

SPARTAN GEOGRAPHER



Satellite image of the Great Lakes region on February 15, 2015. Ice covered 88% of the lakes this year, exceeding last year's mark of 85%. It's been a rough couple of winters up here!

Message from the Chair



Hello again Geographers!

Welcome to the 2015 newsletter. As we do every year at this time, this publication provides an opportunity to reflect on the accomplishments of our faculty, students, and alums as we strive to raise the profile of MSU GEO within and outside of the university. A lot has happened in the past year, a great deal of which will impact the Department for years to come. Many of the changes have been really good, such as the addition of four new faculty who collectively have a lot of potential for great research and teaching. We also had a fantastic speaker at our annual celebration for Geography Awareness Week (GAW). On the other hand, we were very sad to lose two giants in the field, Harm de Blij and Jay Harman. Their passing, coming only a year removed from the loss of David Campbell, further indicates we are currently in a time of change.

All things considered, I'm very pleased to report that 2014 was a great year for the Department. Much of the excitement comes from the infusion of energy brought by the new folks who joined us. The first hire of the group was Amber Pearson, who actually signed in the summer of 2013 in association with our search at that time for a new health/medical geographer who would fit in with the Campus Water Initiative. Amber joined us this past fall as an Assistant Professor after completing an assignment at the University of Otago in Wellington, New Zealand. She also has a 25% appointment in Environmental Science and Public Policy Program (ESPP) here

at MSU. Also joining us this past fall were Jiquan Chen and Raechel Bianchetti. Jiquan came to us from the University of Toledo where he was a Professor of Ecology and a Fellow in the American Association for the Advancement of Science. He also has a joint appointment (49%) with the Center for Global Change and Earth Observations (CGCEO). Raechel joined us as an Assistant Professor after completing her Ph.D. in the Department of Geography at Penn State University. She was hired in association with our search for a new remote sensor/cartographer last spring. The pool for that search was so good that we were able to hire a second person out of that group, which is unusual to say the least. This second hire is Kyla Dahlin, who joined us as an Assistant Professor on January 1 after completing her Post-Doc at the National Center for Atmospheric Research (NCAR). Kyla is an ecologist/remote sensor who obtained her Ph.D. at Stanford.

So if the health of a Department is reflected by new faculty lines, we are in great shape. We are also doing a lot of other really exciting things that are presented in this year's newsletter. Of particular note is that three of our faculty, Jeff Andresen, Ashton Shortridge, and Leo Zulu were successfully promoted this past year. Jeff and Ashton were promoted to the status of Full Professor, while Leo was promoted to Associate Professor with Tenure. Congratulations! You will read about our superb GAW speaker, Kalyanee Mam, who presented her award-winning documentary about life in Cambodia, *A River Changes Course*, to a packed house of ~ 600 people in November. Our Career and Internship Event last year was the best ever, with about 30 presenters and over 100 students in attendance. We continue to do a variety of creative things to promote the Department and raise

awareness about GEO, such as the new major in Economic Geography that will likely launch next fall. The potential for this new major is so high that we are currently in the midst of a search for a new Economic Geographer who will begin in Fall, 2015. Of course, our faculty and students continue to do amazing things with respect to teaching, research, and outreach. The Department is doing well.

Before I end this introduction I must write a few words about Harm and Jay, who I know were good friends and mentors to many of you, as they were to me. Both of these fine people were dedicated to the field of geography broadly and the Department in particular. Although Harm left MSU in the late 60s to pursue his career in warmer climes, MSU GEO remained very close to him. So much so, in fact, that he helped establish the *de Blij Scholars Program* two years ago with a major gift. Jay maintained a very close relationship with the Department in his years as an Emeritus Professor. He routinely came to the office and continued to teach his favorite course, *Environmental Ethics*, to excellent student reviews each fall. At the time of his untimely passing, he was even contemplating another field trip to his beloved Smoky Mountains this coming May. Both Harm and Jay are greatly missed.

Alan F. Arbogast, Chair



Joe T. Darden Professor

The Historical Society of Michigan awarded 15 top honors during its annual State History Conference, which was held in Big Rapids, Mich., Sept. 26-28, 2014. The Society presents the State History Awards every year to individuals and organizations that have made outstanding contributions to the appreciation, collection, preservation and/or promotion of state and local history. The awards are the highest recognition presented by the Historical Society of Michigan, the state's official historical society and oldest cultural organization.

This year also marks the 140th anniversary of the Historical Society of Michigan's State History Conference. The Society is celebrating this milestone in conjunction with the 130th anniversary of Ferris State University, a statewide sponsor for the conference. Other sponsors and supporters for this year's conference are Chemical Bank, City of Big Rapids, Mecosta County Historical Society, Ice Mountain, Schuberg Insurance Agency and Spectrum Health Big Rapids Hospital.

The State History Conference explores significant people, places and events in Michigan's past through a diverse offering of keynote speakers, breakout sessions, workshops and tours. Each year, the conference moves to a different location within the Lower Peninsula to feature the local history of that area and to address notable statewide historical matters. The Historical Society of Michigan also hosts the Upper Peninsula History Conference, which focuses on the history of the U.P., and Michigan in Perspective: The Local History Conference, which concentrates on Southeast Michigan and statewide history.

A State History Award in the Books: University & Commercial Press category has been presented to "Detroit: Race Riots, Racial Conflicts, and Efforts to Bridge the Racial Divide" by Joe Darden and Richard Thomas, published by Michigan State University Press. The race riots of 1967 had an



enormous impact on Detroit's history, but the narrative of racial conflict has often obscured the lesser-known but equally important episodes of interracial cooperation in seeking solutions to the city's problems. Thoroughly researched, this book does not mire the reader in endless statistics and academic jargon. It is immensely readable and a "must have" for anyone interested in the history of race relations in America.

Nathan Moore Assistant Professor

In the last two years Nathan Moore has become deeply involved with the Global Center for Food Systems Innovation, a \$25 Million grant from USAID, as Megatrend One lead. Working with Pouyan Nejadhashemi and Joe Messina, the team has focused on providing integrated model projections for climate change impacts on crops in Malawi and surrounding areas with an eye towards developing a portable methodology. Given the lack of available data over long periods, we are developing a new set of crop-centered climate indices to better inform policy decisions of where and when to support various types of agriculture, and also where data and trends indicate that climate and other conditions are trending toward unreliable conditions for certain crops. Our first study, led by graduate student Victoria Breeze, examines trends in the delay of the rainy season start and should be published later this year. Ultimately, we hope to develop a web-based platform to offer via mobile phone some simple crop recommendations based on climate trends, soil type, and other factors that farmers and other agricultural workers can use to plan their farms and crop for the future. (*A productive visit to Malawi in 2013 with*

GCFSI has led to a variety of crop-climate studies and partnerships. A new short course in applied climate statistics is being hosted at the Lilongwe University of Agriculture and Natural Resources beginning in March 2015, and we hope this partnership will continue for a long time.)

With visiting grad student Lisi Pei and Professor Sharon Zhong, Nathan has been examining the impacts of irrigation on precipitation and the atmospheric water cycle over the Texas High Plains. Thus far our simulations indicate that mining water from the Ogallala Aquifer (also called the High Plains Aquifer) has strongly modified local thunderstorms. The effects of the added water, however, appear to impact rainfall and convection as far as 1000 km from the area. This shows that our modification of North America's arid lands has unintended consequences far from the region. Nathan continues to be active in research on climate impacts for China, with a recent grant from NASA led by Peilei Fan to look at climate impacts on urbanization



▶ Nathan and his wife Julie with children: Calder, Lyra and Owen

On the undergrad/teaching front, Nathan has supervised several successful undergraduate student internships including Keith Lorenz, Carmen Scruggs and Hannah Deindorfer on integrating climate data together with land use and agricultural patterns. Additionally, in the Summer of 2014, Nathan taught for the University's Summer Sports Program Down Under (where it's winter). Drawing on his two years of Peace Corps experience in Fiji he was able to bring a regional flavor

of South Pacific culture to the classroom, and the students walked away familiar with a haka but also with an understanding of how fragile the South Pacific ecosystems are and how they are threatened by a changing climate. Sydney is a wonderfully cosmopolitan city with a truly magnificent Royal Botanical Garden right in the heart of the city.

Igor Vojnovic Associate Professor

Greetings to all from the cold north... where classes have been officially cancelled this morning due to snow! I report this just to inform/remind the many alums who I have worked with and who are currently living in California, Virginia and Florida—and might very well be basking in the sun, enjoying umbrella cocktails while reading the newsletter—the joys of winter and shoveling snow.

The last few years have been busy and exciting. They have involved extensive work with graduate students, study abroad in Sydney and Cairns (Australia), ongoing outreach and engagement throughout Michigan, and numerous research projects. The research has ranged from exploring urban sustainability, to food and amenity access in Michigan cities, work on gentrification, and finishing-up a book on infrastructure investment, urban (re) development and the shaping of cities across the West.

I have been very fortunate to have worked with a group of extremely bright PhD students who have graduated over the last couple of years. They include **Tim LeDoux** (2013, Assistant Professor tenure track—Westfield State University), **Zeenat Kotval-Karamchandani** (2013, Assistant Professor non-tenure track—Michigan State University), **Cristina Leuca** (2014, Senior Analyst—Anderson Economic Group), **Jieun Lee** (2014, Adjunct Professor—CUNY Hunter College); **Minting Ye** (2014, Research Associate—GUSP), and **Ted Grevstad-Nordbrock** (2015, Assistant Professor tenure track—

Iowa State University). Ted, who just defended in December, has started an appointment at Iowa State's College of Design this month, having received offers from their departments of Planning and Architecture (ranked top ten under-graduate and top twenty graduate school nationally). Ted has been hired to develop a new Historic Preservation program in the College. We have been very lucky in the department in attracting some terrific graduate students!!!

