Seth Gorelik: “A poster child for the kind of student we want”

The Jeremy D. Friedman Memorial Award is presented annually to one UCSB graduating senior who has demonstrated outstanding leadership and superior scholarship, and who has—in a particularly innovative and creative way—contributed significantly to the quality of undergraduate life on campus, and Geography major Seth Gorelik certainly qualifies in every respect.

According to an announcement by the UCSB Office of Public Affairs, “Three remarkable graduating seniors at UC Santa Barbara have been named winners of the university’s top awards for their scholastic achievement, their extraordinary service to the university and the community, and their personal courage and persistence...Seth R. Gorelik, recipient of the Friedman award, is graduating with a degree in geography. Describing him as “a rock star of a worker” and “a poster child for the kind of student we want,” Gorelik’s nominator credits him with increasing the visibility of geography and of Geographic Information Systems (GIS) on campus.

Gorelik’s commitment to excellence in geography is evident in his academic achievement as well as his extracurricular involvement. While at UCSB, he worked as a student intern for the geography department’s VIPER Lab, and as a research assistant for the Earth Research Institute, in addition to concurrent responsibilities as a grader for the Department of Earth and Planetary Sciences at Santa Barbara City College. He participated as a volunteer at the Association of American Geographers 2012 Annual Meeting, and as an assistant at the 2011 Esri International User Conference.

Seth’s most impressive achievement, according to his nominator, has emerged through his work as a student assistant in the Map and Imagery Lab at UCSB’s Davidson Library. With superior technical skills and rare initiative, he led the integration of a new set of important GIS technologies into the daily work of the library. He also helped the library create digital data from a wealth of older analog materials in aerial photography, allowing for more seamless, fast, and remote access to map information.

In addition to his contributions at UCSB, Gorelik has worked as a data entry volunteer for the Santa Barbara Botanic Gardens Blakesly Library Digital Image Database Project, and a student intern for the South Bay Cable Fisheries Liaison Committee. He also served as a volunteer after-school counselor with the Wilderness Youth Projects; as a camp counselor with Camp Okizu, a summer program for children battling cancer; and as a math and reading tutor for Transition House on Wheels, where he tutored an 11-year-old homeless child.”

Seth received his BS in physical Geography in June (with Distinction in the Major and Outstanding Achievement in Geography awards) and then began an internship with NASA’s DEVELOP program at the Jet Propulsion Laboratory in Pasadena, where he works with other students and professionals on an earth science research project using remote sensing techniques. Kudos to Seth!

“One reason the Department of Geography at UC Santa Barbara is able to deliver on its promise to students is because of the support of alumni and friends like you, which is why I encourage you to consider making an investment in the Department. These gifts enable us to recognize our best students and support their educational and research expenses. You, as alumni and friends of the Department, have a lot to be proud of. We, in turn, are grateful for your continued involvement with our educational mission.”

Dar Roberts, Chair
2012 had its own share of challenges. For example, wildfires, a tsunami and one of the worst nuclear disasters in history, the 9.0 magnitude earthquake off the coast of Japan, leading to a massive tsunami and the ensuing nuclear disaster. These events serve as a reminder of the importance of Geography and the manner in which the world is interconnected. Every day, we are reminded of the importance of Geography and the manner in which the world is interconnected. Like 2011 which started off with a “bang” with a magnitude 9.0 earthquake off the coast of Japan, leading to a massive tsunami and one of the worst nuclear disasters in history, 2012 had its own share of challenges. For example, wildfires scorched the American Southwest which has been in the grips of a severe drought for many years and subject to severe forest mortality due to bark beetles. Active research by the UCSB Geography Climate Hazards Group is exploring links between this drought and warming in the western Pacific. Much of the Midwest was subject to the worst drought in 25 years, leading to serious agricultural losses, and the northeast (notably New York State and New Jersey) is still counting the losses due to Hurricane Sandy, one of the most severe hurricanes to have ever made landfall in that region. Flooded subways and beach erosion remind us that sea level rise is real and can have dire consequences. More than ever, we turn to Geography to reveal the physical processes that create hurricanes and droughts, to create the maps that show areas impacted, and to provide the tools needed to coordinate services for relief efforts. Geographers like Dr. Chris Funk are exploring links between climate change and drought, while the tools of geography, such as remote sensing and GIS, have now become routine for disaster response.

