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Geography Newsletter

Department of Geography

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Department of Geography
South Dakota State University

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Department of Geography Newsletter



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Students and faculty explore the Loess Hills in Iowa and Nebraska on the way to the annual regional meeting (Rocky Mountain-Great Plains) of the Association of American Geographers.

Thanks for reading. Enjoy!

2013 Year in Review: Movements, Shifts, and Transitions

Dr. George White, Head of Department

The Department of Geography continues to move forward with many exciting changes, initiatives, and projects. For example, we completely moved out of Scobey Hall and now reside completely within Wecota Hall and Wecota Annex. It was a lot of work but well worth it. Faculty and departmental offices are now in the same complex as the laboratories and many of the classrooms. This brings us into closer contact with our students and allows for greater interaction. It's all about location, location, location! We also have more space, and it is newly renovated. We want to extend a special thanks to Provost Nichols and Dean Papini for making our move possible.

We welcomed Xiaoyang Zhang to our department in the fall as an Associated Professor (see page 3 for details). As new faculty members become part of our team, others bring their time with us to a close. Janet Gritzner will retire in May. She first came to SDSU in 1980 and later became a professor in the department and was instrumental in introducing geographic information sciences at SDSU. You will see more about her career on page 5 in this newsletter. We also plan to celebrate her career and retirement at the Convention and at the end of the semester.

Trish Jackson, Darrell Napton, and Bruce Millett continued their work in enhancing the curriculum of the physical geography courses, especially the laboratory experiences. The plans to initiate a major renovation of the laboratories in Wecota Hall cleared another hurdle when they were approved by South Dakota's Board of Regents in the fall. Architects soon will be hired and a major fundraising campaign will begin.

Our graduate teaching assistants in 2013 were Garrett Battleson, Suzanne Cotillon, Riley Forsyth, Rupesh Giri, Danielle Guthrie, Kevin Hoekman, Kim Johnson, Chris Maier, Con fiance Mfuka, Sanjeev Rai, Brad Richardson, Jim Sampson, and Saroj Thapa. We appreciate all their hard work!

Bob Watrel and I, along with a couple of graduate students, traveled again to Romania at the end of May as part of ongoing collaboration with our Romanian colleagues. Hilary Hungerford traveled to Senegal to lay the groundwork for a travel program for SDSU students. I traveled to Burkina Faso in December to visit Patrice Sanou, an alumnus of our program. He started an institute of geographic information science and remote sensing. For his accomplishments, we honored Patrice with the outstanding alumni award at our Convention earlier in the year. My visit was part of a new effort to begin collaboration between the department and Patrice's institute.

In April, many of us attended the annual meeting of the Association of American Geographers (AAG) in Los Angeles. In October, professors and students drove to the annual meeting of the Great Plains-Rocky Mountain regional division of the AAG in Omaha, Nebraska. On the way, we took a detour to see the loess hills of western Iowa. At the end of the conference, the group joined a conference-organized fieldtrip that surveyed the extensive damage caused by the 2011 flood of the Missouri River and its tributaries.

For Geography Awareness Week in November, the South Dakota Geographic Alliance and the Department of Geography engaged in a number of activities to promote geography, especially in local schools. Our keynote speaker was nationally renowned geographer, Richard Marston, who is a former president of the Association of American Geographers and distinguished professor at Kansas State University. The title of his main talk was "Environmental Security in Foreign Policy: A Year in the Jefferson Science Fellowship Program."

Lastly, March 20th-21st, 2014 will be the 45th Annual South Dakota State Geography Convention. Such longevity is testament to accomplishment. However, it is with a certain sadness to relay to you that John Fraser Hart, who has attended almost every Convention since the beginning, has announced that this will be his last Convention. I encourage you to come see Professor Hart. He helped start Geography at SDSU and has been a great supporter ever since. In addition, the AAG President will give a presentation and a number of other speakers will share their expertise on a range of interesting topics. We look forward to seeing you there. Whether you can attend or not, do not hesitate to contact us. We would love to hear the stories of what our alumni have been doing and include them in future editions of the Newsletter.

45th Annual South Dakota State Geography Convention

Join us **March 20 - 21, 2014** for the 45th Annual South Dakota State Geography Convention! All lectures are free and open to the public, and take place in the Volstorff Ballroom in the University Student Union.

45TH ANNUAL SOUTH DAKOTA STATE GEOGRAPHY CONVENTION

March 20-21, 2014
University Student Union
Brookings, SD

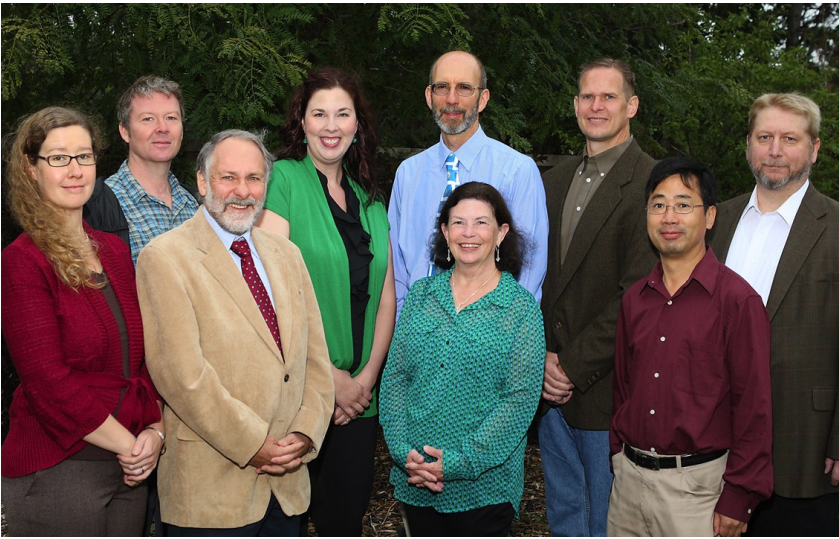
IT'S A BIG DEAL
don't miss it for the world

Sponsored by:
South Dakota State Geography Club and
Delta Zeta Chapter of Gamma Theta Upsilon

Department of Geography welcomes new faculty member Dr. Xiaoyang Zhang



Dr. Xiaoyang Zhang joined us in the Fall of 2013 as an Associate Professor. He received his Ph.D. degree in physical geography from King's College London, London, U.K., in 1999. He was a Research Associate and Research Assistant Professor with the Department of Geography, Boston University, Boston, MA, from 1999 to 2005. As a Senior Research Scientist at Earth Resources Technology Inc. (April 2005-May 2012) and Associate Research Scientist at University of Maryland (June 2012-August 2013), he worked at the National Oceanic and Atmospheric Administration/National Environmental Satellite, Data, and Information Service through a contract. He currently works on NOAA funded research projects of "Monitoring land surface vegetation phenology from VIIRS" and "Develop Near Real Time Biomass Burning Emissions Product Covering the Whole Globe from Polar and Geostationary Satellites for NEMS-GFS-GOCART". His research interests include satellite remote sensing of vegetation seasonality and biomass burning emissions, climate-vegetation interaction, and land surface modeling. Dr. Zhang splits his time between the Department of Geography and the GISCE.



