

Photo by Jeff Nicholson taken from Flagstaff Mountain, near the University of Colorado, Boulder

## Geography Chair

Message from Geography  
Chair, Emily Yeh [pg 2.](#)

## New Faculty

Jennifer Balch, assistant  
professor. Jennifer Fluri,  
associate professor [All on pg 5](#)

## Featured Students

Jessica Bobeck [pg 8](#)  
Rory Cowie [pg 8](#)  
Chris Anderson-Tarver [pg 9](#)  
Madison Musgrave [pg 11](#)

## Featured Faculty

Jennifer Fluri [pg 5](#)  
Jennifer Balch [pg 5](#)  
Mark Williams [pg 7](#)  
Tim Oakes [pg 7](#)

## Featured Alumni

Succinctly salient summaries of  
bits and bytes, this and that,  
and who, what, where. [pg 12](#)

## Recent publications, grants, awards, & graduate placements

Check out selected job  
placements, grants, and  
publications. [pg 13-15](#)



### *Jennifer Balch On Fire: Effects of Fire on Amazonian Forests*

Fire is as elemental as air or water. We live on a fire planet. We are a fire species. Yet, the study of fire has been really fragmented. We know quite a bit about the carbon cycle and the nitrogen cycle, but we need to know much, much more about the fire cycle and the drivers behind the diversity and distribution of fire on Earth.

[Page 5](#)



### *Jessica Bobeck: A Student's Perspective*

I didn't really know what geography was, other than memorizing countries and capitals on maps, until I took AP Human Geography my senior year of high school. It was from that moment on I knew I wanted to study Geography. My teacher once compared geography to history. History is an event and a time, whereas geography is an event and a place. [Page 8](#)



## *Emily Yeh, Department Chair*

Hello from Boulder to CU Geography alumni, friends, students, faculty, and staff near and far! It has been a little while since our last newsletter, and there are many exciting things to share with you about what's happening here in Guggenheim. With this and future newsletters, we hope to share with you some of the innovative, timely, and significant work being done by our faculty, graduate students, undergraduate majors, and alumni.



Most recently, Professors **Jennifer Fluri** and **Jennifer Balch** have joined us from Dartmouth College and Pennsylvania State University, respectively. We continue to have one of the strongest doctoral programs on campus, ranking 2<sup>nd</sup> among all Geography doctoral programs in the United States, according to the most recent National Research Council study, released in 2010. Not surprisingly, our graduate students are very successful in securing fellowships and other recognition for their work. Just this year, three new graduate students were awarded the coveted National Science Foundation Graduate Research Fellowship, and three others received Fulbright-Hays fellowships. Our undergraduate program continues to be strong, with our majors finishing in a timely fashion and very enthusiastic about the hands-on learning and diversity of skills and areas of knowledge that Geography provides.

Our faculty are internationally renowned scholars, prolific in their research and publications. Geography faculty members **Tom Veblen** and **John O'Loughlin** are among the only two dozen faculty who have been named "College Professor of Distinction" in the College of Arts and Sciences, which has 39 departments in all. Professor **Waleed Abdalati** spent two years as the chief scientists at NASA and frequently participates in public outreach, such as a recent TEDx MileHigh talk. Among our faculty are those studying everything from the relationship between climate change and political violence, to future water security in the Himalayas, to bark beetle outbreaks in the Colorado Rocky Mountains, to spatial patterns of chronic disease, to human rights and land claims by indigenous peoples. I won't go on – but I hope you get a sense of our collective enthusiasm for the work we are doing on socially important geographical problems.

While doing all of this learning, teaching, and research, our students and faculty are also navigating a number of new trends. Most importantly is of course the continued rapid decline in state funding for the CU campus, which has a direct impact on our ability to fund students, facilitate cutting edge research, and keep class sizes down. For this, we currently have no choice but to turn to those who value our work and our contributions to science and society to help make up the shortfall. At the same time, a lot of restructuring is taking place on campus, which we are navigating proactively with the development of new certificate programs, such as one in Geographical Information Science and in International Development. On the near horizon we are also working on providing a more formalized way for our undergraduate majors to have more direct opportunities to conduct research with faculty mentors.



**Thank You!** The Department of Geography is grateful to its alumni and friends for their financial support over the years. Our donors have had a big impact, making a difference not only to the Department as a whole, but to the lives of many individual students. There is always a real need for funds to support academic departments. As we strive for higher standards and more and better opportunities for our students, we depend on the caring and generous nature of alumni and friends like you to meet these ever increasing financial needs.



Your gift to the Department of Geography can take many different shapes. The information below may help you find the type of gift that best meets your needs, the impact you want, and the way you want to give. The CU Foundation can also assist you with your needs, be they for targeted or unrestricted programs.

### Geography Department Fund

This fund is for academic support in the broad sense. If giving online and you want your gift to go to a specific scholarship, please provide scholarship name in the "Comments" section.