Since publishing the edited collection *Urban Sustainability* (2013)—which included contributions from our very own MSU greats, the late **Harm de Blij**, **Assefa Mehretu**, **Jianguo Qi**, **Joe Darden**, **Peilei Fan**, **Joe Messina** and **Zenia Kotval**—I have continued to publish on the topic of sustainability, with recent articles in the journals *Cities and Ecological Economics*. I have also been publishing research from my NSF Human Social Dynamics and MSU Agricultural Extension grants on urban design, built environments, access to amenities and public health, with articles published over the last couple of years in the *Journal of Urban Design*, *Applied Geography*, *Journal of Urban Affairs*, *GIScience and Remote Sensing*, and *Health and Place*. The shaping of built environments and how it impacts urban/suburban neighborhoods and residents is an ongoing area of interest, with a series of new papers in review and being written with Tim LeDoux, Zeenat Kotval-Karamchandani and

Jieun Lee. This research is also being taken in new directions with **Jeanette Eckert** (MSU PhD candidate) and Professors **Sue Grady** and **Arika Ligmann-Zielinska**.

Another current area of research centers on the socio-spatial equity of urban (re)development processes. I have been exploring capital investment and city-building processes across the West, examining the building of European cities (including Manchester and Paris) and comparing them to U.S and Canadian urban contexts (with analysis into New York City, Boston, Chicago and Toronto). This is all part of a book that I am currently completing, titled *City-building*. I have also extensively worked on the topic of urban (re)development with recently graduated PhD students, including Minting, Cristina and Ted. Numerous articles have been published on the topic with graduate students over the last few years, including in the journals *Environment and Planning A*, *Urban Geography* and *Journal of Urban Affairs*.

The end of 2014 has come with two pieces of exciting news. After serving for 5 years as Associate Editor, I have been selected as the next Editor-in-Chief of the *Journal of Urban Affairs (JUA)*. My appointment as Editor will last for five years, during which period I will continue to serve on the editorial boards of *GeoJournal* and *Cities*. The imprint of MSU geography on the journal will also be accentuated with Jeanette Eckert (MSU PhD candidate) serving in the newly created post as JUA's Social Media Editor.

As 2014 came to a close, I was also informed that I was selected for, and placed on, the Fulbright Senior Specialist roster. I am currently organizing my first Fulbright visits to universities in Canada and Estonia, which means that 2015 will likely continue to be as busy as the last couple of years...and on that note...back to writing articles.

All the best for 2015!!!

Go GeoGreen...!!!



► Scuba diving with students at the Great Barrier Reef as part of study abroad People and Environment class.

Catherine Yansa Associate Professor

Catherine is a recent recipient of a National Geographic Society Grant, as a co-investigator with Tim Fisher (lead investigator, University of Toledo) and other colleagues. This grant funds a project designed to reconstruct the paleoenvironmental conditions that triggered coastal dune activity along the Lake Michigan shoreline over the past several millennia in order to provide information on potential dune mobility in the future. With these collaborators she will core three lakes in southwestern Lower Michigan in June 2015 and her pollen and plant macrofossil analysis will provide information about past plant succession changes in response to cycles of dune formation and destruction driven by paleoclimate changes. The data collected in this multi-proxy pilot study will be used in the submission of a NSF grant proposal within the next year.

Catherine is currently supervising three graduate students who she trained in fossil pollen analysis. **Albert Fulton** and **Jennifer Kettle** traveled with her to LacCore, the National Lacustrine Sediment Core Repository at the University of Minnesota, in June 2014 to sample sediment cores from two Lower Michigan lakes archived there in cold storage. One of these sediment cores was from Otter Lake, and forms the basis of Jennifer's thesis research, which uses pollen analysis to reconstruct the paleovegetation and inferred paleoclimate history of the Thumb area of Lower Michigan. Albert's pollen research involves reconstructing the relative impacts of prehistoric Iroquoian agriculture in the Finger Lakes region of New York State. During the time of their LacCore visit, **Caitlin Clark** cored a lake with colleagues at Indiana University-Purdue University (IUPUI) and Indiana University. In collaboration with these colleagues, she has recently completed pollen analysis

of Hovey Lake, southern Indiana, which is adjacent to a prehistoric agricultural village site (of Late Mississippian age). This research documents deforestation and farming by Native Americans prior to European Contact.



► Catherine sampling the Otter Lake core at LacCore. Photo taken by Albert Fulton

Catherine, Albert and Caitlin received training on a "novel" proxy that can document prehistoric Native American farming, that of the spores of crop diseases preserved in lake sediments, from Dr. Jock McAndrews and Mr. Charles Turton at the University of Toronto in November 2013. They have adopted this proxy into their methodology, which has so far yielded some promising results. Earlier, in September 2013, these three along with students of Geography 871 (**Fatima Barry, Maura Casey, Mike Michalek**) and **Dr. Bill Lovis** (MSU Anthropology) traveled to southern Ontario to visit the Ontario Museum of Archaeology and to receive a guided tour of Crawford Lake by Jock McAndrews. This lake is famous because pollen and crop disease spores document Iroquoian farming prior to the arrival of Europeans. The group visited reconstructed Iroquoian long houses and walked around the lake on a rainy day, learning about the environmental and

archaeological history of the area from Jock McAndrews.

Robert N. Thomas Professor Emeritus

Bob stopped teaching on a regular basis in the 1990's. He refuses to use the word "retired." Since that time, he has kept busy working for Office of Overseas Studies taking MSU students to places such as Mexico, The Dominican Republic, and Cuba. Moreover, Professor Thomas has written 2 booklets and presently is finishing a third. His most noteworthy piece discusses his numerous teaching and research adventures in Latin America and the Caribbean. Both are listed on Amazon.com.

At present he and his wife Dorothy are completing his third booklet which discusses the importance of the banana industry in the Western Hemisphere.

Bob has also done the cruise industry circuit, visiting most islands in the Caribbean as well as the majority of the countries of Mexico, Central and South America.

Normally you will find Thomas each academic day in his office in 102 Geography Building and can be reached on his private phone (517-353-1668) or through the main Geography Department office through Judy Reginek. His summer months are spent with his wife Dorothy at their cottage on Spider Lake near Traverse City. He enjoys meeting with former students when they return to campus.



► Randy Schaeztl caught red-handed in the boss' office.

Harm J. de Blij (1935-2014)

Dr. Harm J. de Blij passed the morning of Tuesday, March 25, 2014 due to complications associated with cancer. He was 78 years old. Harm was born in the Netherlands, and had a unique range of educational experiences. He received his early schooling in Europe (part of it during the Second World War as recounted in his memoir *Wartime Encounter*), his college education in Africa, and his higher degrees (Ph.D., Northwestern) in the United States. He was a long-time faculty member at both Michigan State and the University of Miami, and also taught at Georgetown, Colorado, Hawai'i, the Colorado School of Mines, George Washington University, and Marshall University. His prolific publications included more than 30 books and well over 100 articles. His scholarly work has been recognized through honorary degrees awarded by Marshall University, Rhode Island College, Grand Valley State University, North Carolina State University, and Michigan State University. For seven years he was the popular Geography Editor on ABC's "Good Morning America". In 1996 he joined NBC News as Geography Analyst, appearing mostly on MSNBC. He was writer of and commentator for the original PBS Series "The Power of Place."

Harm re-engaged in the MSU Geography Department about 10 years ago as a John Hannah Professor. He took that role seriously and was a huge friend of the unit. Among many other things, he was instrumental in the establishment of the new *de Blij Scholars Program*. The goal of this program is to create a \$500,000 endowment to support exceptional students who choose to major in Geography.

If you would like to make a donation in his memory, gifts should be made payable to "Michigan State University" and sent to: The de Blij Geography Scholars, MSU Department of Geography, Geography Building, 673 Auditorium Rd, Rm 116, East Lansing, MI 48824



Jay R. Harman (1941-2014)

Jay R. Harman passed away on November 18, 2014 due to complications associated with a severe stroke he suffered at his home the previous day. He was 73. He attended Illinois State University (BS 1963, MS 1964) and the University of Illinois (PhD 1968), and spent his entire career on the faculty of the Department of Geography at Michigan State University.

In the early phases of his career his research and teaching interests were in physical geography, with concentrations in plant geography (mostly of the eastern United States) and synoptic climatology, often in some combination. He published much of his work in the *Annals of the Association of American Geographers*, which is our flagship journal. During the latter portion of his career, however, Jay became increasingly interested in philosophical matters, especially epistemology and ethics/morals, particularly as they interfaced with his Department specialization in the physical environment. Given these new interests, he began writing about environmental ethics in scholarly journals and developed a new class on the topic (GEO 432) in the 1990s. He taught that class frequently thereafter to extremely good reviews.