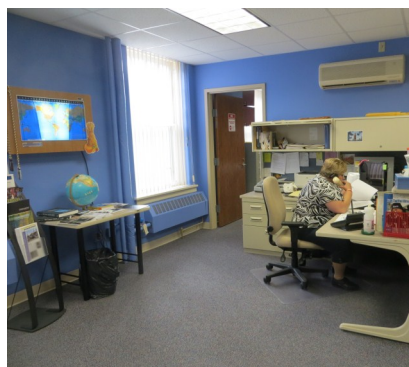
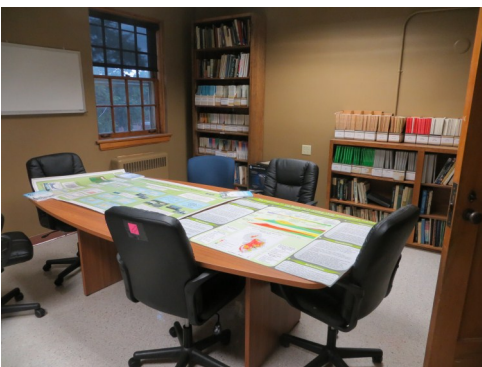
SDSU Geography Faculty: (from left to right) Back row—David Roy, Trisha Jackson, George White, Bob Watrel, Bruce Millett. Front row—Hilary Hungerford, Darrell Napton, Janet Gritzner, Xiaoyang Zhang.



Our new home: Wecota Hall

New location in historic Wecota Hall

In the summer of 2013, the Department of Geography completed the move out of Scobey Hall into newly renovated space in Wecota Hall. We are happy to be located in the same building as our primary classrooms and lab spaces, but the move was bittersweet as we left the hallways and memories of fruitful years in Scobey Hall. The department and head's office are located on the first floor of Wecota Hall (below, middle), and faculty offices are in the newly renovated Wecota Annex 4th floor. We also have a new department library, Geography Club and South Dakota Geographic Alliance office, and conference rooms (bottom left). Next time you are in Brookings, we would love show you our new space. Stop by anytime during the week, or email George.White@sdstate.edu to set up a time on the weekend.



Reflections on a rich career: Dr. Janet Gritzner to retire in 2014

For the past 34 years, Dr. Janet Gritzner has been an integral part of Geography at South Dakota State University. Long and windy has been the road that brought Dr. Gritzner to SDSU, but constant during her path has been the love of geography and a passion for learning. Janet entered the University of Maryland as an undergraduate Geography major. She emphasized physical geography and geomorphology while earning her undergraduate degree. After graduating with a BA in 1965, she went to work for the National Security Agency (NSA). She began work on a Master of Arts in Geography, also at the University of Maryland, while working full time at the NSA. Her primary specialty in graduate studies was Russian area studies. She became near-fluent in the Russian language, and studied communist economic geography and planning. At the same time, however, she revived her early interest in landscape and art, and wrote her thesis entitled “Seventeenth Century Generic Place Names: Culture and Process on the Eastern Shore.” An interest in place names has persisted throughout her career.



Janet moved from her childhood home in the Washington DC area to Louisiana State University (LSU) for her doctoral work in the Department of Geography and Anthropology. At LSU, she developed her interests in cultural landscapes, understanding place and landscapes as an amalgam of what has happened in previous times. Her dissertation, entitled “Tabby in the Coastal Southeast: The Cultural History of an American Building Material,” explored the intersections between material culture and landscape. Janet was the second woman to earn a PhD in Geography from LSU after graduating in 1978.



Janet came to SDSU in 1980, starting her career in the Remote Sensing Institute working on grants relating to physical geography and cartography in Africa. She was part of the design team for a \$3 million dollar USAID grant in Senegal (see picture to the left) and traveled there four times. She was also part of a team doing similar work in Mauritania, funded by a \$4 million dollar USAID research grant. Janet also traveled to Botswana and Gambia on a project funded by USAID, and has been an invited speaker at international conferences held in Ivory Coast, Nairobi, and South Africa. In addition to these research teams, Janet was PI or Co-PI on external grants worth well over \$1 million.

In 1986, Janet started teaching courses in the Department of Geography at SDSU. Though trained as a cultural geographer and having worked in physical geography for a number of years, Janet’s prime contribution to the Department, and to the University at large, was starting a program using Geographic Information Sciences (GISc). She helped facilitate the development of GISc in the department, and students can now both major and minor in GISc. These courses are among the most sought after courses in Geography, for both majors and non-majors, and undergraduate and graduate students. Of all the successes in her career, it has been the success of her students, as both GISc professionals and geographers, that has been the most rewarding. She has supervised the graduate work of 21 students.

Thank you, Dr. Janet Gritzner, for your years of service, your unwavering interest in all things geographical, your dedication to students, and your enduring curiosity about the world.

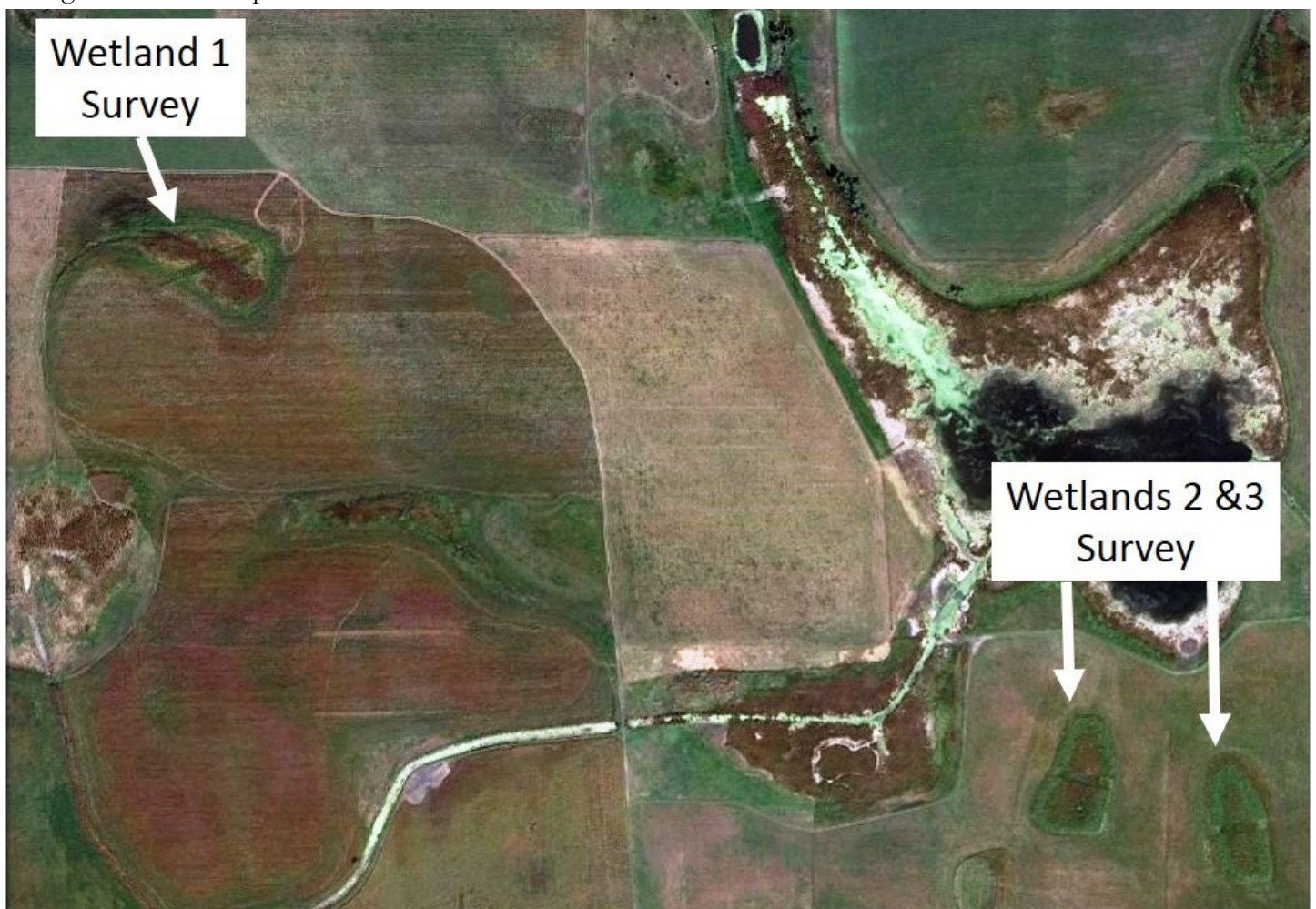


Geographers survey South Dakota wetlands

A survey team from the Department of Geography at South Dakota State University and EROS Center conducted a topographic survey at the EcoSun Prairie Farm during the summer of 2013. The survey team members were comprised of both geography alumni and faculty, including Dr. Bruce Millett, Dr. Dean Gesch, Jeffrey Danielson, Dr. Janet Gritzner, Sandra Poppenga, and Gayla Evans.