**GIVE NOW**

### Undergraduate Scholarship Programs

#### *A. David Hill Scholarship Fund*

Established by Richard L. Knowlton, Professor Hill's former teammate and friend, and recently endowed by Myhra and Graham Hill, his wife and son. Applicant must be a Geography major, and have a minimum GPA of 3.0 in Geography, with a preference for those with interests in the environment-society relationship. Award is based on merit and demonstrated financial eligibility.

**GIVE NOW**

#### *Albert W. Smith Geography Scholarship*

Established in 1983 to honor Professor Smith at his retirement from the Geography Department faculty after thirty-one years of service to the University. Applicant must be a full-time senior majoring in Geography. Award is based on academic performance.

**GIVE NOW**

#### *Karl and Barbara von Dreden Stacey Scholarship*

Established by Katherine and Frank Baxter in honor of Katherine's parents, Barbara von Dreden (CU class of 1940) and Karl Stacey (CU class of 1936). This scholarship supports undergraduate students to engage in summer research with faculty. Preference given to applicants who are juniors or seniors majoring in Geography, and graduates from Colorado high schools. Award is based on academic performance.

**GIVE NOW**

#### *Theodore C. Myers Memorial Scholarship*

Named in honor of long-time geography instructor Ted Myers. Scholarship is awarded to the undergraduate student with the most exceptional honors thesis.

**GIVE NOW**



A. David Hill





## *Mable B. Duncan Scholarship Fund*

To support scholarships for Geography majors at the University of Colorado Boulder, based on financial need.

**GIVE NOW**

## Graduate Scholarship Programs

### *Gary L. Gaile DART Graduate Fellowship in Geography*

This fund, in memory of Professor Gary Gaile, provides a fellowship/scholarship for Geography MA and PhD students doing field research addressing social and environmental concerns in developing areas.

**GIVE NOW**

### *James A. and Jeanne B. DeSana Graduate Research Scholarship Fund*

This fund provides invaluable support for graduate student research.

**GIVE NOW**

### *Gilbert F. White Dissertation Fellowship*

Named in honor of Professor Emeritus Gilbert F. White, this fellowship provides funding to outstanding Ph.D. students in the final year of dissertation preparation. Students are nominated by their academic advisors. Award is based on merit and financial eligibility.

**GIVE NOW**

*Please specify "Gilbert F. White Dissertation Fellowship" in the Comments field.*

### *Geography Graduate Student Support Fund*

To provide support for graduate students in the Department of Geography at the University of Colorado Boulder. Support may include research support and equipment purchases. Gifts to this fund can be made in memory of (IMO) **Jennifer Dinaburg**.

**Jennifer Dinaburg**, a vibrant, active doctoral candidate in the Geography department, passed away on April 26, 2012 at the age of 31, after a very unexpected and relatively short battle with an aggressive form of adrenal cortical cancer. In her memory, the department has established a small, named fellowship for doctoral field research.

Jenn was passionate about geography in many forms: through the environment, the outdoors, and through learning about China. After studying Chinese language and literature at Connecticut College, she traveled and worked extensively on the Tibetan Plateau. After a degree in environmental studies at Prescott College, her journey brought her to the Geography Ph.D. program in 2008 to study the commercialization of Tibetan medicinal plants in China's northwest Yunnan province. Jenn brought a love of mountains, travel, and unconventional learning to the department, where she was well loved for her sense of humor, wit and spirit.



Jennifer Dinaburg

**GIVE NOW**

*Please specify "In Memory of Jennifer Dinaburg" in the Comments field.*

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## *Jennifer Fluri: working and living in conflict zones*

Associate Professor **Jennifer Fluri** (PhD Pennsylvania State University, 2005) joined the faculty this Fall. She previously taught at Dartmouth College.

I am a feminist political geographer concentrating on conflict, security, and aid/development in South and Southwest Asia. I am particularly interested in understanding the spatial organization and corporeal representations and experiences of individuals and groups working and living within conflict zones.

My doctoral research focused on the use of public and private space by the Revolutionary Association of the Women of Afghanistan (RAWA), a clandestine feminist-nationalist organization. My interest in this organization was sparked through my interactions with their international supporters' network in the United States. I compared how this organization operates and represents itself internationally through the use of the Internet and its geographic placement and operations in Pakistan and Afghanistan. RAWA's feminist politics remains unconventional within an Afghan context, while their methods for disseminating their sociopolitical beliefs and expanding their organization relies on conventional methods such as social reproduction and educational indoctrination.

My post-doctoral research project examined the spatial arrangements, interactions, and gender roles within the international "community" in Kabul, Afghanistan in comparison with the "local" Afghan population. The geopolitics and geo-economics associated with the placement of International workers and their interactions with Afghans were central to this project. I also became increasingly interested in the differentiated methods used by Afghans and internationals to provide for their own security in spaces increasingly beset by political violence and a general state of insecurity.