Anyone who knew Jay remembers him as a very thoughtful fellow who loved a good conversation. He was a great mentor to faculty and students alike and was happy to talk about anything, including politics, bee keeping, alternative energy, class, general philosophy, raising his daughters, matters in the Department, and, of course, the daily weather and medium-range forecast. He loved the Smoky Mountains and led a bi-annual field trip there until very recently. Everyone who went on that trip was touched by the grandeur of the place and Jay's deep affection for it. If you desire to make a donation in Jay's honor within the Department, it can go to the undergraduate fund that was established in 2006 in his name. Such gifts should be made payable to "Michigan State University" and sent to: Jay Harman Undergraduate Fund, MSU Department of Geography, Geography Building, 673 Auditorium Rd, Rm 116, East Lansing, MI 48824

Welcome New Faculty!

Raechel Bianchetti Assistant Professor

Originally from Munising, Michigan, I come to MSU by way of the University of Idaho (B.S. Geography 2009; B.Envs. Environmental Science 2009; M.S. Geography 2010) and Pennsylvania State University (PhD 2014). My doctoral work addressed cognitive factors of remote sensing expertise in the forest disturbance analysis domain. I am expanding this work to incorporate semi-automatization and the integration of alternative forms of knowledge and lived experiences using Geographic Object-Based Image Analysis. I am especially interested in the use of

multi-perspective imagery to understand individual's sense of agency in complex urban systems. By providing local individuals the opportunity to be part of the scientific process from the beginning, it is likely to increase their trust in science and create multi-dimensional remote sensing data products developed from both local and domain expertise.

Outside of my academic endeavors I am kept busy by a rambunctious 6-year-old son and a number of hobbies. I enjoy photography, 19th century classical literature, painting and drawing, collecting vintage maps of India, and I am a huge Bollywood film fan.



Jiquan Chen Professor

Geography and CGCEO
Fellow, Ecological Society of
America (ESA)

Fellow, American Association for
the Advancement of Science, AAAS
(2011)

I have been broadly trained as an ecologist. Back in 1979, I was sent by the Chinese government to the Department of Biology in Inner Mongolia, majoring in plant ecology (also known as geobotany by Russian scientists). Later, I

studied forest ecology and ecosystem in the Chinese Academy of Sciences and The University of Washington. Soon after, I became a faculty member at Michigan Technological University, Harvard University, and the University of Toledo. All greatly expanded my scientific and teaching interests in landscape analysis, global change, conservation biology, carbon/water cycle, etc. My most recent endeavors lay in in-situ monitoring and modeling of greenhouse gas emissions by using eddy-covariance flux towers (Fig. 1), remote sensing, and biophysical models. The regions

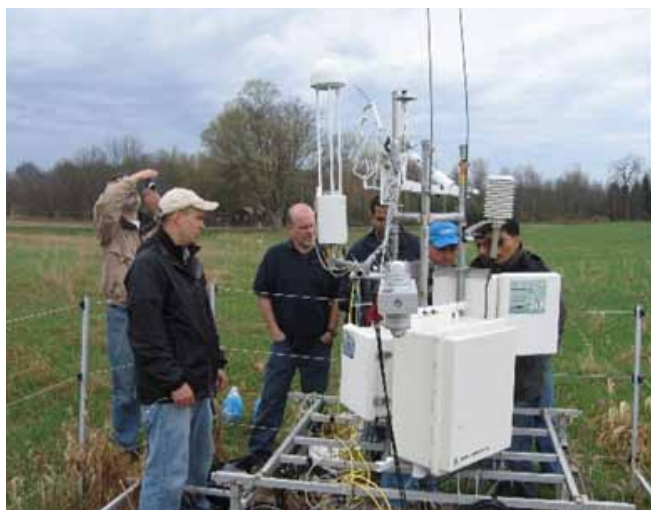
Spartans in the greater Lansing area. The great diversity and the stimulating academic environment on MSU campus



will bring us to a new frontier. One well-known characteristic of the LEES Lab is that we possess well-established professional networks. Over the years, the LEES researchers and students have been working closely with landscape labs across the globe.

professionally, in addition to participating on editorial boards of a dozen scientific journals, I am also the Editor-in-Chief for two book series: 1) *Ecosystem Science and Applications* (ESA) for the Higher Education Press (HEP) and De Gruyter, and 2) *Landscape* for Springer. Fostering personal development, I have many hobbies including hiking, biking, swimming, skating, and more. But my heart in the past 10 years has been on Tai Chi, from Marshal Arts to Buddha Meditation.

I cordially welcome you to visit LEES Lab (<http://lees.geo.msu.edu/>) for an update.



► The mobile eddy-covariance system (a.k.a. J-Rover) developed at the Kellogg Biological Stations for direct measurements of greenhouse gases (GHG)

of interest include a variety of terrestrial ecosystems and Lake Erie. Even more exciting is that I have been working with Landscape Ecology and Ecosystem Science (LEES) researchers on coupled human and natural systems, including the sustainability of PV systems, biofuel crops, urban systems, and society benefits. These projects are funded by the NSF, NASA, GLBRC/DOE, Chinese NSF, and IceMe of NUIST. All LEES researchers, including myself, are excited to be

Welcome New Faculty!

Kyla Dahlin Assistant Professor



Hello! I'm excited to have joined the Geography faculty this January, and my family and I have been happy to find that Michigan winters aren't nearly as bad as we were told to expect (or, at least this one isn't so far). We moved here from Boulder, Colorado, where I was a post-doctoral fellow at the National Center for Atmospheric Research. By training I'm a plant ecologist, but I address vegetation questions using a combination of remote sensing, GIS, and Earth system modeling, so nearly all of my research involves spatial technologies.

I grew up in Northern California, but moved east for college – I studied ecology at Yale University, where I first discovered that my affinity for maps and trees could possibly lead to a viable career. I've since worked on tree mapping projects around the U.S. and in New Zealand. After finishing undergrad I stayed in New Haven for an extra year to attend the Yale School of Forestry and Environmental Studies, where I earned a Master's degree in environmental management. My master's project also involved mapping trees – I used a GPS to map all of the trees in a large park in the South Bronx, New York, then I wrote a management plan for that park's 'forest'. After some time in New York, I wanted to get back to the west coast so I parlayed my GIS skills into a job as a habitat restoration manager in the Golden Gate National Recreation Area. After a few years of mapping plants on foot, however, suffering from poison oak, ticks, surly park goers, and crumbling hillsides, I became convinced there had to be a better way to map vegetation. With that in mind I returned to graduate school to study airborne remote sensing as a tool for conservation and land management. I enrolled in Stanford University's Biology Department and spent my time at Stanford working at the Carnegie Institution's Department of

Global Ecology, where my PhD advisors, Chris Field and Greg Asner, are based. There my interests broadened to deeper ecological questions about how plants respond to environmental gradients and changes with a focus on semi-arid systems.

Today my research aims to better understand and quantify ecosystem processes like plant succession and disturbance responses through the application of emerging technologies, including air- and space-borne remote sensing, spatial statistics, and Earth system modeling. I have worked on projects at very fine scales, endeavoring to understand the distribution of plants within small biological preserves, and at global scales, trying to assess and improve how an Earth system model represents vegetation in savanna ecosystems. I am looking forward to continuing these research themes at MSU as well as developing some local projects. I am also excited about bringing my research into the classroom – I'll be teaching the Geography of Plants of North America next fall and Advanced Remote Sensing in the spring. When I'm not thinking about plants and pixels, I spend my time hanging out with my husband, our baby daughter, our dog, and our collection of bicycles.

Amber Pearson Assistant Professor

I am a new assistant professor and a health geographer (PhD, University of Washington). I just joined MSU's Global Water Initiative and have a partial appointment with Environmental Science and Policy Program. I came to this MSU position from Otago Medical School in Wellington, New Zealand. I enjoyed the five years of health research I conducted in New Zealand as both a postdoc and a research scientist. While I have worked on topics ranging from access to healthy foods, air pollutants, social isolation, cost-effective cancer interventions and understanding social deprivation of neighborhoods,

I also have an explicit focus on water research.

My water research is at the intersection of spatial and social dimensions of health with a focus on water availability. My overall research goal is to understand the interactions between human-induced ecological change, political and social dimensions of access to water, and human agency/coping strategies to improve health and well-being while paying careful attention to health inequalities and environmental justice. Much of my water-related research has been focused in southwestern Uganda.

I am new to the Mid-West and am adjusting to my daily 'snow-shoe' commute to the office! I am really



excited to be a part of this Geography Department and to explore the Great Lakes region.



Ellis Adams

A fourth year PhD candidate, Ellis was awarded the prestigious National Science Foundation DDRI grant for his dissertation-*[Decentralization, Institutions, and Access to Potable Water in Malawi's Informal Settlements]*. Last December he tied the knot with Joyce Tonlaar in Ghana.



Deanna Apps

My thesis research focuses on precipitation and soil moisture feedback with downscaled hydrologic information in climate models. I am curious to see what changes we can observe with the implementation of downscaled higher resolution soil moisture data. My project will also consist of investigating changes associated with using downscaled remotely sensed soil moisture from the Soil Moisture Active Passive (SMAP) satellite. This research will help to further understand land-atmosphere interactions in the hydrologic cycle.

My other research interests include lake-effect snowstorms and the possible changes to these mesoscale systems in a changing climate. In 2013-2014, I worked on the Ontario Winter Lake-effect Systems (OWLeS) project as a field scientist, in hope to better understand fine scale features in lake-effect snowbands.