The team collected elevation data using a survey grade GPS system. The focus of the collection was on three wetland basins. Ground-based surveys are the only way to collect accurate bathymetry data in areas that are heavily vegetated or flooded. In addition to the ground-based observations for the wetland basins, upland elevations values were gathered from aircraft using LIDAR provided by the Army Corps of Engineers.

The combined elevation data sets were used to create an accurate Digital Elevation Model (DEM) for the EcoSun Prairie Farm. The DEM will be used in a computer model called WETLANDSCAPE to simulate the hydrology and vegetation dynamics of temporary, seasonal, and semi-permanent wetlands. Accurate bathymetric surveys like these are crucial to our understanding of how these ecosystems respond to future climate changes and land use practices.



Department of Geography welcomes Fulbright Student Scholar

This year we are excited to have **Marcelline Ngomba Ndekule** from the Democratic Republic of the Congo join us as a Fulbright Foreign Student. In the DRC, she holds a senior lecturer position at University of Kinshasa (UNIKIN). She has worked for several years training African students and professionals in GIS, remote sensing and cartography under the auspices of UNIKIN and OSFAC (Satellite Observatory of Forests of Central Africa). Those trainees constitute the larger number of GIS and remote sensing analysts in public and private institutions across central Africa. Her main goal as a student at SDSU is to acquire more remote sensing and GIS skills for advanced research applications and trainings. Her area of interest continues to be the central African region where more skills and expertise are needed for adequate management of natural and human systems. She is seeking a Master of Science in Geography under the supervision of Dr. David Roy, with the provisional title: *Remote sensing a human census of Kinshasa, DRC*.



The Fulbright scholars program was created in 1945 by Senator J. William Fulbright to promote “international good will through the exchange of students in the fields of education, culture, and science.” Fulbright awardees are selected for their academic and leadership excellence. The Fulbright program is one of the most prestigious fellowships for both foreign and American students, and we are happy that Marcelline decided to bring her knowledge and experiences to SDSU and the Department of Geography.

Geography Club brings the world to the Hobo Day Parade

Geography Club brought the whole world to the 101st annual edition of the Hobo Day Parade, the largest one-day event in South Dakota. The theme for the 2013 Hobo Day was “The Tradition Lives On,” and we were lucky to have some Geography alumni in Brookings for the event. The pictures here are from Josh Bucher, this year’s Geography Club president (below). Thanks to the Geography Club for representing us!



The Loess Hills and Geography Bowl Champions!

Great Plains - Rocky Mountain Division meeting of the AAG



Faculty and students traveled through the Loess Hills of Iowa and Nebraska on the way to this year's annual meeting of the Great Plains - Rocky Mountain Division of the AAG in Omaha, NE (see middle and bottom left photos). In the Loess Hills, we studied the glacial wind origin of the loess hills, soil formation, soil erosion, and strategies that farmers have used to adapt to this fertile but fragile landscape. Faculty and students also participated in an organized field trip on the impacts of the 2012 floods on the region around Omaha. Bob Watrel led our group on another short field excursion exploring the historic cattle yards of South Omaha, and the new immigrant landscapes that have emerged in its place.



One of the most exciting parts of this year's convention was the Geography Bowl in which the SDSU team won 1st place! This annual event is a fun and competitive aspect of the regional meeting, and the Jackrabbit team emerged early on as serious competitors, and in the final round were declared champions! Congratulations to team members: Andrew Bland, Josh Bucher, Kevin Hoekman, Dave Leiferman, Chris Maier, and Brad Richardson (see left, top photo).

Both graduate students and faculty presented papers on a wide range of topics, including Norse food systems, changing geographies of small towns in South Dakota, environmental sustainability on the SDSU campus, electoral geographies of the most recent presidential election, and art and urban development in African cities (see below).



Geography Alumnus featured in South Dakota Magazine

Craig Pugsley, class of 1976 Geography Alumnus, was featured in the Nov/Dec 2013 edition of the South Dakota Magazine. In the TOP 7 articles, South Dakotans are asked their top 7 things they love about South Dakota. Read his article here, and visit the South Dakota Magazine website www.southdakotamagazine.com or call 605-665-6655 for more information.

TOP 7 Things Craig Pugsley loves about South Dakota



Huron native Craig Pugsley began work at Custer State Park in January 1977. Today, he is the visitor services coordinator. He and his wife, Celine, raised two sons in the park. “Waking up with a buffalo on your front door step is truly a memory my family and I will cherish forever,” he says.

Getting Off the Pavement

South Dakota offers hidden gems that you only find when you trek onto the back roads. Miles of hardwood draws along the White River, sweeping prairies of western South Dakota, the Black Hills, glacial lakes and winding rivers and streams. Each area holds a special place for me and I love to experience them all on foot.

A Day on the Big Mo

We spend time on the Missouri River each spring and summer fishing walleye south of Mo-bridge near New Evarts. I love spending a day on the water and returning to the ramp, crossing the smooth glassy river with the sun setting behind us.

Peter Norbeck’s Roads

Iron Mountain Road and the Needles Highway are both

feats of engineering, and to think they were dreamed of and constructed in the early 1900s makes them that much more impressive. They wow me every time I drive them.

Autumn Hunts

I love fall because it brings my favorite pastime: hunting with family and friends. Each outing is like a mini reunion. We enjoy time in the field — especially the Shadehill area, hunting for pheasants, grouse, geese or deer — and then relive memories sitting around a campfire or over a good meal.

Shadehill Reservoir

While I work and live in one of the most beautiful places in South Dakota, I have always been attracted to the Shadehill area near Lemmon. The people, the landscape, the wildlife, the pioneer spirit and the

unique story of Hugh Glass draw me back. It raises my spirit when I think of planning a trip to Shadehill.

A Meal at the State Game Lodge

The food, the hospitality, the atmosphere and the fact that President Calvin Coolidge made it his summer White House in 1927 add up to a unique dining experience.

The CCC’s Handiwork

The Civilian Conservation Corps had an enormous impact on South Dakota and our parks. Each building carries a unique brand. My first office was in what is now the Peter Norbeck Visitor Center. Many folks, including myself, marvel at this architectural gem.

South Dakota Geographic Alliance



The South Dakota Geographic Alliance continues to grow! We increased our membership by 40% since 2012, and have had a number of people volunteer at our events. Three SDGA members visited Washington, D.C. in February of 2013 and had meetings with all three South Dakota Congresspersons in support of the Teaching Geography is Fundamental Act. As a result, Sen. Tim Johnson agreed to co-sign this legislation.

Our biggest event was bringing the National Geographic Giant Map of South America to the Children's Museum of South Dakota. Over 2,000 people enjoyed exploring through classes that focused on the rainforest, the Amazon River, map skills, folk tales, art, and many other geography-infused games, yoga, and open play. Volunteers came from the SDSU Department of Geography, the Latin America Student Association, the Study Abroad program, graduate students, alumni, and the larger community members.