I am currently working on a two year project, funded by the United States Institute for Peace and CU Boulder, to identify the role and influence of Afghan Women's Civil Society Organizations on sustaining peace in Afghanistan. This project seeks to identify the geographic locations and extent of outreach and programming by different organizations, in order to understand where women's organizations have legitimacy and can garner respect from local communities. This project will also be examining the effect of political transition and military withdrawal on Afghan Women's Organizations and gender relations in Afghanistan. This research will include extensive interviews and focus groups with Afghan women leading NGOs and working in the Afghan government.



## *Jennifer Balch On Fire: Effects of Fire on Amazonian Forests*

**Jennifer Balch** (PhD Yale, 2008) was hired as assistant professor of Geography in 2014. Her research looks at the patterns and processes that underlie fire disturbance and ecosystem recovery, particularly in tropical forests. Balch also runs the Fire Works Lab.

To explore the effects of recurrent fire on Amazonian transitional forests, I have co-designed and executed—in collaboration with a Brazilian-American research team—one of the largest experimental burns in the tropics, which required walking and setting fire along 10 km of trails.





We are continuing to monitor the effects of the burns (one plot was burned annually for six years, and a second plot was burned every three years), which we designed to mimic wildfires that frequently escape from into the Amazon's understory from intentionally set fires associated with the Amazon's expanding agricultural frontier (driven largely by cattle and soybean production).

I think it is part of human nature to be attracted to and disturbed by fire. As far as we know Earth is the only planet with fire. Humans have an imperfect relationship with fire. We are dependent on combustion, and fire has been a part of our history, migrations, cultures, and even our evolution. We use fire as a tool and put it in boxes—from our fireplaces to our cars. Our carbon economy is dependent on combustion. Fire is as elemental as air or water. We live on a fire planet. We are a fire species. Yet, the study of fire has been really fragmented. We know quite a bit about the carbon cycle and the

nitrogen cycle, but we need to know much, much more about the fire cycle and the drivers behind the diversity and distribution of fire on Earth.

If you look at a place in the world where fire frequency is well outside its historical patterns—for example, the world's tropical humid forests—and ask how much changing fire patterns contribute to climate change, the answer is really surprising. Intentional deforestation fires in the tropics contribute up to a fifth of the human-caused increase in carbon dioxide emissions, since pre-industrial times. Fire, and people's use of fire, is inextricably linked to the climate system.

Better understanding of fire will help us adapt to changing fire regimes, particularly where there are bigger fires, more frequent fires, or fires in places where we don't normally see fires. We need to shift from thinking of fire as a disaster phenomena to thinking about what are the sustainable fire regimes that we can tolerate and live with against the backdrop of changing climate.

We need to reassess the role of fire on Earth. My research aims to understand the patterns and processes that underlie disturbance and ecosystem recovery, particularly how shifting fire regimes are reconfiguring tropical forests, encouraging non-native grass invasion, and affecting the global climate. My current and future research addresses the following major unsolved questions: What is fire's role in the Earth system? More specifically, how does fire contribute to global trends of climate warming and how does climate warming promote fire? A second question is: how are fire regimes altered by invasive species? Particularly, how is an invasive grass-fire cycle established and perpetuated? I am also researching how the recent unprecedented increase in human-initiated fires is altering tropical-forest dynamics, and how this increase in fire frequency is changing carbon cycles and the recovery trajectories.







## *Mark Williams: Evaluating the Impacts of Fracking*

Mark Williams is a co-I and member of the leadership team for a \$12,000,000 grant to study fracking. The University of Colorado Boulder is the lead institution for a Sustainability Research Network (SRN) funded by the National Science Foundation. The Network will engage twenty-seven researchers at nine institutions. The mission of this grant is to provide a logical, science-based framework for evaluating the environmental,



economic, and social trade-offs between development of natural gas resources and protection of water and air resources and to convey the results of these evaluations to the public in a way that improves the development of policies and regulations governing natural gas and oil development.

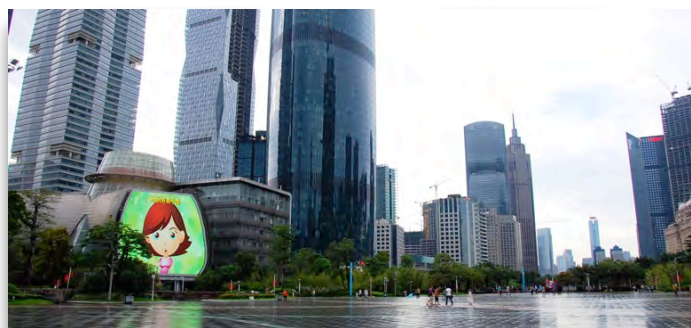
Fracking is incredibly controversial and polarizing, with mis-information being generated by people from both sides of the aisle. Our goal is to find the balance between maximizing the development of

natural gas and oil resources – for the benefits of short-term reduction of carbon dioxide emissions from power generation and transportation, national energy independence, and national job growth – and minimizing damage to water and air resources and risks to human health.