Unfortunately, not all is rosy under the holiday lights. We are sad to say goodbye to Professor Mike Goodchild who retired at the start of summer 2012 and equally sad to see Professor Chris Still leave UCSB for the cooler confines of Corvalis (Oregon State University). However, help is around the corner, courtesy of the Jack and Laura Dangermond Endowed Chair, the first in the Department's history, which we hope to fill in 2013. We are also pleased to introduce new staff, including Karl Antonsson, our new Undergraduate Assistant, Patricia Halloran for Accounts Payable and Travel Assistance, and Bryan Karaffa who is helping keep the computers of Ellison Hall humming along. Geography faculty and students continue to win national recognition. For example, Professor Rick Church was elected to the Board of Directors of the Western Regional Science Association early in 2012, Professor Bodo Bookhagen was awarded the honor of writing a News and Views article for Nature Geosciences, summarizing the work of Andermann et al. on groundwater sources in India, and Professor Libe Washburn had his paper, “The propagating response of coastal circulation due to wind relaxations along the central California coast,” selected as an AGU Research Spotlight. Finally, Krzysztof Janowicz was a Distinguished Speaker for the Center for Information and Technology fall lecture series. Graduate student, Indy Hurt was honored as the student speaker at the 2012 Graduate Division Commencement Ceremony, and Yihong Yuan was awarded two fellowships, one from the Graduate Division and one from the Dwight Eisenhower Transportation Fellowship program. Even undergraduates got into the game with Seth Goretick, a graduating senior in 2012, winning the Jeremy D. Friedman Memorial Award, an award that is only given out to one graduating senior annually. Several alums were honored, most notably Dr. Dawn Wright, who was awarded the AAG Presidential Achievement award.

Every day, we are reminded of the importance of Geography and the manner in which the world is interconnected. Like 2011 which started off with a “bang” with a magnitude 9.0 earthquake off the coast of Japan, leading to a massive tsunami and one of the worst nuclear disasters in history, 2012 had its own share of challenges. For example, wildfires scorched the American Southwest which has been in the grips of a severe drought for many years and subject to severe forest mortality due to bark beetles. Active research by the UCSB Geography Climate Hazards Group is exploring links between this drought and warming in the western Pacific. Much of the Midwest was subject to the worst drought in 25 years, leading to serious agricultural losses, and the northeast (notably New York State and New Jersey) is still counting the losses due to Hurricane Sandy, one of the most severe hurricanes to have ever made landfall in that region. Flooded subways and beach erosion remind us that sea level rise is real and can have dire consequences. More than ever, we turn to Geography to reveal the physical processes that create hurricanes and droughts, to create the maps that show areas impacted, and to provide the tools needed to coordinate services for relief efforts. Geographers like Dr. Chris Funk are exploring links between climate change and drought, while the tools of geography, such as remote sensing and GIS, have now become routine for disaster response.

The generous support of alumni and friends is important to the advancement of the Department in the face of a still troubled economy and stressed state budgets. External support is critical in providing the best education and training for our students, and maintaining the excellence of our world-class research. We hope you will consider a gift to support the education of our talented and deserving students in the Department. Whether you have a preferred gift fund, such as the Leal Anne Kerry Mertes Scholarship Award or the Samantha C. Ying Gamma Theta Upsilon Scholarship, or would prefer an unrestricted gift to the Department, all are valued highly. Our Geography faculty continue to excel in research and teaching, and our undergraduate and graduate students are impressive. An education from the Department of Geography at UC Santa Barbara is a huge asset in a tight job market, and your help can make it even better.

Your ongoing support is vital to our undergraduate and graduate programs. One reason the Department of Geography at UC Santa Barbara is able to deliver on its promise to students is because of the support of alumni and friends like you, which is why I encourage you to consider making an investment in the Department. These gifts enable us to recognize our best students and support their educational and research expenses. You, as alumni and friends of the Department, have a lot to be proud of. We, in turn, are grateful for your continued involvement with our educational mission.

Sincerely,
Professor Dar Roberts
Chair, Department of Geography
UCSB Geography Researchers Coauthor GEO-5 Report

The U.N. Environment Programme released its fifth Global Environmental Outlook report — commonly known as GEO-5 — in June, on the eve of the recent Rio+20 Conference on Sustainable Development in Brazil. Produced over three years, in collaboration with some 600 experts worldwide, the document details global progress, or lack thereof, on a host of internationally agreed-upon goals to protect the planet and reverse a longstanding pattern of production and consumption of natural resources.

“If you look at these issues over several years, it can be overwhelming and discouraging,” said David López-Carr, professor of geography at UCSB, director of the Human-Environment Dynamics (HED) lab, and a lead author on two of the report’s 17 chapters. “But learning takes time, and patience truly is a virtue. Many of the debates we have now are over things we weren’t even talking about 40 years ago. So we do see areas of progress.”

With Kostas Goulias (left), a UCSB geography professor and transportation expert, and Matthew Gluschankoff (right), an undergraduate who works in the HED lab, López-Carr helped write the opening substantive chapter to the GEO-5, “Drivers,” about what causes environmental change. Population and consumption are deemed the primary drivers. High population growth in remote rural areas such as sub-Saharan Africa — and the impact that such demographic transition is likely to have on human well-being and environmental integrity — remains an especially “under-recognized” issue, according to López-Carr.