We celebrated Geography Awareness Week (Nov. 17 – 23) with help of the students in Dr. White's Evolution of Geographic Thought class. Students gave presentations in local school classrooms, to pre-service teachers in SDSU's Education program, and set up an information table in the Student Union. All of this was topped off with guest speaker Richard Marston from Kansas State University.

The SDGA continues to reach out to teachers across South Dakota to help them bring more geoliteracy into their classrooms. We are working on forming partnerships with other agencies in the state to bring more programming in support of Geography. If you would like to join the SDGA, please email roddymccorley@hotmail.com and you will be added to our list!



The National Geographic Giant Map of South America at the Children's Museum of South Dakota (top); elementary student learns map skills of scale and navigation (middle); M. Claire May, Congresswoman Kristi Noem, SDGA coordinator Emily White, and department head George White (below).





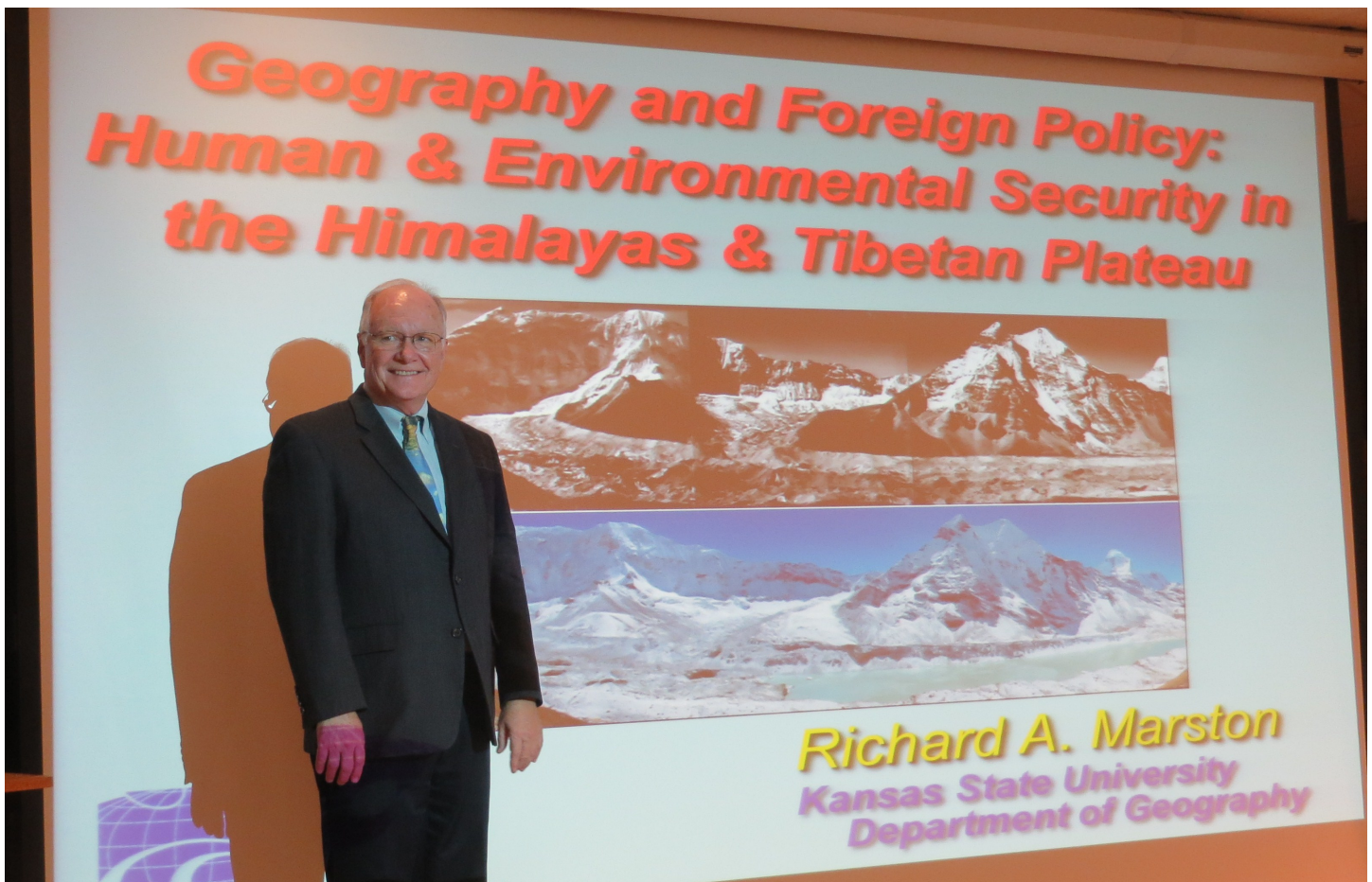
Geography Awareness Week

Dr. Richard Marston, the 2013 Geography Awareness Week speaker, showed how geographers can contribute to understanding global issues that threaten environmental and political security. Marston, a Distinguished Professor of Geography at Kansas State University and past AAG president, recently returned from working in the Department of State as a Jefferson Fellow, where he used his expertise to help State Department geographers better understand the consequences of human and environmental interactions in the Himalayan region. Marston said that continued global warming will have significant impacts on the human and physical geography of the Himalayan Mountains and Tibetan Plateau. He shared insights about human and environmental security threats that are emerging from these changes to the region's geography. The most significant changes are occurring to the region's hydrologic system, specifically due to the amount and distribution of rapid temperature increases, rain, snow, melting, and evaporation. Moreover, regions in South Asia depend upon the Himalaya Mountain river systems to provide water from monsoon rains, snow pack, and glaciers to populations downstream. Food insecurity, poverty, social and political tensions, and environmental degradation are among the issues that are intertwined and exacerbated by changes in the amount and distribution of water. The resulting environmental insecurity threatens the political stability of this region, which is home to nearly one-half of the world's population.

Students and faculty members had several opportunities to visit with Dr. Marston in small groups and individually. He also presented a seminar "Geography and Foreign Policy: Office of the Geographer and Global Issues."

by Darrell Napton

Below: Dr. Richard Marston before his Geography Awareness Week presentation



Geographers Bring the World to SDSU

Dr. Hungerford

France:
Traveled to France for archival research on French colonies in Africa

Niger
Continues her collaboration with geographers at Abdou Moumouni University in Niamey

Romania

Dr. Hungerford spoke at a consortium in Romania

Senegal:
Conducted archival research last summer, and is taking students here for 3 weeks in May 2014

Danielle Guthrie

Romania & Moldova
Danielle, a graduate student, traveled to Romania & Moldova

Senegal
Danielle will also be traveling to Senegal in May

Cole Krehbiel

China
Cole is conducting research in China

Brazil
Cole also presented research at a conference in Brazil

Austin Brynjulson

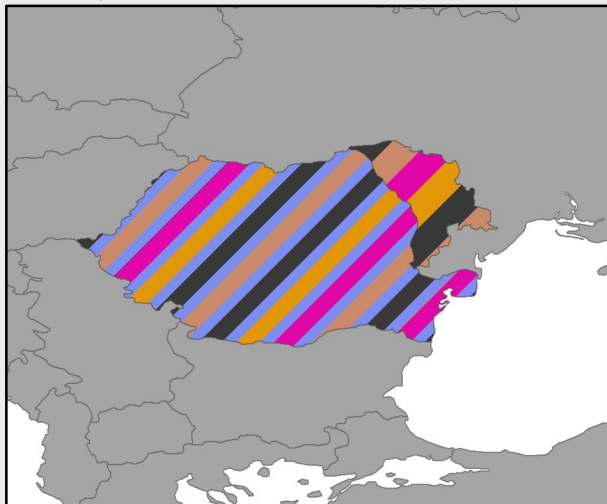
Senegal
Graduate student Austin Brynjulson will be traveling to Senegal in May

