associate Director of Development, UCLA Social Sciences, at (310) 825-1151 or kbmorris@support.ucla.edu.

"Arcadia's extraordinary generosity is a shining example of how enlightened philanthropic leadership can strengthen an already great public institution like UCLA."

—Chancellor Gene Block

Waldo W. Neikirk Estate Establishes First Undergraduate Term Chair at UCLA

Robert Watson is an advocate for humanistic undergraduate education

By Margaret MacDonald

English professor Robert N. Watson has made UCLA history as holder of the first chair to celebrate undergraduate teaching in the College of Letters and Science.

THE WALDO W. NEIKIRK TERM CHAIR for Innovative Undergraduate Education was established in the Division of Undergraduate Education to recognize and support a faculty member in classics, comparative literature, English, European languages, history or philosophy who has a record of innovative and stellar teaching in the Freshman Cluster Program and/or Honors Collegium.

“Endowing the division’s two signature academic programs is my highest funding priority,” said Judith L. Smith, dean and vice provost for undergraduate education. “I was delighted when the Neikirk Term Chair was established and thrilled that Rob Watson was selected, not only because he is a distinguished scholar and teacher but also because of his strong support of Freshman Clusters and the Collegium.”

Mark Morris, professor of astronomy and head of the search committee, noted, “Rob Watson has repeatedly shown unusual commitment to quality undergraduate education, both as an honored and well-liked teacher and as an active contributor to the oversight and organization of some of UCLA’s most successful classroom offerings. The selection committee was impressed with his vision of what he hopes to accomplish with the support provided by the Neikirk Term Chair.”

“Teaching undergraduates has always been the calling closest to my heart, so this is an especially welcome honor,” said Watson. “It provokes me into thinking freshly about what I can contribute in the classroom and allows me to support some

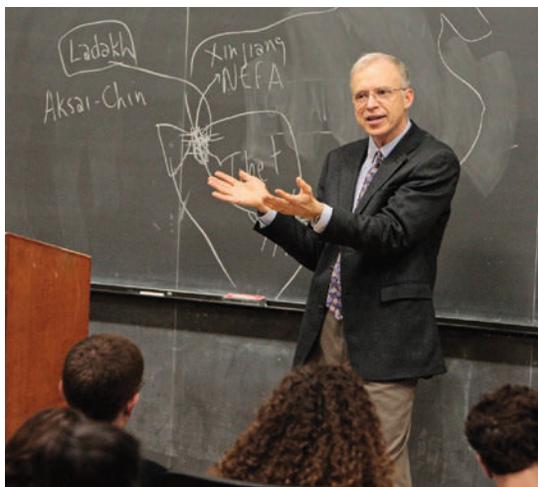
of the best programs we have to offer.”

Watson said he would initiate his three-year term as the Neikirk Chair with new Honors Collegium and Fiat Lux courses, and in 2013, he hopes to launch a new Freshman Cluster, an interdisciplinary course on the Renaissance period.

Watson’s benefactor, Waldo Neikirk, was a Harvard-educated financier keenly interested in supporting undergraduate education. In 1997, Neikirk established an undergraduate scholarship fund, which was converted upon his death in 2010 to establish the endowed term chair, in accordance with the terms of his estate. “Neikirk believed strongly in the power of

technologies and economies changing as fast as they do, and with cultures in such critical collisions, those may be the only skills we can be confident are going to be valuable.”

Watson observed wryly that it is also important for undergraduates to stay awake—and not just in class. “By this I mean be ready to ask hard questions and to listen carefully to anyone telling you what’s wrong with your answers,” he advised. “Students need to learn how to detect the difference between valid and invalid arguments, at increasing levels of subtlety.”



“I love those little moments in the classroom when I see students happily startled by something amazing their minds can do, in fields of knowledge that previously had seemed distant and scary.”

excellent teaching,” said Smith, “and he wanted to establish a new type of chair to recognize outstanding teachers in the liberal arts.”

Like Neikirk, Watson is a forceful advocate for humanistic undergraduate education, pointing out that “whatever develops a creative but disciplined mind, a heart open to other people and an ability to communicate is going to produce a better life. “In fact,” he continued, “with

For information on supporting undergraduate education, please contact Beatrix Richman at (310) 825-8654 or brichman@support.ucla.edu.

Honors Collegium:
www.ugeduction.ucla.edu/honors/hchome.html
Freshman Clusters:
www.college.ucla.edu/ge/clusters/index.html
Fiat Lux:
www.college.ucla.edu/fiatlux/

Hiding in Plain Sight: Tranquil Botanical Garden on the UCLA Campus

By Margaret MacDonald

The Mildred E. Mathias Botanical Garden is a seven-acre wonderland of biodiversity, with thousands of species of tropical and subtropical plants, salamanders, lizards, turtles and even a gentle stream full of koi. But surprisingly few people know about this tranquil oasis hiding in plain sight on UCLA's south campus.

THIS IS ABOUT TO CHANGE, THANKS TO LONGTIME UCLA SUPPORTER and environmental champion Morton La Kretz, founder of Crossroads Management, who was responsible for establishing the La Kretz Center for California Conservation Science and provided the resources to build La Kretz Hall, home of the UCLA Institute of the Environment and Sustainability, which he continues to serve as a member of the Board of Advisors. La Kretz has provided the funds to upgrade the botanical garden's entrance, the first step in a series of much-needed renovations to increase the garden's visibility.

"This is a hidden gem on the UCLA campus," said La Kretz. "I'm delighted to be able to lend my support to such an important UCLA asset."