Fatima Barry

My dissertation is focused on the oil industry and its health and livelihood consequences in the Niger Delta region of Nigeria. I've been conducting research in this region since my Master's program in 2009. This past year, as a MSU College of Social Science Research Scholars Fellow, I travelled to the Niger Delta region to identify and obtain preliminary approval from community leaders to work with 4 communities (2 oil communities and 2 non-oil communities). The communities selected provided information on the history of the community, the industries in close proximity to their community, if they experienced a natural disaster in the past 2 years, the health issues that are observed, the health services in close proximity to the community, and population data. This will help me to develop my dissertation proposal and conduct my research study in the Summer/Fall of 2015.



David Baylis

Merhaba! After spending some time learning to read Ottoman Turkish, I spent much of 2014 as a Fulbright Hays Fellow in Ankara, Turkey, researching narratives of health, place, and gender in central Anatolia during the transitional years following the transformation of the Ottoman Empire into the Turkish Republic. I was also able to travel extensively throughout the region (from Adana in the southern agricultural valley to Mardin, Midyat, and Diyarbakir in the Kurdish region of Southeast Turkey) and attend LGBTQ rights marches and panels in Ankara. Following my return, I accepted a position as managing editor of the Center for Gender in a Global Context's Gendered Perspectives on International Development Working Paper Series (GPID). I am also teaching an upper-division cultural geography course (GEO 441) that focuses on popular culture representations of place and identity and relies heavily on film, animation, and comic books, while preparing job talks and working on the final chapters of my dissertation for an early summer defense.



► David and his little Turkish friend (Çınar) on the city walls of Diyarbakir.

Victoria Breeze



I joined the Geography Department this past fall, coming to MSU after three years writing and editing engineering proposals. Working as a research assistant for Dr. Moore and the Global Center for Food Systems Innovation (GCFSI) has helped me get back in the scholarly mindset. While investigating seasonal rainfall trends in Malawi, I have dabbled in Python programming, increased my ArcGIS proficiency, and challenged my research skills. In April 2015, I have the opportunity to present our work via poster at the upcoming AAG conference in Chicago. As a straight-to-PhD student, I am also knee-deep in coursework. I strive to use every class to help refine my dissertation ideas and create a worthwhile project proposal. I am tentatively exploring environmental telecouplings between China's economic policy and land-use deals in sub-Saharan Africa. While I miss the mountains (shout out to my home state of Colorado), everyone here at MSU has been extremely warm and welcoming. I look forward to my next few years here!

Mark DeVisser

Over the course of 2014 I was involved in a variety of activities here at MSU including working for the Global Center for Food Systems Innovation (GCFSI), teaching GEO 428 Digital Terrain Analysis during the fall semester, and of course working on my dissertation. My work for GCFSI focused on assessing the ability of remotely sensed data to identify agricultural lands, tracking changes within agro-pastoral ecosystems, and the identification of marginal agricultural lands and the drivers of marginality in East Africa. In addition, I have been working on reconceptualizing tsetse fly (the primary vector for animal / human trypanosomiasis) distributions in Kenya, and produced new tsetse fly distribution maps for Tanzania. My dissertation, which explores the relationship between tsetse fly and invasive mesquite in the Lake Baringo region of Kenya, is nearly complete. I am in the process of finalizing the spatiotemporal models that I am using to quantify the impact that mesquite has had on tsetse fly distributions, and plan on defending this year.



Eric Butvidas



After finishing all required coursework in May 2012 for an M.S. in Geography, my family and I moved to Arizona. The plan was to finish my thesis by the end of that year. Instead, life happened. I returned to Lansing in September leaving behind my position as a GIS Technician for the City of Glendale, AZ where I developed a "Right-of-Way Maintenance" GIS for the Field Operations Department. My thesis will reconstruct the global campaign to eradicate dracunculiasis, formally known as Guinea worm disease. Should things continue moving smoothly, I will be awarded the degree in May.

Dominick Del Ponte

In addition to taking classes and working within the department I have been working with the Advanced Information Systems and Donor Strategy (AIS/DS) department within the University Advancement office here at MSU since early October. I am working as part of team to build their GIS infrastructure from the bottom up. When completed, this project will allow for easier networking of alumnus and university donors to university officials. On a more personal note: on January 29th my family welcomed the arrival of my brother and his wife's first daughter!

Jeanette Eckert



Over the last year I have been making steady progress toward finishing my PhD in the GEO department. In 2014, I gave presentations at the MSU Workshop on Food Justice and the East Lakes Division of the AAG, and submitted a paper to a special issue on food sovereignty which is still pending. Last summer, I worked with a community action organization in Ohio, helping them explore ways of visualizing their data via maps. I have also had the opportunity to serve as a reviewer for a few different academic journals. I am currently completing my last required course, and I have completed all the requirements for a graduate specialization in Global Urban Studies. I have passed my written comprehensive exams, and if all goes well, by the time this goes to press I will have passed my oral defense as well! I am continuing to gain teaching experience at MSU, and this semester I am teaching Intro to Geographic Information, getting my first taste of leading a lecture course of over 150 students. It will round out my other experiences at MSU in online teaching and running lab sessions in cartography and remote sensing. In April I will attend and present at the AAG conference for the first time, which will also mark my first trip to Chicago. I am appreciative of the travel funding I received from the GEO department and the University to make that possible. I am aiming to defend my dissertation proposal, on the topic of restaurant travel behavior in Metro Detroit and its implications for food access, by the end of spring semester and plan to spend the summer immersed in that project. I also hope to find time to polish up a few manuscripts that have been generated over the past year and submit those for publication. All in all, it's been another busy year that has gone by way too fast!

April Frake

Since beginning my studies with the Geography department last Fall, my research efforts have worked to address how land use modifications directly linked to agriculture in Malawi are impacting the primary malarial vectors (the *Anopheles* mosquito) habitat. Understanding that landscape associations exist due to the poikilothermic nature of the mosquito larvae, we are questioning whether broad-scale alteration of Malawi's physical landscapes and watersheds inadvertently promotes larval habitat distribution and thereby could potentially be increasing infection rates. To that end, a portion of my research efforts thus far have focused on better understanding *Anopheles*. Bionomics: investigating both the ecology of the mosquito species, its behavior, and both the biotic and abiotic factors that contribute to its spatial distribution.

As I move in to the Spring semester I plan to expand my research focus directed at land use land cover change within the context of disease systems and begin building a conceptual model for land use land cover change and malaria in Malawi. When I'm not busy dreaming about my next mosquito trapping adventure, you'll likely find me prepping for my next triathlon or running event.



Cadi Fung



► Above: Cadi snuggles with a sloth

This past year was a productive and exciting transition between my third and fourth years of the PhD program. I completed my comprehensive exams in Spring 2014 and left for Brazil shortly thereafter. With funding assistance from the Gender, Justice, and Environmental Change (GJEC) Dissertation Research Fellowship, the Marjorie and Lawrence Sommers Graduate Fellowship for International Research and Travel, a Center for Latin American and Caribbean Studies (CLACS) Research Scholarship, an AAG Dissertation Research Grant, an AAG Latin America Specialty Group Field Study Award, a Graduate Office Fellowship, and two Foreign Language and Area Studies (FLAS) Fellowships, I was able to spend Summer 2014 in Brazil learning Portuguese and conducting extensive pre-dissertation research on the Amazon river dolphin. Upon returning to the US, and after a difficult months-long decision-making process, I decided to remain at MSU rather than follow my advisor to the University of Florida. Although it's a little challenging at times, I am happy with my decision and grateful for all the support I've gotten from faculty, staff, and fellow grads.

Yankuic Galvan

Last semester I moved to Gainesville, Florida. It was a big change for me and my family, but one for which it is hard to complain too much. Apart from the couple of months of extreme heat and humidity during the summer the weather here is just great, and aside from the radical conservatism, I enjoy the "Latino feeling" you find in Florida. The people are warm, and we are making new friends. However, my family and I still miss Michigan and the great people we met at East Lansing and MSU. Even the e-mail alert I got a few days ago regarding the suspension of classes at the university due to the bad weather triggered some nostalgia for me (seriously).

On our way to Florida, we had the opportunity to visit some beautiful places. My favorites were the Mammoth Cave National Park in Kentucky and the Great Smoky Mountains. We drove from Knoxville to Atlanta through the mountains.

In Gainesville, I'm working as an adjunct scientist for my adviser at the University of Florida. At this moment, am I entirely focused on completing my dissertation and expanding it into a larger research project on land change and commodity chains. In a few weeks, I'm going to travel to Mexico and spend a couple of months finishing my fieldwork. If the winds are favorable, that is, if everything goes as expected in Mexico, I hope to defend next fall.



Laura Johnson



Laura Johnson successfully passed her comprehensive exams and defended her dissertation proposal in Spring 2014. She conducted her dissertation research from May through September 2014, generously supported by a Gender, Justice and Environmental Change (GJEC) Dissertation Research Fellowship as well as the Department of Geography. Her ethnographic research was carried out in the North Carolina High Country and explored agro-food reconnections (spatial, social and cultural) related to an annual community-based farm tour. She conducted in-depth farmer interviews, photo-elicitation visitor interviews, focus groups and surveys. As a side note, Laura and her dog, Moxey, lived in a barn belonging to one of the participating farmers and had the time of their lives. Laura is now supported by a GJEC Dissertation Completion Fellowship as she analyzes her data and is also teaching Introduction to Human Geography (GEO 151). Additionally, she has received a Doctoral Study Abroad Fellowship and will be teaching a two-week course on sustainability in New Zealand during summer 2015.