Sefa Adepui

Ghana
Sefa, a current graduate student, has come to SDSU from Ghana

Claudia Young

Colombia
Claudia comes to SDSU by way of Colombia



Dr. Jackson

Brazil:
Dr. Jackson continues her work on terra preta soils in the Amazon

Democratic Republic of the Congo:
Currently developing a project on forest soils

World to South Dakota

Jacob Amundson

Jacob has recently traveled to:
Iceland & Norway

Dr. White

Romania & Moldova

Dr. White and others conducted fieldwork and attended conferences in Romania & Moldova

Burkina Faso:

Dr. White is also building relationships with a GIS institute run by Alumni Patrice Sanou in Burkina Faso

Dr. Roy

Dr. David Roy presented his work at international conferences in:

**Canada
Mozambique
South Africa
UK
Russia**

Rajib al Mamun

Bangladesh

Rajib has come to SDSU from Bangladesh

Dr. Watrel

Romania & Moldova

Dr. Watrel traveled to Romania & Moldova on a research and community building trip

Mandira Sigdelphuyal Dipendra Giri, Tejaswi Giri & Sanjeev Rai

Nepal

Sanjeev, Mandira, Tejaswi & Dipendra have all come to SDSU from Nepal

Chris Maier

Romania & Moldova

Chris Maier presented at a conference in Romania & Moldova

Marcelline Ngomba & Confiance Mfuka

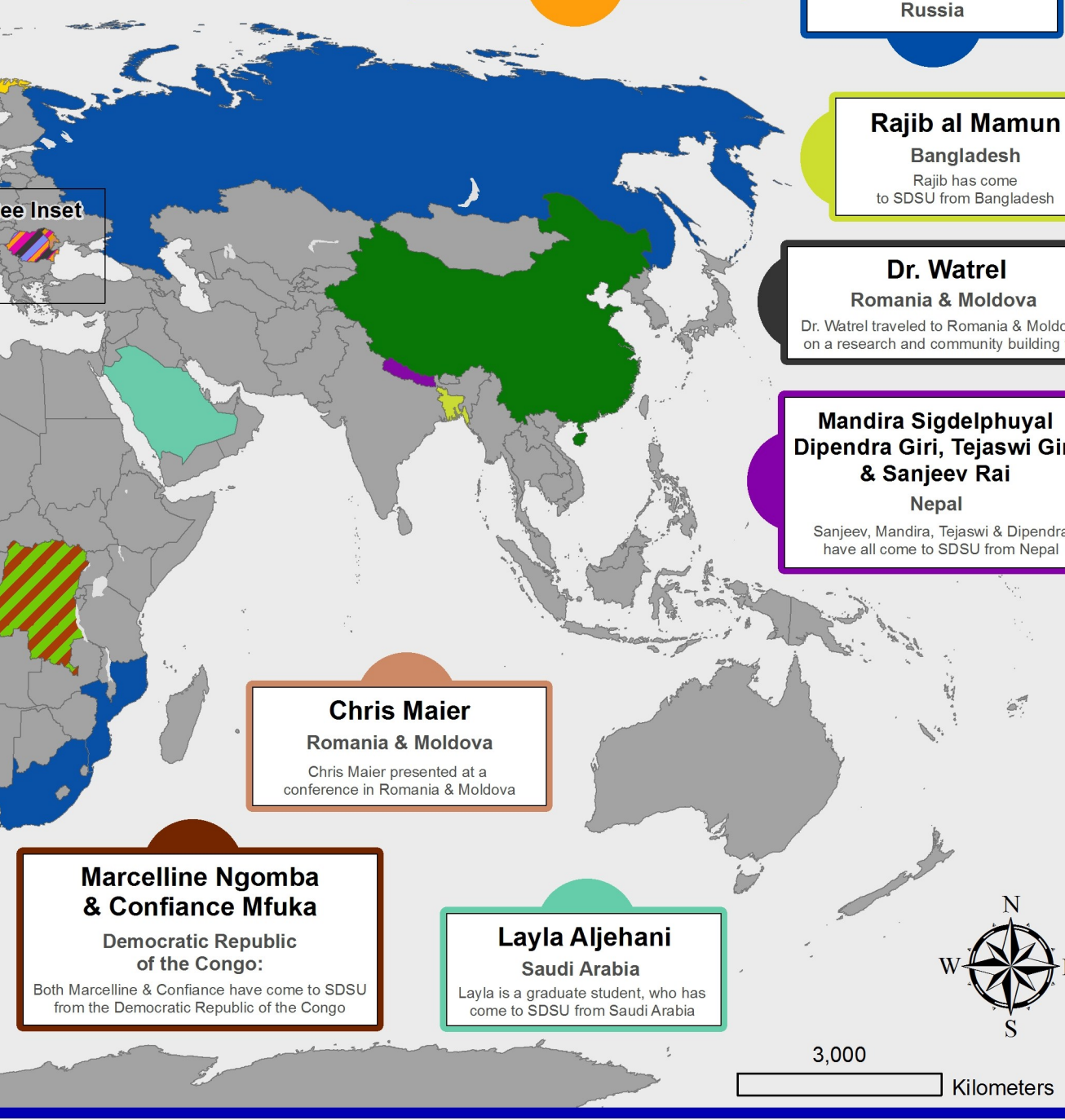
Democratic Republic of the Congo:

Both Marcelline & Confiance have come to SDSU from the Democratic Republic of the Congo

Layla Aljehani

Saudi Arabia

Layla is a graduate student, who has come to SDSU from Saudi Arabia



44th Annual Geography Convention—2013



Pictures (from left above, clockwise): Dr. Trisha Jackson, Dr. David Roy receiving award from Josh Bucher, Geography Bowl judges and graduate students Kevin Hoekman and Suzanne Cottillion, AAG President 2013 Dr. Eric Sheppard, banquet at McCrory Gardens, Dr. Dean Gesch receiving award from Eric Orozco.



44th Annual Geography Convention—2013



Pictures (from right, clockwise): Geography Bowl, ESRI educator and keynote speaker Joseph Kerski, Dr. Bruce Millett receives award, Dr. John Fraser Hart with his traditional misspelled cake, Dr. Fred Shelley receiving award from Confiance Mfuka.



Community Updates: Alumni

Terrance Clark, class of 1973

After 27 years of Air Force service, I retired and entered civilian Federal Service with the Department of Defense. Currently, I'm employed at the Next Generation Weather Radar (NEXRAD) Radar Operations Center, Norman, Oklahoma. The NEXRAD Radar Center is a Tri-Agency (DOD, DOT, DOC) managed office providing Life-Cycle/Depot Maintenance support for the Nation's 168 NEXRAD systems. The radar provides weather observations supporting National Weather Service, Federal Aviation Administration, and Department of Air Force weather forecast and aviation operations. I've served as the Radar Center's Deputy Director from 2004 - January 2014. On January 12, 2014, I was assigned the duties of "Acting, Director, NEXRAD Radar Operations Center."

Craig Pugsley, class of 1976

Visitor Services Coordinator, Custer State Park, 1977 to present

Worked and raised a family in Custer State Park. Dr. Hogan was one of the most influential Professors I had the privilege of studying under and he helped guide me down the path that led me to Custer State Park.

Beth (Nelson) Kenney, class of 1987

After 26 years with the Federal Government, I continue to use my Geography background daily. On the personal side, my oldest, Maureen, graduated from George Mason University last year; Rachel is a junior at James Madison University; and James, a junior in high school, is our last hope to have a Jackrabbit graduate.

Brian Smith, class of 1988, MS

I am an Associate Vice President at AECOM in Chicago, Illinois. I conduct Environmental Impact Statements on transportation projects in the Midwest. I am married with four children and live in the far NW burbs of the big City.

Scott E. Gordon, class of 1992, class of 1995 M.S.