## *Tim Oakes on urbanizing China: Cities as machines for making new citizens*

China is urbanizing at a rate faster than any other place on the planet, and faster than any country has ever urbanized in history. New cities are seemingly being built overnight. The government is aiming to increase the urban proportion of China's population to 60% by 2020 and 70% by 2025, which means adding about 250 million people to the urban population over the next decade or so. Not only are new cities popping up everywhere to accommodate a massive uprooting of rural residents, but existing cities and towns are being entirely reconstructed: shiny new office towers, new shopping complexes, and new residential blocks are all being built on a giant scale. So are new spaces for leisure, recreation, and tourism. Old neighborhoods are being razed and replaced with 'heritage districts' where new buildings are built to look old. Themed landscapes abound as cities brand themselves centers of culture, creativity, innovation, or technology.

All of this change is dizzying and disorienting for China's urban residents. In my latest research project, funded by the National Science Foundation, I've been exploring whether all of this urban change produces the kinds of results envisioned by planners and officials. One goal of such rapid urbanization is to create a whole new society of urban, middle class consumers. China's leaders view cities as machines capable of producing new kinds of people. But how do these 'machines' really work? How do people actually inhabit them? Can the kinds of social changes that emerged gradually over several centuries in Europe be willed into existence in a matter of years via top-down policies and plans? While the obvious answer to this question seems to be "probably not", humans have never before experienced something quite like China's current massive urban transformation.





## *Jessica Bobeck*

I am a senior in the Geography department graduating in May. I hail from Upstate New York, but grew up in various parts of the east coast, ultimately graduating from high school in Alexandria, VA. I didn't really know what geography was, other than memorizing countries and capitals on maps, until I took AP Human



Geography my senior year of high school (and scored a 5!). It was from that moment on I knew that I wanted to study Geography. My teacher once compared geography to history. History is an event and a time, whereas geography is an event and a place. To me, that made the most sense. I love how you can explain why certain people live where or how the natural features of world influence everyone.

I came to CU for the mountains and the cycling, where I compete for CU on the cycling team, but I stayed for the Geography department. I absolutely love the small atmosphere that the department gives, like on Bagel Tuesdays (free breakfast!). I like knowing that my professors actually know who I am, and what I am interested in. Since coming to CU I found myself becoming more attracted to GIS with every class I have taken. Stefan Leyk and Babs Buttenfield are incredible professors who encourage projects in their classes, which I believe have made my skills even stronger. After I graduate, I hope to continue on to graduate school in the Geography department at CU. I am currently researching crevasse formation on surging glaciers using remotely sensed imagery, which I plan to turn into an honors thesis, and (hopefully) extend onto a master's and Phd. thesis as well. Overall, my experience here, at CU, and in the Geography department has been overwhelmingly amazing, even as an out of state student financing my own education, I wouldn't change a thing, this is the place for me.



## *Rory Cowie,*

A recent PhD graduate from Geography and INSTAAR, conducted his dissertation research in conjunction with the U.S. Environmental Protection Agency (EPA) to address remediation options for cleaning up abandoned hard rock mines in Colorado. The research focused on quantifying the timing and movement of water in and out of underground mine workings. Understanding the hydrologic pathways is important because the water contributes to production of acid mine drainage and the transport of pollution (i.e. heavy metals) into local waterways.





Traditional remediation of an acid mine drainage system involves treating all of the contaminated water that has exited the mine system. Treatment facilities have to be operated in perpetuity and are expensive to build and maintain. More recently, regulatory agencies have worked with researchers like Cowie to invest in more detailed hydrologic characterizations of mine systems with the goal of reducing the amount of polluted waters needing treatment and/or rerouting water flows to eliminate or reduce the amount of contaminants released into the natural environment.

**A MULTIPLE TRACER / GEOCHEMICAL APPROACH TO CHARACTERIZING WATER AND CONTAMINANT MOVEMENT THROUGH ABANDONED MINE WORKINGS NEAR RICO, COLORADO**



Cowie's research involved identification of surface water and groundwater interactions using both naturally occurring (stable isotopes and geochemical compounds) and applied (fluorescent dyes and organic salts) tracers. Additional analysis of radioisotopes of hydrogen and carbon were used to calculate sub-surface residence times of water encountered in different mine locations. The role of his research was to paint an unbiased picture of how water and contaminants move through mine sites. Results enable the state and federal regulatory agencies to make informed

decisions on the potential for targeted remediation solutions that are more economically feasible than traditional end-of-the-pipe treatment strategies.