Former UCSB visiting scholar Narcisa Pricope, an assistant geography professor at Southern Oregon University, leant her expertise in the emerging concern over drylands to the chapter “Land,” alongside López-Carr, who focused on population, agricultural and forest transitions, and policy implications. Among other insights, they reveal that competing demands for fuel, food, feed, fiber, and raw materials are intensifying pressures on land — and that globalization and urbanization are further aggravating those demands. “My overall sense is that things will get worse for land before they get better,” said López-Carr. “I would be delightfully but significantly surprised if, in 10 years, we had more forest conservation, reversed soil decline, and enhanced farmland sustainability.”

As much about finding solutions as it is about exposing problems, the GEO-5 also offers big-picture policy suggestions and identifies small changes with the potential for big impact — from supporting universal primary education and health care, and improving governance and capacity building, to reducing consumption of red meat. López-Carr describes the latter recommendation as “a win-win for human health and the environment.”

About the role of UCSB academics in the report, López-Carr added: “There is a lot of incentive, particularly in the UC, to publish, publish, publish in academic journals and get grants. We do that, at the highest level, yet we also use that knowledge and research for policy mechanisms like this that are of global importance, for which we are not paid by the university, or by anyone. I’m really proud of the contributions coming out of UCSB, and this geography department.”

In a personal communication, David later commented: “Kostas came through in a pinch when we needed to add transportation text to our “Drivers” Chapter. The global transportation system is a huge conduit of human environmental impacts, and Kostas’ expertise was just what we needed and was much appreciated. Narcisa was one of only a handful of UNEP GEO fellows, attesting to her early career upward trajectory and strengths in remote sensing and land change research in Africa. Matt Gluschankoff was so helpful under a pressure timeline in assisting in data and reference collecting and helping to draft some data interpretation that he earned authorship on the Drivers chapter; he may have the record beat for youngest GEO author by several years. I’m grateful for Kostas’, Narcisa’s, and Matt’s important and timely contributions and delighted that we could represent Gaucho Geography in the GEO-5.”
King, McFadden Studies of Urban Ecosystems Published in Top Journals

“Phylogenetic and functional characteristics of household yard floras and their changes along an urbanization gradient,” a paper co-authored by Professors Jennifer King and Joseph McFadden, with colleagues in Minnesota and Germany, was selected as a research highlight in a recent issue of the journal *Nature*. The results were also published as a preprint in the journal *Ecology*. The field study by lead author Sonja Knapp, a postdoc at the Helmholtz Centre for Environmental Research in Halle, Germany, compared plant diversity in residential yards along an urban-exurban gradient in the Minneapolis-Saint Paul metropolitan area to plant diversity in an adjacent nature reserve.

The authors found that the urbanized areas had more plant species as compared to the natural vegetation. However, the urban plant species were more closely related to each other and often shared similar functional traits such as being short-lived and fast-growing, using humans rather than insect pollinators to spread, and being adapted to high temperatures. The study raised concerns that, as plants from residential yards spread into natural areas, there could be negative effects on pollinators such as bees and butterflies and on the ability of those ecosystems to respond to environmental changes.

“Carbon, nitrogen, and phosphorus fluxes in household ecosystems in the Minneapolis-Saint Paul, Minnesota, urban region,” also coauthored by King and McFadden and collaborators from the University of Minnesota, was published in the April issue of the leading journal *Ecological Applications*.

According to the press release issued by the UCSB Office of Public Affairs, the researchers explained that the project is unique in both its scale and comprehensive approach to studying urban ecosystems. It covers the whole span of a major metropolitan region in Minneapolis-Saint Paul, Minnesota, from the city center to the exurban fringe. They compiled a highly detailed data set of 3100 individual households, based on a 23-page survey, energy utility billing records, vehicle odometer readings, on-site vegetation measurements, GIS data, and satellite imagery. The study will continue through 2013 with funding of $500,000 from the National Science Foundation (PI: J. McFadden).

UCSB Geographers Awarded Prestigious Mellon Foundation Grant

The Andrew W. Mellon Foundation has awarded a $175,000 grant to UC Santa Barbara in support of a Sawyer Seminar on the Comparative Study of Cultures entitled “Sea Change: Integrating the Historical Study of Human Cultures and Marine Environments in Three Pacific Regions.” The Sawyer Seminars program funds seminars that bring together faculty, visiting scholars, postdoctoral fellows, and graduate students from the humanities, social sciences, and related fields. Only institutions that are invited to do so may submit proposals to the program. The grant covers a period of two years, and provides support for one postdoctoral fellow and for the dissertation research of two graduate students.