Dee Jordan

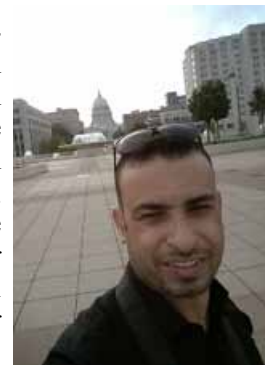
Dee Jordan is a recipient of the University Enrichment Fellowship through the Graduate School. Dee's concentration is Spatial Epidemiology and Health and Medical Geography and she is enrolled in the Environmental Systems Policy Program (ESPP) Doctoral Specialization. As a first year Doctoral Student, Dee has been committed to diversity, inclusion and Undergraduate mentoring efforts through many avenues on campus including the Association of Graduate Education and the Professoriate (AGEP), the Black Graduate Student Association (BGSA) and the Leadership Institute through the Graduate Life and Wellness. During the first semester, Dee's abstract on community cancer mortality along the Houston Ship Channel was accepted for presentation to the 142nd Annual Meeting for the American Public Health Association, her collaborative project on Head and Neck Cancer won the R. Davilene Carter Presidential Prize for Best Manuscript and the subsequent paper titled "Dying to be Screened: Exploring the Unequal Burden of Head and Neck Cancer in Health Provider Shortage Areas with Implications on Screening Efforts" was published in the Journal of Cancer Education in November 2014. Dee's many service and leadership roles include, serving her 2nd term as the Student Representative on the Board of Trustees for the Society of Public Health Education (SOPHE); as an Alternative Representative on the Council of Graduate Students Dee serves on the Graduate Welfare Committee and the University Committee on Graduate Studies which allowed her to attend the Academic Governance Reception where she met Michigan State University President, Dr. Lou Anna Simon and Assistant Vice President of Student Affairs, Dr. Denise Maybank.



► Above: Dee Jordan (center) with Dr. Denise Maybank (left) and MSU President Lou Anna Simon (right).

Ameen Kadhim

My PhD research is "The effects of sea level rise (SLR) on near – coastal riverine regions : a geospatial comparison of the Shatt Al-Arab River in southern Iraq with the Mississippi River in southern Louisiana, USA". This study seeks to identify and assess impacts SLR on Shatt Al-Arab river region in and the Mississippi river region . These rivers flow into the coast exposed to inundation because of SLR. This study uses geospatial comparison: topography, soils, hydrologic and ecosystem data in these regions, and seeks to improve our understanding of impacts SLR on (vegetation , agricultural, water ground, Ecosystem) around these rivers using geospatial analysis. The Shatt Al-Arab river, the length (120 MI) and width (2,600 ft), flows directly to the Persian Gulf. The SLR impact shows clear effects around Shatt Al-Arab river area. Also, Louisiana will be affected by the increase in global sea level as well as land movement up or down. The motion of land can be caused by melting ice or tectonic movement.



Mike Luehmann

After six long years, working as a MS and PhD student at MSU Geography, I'm finally near the end of spending the majority of my day in the basement of the Geography Building. I began my time here studying loess (wind-blown silt) in the UP of Michigan for my Master's thesis. I continue to be active in that research area. Last Fall semester, for example, I was one of eight students who took the Physical Geography seminar, led by Dr. Schaetzl. During the course we analyzed several soils with loess mantles in SW Lower Michigan and submitted a manuscript to the *Annals of the Association of American Geographers*. In addition to loess studies, I am writing my dissertation. In it, I focus on mapping and classifying old, abandoned deltaic deposits in Michigan, which formed in glacial lakes (that are now dry). I have mapped over 60 relict deltas in the Lower Peninsula, 28 had been acknowledged in previous works whereas 33 deltas are unique to my dissertation. This spring, I will present some of my research on deltas at the annual Michigan Academy of Science Arts & Letters conference, as well as the North-Central Geological Society of America meetings. Very soon thereafter, I hope to defend my dissertation and move out of the basement for good. My future plans are to move from Lansing to Royal Oak, MI where my girlfriend and I recently bought a house. As I search for jobs and start a career as a professional geographer, I'm excited to see that there are several employers near Royal Oak who are seeking geographic expertise. Many employers outside of academics, whether it be within the government or private sectors, are hiring folks with geographic skills similar to mine to work as either geo-scientists, field scientists, geotechnicians, or staff environmental scientists. Although I have yet to officially land a job, I'm optimistic that I'll find one by May 2015 and will be able to utilize the geographic tools that I've acquired here at MSU.



Brad Peter

Graduate Student Brad Peter with Professor Joseph Messina from GCFSI's Population Growth, Climate Change and Pressure on the Land team visited Malawi to construct and install a set of weather stations on farmland in the central region of Malawi. A total of four weather stations have been installed at Bunda College, Linthipe, Golomoti and Nsipe. In addition to construction and installation, training on data collection and station operation was provided for technical staff and faculty at Bunda College.

The stations are set to record data continuously at 15-minute intervals and will provide access to data on wind speed, wind direction, barometric pressure, temperature, relative humidity, dew point, precipitation, photosynthetically active radiation, and soil moisture. The stations will be used primarily for growing season weather data that can be related to satellite imagery to monitor crop health and estimate yields.



Kevin Piraino

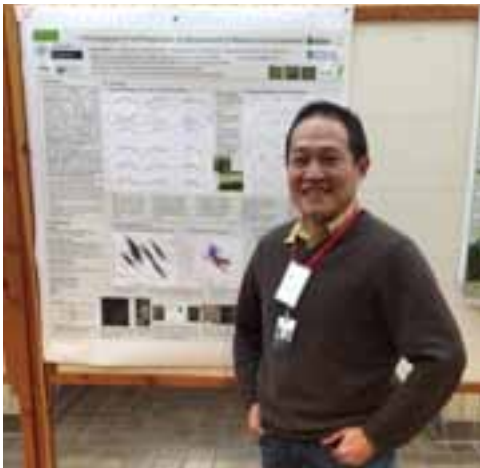
My current research interests include the application of geographic information science in the field of physical geography. I have always been very interested in physical geography and geomorphology. I am also very interested in the geostatistical side of GIS, especially kriging, and how it can be applied to understanding our environment. I would like to continue researching geostatistics and apply that knowledge to future research problems. I am currently working on web based mapping using open source javascript libraries such as OpenLayers and Google Maps API. I am also learning database management, server management, and website construction (HTML), to improve my GIS professional skills.

Lydia Rill

This past year I graduated from Valparaiso University with my bachelors in meteorology. This is my second semester as a master's student here at MSU. My first semester and this current semester I have been working for the CLIMARK Project which stands for Climate Change and International Markets. More specifically, I have been working with European weather data and a cherry crop yield model for Michigan tart cherries. I look forward to learning more about climate and crops during this next year!



Josh Vertalka



Yahn-Jauh Su

Yahn-Jauh attended the GLBRC (Great Lakes Bioenergy Research Center) Sustainability Retreat and presented a poster at the Kellogg Biological Station in February.



Ruqun Wu (Susie)
At the Geo Fall Kick-Off Event



Annie Yang



Yi Fan (Angela)

GTU/GEO Reception 2014

2014 GTU Initiates



► L to R: Laura Johnson, Hannah Deindorfer, Matthew Kloviski, Peiling Zhou, Marie Holler, Ashley Cunningham, Mary Sabuda, Elin Thorlund, Christopher Connallon, Jared Logan, Caitlin Clark, Jacob Logan. Not pictured: Lydia Macklin-Camel and Melissa Walker.



There were drawings for door prizes



► Claudia Brown & Bruce Pigozzi

& Winners!



► Visiting Research Scholar, Yang Lang



► John Slagle and his grandmother Zoe who is also an MSU alumna.



► Professor Arbogast



► Dr. Schnakenberg & MS student Caitlin Clark.



► Laurie Sommers, Dorothy & Robert Thomas, and David Winder.



► Above: PhD students Yankuic Galvan, Williams Castro, Laura Johnson, Josh Vertalka and Cadi Fung.



► Above: Peiling Zhou, Yang Lang, Ying Tang, & Michelle Li.

► Below: Professor Messina & Professor Harman



► Geo Advisor, Dr. Schnakenberg with GTU initiate Marie Holler and her parents.

Graduating Seniors



► Graduating Seniors who attended the reception: John Slagle, Anne Scobell, Alan Arbogast (Chair), Ashley Cunningham, Brandon Lambrix, Mohamed Mukhtar, Gary Schnakenberg (Advisor), Danielle Davis.

Undergraduate and Graduate Student of the Year Awards



► Dr. Potchen presented the E. James Potchen Award to the Outstanding Undergraduate of the Year, Ashley Cunningham. The Outstanding Graduate of the Year Award was accepted for David Baylis by his parents Dale and Susan Baylis. These awards were established by Professor Harm de Blij in 2008 in honor of Dr. E. James Potchen, a special Friend of Geography.

Marjorie and Lawrence Sommers Graduate Fellowship for International Research and Travel



► Award winner Cadi Fung and presenter Laurie Sommers

Owen Gregg Global Climate Change Research Award



► Professor Luo, award winner Ying Tang, and Professor Zhong

Jacobson Scholarship in Cultural Geography



► Nicholas VanDyken

Graduate Research Presentation Winners



► L to R: PhD students Joshua Vertalka (3rd place), Albert Fulton (2nd place), Michael Luehmann (1st place).



► Geo Faculty below: Morris Thomas, Igor Vojnovic, Guo Chen, Jeff Andresen, Sharon Zhong, Jay Harman, Alan Arbogast, Arika Ligmann-Zielinska, Ashton Shortridge, Randy Schaeztl, Lifeng Luo, Joe Darden, Catherine Yansa, Bruce Pigozzi, PhD student Ellis Adams (holding key), Judy Olson, Joe Messina, Nathan Moore, and Leo Zulu.