*Chris Anderson-Tarver,*

like countless other geographers before him, was drawn to this discipline because of an interest in maps and the power of map data. Since maps are currently made, distributed, and viewed through digital computer technologies, Chris started studying what the mapping process means in a digital mapping era. His attention was particularly drawn to a website, OpenStreetMap (OSM), which is often described as the Wikipedia of maps. In OSM, map data is available for free. Anyone with internet access and a computer can edit its contents, and it is completely maintained by volunteers. The movement towards volunteered geographic information (VGI) gained particular notoriety in the wake of the January 2010 earthquake in Haiti where approximately 500 volunteers who did not live in Haiti donated their time to map the country in a very short period of time. Chris realized that the mapping efforts in the OSM database for Haiti are worth investigating because volunteer mappers for the first time added information to a database at such a rate, in such quantities and with enough accuracy that it became the de-facto source of geographic information for most of the major relief agencies involved.

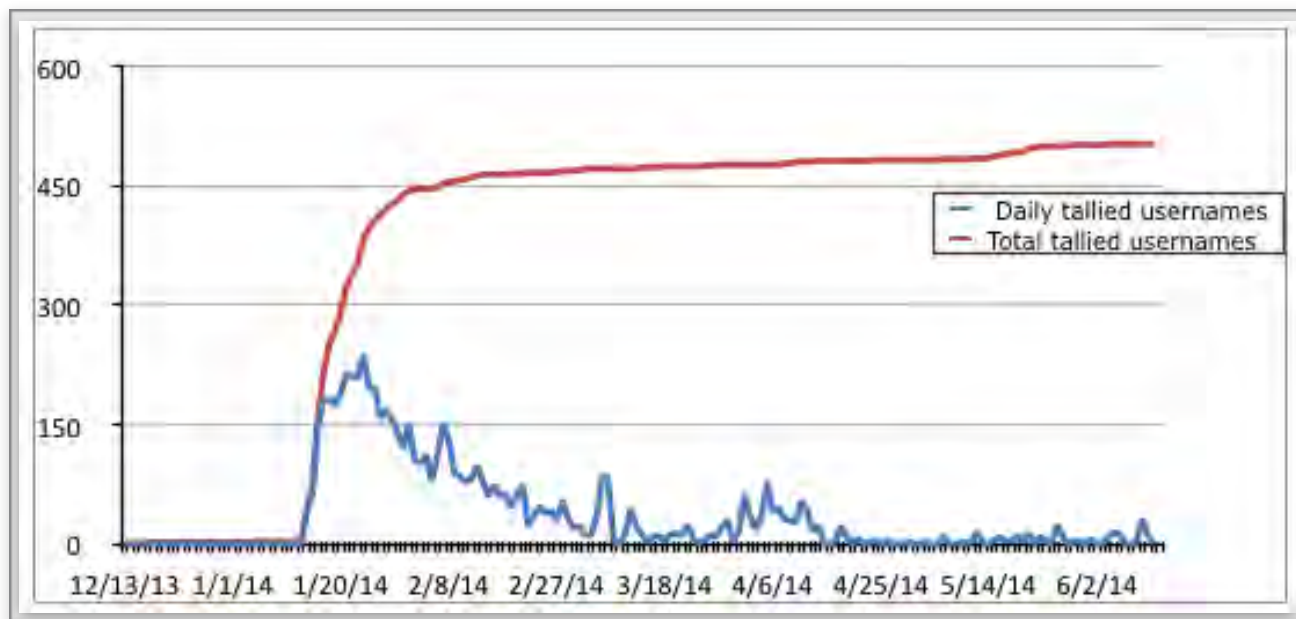
Chris' dissertation documents at a database level the crisis mapping in OSM in response to the 2010 Haiti Earthquake. While the creation of an up-to-date map is worthy of note, the efforts of this volunteer community are interesting also because immediately following the earthquake there was a complete lack of digital map data due to most of it being buried under the rubble in Haiti. As the crisis mapping response to the Haiti earthquake demonstrates, VGI is rapidly becoming a viable, even necessary, option for communities



that need help mapping their world. To document the OSM database for Haiti, understand more about digital volunteerism and crisis mapping, Chris' dissertation employs a mixed-methods, three part approach



to analyzing the OSM Haiti database. The first part constitutes a modified content analysis of OSM Haiti which focuses on the edits and changes within the database on a day by day basis as features are being created and/or edited. The second part analyzes the spatial distribution of geographic objects as they were added into OSM Haiti. The third part of the methodology uses semi-structured interviews and surveys in order to better understand why individuals contributed to the OSM Haiti database. By documenting a mapping event that many have noted as forever changing crisis mapping and disaster response, this work will contribute to improve understanding of how crowd-sourced mapping takes shape in response to a natural disaster.







## *Madison Musgrave*

My journey into geography began in the spring semester of 2011, when I took my first geography class at Front Range Community College. I took World Regional Geography with Dr. Ian Feinhandler and I absolutely loved it. For the first time in college, I felt like everything clicked. In August of 2011, I began my year off of college and moved to Beijing, China to teach English at a private kindergarten. I was not in school, but I knew that when I returned to America, I wanted to get back into CU with in-state tuition, and I began thinking of which major I should choose. Geography was the only thing that I truly felt compelled to continue studying and so I reached out to Elizabeth Pike, who began giving me advice about how to proceed when I returned to the U.S.