The research seminar at UCSB will focus on the development, integration, and application of historical knowledge about the relations between human cultures and marine environments. It seeks to advance the emerging field of marine environmental history while integrating diverse geographic perspectives and disciplinary approaches. The three faculty organizers include Peter Alagona (left), Assistant Professor of History and Environmental Studies and an affiliate faculty member in Geography; David Lopez-Carr (below right), Professor of Geography and Director of Latin American and Iberian Studies; and Teresa Shewry, Assistant Professor of English.

“UC Santa Barbara is proud to be the recipient of a prestigious Sawyer Seminars grant from the Andrew W. Mellon Foundation,” said UCSB Chancellor Henry T. Yang. “It is a great honor, and an indication of the exceptional interdisciplinary research taking place on our campus. Combining their respective expertise in geography, history, environmental studies, and English, Professors Alagona, Lopez-Carr, and Shewry will shed new light on an important and timely topic.”

Faculty Kudos continued on p. 5
Goodchild Charts the Next-Generation Digital Earth

Mike Goodchild “retired” July 1, and, as predicted, he hasn’t slowed down one bit! The following is a July 2, 2012 press release by the UCSB Office of Public Affairs:

The world has gotten smaller and more accessible since applications like Google Earth became mainstream, says UC Santa Barbara Professor of Geography Michael Goodchild. However, there is still a long way to go, and there are important steps to take to get there. His perspective, shared with many co-authors around the world, has been published in the Proceedings of the National Academy of Sciences in a paper titled, “Next-generation Digital Earth.”

Based on former vice-president Al Gore’s 1992 vision of a digital replica of Earth, the paper examines the world’s progress to date, and its prospects for the future. “The point of this paper is to say, ‘Well, how far did we get?’” said first author Goodchild, who specializes in geographic information systems (GIS). The answer? Since Google Earth — the most popular publicly available program for spinning the digital globe — not far enough.

Taken from Gore’s vision, which is outlined in his 1992 book, “Earth in the Balance,” and also taken from a Gore speech Goodchild helped to produce for the opening of the California Science Center in 1998, the development of the first iteration of a Digital Earth was rapid, as technology expanded to allow users to view the Earth in a way that had not been possible before. The results fascinated many, who took to maps made by Google and other digital globe-making services — NASA’s WorldWind and Microsoft’s Bing Maps, for instance — to visualize their worlds. Global visualizations and modeling have been responsible for a variety of beneficial efforts, such as the tracking of major weather events and political uprisings, and finding lost people.

But the wider the technology spread, the more obvious certain issues became. For instance, different sources of data provided for these applications resulted in different maps, and different boundaries for the same regions. “There’s no such thing as a true map,” said Goodchild, pointing out three versions of the boundaries of the Himalayas on Google Maps, in response to requests from the United States, China, and India. Differences in how the applications measure distance are magnified with each new location mapped. These are issues that could make information from digital globes unreliable, even contentious.

Goodchild sees the next generation of Digital Earth moving away from the top-down experience and giving way to the bottom-up perspective. “I’m more keen on the next generation going local instead of global,” he said. Things that happen to be important to those who live in the area should be part of the area’s maps, according to Goodchild, though they may not be the standard political or topographic fare of the traditional globe. Temporal information — traffic is an example already in use — also proves to be useful and more relevant to users. “There’s more of a social perspective now, and less emphasis on permanent objects,” he said.

However, to take the next steps effectively, the next generation of Digital Earth has to back away from the “exaggerated precision” of the current generation, allowing for uncertainty, and also for the various contexts and environments that a Digital Earth is able to access. Relationships and linkages between objects need to be developed and refined, and a way of archiving the sheer amounts of data must be developed, says the paper. Additionally, according to the paper, collaboration between multiple infrastructures and open-source partnerships will be necessary for the next generation Digital Earth, as well as a code of ethics that will allow the technology to strike a balance between universal access and universal protection. “Privacy is less important to the younger generation,” said Goodchild, pointing to things like Facebook and similar social media engines, “but we need the ability to opt-out or be invisible. It’s getting increasingly difficult.”

Despite the move away from ultra-high precision in mapping, however, there continues to be an overarching need for the next generation Digital Earth to be scientifically accurate, and it’s the scientific community’s job to ensure that accuracy, he said. “It’s the problem we have when major corporations produce scientific software,” Goodchild said, citing Google Earth’s inclination to satisfy 90 percent of its users. Scientists are part of the remaining 10 percent, he said. “We ought to insist that scientific standards should be followed,” said Goodchild. “Because if we don’t, they won’t.”
“Caves and Cognition: Exploring the Cave Experience from Multidisciplinary Perspectives”

A diverse and innovative symposium entitled “Caves and Cognition: Exploring the Cave Experience from Multidisciplinary Perspectives” took place October 18-20, 2012, on the campus of UC Merced, the UC system’s newest campus. The town of Merced is in California’s Central Valley, just west of the Sierra Nevada foothills and Yosemite Valley. UC Santa Barbara Geography Professor Dan Montello co-organized the symposium along with his colleagues at UC Merced, Professors Holley Moyes (Anthropology), Teenie Matlock (Cognitive Science), and Michael Spivey (Cognitive Science). Participants included UCSB Geography Professor Helen Couclelis and Professor Emeritus Mike Goodchild.