GRADUATE STUDENT DEGREES COMPLETED IN 2014

Babcock, Chad, MS (Andrew Finley), “Bayesian Hierarchical Spatial Models to Improve Forest Variable Prediction and Mapping with Light Detection and Ranging Data Sets.”

Benton, Cristina Ramona-Leuca, PhD (Igor Vojnovic), “The Diversity of Gentrification in Chicago’s Cultural Districts – Exploring Differences in the Artist Class as First Wave Gentrifiers.”

Hemingway, Jacob, MS-GIS (Ashton Shortridge)

Kowalski, Daniel, MS (Alan Arbogast), “Comparison of Sand Dune Chronologies in the Great Plains and Eastern Lake Michigan Coastal Zone.”

Langley, Shaun, PhD (Joseph Messina), “Science in the Digital Age: Overcoming Uncertainty and the Adoption of Volunteered Geographic Information for Science.”

Lee, Jieun, PhD (Igor Vojnovic), “Urban Built Environment and Travel Behavior: Understanding Gender and Socio-Economic Disparities in Accessibility and Mobility of Urban Transportation.”

Matney, Jason, MS (Andrew Finley), “Bayesian Hierarchical Models for Environmental Datasets.”

Moody, Heather, PhD (Joe Darden), “The Relationship of Neighborhood Socioeconomic Differences and Racial Residential Segregation to Childhood Blood Lead Levels in Metropolitan Detroit.”

Piawski, Jason, MS-GIS (Ashton Shortridge)

Silvernail, Benjamin, MS-GIS (Ashton Shortridge)

Ye, Minting, PhD (Igor Vojnovic), “Exploring the Diversity of Gentrification and the Role of Gender in Hong Kong, 1986-2006.”

UNDERGRADUATE DEGREES 2014

Spring 2014 Geography BS

Ashley Cunningham

Terrance Frank

Chasen Gentile

Brandon Lambrix

Todd Lassen *

(*additional major, GISci)

Lydia Macklin-Camel

Dylan Olin (2nd BS Geo)

William Rosetos

John Slagle

Geography BA

Mohamed Mukhtar

BS GISci

Dylan Olin

Robert Schneeberger

Geography Additional Major

Nicholas Junemann

Matthew Maillard

Summer 2014 Geography BS

Scott Brandt

Danielle Davis

Alicia Parks

BS GISci

Mohammad Al Najjar

Fall 2014 Geography BS

Anne Scobell



On November 20 the Department of Geography hosted Kalyanee (Kah-Lee-Ah-Knee) Mam for a special showing of her award-winning documentary, A River Changes Course. This film documents three traditional families in rural Cambodia whose lives are being deeply impacted by globalization, urbanization and encroaching deforestation. Kalyanee's visit was widely publicized in the weeks prior and the event was open to the public in Wells Hall. The response was fantastic, with about 600 people in attendance. Everyone was moved by the film and Kalyanee did an amazing job in the subsequent question and answer session. In addition to the presentation of the film, Kalyanee also taught a section of our Human Geography course to rave reviews. She was a great ambassador for the Department and her visit was nothing short of a great success.

Thanks again Kalyanee!

FREE MOVIE SCREENING



Award-winning filmmaker, lawyer, born storyteller, and native Cambodian, **Kalyanee Mam**, will be available after the showing for a Q&A session.



EVENT DETAILS

DOORS OPEN @ 6:30PM
RUNNING TIME: 83 MINS
SEATING CAPACITY: 622

THEATRE FILLED ON A FIRST-COME, FIRST-SERVED BASIS

CELEBRATING GEOGRAPHY AWARENESS WEEK

THURSDAY, NOV. 20 @ 7PM | WELLS HALL B115

MAP your FUTURE

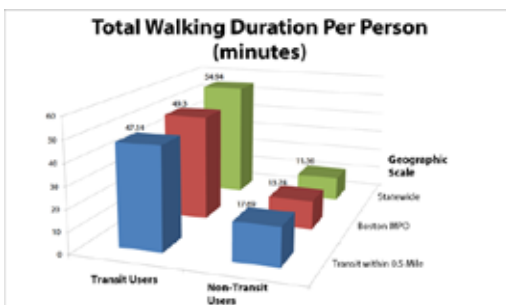
SPONSORED BY THE MICHIGAN STATE UNIVERSITY
DEPARTMENT OF GEOGRAPHY & UNIVERSITY ACTIVITIES BOARD

At the Intersection of Transportation and Health by Michelle Lee (BS 1998)+

The use of Global Positioning System (GPS) data collection in tandem with traditional travel survey methods and physical activity studies has become commonplace. Advancements in GPS technology have generated many reasonably priced, small, and power-efficient wearable GPS data loggers that can be deployed to survey participants without significant respondent burden. The level of detail produced by GPS can provide accurate and useful assessment of active transport. Given the continual increase in obesity rates, and the correlation between obesity and vehicle miles traveled it seems logical that the transportation and health fields would begin to collaborate on studies that result in data which can be of use to both researcher groups. This article reports on the GPS component of two studies conducted by GeoStats – the first one being the recent Massachusetts statewide GPS-enhanced travel survey and the second one a combined transportation and health study currently underway in Nashville.

Recently, GeoStats reviewed GPS travel data collected as part of the Massachusetts Statewide Travel Survey to identify and evaluate segments of active transport, and to determine whether GPS data alone could be useful to health researchers. For this case study, participants were categorized as persons with or without home, work and/or school locations with ½ mile of a train station. Participants were further categorized into those who utilized the train and those who did not. To analyze GPS-derived travel of transit-related active transportation, flags were assigned to transit-dependent trips. Transit-dependent walk trips were considered to be walk trips taken before or after transit use to one or more destinations. Only walk trips greater than 100 meters in distance were included in the analysis.

The results of this evaluation verified a positive relationship between transit use and levels of active transport (see chart below), and demonstrated the value of collecting GPS data for quantifying the physical activity gained through active transport. Furthermore, the case study revealed that transit share—and therefore active transportation levels—is higher among persons whose habitual locations are accessible to transit stations. When considering its geographic and temporal scale, this case study offers evidence that GPS methods alone can be used to derive critical data concerning person-based active transportation, and thus can be used to assess basic physical activity.



The active transportation data obtained through GPS offers several advantages to other methods, namely, providing objective and verifiable trip details, such as trip distance and duration, which cannot be captured through the use of accelerometers or travel surveys alone. Additionally, GPS can provide contextual geographic information for each trip / trip segment, allowing researchers to gain knowledge about factors of the built environment that either facilitate or impede active transportation.

The Nashville Area MPO is currently collecting robust baseline data on the physical activity and health of persons in their region as part of the 2012 regional transportation survey. Their goal is to be able to quantify the effect that including health and safety criteria in the evaluation and ranking of future transportation projects has on the overall health of Nashvillians. All survey participants (~9000 persons) are being asked five basic health questions during recruitment. An additional 2000 persons are being deployed with wearable GPS devices for a four-day period, 1000 of whom will also wear an accelerometer during the same time period and will complete a somewhat lengthy health questionnaire. To date, 673 persons have been deployed with GPS devices, 359 of whom were also deployed with accelerometers. The data collected by these devices, along with the data from a health questionnaire (administered after GPS/accelerometer data collection), will be evaluated in tandem with existing GIS data from the region to evaluate and analyze the effect of the built environment on the health and physical activity of participants.

The pilot study and the main study (in progress) are proving that GPS and accelerometer technologies can be effectively deployed as part of a large-scale travel survey, and that the majority of persons who collect GPS and accelerometer data are also willing to complete the follow-up health questionnaire. These results bode well for future collaborations between the transportation and health communities.

GeoStats has instrumented more than 11,000 persons with wearable GPS devices in travel surveys over the past seven years, providing a wealth of data to study and analyze. Evaluating these data for active transport seems like a win-win opportunity for both transportation and health researchers. It seems logical for health researchers to continue to seek ways to collaborate with their transportation colleagues to fully utilize these robust data, and for transportation planners to follow the lead of the Nashville MPO and integrate physical activity and health criteria into the transportation planning process.

Acknowledgements: Thanks go to Bob Frey with MassDOT, Leslie Meehan with the Nashville MPO and NuStats (MassDot) and Westat (Nashville), the prime contractors on these studies.

Please contact Michelle Lee (mlgeographer@gmail.com) / 240-283-0699 for more information.

Beth Myers Graham (MA 1997)



“Thinking outside of the box” is a common request in today’s corporate culture. In retrospect, this thinking has defined much of my educational experience and career. I completed my undergraduate degrees (dual B.A. in Political Science and Geography) at Bowling Green State University. While at BGSU, I held an internship with a regional landfill company headquartered in my hometown of Cincinnati. Working at the landfill exposed me to lobbying, planning, permitting, data evaluation, and engineering design. It was fast paced, but I loved it. Once back at BGSU for my senior year, I began focusing on graduate school. I graduated from BGSU in May 1994 and three months later started at MSU as a Master’s student.