When I got back to America in the spring of 2012, I began to gather evidence for my petition for in-state residency, and I returned to Front Range for one last semester in the fall of 2012. With Elizabeth's advice, I began to take required geography classes and happily returned to CU in the spring of 2013 as a Geography major with in-state tuition! Since returning to CU, I have taken a wide variety of classes within our department, but I have always been most interested in human geography. In the spring of 2014, I took Health and Medical Geography with Elisabeth Root, and I finally felt that all of interests had been combined into one. I found a topic in which I could help people through studying public health, while combining the fundamentals of Geography. At the end of the spring semester, I chose to write a senior thesis, which I am currently working on. I am studying the causes of varying teen pregnancy rates in counties across the state of Colorado.



Geography reflects my personal interests of how people live differently in places around the world, what influences natural features have on culture, how people interact with their environment, and so much more. As I write this short biography, I am surrounded by maps in my dining room. I have realized that by studying geography, I have gained a new lens in which to analyze any kind of event in the world. Geographic fundamentals help the world make sense to me, and I feel happy and excited to share the knowledge I have gained so far, and cannot wait to continue learning.





## *Leora Nanus, PhD 2008*

Leora is an Assistant Professor in the Department of Geography & Environment at San Francisco State University. She enjoys living in the San Francisco Bay Area with her husband and 2 daughters, Talia (7) and Kaia (5).

## *Keith Wardrip, MA 2005*

Keith has been working at the Federal Reserve Bank of Philadelphia for a few years doing community development research, after spending some time doing affordable housing research in DC.

## *Martin Price, PhD 1988*

Martin is the Chairholder, UNESCO Chair in Sustainable Mountain Development and Director, Centre for Mountain Studies at Perth College. Since graduation, Martin has maintained a mountain focus as related to UNESCO's Man and the Biosphere (MAB) program. See: <http://www.perth.uhi.ac.uk/specialistcentres/cms/people/Pages/ProfessorMP.aspx>. Martin was involved with other CU Boulder geography graduates writing a book on 'Mountain Geography' published last year. See <http://www.ucpress.edu/book.php?isbn=9780520254312>

## *Joshua Ruschhaupt, BA 2005*

Joshua went from Geography student to Sierra Club Rocky Mountain Chapter Director, via a year of an additional training program called Green Corps. Joshua is helping Green Corps with their interview sessions in Chicago in November. Joshua thinks anyone who is interested in an environmental organizing career should consider applying to their program. (See [www.greencorps.org](http://www.greencorps.org)).

## *Jeff Kerridge, BA 1984*

Jeff is the Senior Vice President of International Defense and Intelligence Programs for DigitalGlobe in Longmont, CO. He manages the company's international defense line of business and has logged over 3 million miles with United Airlines in the past 18 years traveling frequently to places like Japan, Taiwan, Korea, the Middle East, Europe, and Latin America. Jeff is married with two kids. His wife is an intelligence/security professional. His son Cody is a junior at the University of South Carolina studying International Business and his daughter is a senior at Highlands Ranch High School. Jeff spends his free time at his mountain house outside of Buena Vista near St. Elmo driving his restored 1970 Ford Bronco or Polaris ATVs, enjoy fly fishing, and riding his Harley Davidson.

## *Bob Wolcott, BA 1973*

Bob went on to a graduate degree in Urban and Regional Planning in 1975 and worked in the field in Colorado and California. He's lived in Davis, California since 1990. Aspects of geography he's used most include mapping, understanding elevations and grades, land suitability studies, and demographic patterns. Topics in city planning he enjoys include citizen involvement, the history of city planning, comprehensive planning, site planning, and architecture (including landscape architecture). He enjoys conversing with students of all ages about city planning and its trends. Three of the most exciting areas that continue to grow are citizen involvement, visual simulations, and smart growth.

## *Adam Serafin, BA 2002*

After graduation, Adam worked as a cartographer for an Energy mapping company in Boulder. He got his Masters of Urban and Regional Planning from CU Denver College of Architecture and Planning in 2005. He was an urban planner for the City of Peabody, MA and Town of Brookline, MA. Then he worked as a campus Planner for MIT. Currently, Adam is a Senior Knowledge Analyst in GeoAnalytics for The Boston Consulting Group.



## Selected Recent Publications

Barnes R, **MW Williams**, **N Caine**, J Parman, K Hill. 2014. Thawing Glacial and Permafrost Features Contribute to Nitrogen Export from Green Lakes Valley, Colorado Front Range, USA. *Biogeochemistry* 117(2-3): 413-430. DOI 10.1007/s10533-013-9886-5.