The meeting was structured to create synergies between disciplines and stimulate new research and partnerships between the humanities, social sciences, cognitive sciences, and geosciences. Local, national, and international scholars from a dizzying array of disciplines gave a total of 18 presentations to each other and an appreciative audience of nearly a hundred others, most from UC Merced and other points nearby. Presenters came from anthropology and archeology, cognitive science, psychology, linguistics, literature, history, classics, geography and geographic information science, earth science, and architecture. Some of the tantalizingly titled presentations included:

“We Are All Cavemen: Plato’s Allegory of the Cave and the Perennial Search for Meaning” (Helen Couclelis, Department of Geography, UC, Santa Barbara)

“The Light in the Darkness: The Use of Caves in the Star Trek Television and Film Series” (Michael Barba, World Cultures and History Graduate Group, School of Social Science, Humanities and Arts, UC, Merced)

“Why Dark Zones Are Sacred: Turning to Behavioral and Cognitive Science for Answers” (Daniel R. Montello, Department of Geography, UC, Santa Barbara)

The symposium was motivated by Professor Moyes’ (lead organizer) observations that archaeological research across cultures and time periods demonstrates that both ancient and modern people have used the dark zones of caves as ritual spaces but rarely for habitation. The dark zone in a large cave is the part with constant temperatures that sunlight does not reach. Apparently, dark zones of caves have physical properties experienced universally by humans that lead to the assignment of similar meanings to these spaces by different societies across time and place, affording their use as sacred or ritual spaces and venues for intentional semiotic communication (Moyes and Montello call these “transcendental affordances”). Anthropologists have long studied ritual and religion and have contemplated the universality of religious beliefs. Recent research trajectories focus on the structure of the mind as the fundamental causality of the occurrence of religious or spiritual beliefs. What has not been considered in these research programs is the role of human environmental perception and cognition as crucial in establishing cosmologies and other foundational beliefs. The Merced symposium focused on the role of caves in human experience and thought, including understanding the qualities of specialized cave environments that might lead to their common emotional and intellectual responses, and establishes their meaning as powerful spiritual venues.
Kayee Leung was this year’s recipient of the Samantha C. Ying Scholarship which is used to support undergraduate students, based on the criteria of academic achievement and compelling family/personal circumstances, giving highest consideration to those students who are active or contributing members of the Theta Nu Chapter of Gamma Theta Upsilon. Professor Dar Roberts handed the award out during Geography Colloquium on May 31, 2012.

Jack and Laura Dangermond have established a fellowship award for a promising undergraduate geography student with an emphasis in Geographic Information Science in the Department of Geography. This year’s award went to Arunima Rashidee, seen here with Professor Dan Montello. Jack and Laura Dangermond are the co-founders and President and Executive Vice President respectively of Environmental Systems Research Institute. ESRI is a major industrial supplier of software in the field of GIS.

Ryan Kelley, a junior majoring in Art History with an emphasis in Architecture and Environment, served as both a Geography and Sustainability Intern. Ryan is interested in green building design and has recently started assisting with campus LEED certifications. He is a member of the UCSB U.S. Green Building Council (USGBC) student group and will be spending this coming academic year studying abroad in London.

Felicia Bill (far right) was honored for her contributions to the department with the Chair’s Distinguished Service Award. Felicia served as a Sustainability Intern under the direction of Katie Maynard (left), worked at the Map and Imagery Laboratory as a GIS technician, was the lead for the Sustainability Layer Team for the ongoing Interactive Campus Map, and landed an internship with Apple after graduating in June.

THE CHAIR’S AWARD FOR EXCELLENCE IN GEOGRAPHY, which is awarded to a graduating senior majoring in Geography who has attained the highest overall grade point average, went to Adam Rottman-Hipps. Adam is a previous recipient of the Jack and Laura Dangermond Undergraduate Fellowship and received both the Outstanding Achievement and Distinction in the Major awards this year.

Colin Twohig received the Outstanding Achievement in Geography Award, Distinction in the Major, and the Chair’s Distinguished Service Award. Colin (left), graduated with a double major in Geography (GIS Emphasis) and Environmental Science. He is shown with Philip Jankoski (right), a recent graduate with a BS in Environmental Science. Colin and Philip, co-founders of the UCSB Compost Pilot Project Coalition, are pictured after receiving the “Best Group Project Award” from the Office of Student Life.
THANK YOU, DONORS!