USDA-NRCS Virginia State Office, Ecological Sciences Team, GIS Specialist/Geospatial Database Administration in support of Soil and Water Conservation throughout the commonwealth. Council Member, Virginia Chapter Soil and Water Conservation Society. Recently returned from a 4 week trip to Thailand, spending much of the time exploring the rubber producing province of Nakhon Si Thammarat while visiting family and friends



Michael L. Watson, class of 2004

Celebrating 5 years with Union Pacific Railroad this year. Sometimes great jobs take us to not so great places, like Omaha! Some of the worst mistakes in my life have been haircuts.

Jordan Graesser, class of 2008

In the summer of 2012, I left the Oak Ridge National Laboratory to pursue my PhD at McGill University (Montreal) geography department. My research is focused on agricultural industrialization and scale, and food security in South America. My research has given me opportunities to work with collaborators at Boston University, the University of Puerto Rico, and the National University of Tucumán (Argentina). This coming fall I will follow my adviser to the University of British Columbia in Vancouver, where I will finish my Ph.D.

Jon Dewitz, class of 2009

I am the QA/QC person for the National Land Cover Database (NLCD) at the USGS. We are wrapping up production for NLCD2011 which will be published and released in early April. Last fall, I lead a project for the Fish and Wildlife service that created a map of waterfowl nesting habitat for the Prairie Pothole region.



Alumni work together on National Data Archive at EROS

Geography Alumni John Faundeen and Thomas Holm were amongst a team of scientists working on the National Satellite Land Remote Sensing Data Archive (NSLRSDA). The archive contains millions of digital and print files



of places around the world, and includes both aerial photographs and satellite images. The archive represents the most complete collection of images from the 1960s to present, with a substantial collection of declassified military intelligence imagery. The (NSLRSDA) is housed at the U.S. Geological Survey's (USGS) Earth Resources Observation and Science (EROS) Center just north of Sioux Falls, SD. Some of the images are available online at the Earth Explorer data access website (<http://earthexplorer.usgs.gov>);. For more information, visit the project description at <http://pubs.er.usgs.gov/publication/fs20133100>.

Alumni & Friends See things Differently in Geography

One of the first questions I regularly ask alumni when they come to visit or when I meet them where they live now is, "So, where has life taken you since you left SDSU?" With Geography alumni, I get some of the most interesting reports.

Alumni in Geography generally see the world in unique and curious ways. Their path is not accidental, and it is usually quite interesting. Many alumni point to the faculty and friendships from their years on campus as some of the most impactful in their lives.

Most of us leave campus with the goal of finding our way, charting a course, and making a difference. So the question now is, have you made a difference? There is always time to make that difference and in the next few months, you will be asked to make a difference at SDSU. While many alumni are pleased to speak with current SDSU students who call for the annual phonathon, others are reluctant to be asked for a contribution. If you are among those reluctant alumni, please consider the impact that a gift from you can have when it is gathered with the gifts of many others. There is strength in numbers and whether you give \$25, \$100, or more... you have the ability to stay involved by being invested.

Gifts to the SDSU Foundation directed to Geography go specifically to support activities you value. Find the website www.sdsufoundation.org and click "Give Now" to make a difference. You can easily designate your gift to benefit the students and faculty in Geography.

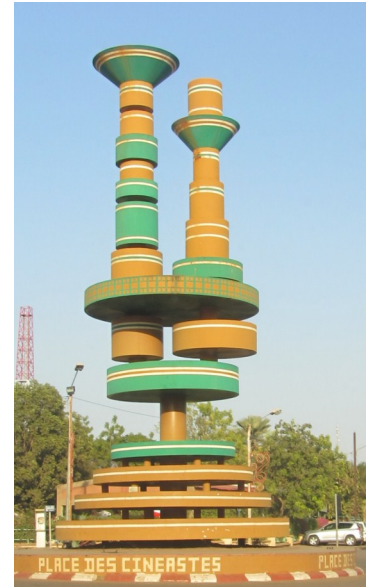
Do you have an idea of a special way in which you would like to support the department? Perhaps you'd like to endow a scholarship or you have an idea for something even more exciting. Contact Rina Reynolds, Development Director for the College of Arts & Sciences; at (605) 695-7378 or rina.reynolds@sdsufoundation.org all gifts are tax-deductible, according to IRS rules.



We would love to hear from you! Send your update for next year's department newsletter to us at hilary.hungerford@sdstate.edu / send a letter to Hilary Hungerford, Geography Department, SDSU, Wecota Hall (SWC) 109, Box 506, Brookings, SD 57007 / or call 605-688-4620.

Alumnus welcomes Jackrabbits in Burkina Faso, West Africa

In December 2013, Department of Geography alumnus Patrice Sanou (M.S. 1995) welcomed department head Dr. George White to Ouagadougou, Burkina Faso in the first steps of building a relationship between South Dakota State University and an institute that Dr. Sanou founded, Centre Universitaire de systèmes d'Information Géographique et Télédétection Adjaratou (CU-SIGETA). Linked through student and faculty exchanges with the national university in Burkina Faso, Dr. Sanou's institute focuses on both the study and application of GIS and Remote Sensing for the Burkinabe and larger Sahelian community. At CU-SIGETA, Dr. Sanou has trained numerous students from all over West Africa. SDSU's Department of Geography is working to build relationships with CU-SIGETA to facilitate exchange of students and faculty research collaborations. The Sahel is emerging as an area of expertise in Geography and GIS at SDSU.



Pictures: Ouagadougou hosts the bi-annual Pan-African Film and Television Festival of Ouagadougou (FESPACO), an internationally renowned festival of African film.

The picture on the top right shows the national monument to filmmakers. The photo below the monument is Patrice Sanou from his main office at CU-SIGETA. The street marker for his institute is shown below him on the right, followed by a group picture of selected students, faculty, and staff at the institute. In the photo on the bottom left, George White presents to faculty and students at ISESTEL about SDSU and the Department of Geography.



Community Updates: Virtual Faculty



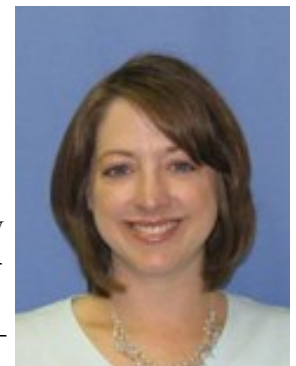
Patrick Danielson received his Master's degree in Geography from South Dakota State University in December 2012. In addition, he received both his undergraduate degrees from South Dakota State University in 2000 and 2002. He is currently working full time as a senior scientist at the USGS Earth Resources Observation and Science (EROS) Center. He works on the National Land Cover Database (NLCD) program where he helps to develop and map land cover change. In addition, he is instructing an online course on Environmental Disasters and Human Hazards (GEOG 343) for SDSU's Department of Geography. The field of hazards geography has always been an interest to him because he likes understanding how earthquakes, volcanic eruptions, and tornadoes function.

Elizabeth Keeler teaches Introduction to Human Geography (GEOG 200), Geography of South Dakota (GEOG 219), and Geography of North America (GEOG 212) online. "My research interests have focused on land settlement, transportation and agriculture in the late 19th and early 20th centuries in Oregon and I plan to look into similar topics now that I am back in Minnesota. I live in the Twin Cities where I was born. When I am not teaching or working my library job, I garden in pots on my patio, knit or bake and, of course, travel."