Gabor, R.S., K.G. Eilers, D.M. McKnight, N. Fierer, and **S.P. Anderson**. 2014. From the litter layer to the saprolite: Chemical changes in water-soluble soil organic matter and their correlation to microbial community composition. *Soil Biology and Biochemistry* 68: 166-176. DOI:10.1016/j.soilbio.2013.09.029.

Hinckley, E-L, R.T. Barnes, **S.P. Anderson**, **M. W. Williams**, and S. Bernasconi. 2014. Nitrogen retention and transport differ by hillslope aspect at the rain-snow transition of the Colorado Front Range. *Journal of Geophysical Research-Biogeosciences* 119 (7): 1281-1296. DOI:10.1002/2013JG002588.

**Leyk, S**, M.H. Ruther, **B.P. Battenfield**, N.N.Nagle, and A.K. Stum. 2014. Modeling Residential Developed Land in Rural Areas: A Size-Restricted Approach Using Parcel Data. *Journal of Applied Geography* 47: 33-45.

Nagle NN, **B. P. Battenfield**, **S. Leyk**, and S. E. Spielman. 2014. Dasymetric Modeling and Uncertainty. *Annals of the Association of the American Geographers*, 104(1): 80-95. DOI:10.1080/00045608.2013.843439.

Racoviteanu A, R Armstrong, **MW Williams**. 2013. Evaluation Of An Ice Ablation Model To Estimate The Contribution Of Melting Glacier Ice To Annual Discharge In The Nepalese Himalaya. *Water Resources Research* 49(9): 5117-5133.

**Riosmena, F.**, B. Everett, R. Rogers, and J. Dennis. 2014. Negative Acculturation and Nothing More? Cumulative Disadvantage and Hispanic Mortality during the Immigrant Adaptation Process. *International Migration Review*. DOI: 10.1111/imre.12102.

**Root, E.D.**, M. Lucero, H. Nohynek, P. Anthamatten, D.S.K. Thomas, V. Tallo, A. Tanskanen, B. Quiambao, T. Puimalainen, S. Lupisan, P. Ruutu, E. Ladesma, G. Williams, I. Riley, E.A.S. Simoes, ARIVAC Consortium. 2014. Distance to health services affects local-level vaccine efficacy for pneumococcal conjugate vaccine (PVC) among rural Filipino children. *Proceedings of the National Academy of Sciences* 111(9): 3520-5.

Ruther, M, G. Maclaurin, **S. Leyk**, **B.P. Battenfield**, and N. N. Nagle. 2013. Validation of Spatially Allocated Small Area Estimates for 1880 Census Demography. *Demographic Research* 29 (22): 579-616. DOI: 10.4054/DemRes.2013.29.22. Editor's Choice Award

**Spielman, S.** E.H Yoo, and C. Linkletter. 2013. *Environment and Planning B: Planning and Design* 40(3) 489 – 506. Winner of the Michael Breheny Prize for the Best Paper in Environment and Planning B for 2013.

Trujillo, E., **N.P. Molotch**, M. Goulden, A. Kelly, R. C. Bales. 2012. Elevation-dependent influence of snow accumulation on forest greening. *Nature Geoscience*. DOI:10.1038/ngeo1571.

Trujillo, E., **N.P. Molotch**, 2014. Snowpack Regimes of the Western United States. *Water Resources Research* 50(7): 5611-5623. DOI: 10.1002/2013WR014753, 2014.

**Yeh, E.T.** 2013. *Taming Tibet: Landscape Transformation and the Gift of Chinese Development*. Ithaca: Cornell University Press.

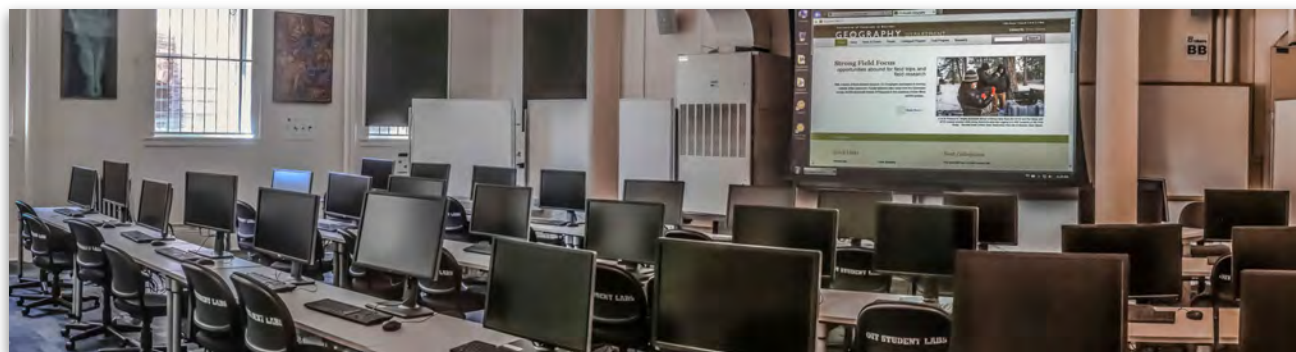


**Yeh, E.T.** and C. Coggins (eds.). 2014. Mapping Shangrila Contested Landscapes in the Sino-Tibet Borderlands. Seattle: University of Washington Press.