The UCSB Department of Geography would like to thank the following people and institutions for their generous support during the past 12 months:

- Tricia and Tony Bourdakis
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“You, as alumni and friends of the Department, have a lot to be proud of. We, in turn, are grateful for your continued involvement with our educational mission.”

Dar Roberts, Chair, UCSB Department of Geography
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Gifts of support for the Department of Geography at UCSB are deeply appreciated. All gifts, large and small, help us in our mission of teaching and research, and promote the study and understanding of planet Earth and its inhabitants.

For the following accounts, please make checks payable to: **UC Regents:**

☐ Geography Department Support: Unrestricted support.

☐ Landon Romano Textbook Scholarship: Landon Romano, 1999 alumnus, established textbook fund to give back to the department that made a positive difference in his career.

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☐ <Your Name Here> Scholarship Fund: See: http://www.geog.ucsb.edu/about/giving.php

☐ The Akella Family Scholarship: The Scholarship will be used to support undergraduate student(s) based on the criteria of compelling family/personal circumstances and academic achievement.

☐ The Nicholas Bourdakis Memorial Fund: The Bourdakis Fund was established after the tragic death of Nicholas, who died in February 2001 when struck by a car in Isla Vista. He had just declared Geography his major.

☐ Jack and Laura Dangermond Fund: Jack Dangermond is the founder of ESRI (1969), a GIS and mapping software company. He is considered one of the most influential people in GIS worldwide.

☐ The Jack Estes Memorial Fund: Jack Estes was a Geography faculty member for over thirty years. He built a thriving remote sensing research unit and mentored many students.

☐ The Reginald G. and Allison L. Golledge Distinguished Lecture Fund: Twenty years ago, the Golledge Distinguished Lecture was instituted to bring highly respected speakers to campus to share their research.

☐ The David Simonett Memorial Fund: David Simonett was the first Chair of the Geography Department. He built what has become one of the nation’s finest Geography Departments.

☐ Lea A. Kerry Mertes Scholarship Fund: The Scholarship will support undergraduate and graduate UCSB students who are planning or are engaged in scientific field research.

☐ The Samantha C. Ying Gamma Theta Upsilon Scholarship: Named in honor of one of our distinguished alumna, this award supports undergraduate student(s), based on the criteria of academic achievement, compelling family/personal circumstances, and membership in the UCSB Geography Club.

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The Dwight David Eisenhower Transportation Fellowship Program awards annual fellowships to students pursuing degrees in transportation-related disciplines, and, this year, UCSB Geography graduate student Yihong Yuan was awarded $5000 (which included $1500 to cover travel costs to the 2013 Annual Transportation Research Board meeting in Washington DC). Yihong scored a double by also winning a UCSB Graduate Division Dissertation Fellowship. These fellowships are awarded to exceptional doctoral students from all academic disciplines who have advanced to candidacy and who are in the final stages of completing their dissertation. This award provides a $6,667 stipend plus payment of in-state tuition and health insurance (UCSHIP) for one quarter to allow the awardees more time to finish their dissertations.

Kate Deutsch (far right) shared the Excellence in Research Award with Yihong Yuan. Grant McKenzie (left) was also awarded the The Jack and Laura Dangermond Graduate Fellowship. The Excellence in Teaching award is presented to Geography graduate students who have outstanding course evaluations as TAs and/or instructors, outstanding written comments from students, outstanding evaluations of TA work by the course instructor, and outstanding design of course or lab syllabi or outstanding design of lab or section activities. The Excellence in Research award is made annually to a graduate student whose national conference presentations, publications, research, and lab or field experiments are deemed exceptional. The Jack and Laura Dangermond Graduate Fellowship is awarded to a promising graduate geography student in Geographic Information Science in the department of Geography. The recipient will hold the title “The Jack and Laura Dangermond Fellow” in residence and receives a stipend, allowing its holder to devote more time to imaginative and creative research.

The David S. Simonett Memorial Award was established in memory of David S. Simonett, Professor of Geography at UCSB from 1975 until his death on December 22, 1990. A world-renowned authority in the field of remote sensing, Simonett was a founding director of the National Center for Geographic Information and Analysis, the first chairman of the Department of Geography (1975 to 1982), and Dean of Students until 1989. The criteria used for this award are service to the department and the discipline of Geography, academic progress, academic accomplishment, and length of time in the program. The recipient will be the student who best exemplifies the values that David Simonett established for the graduate program at UCSB. The student selected to receive the award this year was Katharine (Kitty) Currier.