Dr. João Santos has research interests in glacial geomorphology and paleoclimatology. Since 2005, he has spent his summers in south-central Alaska reconstructing the Holocene glacial chronology of the tidewater glaciers of College Fjord using glacial sedimentology, remote sensing, dendrochronology, and 14C dating as his research tools. More recently, he started a research project on the glacial geomorphology and history of the mountain ranges in the northwestern portion of the Iberian Peninsula. In 2013, he published the first results of his research on the glaciation of the western Cantabrian Mountains of Spain in the international journal *Physical Geography*. João teaches Physical Geography: Weather and Climate (GEOG 131) and Physical Geography: Natural Landscapes (GEOG 132) online. He is a husband and a father of two boys. João is from northern Portugal but has been living in the United States since 1998.

Lauri B. Sohl continues to teach Introduction to Geographic Information Systems (GEOG 472) online, and has also added GIS: Data Creation and Integration (GEOG 473) and GIS Applications (GEOG 475). Her teaching methodology includes both practical and theoretical methods. New this semester, in GEOG 473, is a module using ArcGIS Online, the new GIS cloud platform. This takes advantage of the resources under the ESRI Education Site License. Published articles include the use of Data Reviewer in preparation for the implementation of Geometric Utility Networks. Her professional interests include the investigation and dissemination of GIS and local organizational data on the web and in the cloud, derivative creation from LiDAR, urban geography analysis and methods, in addition to her work for the City of Sioux Falls for over fifteen years. Lauri attended and participated in the ESRI International User Conference and other regional conferences. Lauri continued to participate, educate, and present at GIS Day and Women in Science events that promote science education to ten to fourteen year olds.



Community Updates: Graduate Students



Layla Aljehani is a new graduate student at SDSU, and before coming here was a Teaching Assistant in the Department of Geography at King Abdul Aziz University in Jeddah, Saudi Arabia. She is originally from Saudi Arabia, and lived in Los Angeles before moving to Brookings, SD this year. She received my Bachelor's degree from King Abdul Aziz University in 2007. She is interested in urban growth and planning, how immigrants impact cities, and the upgrading of slum areas around the world. She attended the Great Plains/Rocky Mountain Division AAG Conference in Omaha, NE in 2013.

Josh Bucher is a new graduate teaching assistant for Physical Geography: Weather and Climate (GEOG 131) and assists with GIS classes. As part of a busy school year, Josh is the Geography Club President and is coordinating the 45th Annual South Dakota State Geography Convention. He attended the AAG's Great Plains/Rocky Mountain Division annual conference in Omaha, NE in the fall of 2013. While there, he presented a paper entitled *The SDSU Coal Pile – Past and Present* with assistance from Dr. Trisha Jackson. Josh is also working on a manuscript related to the history of the SD State Geography Convention. Josh is pictured here with John Fraser Hart at the 2013 SD State Geography Convention.

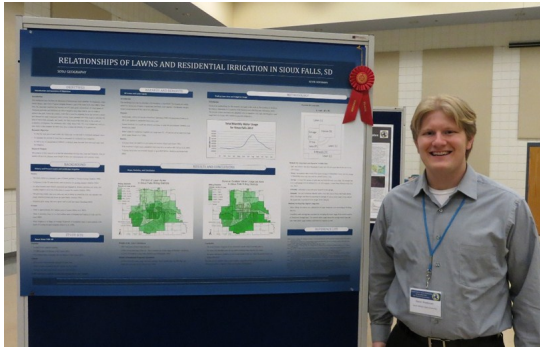


Riley Forsyth has continued to pursue his research interests in remote sensing and land cover modeling. He spent the fall semester as a research assistant at the University of Maryland studying the area estimates of the soy bean crop in the United States. He also attended the Applied Geography annual conference in 2013. Riley teaches labs for Physical Geography: Weather and Climate (GEOG 131) and assists in GIS: Vector and Raster Modeling.

Danielle Guthrie joined the department as a graduate student in August, 2012. Prior to this, she received a B.S. from SDSU in Political Science with a minor in Geography. Danielle's research interests include discourse, geopolitics, and economics. She presented at the 2013 South Dakota State Geography Convention and the 2013 AAG meeting in Los Angeles. Danielle also attended the 2013 "Present Environment & Sustainable Development" International Symposium in Romania and attended the 2013 International seminar in Romania, "Entrepreneurial Initiatives and Regional Development," as a speaker. Additionally, Danielle was published in a Romanian Journal *Geo-Carpathica*. Danielle is the lead TA for the Physical Geography: Natural Landscapes (GEOG 132) labs.



Community Updates: Graduate Students



Kevin Hoekman joined the Geography Department in the spring of 2012. He started his pursuit of geography after graduating from SDSU with a B.S. in Landscape Architecture in 2009 and worked as a residential landscape designer in Sioux Falls, SD for a few seasons. He is interested in urban growth and planning and is currently re-searching the creation of “place” as part of downtown Sioux Falls, SD redevelopment. Kevin received second place in the 2013 South Dakota State Geography Convention Poster Contest. He is currently teaching labs for Physical Geography: Natural Landscapes (GEOG 132).

Cole Krehbiel pursues research on the dynamics of radiance in the mid-infrared spectral region. He work with Dr. Henebry on characterizing the main factors influencing observed radiance using MODIS band 23 over the Great Plains of the United States. They focus on the urban-suburban-rural gradient and how various land covers affect MIR radiance, demonstrating the positive relationship between radiance and percent impervious surface area. Other variables found to be influencing the MIR include sensor View Zenith Angle (VZA) and the seasonal progression of the landscape linked to land cover, temperature, and moisture. Currently, Cole is working on a manuscript that is demonstrating one of the major advantages of utilizing longer (3-5 μ m) wavelengths, which is the ability to penetrate small particle (2.5 μ m) aerosols in the atmosphere. He is demonstrating this phenomenon over Shanghai, Beijing, and the East China plain. As such, he is interested in terrestrial and particularly urban remote sensing.

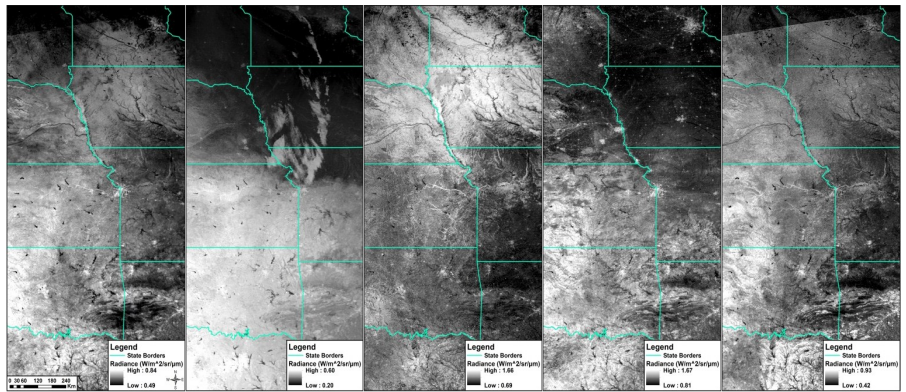
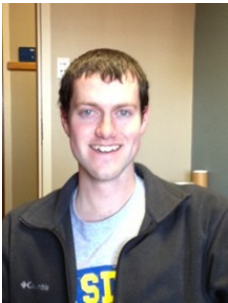


Figure 1. (Left to Right) MODIS MIR 2010 Annual Mean Composite, Winter, Spring, Summer and Fall max composites over the Great Plains.



Chris Maier continued his research interests in Pakistan, place perceptions, and political geography. During the summer, he participated in the Geography Department’s visit to Romania and Moldova, where he presented a paper on the Standard Oil Company. In October, Chris traveled to Omaha, NE to attend the annual meeting of the AAG’s Great Plains-Rocky Mountain regional division to present his thesis proposal. Chris is the lead teaching assistant for the laboratory sections of Physical Geography: Weather and Climate (GEOG 131).