I recall entering MSU and speaking with Dr. Schaezel about my interests not being easily compiled into one specific program. I wanted to focus on the environmental side of geography. In the mid-1990s, few programs purely focused on environmental science were available and geography had touch points to many disciplines. At MSU, I was able to create a course load that reflected my interests including Environmental Law and Regulations. I worked with Dr. Pigozzi on a thesis centered on risks associated with hazardous waste shipments by rail using spatial

analysis of actual train derailments. Collectively, my course work and thesis allowed me to enhance the technical foundation with a spatial aptitude. I was fortunate to begin my journey in the early days of GIS and remote sensing. Wow, two powerful tools that have changed our landscape!

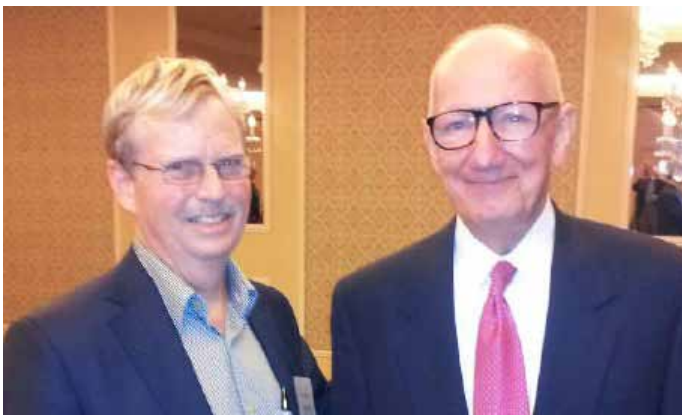
I left MSU with my Master’s degree, and began my formal work career with Dames & Moore, a global geotechnical and engineering firm, back in Cincinnati. My first assignments were assessment related for several industrial clients. I was able to synthesize data, including aerial photographs and maps, into easily understandable reports that allowed our clients to make decisions on purchasing companies, property, etc. Every day was something new, and I was able to really learn the consulting business. Dames & Moore was purchased by URS in 1999, and URS was purchased by AECOM in 2014. During this time, I have advanced from that junior consultant, to a Vice President leading the Commercial business sector in the Americas.

Fast-forward almost 20 years and the opportunities available to today’s geographers are limitless. From large scale infrastructure projects to sustainability related focus (water foot printing, climate change, etc.), geographers are shaping our communities in ways never envisioned. Many of these opportunities reside in the private sector with technology, engineering, and consulting companies. These “non-traditional” roles are challenging, fast paced, and global in nature.

As today’s MSU students look to develop their careers, I challenge you to maintain an “eyes wide open” approach. Create a path that fits your interests and skills. Seize opportunities and be open to nimbleness and flexibility. If I can assist in any way, please do not hesitate to contact me: beth.myers-graham@aecom.com



Owen Gregg (BA 1964)



► Above: Owen Gregg (left) with Harm de Blij. Picture taken at the 2013 MSU Alumni event in Naples, Florida

The Department of Geography would like to acknowledge Owen Gregg for his involvement in the Owen Gregg Endowment for Global Climate Change Research. Owen was a student in the Department in the early 1960s and well remembers taking a class from Harm de Blij. After graduation, he went on to a successful career in the fragrance and flavoring industry and is currently retired in Florida. As a result of his concern about the issue of climate change, Owen generously established the endowment in 2012 to support research in this important area. He has also contributed generously to the *de Blij Scholars Program*.

Thanks Owen!

Gordon Bennett **MA 1965, PhD 1968**

I will conclude my 48th year here at University of North Carolina, Greensboro at the end of the spring term. It will also mark the end of 50 years of teaching, including one year each at LSUNO (now the Univ. of New Orleans) and Arkansas State. I have greatly enjoyed my teaching and research activities. The faculty at MSU prepared me well and I appreciate their guidance.

Ralph Broad **BS 2013**

After finishing up my undergraduate degree in 2013, I did an internship with the Oakland County IT Department where I was involved in a utility mapping project. It actually lasted about 8 months, but it was a great hands-on GIS experience. I took some time off in a paid role for GIS, helping out a non-profit land organization in Ann Arbor for a few months with some of their GIS needs and learned quite a bit in that time. In November 2014, I took a contract GIS Technician role with Xcel Energy in Amarillo, TX. It's been a fun challenge so far working with electrical distribution mapping for western Texas and eastern New Mexico, especially since I'm using a totally different GIS software (GE SmallWorld). It's really interesting to see how geography and GIS apply to so many different fields and I've been fortunate to experience that since I've graduated. I'm glad I had a really terrific experience with MSU Geography to open up this path for me and I'm glad more people are considering the department and helping it grow!

Mike Cousins **BS 2007**

Greetings my fellow Spartan Geographers! I hope all is well. Back in 2012, I received my GISP certification. Shortly after that I was working on a DoD contract doing simulation mapping for the U.S. Army, where I led a team of over 20 analysts. Last March I decided to move from Florida back to the great

state of Michigan where I accepted a new position as the GIS Manager at OHM Advisors. OHM is an AEP firm headquartered here in the Metro Detroit region, but we have offices spread out through Michigan, Ohio, and Tennessee. I absolutely love my new job, being back in MI close to friends/family, and of course being close to the homeland (East Lansing). My wife and I bought a house in Farmington Hills and are moving on to the next chapter of our lives.

I try to promote/interject geography, more specifically GIS, as much as I can and wherever I can. I am signed up to be a GeoMentor for the area. From ESRI: "GIS professionals can help educators and students learn to use GIS. A GeoMentor is a volunteer who can help a teacher or youth club leader build capacity to help kids use GIS. A GeoMentor works with an educator. Using tools of geography (such as digital or hardcopy maps), and even field work, the GeoMentor helps the educator and youth develop skills in geographic thinking." I recommend signing up to become a GeoMentor to help expand, not only your career, but the minds of the future GIS professionals.

Scott Drzyzga **MA 2000, PhD 2007**

Greetings from Curaçao! Again! I'm sitting 40 miles off the coast of Venezuela with 2 colleagues and 14 students after completing 12 days in the field. Half of our group is studying coastal geology and the island's ancient reef systems. The other half is studying globalization in the Caribbean; the port at Willemstad is the region's largest transshipment port. Each set is trying to understand a complex system and both sets are learning from each other. Good stuff.

I just completed my 11th year in the Department of Geography-Earth Science at Shippensburg University. The department is vibrant, strong, and functions very well. I continue to collaborate with my colleague **William Blewett (MSU, 1991)**, with whom I co-authored the 2014 article, "Geomorphic

relations among glacial Lake Algonquin and the Munising and Grand Marais moraines in eastern Upper Michigan, USA" in *Geomorphology*. And I work with my colleague Claire Jantz, with whom I was just awarded a \$1 million grant from the William Penn Foundation to improve landcover mapping and tools, and to model growth and development scenarios for the Delaware River Watershed. More good stuff.

I remember fondly my time spent with fellow students and the MSU-GEO faculty members. And I'm saddened that Dr. Harmon has passed.

Carolyn Fish **MS 2010**

In the past year, I left my job at Esri and moved to Boston for the summer to spend time with my boyfriend. In August, I started the PhD program in Geography at Penn State working with Cindy Brewer (PhD MSU 1991). Broadly, I am interested in maps and their uses for renewable energy planning. In the fall, I presented some of my master's work at NACIS, the North American Cartographic Information Society. Additionally I am now co-organizing the Practical Cartography Day at NACIS for this upcoming year. I won second place in the poster competition at the Pennsylvania Geographic Society Conference. I look forward to meeting up with some of my MSU Geography friends at AAG in Chicago this spring!

Christina and Joe Hupy **PhD 2006 - PhD 2005**

Christina Hupy '06 and Joseph Hupy '05, both associate professors in the Department of Geography and Anthropology at the University of Wisconsin Eau Claire, along with several collaborators have received a \$418,000 grant from the University of Wisconsin System for a project entitled the "Geospatial Education Initiative". The project has three main goals: to build business partnerships to enhance curricular development; create an internship program with geospatial-related businesses; and transform geospatial

education by innovating curriculum. Grant activities include creating a comprehensive major in geospatial technology and analysis, developing several new innovative courses in unmanned aerial systems (UAS), LiDAR and business geographics, as well as certificate in unmanned aerial systems with an application focus. The grant has provided funding for a high end computing lab and extensive UAS equipment. Under the grant, Christina will be teaching three GIS courses and developing the internship program while Joe will be heading up the UAS efforts.

More details here

<http://www.uwec.edu/Geography/academics/GrowthAgendaGrant.htm>

Christina and Joe live in Eau Claire, WI with their two children, Katya (7) and Annika (3), and two dogs Sunny (13) and Rommel (10). They enjoy gardening, visiting the Upper Peninsula and downhill skiing with their kids.

Tarek A. Joseph **PhD 1996**

After 17 years, I continue to teach in and chair the Department of Geography at Henry Ford College in Dearborn. Enrollments are strong and are expected to increase this fall 2015 semester when World Regional Geography will be added to the course list of general education outcome requirements. I also serve on the HFC Arab Cultural Studies Program advisory council and I am a member of an HFC Honors Program faculty team working on an articulation agreement with the Wayne State University Honors College. On the home front, last August my wife Christine and I joyfully welcomed to the world our third son, Alexander, joining his enthusiastic big brothers Elias and Samir.

Robert Kopack **MS 2013**

I completed comps last semester, working on a dissertation proposal right now, and trying to find research funding which is a very difficult task for an American studying at a Canadian University. Toronto is pretty o.k.

in most regards. The department is huge, though. That makes for a bit of distance between students of different years. The course work flies by in one year; this is a bit troubling in my book because we don't have a lot of time to meet more faculty, let alone give them a sense of our own work and vice versa.