The Jack Estes Memorial Award was established in memory of Jack Estes, a Geography faculty member for over thirty years and the Director of the Geography Remote Sensing Unit. His primary research interests involved the use of remote sensing and geographic information systems technology for analysis of earth resources. This fund was established to support students who are continuing his field of research, and Maiana Hanshaw was the Jack Estes Memorial award recipient this year.
Thanks to the generosity of Jack and Laura Dangermond, multiple travel expense awards are available to help qualified undergraduate and graduate students present GIS-related work at conferences and workshops. Eight grad students, one new alumnus, and one undergrad successfully applied for funding for the Winter Quarter expense awards.

**Rodrigo Bombardi** presented a paper titled “South Atlantic Sea Surface Temperature and its Relationship with Precipitation in Brazil During Neutral ENSO Periods” at the at the American Geophysical Union Conference, (3-7 December, 2012; San Francisco, CA) which dealt with the dominant mode of coupled variability over the South Atlantic Ocean known as “South Atlantic Dipole” which is characterized by a dipole in sea surface temperature (SST) anomalies with centers over the tropical and the subtropical South Atlantic.

**Forest Cannon** was also at the AGU, presenting a paper titled “Large-Scale Indian Summer Monsoon Index” which dealt with research is to develop detailed diagnostic analyses to characterize climatological variability of the summer monsoon system over high Asian mountains during 1979-present.

**Kate Deutsch** presented a paper titled “Assessing the Importance of Subjective Place Attributes in Behavioral Choices” at GIScience 2012 (18-21 September, 2012; Columbus, OH): “This work is a portion of my dissertation in which I have conducted a web-based survey on spatial decision-making and attitudes with regard to Santa Barbara geography.”

**Seth Gorelic** just graduated and presented a Geography 115 poster he helped to create in his senior year at the AGU, titled “Measuring Glacial Change in the Mt. Tronador Region of the Southern Andes with Remote Sensing Techniques.”

**Shane Grigsby** also attended the AGU and presented “Sharing the Cloud: Showing, Distributing, and sharing large point datasets”: “I selected this conference because I was invited to apply by one of the co-chairs for a session sponsored by the ‘Earth and Space Science Informatics’ on open source scientific collaboration.”

**Grant McKenzie** presented “Groundtruthing spatial activities based on online social networking data” at GIScience 2012, a study of the considerable growth in the area of online social networking which examined the reliability and accuracy of such activities in terms or real-world activities.

**Olaf Menzer** presented “Gap-filling of flux measurements over a heterogeneous urban landscape” at the AGU. His paper dealt with the small, but growing, number of urban flux towers that measure surface-atmospheric exchanges of energy, water, and greenhouse gases by the eddy covariance method and methods of improving such measurements.

**Matthew Niblett** attended the 59th Annual North American Meetings of the Regional Science Assn. International (6-10 November, 2012; Ottawa, Canada) where he presented “A new perspective in dispersive facility location modeling” which focused on the way dispersion has been considered and modeled in the past, what is lacking, and a new model that captures dispersion in a more realistic way.

**Colin Twohig**, a UCSB senior majoring in Geography, attended the Association for the Advancement of Sustainability in Higher Education (14-17 October, 2012; Los Angeles, CA) and presented a research paper titled “Impure Public Good Consumption: A Field Experiment” that sought to quantify the influence of different traditional marketing messages on the composting behavior of residents in multi-family housing complexes.

**Yingjie-Hu** attended GIScience 2012 and presented a paper titled “Using spatial-temporal signatures to infer human activities from personal trajectories on location-enabled mobile devices” which presented preliminary research about using spatial-temporal signatures to infer human activities from personal trajectories recorded on location-enabled mobile devices.
Kirk Goldsberry (PhD 2007), a visiting scholar at the Harvard Center for Geographic Analysis and an Assistant Professor in the Department of Geography at Michigan State University, has come up with an analytical tool he calls “CourtVision Analytics” that evaluates basketball performance via spatial and visual modalities and which the sports media loves, with good reason. “It’s been a thrilling day for CourtVision today. We made the front page of the New York Times (website) and had our interactive Finals preview posted, along with a full page feature in the print edition!!!”

The New York Times sports section, “Off the Dribble” was devoted to an article by Kirk titled “The Hottest Spots for Their Shots”: “This year’s N.B.A. finals feature two strikingly different offenses. Over all, the Oklahoma City Thunder rely on penetration-and-pitch plays that create 3-point and close-range shots. The Miami Heat, in contrast, rely on strategic player positioning to create effective spacing for isolation plays that enable midrange and close-range scoring chances for their superstars.” Kirk’s article goes on to analyze the 3-point, midrange, and close range shooting of the two teams, using Kirk’s “CourtVision Analytics.”