**Yeh, E.T.**, K. O'Brien and J. Ye (eds.). 2015. Rural Politics in Contemporary China. New York: Routledge.

## Faculty Grants / Awards / Recognitions

**Babs Battenfield** was recognized in Map Worlds: History of Women in Cartography by WC van den Hoonard (Wilfrid Laurier University Press). **Noah Molotch** presented the keynote talk at an ecosystems session of the International Union of Geodesy and Geophysics (IUGG), Davos Atmosphere and Cryosphere Assembly 2013, Davos Switzerland. **Tim Oakes** was awarded the 2014 Isaac Manasseh Meyer Fellowship for Visiting Faculty at the National University of Singapore; he also gave the keynote address at the 2014 China Geography Association's International Senior Seminar on Social and Cultural Geography in Xi'an. **Elisabeth Root** was awarded a grant from the EPA for \$998,999 to examine the impact of housing adaptations and how they might affect respiratory health with increased forest fire frequency. The project, a collaboration with Shelly Miller in Engineering and the Colorado School of Public Health, is titled "Climate Change Mitigation in Low-Income Communities in Colorado: Home Weatherization Impacts on Respiratory Health and Indoor Air Quality During Wildfires." **Seth Spielman** was awarded the Michael Breheny Prize for the Best Paper in Environment and Planning B for 2013. **Mark Williams** was a Fulbright Senior Research Scholar in Nepal for 2013-2014, conducting research on disappearing Himalayan glaciers and water security for South and Central Asia.



KESDA computer lab

## Recent Graduate Student Placements

**Bryan Jones** recently became a postdoctoral fellow at the CUNY Center for Demographic Research. **Adrian Harpold**, former post-doc of 3 years to Noah Molotch, was recently hired at UNR as an Assistant Professor. **Katya Hafich** graduated with an MA in May 2014 with two research interests: a) nitrogen cycling in alpine basins in response to air pollution; and b) improving the ability of scientists to convey their research results to K-12 students and the general public. She has now landed her dream job with the Office of University Outreach in Boulder. Part of her portfolio is working with local citizens to impart helpful advice on the environmental and economic trade-offs of unconventional oil and gas extraction. **Kabzung Gaerrang** and **Yonten Nyima** are now at Sichuan University. Kabzung is Associate Professor at the Center for Tibetan Studies, and Yonten Nyima is Associate Researcher at the Faculty of Social Development and Western China Development Studies. ([See detail](#)) **David Folch** (postdoc) got a Tenure Track Job in Geography at Florida State. **Ben Bellman** (undergrad) started a doctoral program in Sociology at Brown. **Matt Ruther** (post-doctoral researcher in Meridian Lab since 2012) was hired in April 2014 as Assistant Professor of Urban and Public Affairs, University of Louisville and Executive Director of the Kentucky State Data Center - he is named the State Demographer; **Jochen Wendel** (doctoral student) was hired in January 2014 as Research Associate at the European Institute for Energy Research, Karlsruhe University, Germany; **Mike Gleason** (Master's student





graduated 2012) was hired April 2014 as GIScientist doing scientific programming and data visualization at the Strategic Energy Analysis Center at the National Renewable Energy Lab (NREL) in Golden Colorado.

## Faculty Outreach



Photo by Jennifer Fluri

**Mark Williams** is the director of CWERC, the Colorado Water and Energy Research Center. The Center's primary goal is to provide unbiased and factually correct information on the potential environmental impacts of fracking. CWERC has developed a groundwater-monitoring guide for water well users in areas of oil and natural gas development ([cwerc.colorado.edu](http://cwerc.colorado.edu)). The purpose of this guide is to help well-owners collect water quality samples for baseline data before fracking starts. **Seth Spielman** has been working with the US Census Bureau on new ways to measure the economic and demographic characteristics of American neighborhoods. **Noah Molotch** is

now the South Continental Chair of the Western Snow Conference which "provides a forum for individuals and organizations to share scientific, management, and socio-political information on snow and runoff from any viewpoint and advances snow and hydrologic sciences." And **Fernando Riosmena** recently became group co-leader within the "Central American - North American Migration Dialogue," a project aimed to improve understandings of the circumstances and (lack of) wellbeing behind and produced by the plight of migrants from the Northern Triangle of Central America (Honduras, El Salvador, Guatemala) in Mexico and the United States. This project, supported by the Rockefeller Foundation has the goal of compiling expertise in some of the most important and producing policy briefs encapsulating important knowledge about these populations. His role as area co-leader will be to help shape the agenda of themes related to the area of "population" and work with experts on particular topics (as an editor of sorts) in the production of these policy briefs.



Photo by Jennifer Fluri