The botanical garden was named for world-renowned horticulturist Mildred Mathias, who served as its director from 1956 to 1974. As an undergraduate, La Kretz remembers gathering "swampy" water from the garden for a biology class experiment. Years later, he traveled to Costa Rica on one of Professor Mathias's popular field study tours.

Many of the plants are not found anywhere else in California, due to the botanical garden's unique topography and microclimate. This makes it a valuable teaching and research resource for the

campus and beyond. Indeed, around 2,000 local K-12 students tour the garden each year on field trips guided by volunteer docents.

In addition to the docent program, there is a large crew of volunteer gardeners comprised of UCLA and local community members who help four full-time staff members with the monumental task of maintenance.

Most people stumble into the garden by accident, according to Director Philip Rundel, UCLA distinguished professor of biology and faculty director of UCLA Stunt Ranch Santa Monica Mountains Reserve. "Anyone visiting for the first time finds out just how peaceful and special this place is," observed Rundel.

Victoria Sork, dean of the Division of Life Sciences, hopes that La Kretz's lead gift will inspire others to get involved and invest in the botanical garden. "We are so grateful for generous supporters like Morton La Kretz," said Sork. "He shares our vision and our commitment to developing the garden's full potential."

As the new entrance takes shape over the next 18 months, Rundel said there will be continued focus on raising funds for further infrastructure upgrades like improved signage as well as plans for the future construction of a new welcome center. Other possible developments under consideration include creating a wheelchair-accessible tree-canopy walkway and developing the garden as a venue for classical music performances and, potentially, weddings.

"With private support, the creative possibilities are exciting and endless," he said.



THINGS YOU MIGHT NOT KNOW ABOUT THE MILDRED E. MATHIAS BOTANICAL GARDEN ...

It has one of the largest collections of Hawaiian plants outside of Hawaii.

It has one of the tallest dawn redwoods in North America, sprouted from Chinese seeds planted in 1948.

Its massive Torrey Pine is one of the world's rarest pine species.

The garden was planted in 1929, when the UCLA campus had only four buildings.

An undergraduate student provided QR codes for many plants, making a wealth of information available to smartphone users.

It's on the UCLA campus! For directions, go to: www.botgard.ucla.edu.

For information about supporting the Mildred E. Mathias Botanical Garden, please contact Ellen Beck, Director of Development, UCLA Life Sciences, at (310) 206-6383 or ebeck@support.ucla.edu.

UCLA COLLEGE REPORT

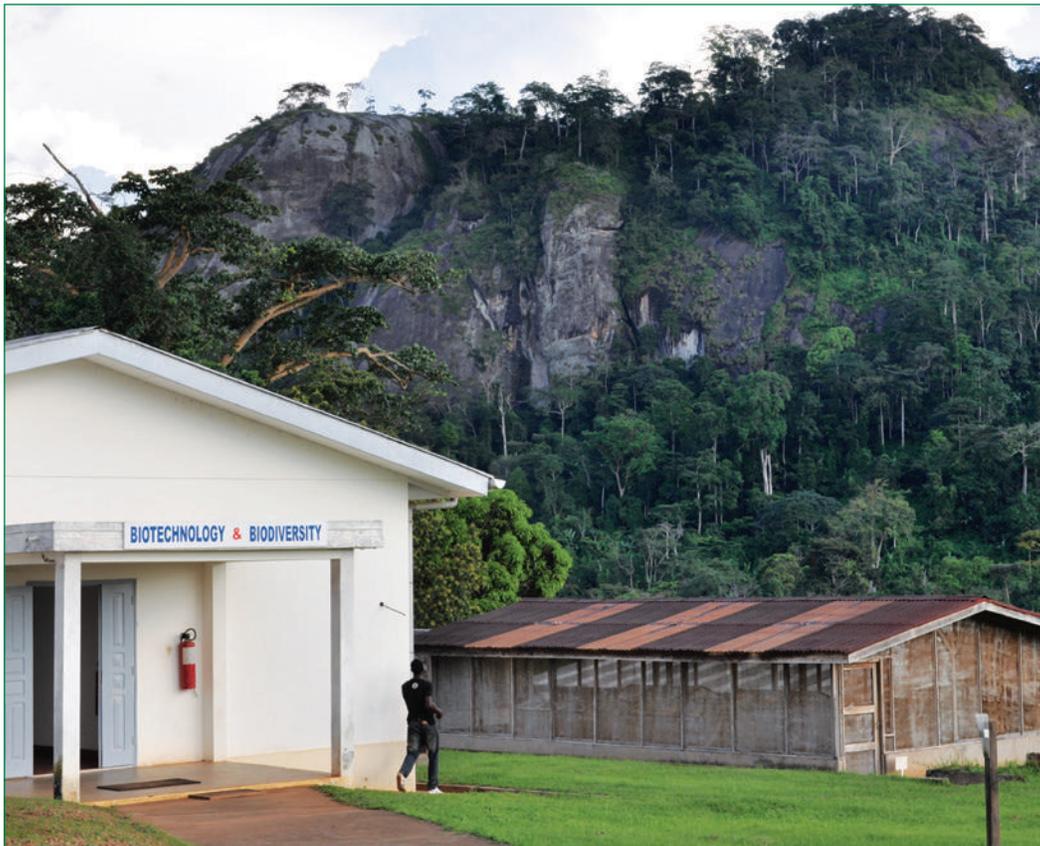
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UCLA



Game Changer: The UCLA International Research and Training Center (IRTC) in Yaoundé, Cameroon, above, is the first permanent research facility in the Congo Basin for visiting and native scholars and scientists. It has been so successful that plans are now underway for a major expansion that will be a test bed for solutions to grand challenges like disease, climate change and severe environmental deterioration.