Kirk’s skill at sports analytics was also written up by The Boston Daily (10/31/12) under the title “Kirk Goldsberry Moneyballs the Celtics”: “About five years ago, Goldsberry, whose specialty is data visualization, started plotting NBA shot attempts. This year, after a lot of trial and error, he began producing astonishingly information-rich maps (precise to the square foot) that show the spots on a court where a shooter’s attempts are most likely to be successful. Nine NBA teams have approached Goldsberry about using his maps to find their players’ strengths and weaknesses.

So what’s the good news for Celtics fans? Goldsberry recently studied the performances of Jason Terry and Courtney Lee—acquired to replace Ray Allen—and both, it turns out, regularly sink the same shots that Allen did.”

Julie Dillemuth (PhD 2008) wrote her Geography dissertation on “Map Use and Spatial Knowledge Acquisition with Small, Mobile Map Displays” (Clarke and Montello, Co-Chairs), and her PhD included a Cognitive Science Emphasis which she put to good use as Education Coordinator for the UCSB Center for Nanotechnology in Society before leaving academia to become a full time mother and writer.

“I started writing for children a few years ago, with a focus on picture books, as well as magazine stories and poems. The idea to write for kids came, in part, from my graduate experience at UCSB. My research was spatial cognition in adults (navigation with maps on small screens), but I found developmental aspects of spatial cognition really fascinating. I thought, wouldn’t it be neat to help promote spatial thinking in kids through fun, engaging books. Not straight-up educational books, but fiction stories with spatial themes and lots of spatial language. So I started writing, and I discovered that I absolutely love writing for children. I also discovered how crazy hard it is to get published, and how no children’s writer does this for the money. But I am determined, and I hope to publish my first picture book while my daughter can still appreciate it! (She’s 21 months, so I have several years!)

Despite the challenges of publishing, Julie is off to a great start. Apart from her publication in Odyssey, she won the prestigious Highlights magazine Children Fiction Contest this summer, “which gave me a huge vote of confidence for my writing, as well as a $1000 prize. I still can’t quite believe that.” That story will appear in Highlights, and she also has a poem coming out in 2013 in a brand-new Highlights magazine for 0-3 year olds, called “Hello.” You go, girl!
Indy Hurt, Student Speaker at the 2012 Graduate Division Commencement Ceremony

The Graduate Division Commencement Ceremony took place on Sunday, June 17, on the Faculty Club Green. The event honored 475 UCSB students who have completed a graduate degree or credential program between Fall 2011 and Fall 2012 and who signed up to participate in the Commencement ceremony. The featured speaker was Dr. Lisa Parks, a faculty member in the Film and Media Studies department at UCSB, and the student speaker was our own Indy Hurt. During her time as a graduate student at UCSB, Indy worked as the Graduate Division Academic Peer and as a GIS Research Analyst for three campus departments. Indy recently accepted a position as the iOS Research Coordinator - Geo Team for Apple.

Professor Keith Clarke described Indy’s commencement oration as “an excellent speech, beautifully delivered.” Here are Indy’s own comments:

“When the Graduate Division put out the call for the graduate student speaker, I knew that I wanted to share a positive message with our graduating class, but the idea for the speech came together over time. I started the process by searching YouTube commencement speeches and found interesting trends. Speakers wax poetically about achievements and the future, inevitably interjecting with suggestions on how to live your life. Perhaps this is the expected foundation for any commencement address, but I wanted to put my own spin on it. I also wanted my speech to be accessible with relatable references that could reach a broad multi-generational audience. With those goals in mind, I referenced the significance of introductions, the path between orientation and finally filing with Graduate Division, and a few choice stats like the fact that a mere 7.2% of the US population has a master’s degree, 1.9% have professional graduate degrees, and only 1.2% have obtained a doctoral degree. On Sunday, 248 graduates were hooded for doctoral degrees, all excited to be a part of that ‘one percent.’ I also referenced the importance of inspiring and mentoring others that are considering graduate education, particularly at a time when the rising cost of obtaining a graduate degree gives pause to many of those that hope to follow in our academic footsteps. This advocacy grew out of the numerous opportunities I have had to participate and become a part of a vibrant academic community of scholars.”

Geography Department grads who formally received their PhDs included Indy Hurt, Dayna Quick, and Nate Royal. While they have not quite finished their degrees but expect to do so in the next quarter, Carlos Baez (MA candidate) and PhD candidates Reggie Archer, Pam Dalal, Alan Glennon, and Justin Stohler were also hooded at the commencement ceremony. Kudos to Indy and the rest of Geography’s “1-7 percenters”!

Editor’s Note: The articles included in this edition of the Geography Newsletter are only a small sampling of the 120 postings made for the News & Events page of the UCSB Geography web site (http://www.geog.ucsb.edu/events/department-news/) since the Spring Newsletter was sent out in April.