Mandira Sigdelphuyal came to United States in October, 2010 from Nepal after receiving a bachelor’s degree in Environmental Science from Tribhuvan University in Kathmandu, Nepal. Since January 2012, she has been working in the Geographic Information Science Center of Excellence at SDSU as a Data Analysis Assistant. Her research interests include GIS, Remote Sensing, and Modeling. Her research areas include Africa and the North American grassland savanna. She attended the 42nd, 43rd and 44th South Dakota State Geography Conventions. In October, she attended the annual meeting of the AAG’s Great Plains-Rocky Mountain regional division in Omaha, NE.



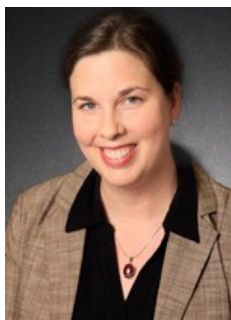
Community Updates: Geography Faculty



Janet Gritzner has had a busy year presenting papers at professional meetings and conferences at cities across the United States. In March, she gave an invited talk to the Historic Beaufort Foundation, in Beaufort, SC on her work on 19th century shellcrete on the Texas Gulf Coast. In April, she co-authored with Dr. Bruce Millett papers, presented at AAG in Los Angeles, CA and at the Western South Dakota Hydrology Conference in Rapid City, SD, on mapping wetland basins using IFSAR and LIDAR LAS data products. She presented two papers at the meeting of the Council on Geographic Names Authorities (COGNA) in Minneapolis, MN: 1) diversity and distribution of wetland toponymic generics in the US and 2) 17th century taxonomy of land-related feature terminology. In July, she and Dr. Millett presented work on mapping wetland features in the Prairie Pothole Region at the 2013 International (ESRI) Users Conference in San Diego, CA. In September, she presented a paper on changing form and function of small towns in South Dakota at the GPRM meeting in Omaha, NE. Lastly in October, Dr. Gritzner and Dr. Millett attended the Applied Geography Conference in Annapolis, MD, where they spoke on deriving measures and profiles of wetland features from LIDAR LAS datasets.



Hilary Hungerford continued her work on urban and African studies. In May, she traveled to Dakar, Senegal to plan a study abroad trip for SDSU students for Summer 2014. She also continued her work on water in African cities through archival work in Dakar, Senegal and Aix-en-Provence, France. She presented papers at the annual Association of American Geographers national and regional meetings, as well as the African Studies Association, and had one peer-reviewed international publication. She also received a grant from the Women and Giving Foundation at SDSU for a project working with refugee communities in Sioux Falls. For her Urban Geography course, Hilary partnered with the City of Sioux Falls for an applied learning project on downtown redevelopment.



Trisha Jackson received University recognition for an Exemplary Hybrid Course for Physical Geography: Weather and Climate (GEOG 131) in the fall. She has enjoyed the hybrid course format and continues to find new ways to engage students with the goal of recruiting new majors. In the past year Dr. Jackson co-authored a book chapter on Coastal Megacities, prepared the “Clean Water” section of the Brookings Sustainability report, and co-authored a research paper on Geography as a STEM discipline. Her research interests expanded across the ocean from Brazil to the Democratic Republic of the Congo, where she hopes to work with a recent GIScE graduate, Bolambee Bwangoy-Bankanza and a recent Geography Master’s graduate, Confiance Mfuka, in developing more sustainable and higher-yielding agricultural practices to reduce deforestation. Dr. Jackson’s recent appointment to the City of Brookings Sustainability Council has also broadened the scope of her commitment to sustainability.



Bruce Millett has been working with a wetlands research team and is submitting for publication a paper entitled “Impacts of Tile Drain Placement on the Hydrologic Function of a Farmed Prairie Pothole Wetland”. The project is funded by the US Fish and Wildlife Service. He is also working with colleagues on a Cancer Geocoding project funded by DHHS/Centers for Disease Control (CDC) through (FPT) SD Department of Health (DOH). Last summer, he and colleagues from EROS Center conducted a topographic survey at the EcoSun Prairie Farm. Bruce was co-author on papers presented at the Association of American Geographers in Los Angeles, CA, the Applied Geography Conference in Annapolis, MD, Western South Dakota Hydrology Conference in Rapid City, SD, and the ERSI International User Conference in San Diego, CA. In addition, Bruce serves as the faculty advisor for the Geography Club.

Community Updates: Geography Faculty



Darrell Napton spent much of the past year working with graduate advisees, and four of them successfully defended their theses. Last spring he gave an invited presentation, “Creating Tomorrow’s Rural Landscape,” at the Minnesota Department of Natural Resources workshop, “Recent and Projected Land-Use Changes in Minnesota,” a workshop for senior managers. Darrell also wrote a book review of the *Field Guide to California Agriculture* (Paul Starrs and Peter Goin) that was published in *The California Geographer*, and he evaluated a book manuscript about contemporary Minnesota landscapes. During the fall semester, Darrell hosted Richard Marston, Past AAG President and Kansas State University Distinguished Professor, who was the 2013 SDSU Geography Awareness Week speaker.



David Roy published six peer reviewed journal articles and with his students and research staff gave research papers in the US in San Francisco, CA, Sioux Falls, SD, and Washington DC, and internationally presented at meetings held in Canada, Mozambique, South Africa, U.K. and Russia. He continued to serve as co-chair of the USGS NASA Landsat Science team, and as a member of the NASA MODIS land science team, the NASA Land-Cover/Land-Use Change Science Team, and the GOF-C-GOLD Fire Implementation team. Dr. Roy continued to supervise four Ph.D. students in the Geospatial Science and Engineering program and took on two students from the Geography Master of Science program.



Bob Watrel continued to pursue his research interests in political geography. He co-authored an article with George White titled “The Establishment and Reterritorialization of Planning Districts in South Dakota as a Response to Economic Challenges” in *the Journal of Urban and Regional Analysis*. He presented two papers at conferences in Los Angeles and Omaha. He was appointed to serve a three-year term on the Governmental Data and Employment Committee of the Association of American Geographers. He is currently working on an atlas of the 2012 election.



George W. White received another grant from the National Geographic Education Foundation (NGEF) to support the South Dakota Geographic Alliance and its efforts to promote geographic literacy in South Dakota. As part of the continuing relationship with Romanian geographers, George made two separate trips to Romania to participate in conferences and conduct research. One of the products of these trips was a published article co-authored with Bob Watrel (see previous entry). Though the article was about South Dakota, it was part of a broader effort of international comparative research. In December, George accepted an invitation from a Geography Department alumnus, Patrice Sanou, to visit Burkina Faso and lay the groundwork for an inter-institutional collaborative agreement (see page 18). While in Burkina Faso, George was interviewed on national television.



Xiaoyang Zhang has been working on two NOAA funded projects: “Monitoring land surface vegetation phenology from VIIRS” and “Develop Near Real Time Biomass Burning Emissions Product Covering the Whole Globe from Polar and Geostationary Satellites for NEMS-GFS-GOCART”. The Visible Infrared Imaging Radiometer Suite (VIIRS) provides us a valuable tool to monitor the dynamics of terrestrial ecosystems in response to climate change. He is also developing a near real-time biomass burning emissions product by blending fire detections from polar-orbiting satellite and geostationary satellites. This product employs a network of multiple geostationary satellites observing fire radiative power at an interval of 15-30 minutes. The FRP and biomass burning emissions from both MODIS data and geostationary satellite observations are blended to produce global biomass burning emissions in near real-time.

A banner for the 45th Annual South Dakota State Geography Convention. The background features a world map with a grid overlay and a blue and white checkered pattern. The text is arranged as follows:

45TH ANNUAL SOUTH DAKOTA STATE GEOGRAPHY CONVENTION

March 20-21, 2014
University Student Union
Brookings, SD

IT'S A BIG DEAL
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South Dakota State Geography Club and
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