My days at MSU are fondly remembered. But that is not really good material for an annual newsletter. If you're going to Chicago, it would be great to see you and other Spartans there. Please do let me know.

Almaz Naizghi **MS 2010**



I am delighted to write my first Newsletter as I look at where I am right now and remember all the steps I have passed through. Ever since I graduated from the sole University of my home country, Eritrea, in 2000, I dreamed of pursuing my Master's Degree at a major university in the United States. After a long process, I was able to join the MSU Department of Geography in August, 2008. I not only had to deal with the challenge that graduate school offered, but also the anxiety of leaving my husband and my 2 year-old daughter in a politically unstable country. To make a long story short, I was able to successfully finish my program in 2010 and my family was able to join me here in the U.S. the same year. I would like to thank my advisor Dr. Kirk Goldsberry in particular and the whole department in general for understanding my situation and for all the encouragement and support.

After I graduated from MSU, I volunteered at MDCH and additionally worked part-time at MSU Land Policy Institute. In 2011 I had a second child, a baby boy. Before a year, we moved from East Lansing to the Detroit area and I was able to get hired part-time by Wayne County Community College to teach World Regional Geography.

For me, 2014 was an amazing year in which my wish was accomplished. I had been looking for a full-time position as a GIS Technician/Analyst for the last 4 years; and it was great news to hear that I finally obtained a full-time position with the City of Detroit as Sr. GIS Support Technician. It is an interesting job and I really enjoy the daily challenges and pleasures found when working with GIS. It really is my dream job. I am consistently applying the experience I received from working in my country for almost 8 years, and the courses and research I had at MSU. Especially, I use the skills of representing real world data in GIS for the purpose of decision making and brining solutions.

My responsibility is to design, manage, and update Detroit's GIS with a specific focus on the Planning and Development division. Currently, I am working on two different projects: updating the master plan and designating economically-challenged target areas for a neighborhood revitalization strategy.

Robin Pearson **1981**

I graduated from MSU in 1981, worked for the Department of Natural Resources for 25 years, interning before that for DNR and USGS using all the skills I learned at MSU. I am now retired and shaking things up by training and becoming a Voice Actress.





Jieun Lee & Ivan Ramirez PhD 2014 - PhD 2012

Jieun Lee had a really busy 2014: she defended her dissertation in February, had a baby boy in April, and started teaching in September in the Department of Geography, Hunter College of CUNY as Adjunct Assistant Professor.

► Jieun Lee and Ivan Ramirez's new addition to the family: Emmanuel "Manu" Ramirez-Lee was born April 19, 2014 in NYC.

John Rorabacher (BS 1967)

This last year has been quite productive for me. My book titled *Property, Land, Revenue and Policy: The East India Company ca. 1757-1825* was released late last year by Manohar Publishers. A second book has been accepted for publication -- *Bihar and Mithila: The Historical Roots of Backwardness* -- to be released later this year. This book examines the development process and the West's preoccupation with the concept of progress and development, and how the world has subscribed to a notion that cannot be achieved everywhere and by everyone, with or without the influence of globalism. It also posits the idea that, depending on one's cultural milieu and resources, 'happy poverty' is a legitimate alternative to the Western development paradigm; and within the context of Bihar, tradition and the socio-cultural solidarity of the landowning class has perpetuated a unique form of socio-economic backwardness.

In addition, I self-published a third book -- *The Arming of America and the Disarming of Canada*. This book, available through Blurb, examines gun ownership in America, within the context of the Second Amendment, and contrasts the violence in America against Pieter Spierenberg's suggestion that America remains the most homicidal nation in the world because democracy came too early in the nation's cultural and ethical development. Spierenberg, however, did not address a number of unique contributing factors, such as the effects of a protracted period of territorial expansion, the 'need' for frontier justice, the inability of law enforcement to effectively protect the people, race, gangs, and the drug culture of urban America, America's prolonged involvement in warfare, and the technological allure of firearms. In Canada, unlike in America, where the right to bear arms was a statutory right developing out of English Common Law, that right was never explicitly extended to the people of Canada. Firearms ownership, then, is a privilege and not a right. In an attempt to avoid the bloodshed observed in America, Canada has taken a much more controlled approach to curbing gun violence. However, while homicides are declining in both countries, suicide rates are increasing and Canadians, due to the scarcity of handguns, choose other methods to kill themselves at a rate equal to or greater than that in the U.S. Both countries now, with the rise of ISIS and jihadist, 'lone wolf' terrorism, must reexamine the role of private gun ownership as a component of self-defense and protection.



► Above: Guo Chen (center) with Visiting Research Scholars from China Min Zhang (left) and Xueying Hou (right).

Grandparents' University at MSU Geography

As part of our continued efforts to increase outreach and raise our visibility, the Geography Department again hosted a class as part of the Alumni Association's annual "Grandparents' University" program on Thursday June 26. Ten teams of MSU alumni grandparents and their grandchildren totaling twenty-four people in all took part in a "Treasure Hunting at MSU" activity using hand-held GPS units, which was initially developed several years ago by Bob Goodwin of RS&GIS. In 2013, it was handed off to MSU grad student Mike Michálek and Department Undergrad Advisor and Instructor Dr. Gary Schnakenberg. Bob's original set-up and clues followed a humorous 'pirate' motif, stating that "long ago, treasure hunters used old, decayed maps...today's treasure hunters rely on GPS technology for discovering treasure and artifacts." After reporting a rumor that a treasure chest is located in a building on the MSU campus in a hidden chamber (Dr. Schnakenberg's office), teams were given directions for navigating to locations where a series of clues were secreted, leading them to a box that contained many keys, only three of which opened the padlock of the 'treasure chest.' Treasure hunters could only pick one key.

Along with enjoying Bob's clever clues – one that led to the site of the old bandstand said "one successful treasure hunter once sang the MSU fight song to keep rabid, flea-infested, cowardly wolverines at bay" and another referred to "remnants of mighty civilizations" while leading participants to 'The Rock' – grandparents and grandchildren were welcomed by department chair Dr. Alan Arbogast and were introduced to what geography really involves, compared to the common perception of so many that it consists of place recognition and trivia by Dr. Schnakenberg. The weather was spectacular, and all participants found their way to the location of the 'treasure chest'...and several children had picked keys wisely, allowing them to select from a variety of loot.



► Department Chair Alan Arbogast and Undergrad Advisor Gary Schnakenberg welcome Grandparents' University participants and introduce the field of geography. The children ranged in age from 8-14 years old. Undergrad advisor and department instructor Gary Schnakenberg gave a brief overview of coordinate systems and how GPS units operate.



► Participants receive their GPS units and begin entering coordinates to lead them to their first clues.



► Intrepid teams of treasure hunters set off on their trails of adventure.

(photos by Becky Young)

Professional Development Students Are a Unique Class of Learners

Today it seems that more and more professionals are taking charge of their careers by seeking out opportunities to continue learning and growing in their fields. Some are looking to gain some new skills and others to earn a promotion. Whatever the case, these are motivated individuals, eager to learn and maybe even willing to put up their own money to do so. And since many of today's adult learners are comfortable with technology, they are excited to reap the benefits of online learning. This is where professional development programs, like the one offered by onGEO, can fill a growing need in the market. Yet both the learner and the approach to attracting and retaining these learners to a program differ widely from that of an undergraduate, and even a graduate program, so the approach to developing courses cannot be the same.

Adult learners are often looking to attain a professional goal or even make a big move, and given that they may be footing the bill, they have higher expectations for what is learned; they expect a real-world context, not just theory, and direct application. And, as noted in a 2013 article written for *Faculty Focus*,



*Beth Weisenborn and grad student
Angela Fan at GEO camp*

“They also vote faster with their dollars and their feet.” Therefore, understanding adult learners and the role of professional development is critical to grow a successful program - without it there is no retention and minimal payoff. Since the inception of our online Professional Certificate in GIS, we have had more than 40 students take at least one course, and 11 students have continued on to complete their certificate.

Here is a peek at who some of our professional students are and what motivates them.

Our professional students come from diverse disciplinary backgrounds, including the military, archaeology, environmental consulting, urban planning, parks management, among many others. We have also had graduate students complete the certificate so that they can have an applied skillset and demonstrate their ability to use geospatial tools to augment their research. Several of our students who are working professionals are considering a career change into the geospatial technology field - they may have always been interested in looking at maps and satellite images or just have a growing penchant for geography, and now want to do it for a living! We even have a stay-at-home mom (currently) who is looking to reenter the workforce and hone her skills before applying for jobs in the environmental field. As you can see, our students are seeking applied knowledge for their job or field of study, are seeking to change their career, or reenter the workforce with a current skillset. Whether students choose to take a specific course to grow their knowledge in an area or complete the entire, four-course certificate, we are happy to have them for both the expertise that we can share and the experience and insights that they bring to our program.

Reference

Shank, Patti. "Designing and Teaching Online Courses with Adult Students in Mind." *Faculty Focus* Designing and Teaching Online Courses with Adult Students in Mind Comments. March 14, 2013. Accessed January 29, 2015.

Spreading the Word About onGEO's Professional Opportunities

Offering onGEO's professional opportunities has been a long, but enjoyable process. First, we developed our four professional courses, which combine to form our Professional Certificate in GIS. Second, we shared onGEO's professional opportunities via our newly designed website (ongeo.msu.edu) and social media (Facebook, Twitter, LinkedIn, and Pinterest). Third, we began a multichannel marketing campaign. And now, we are excited to be in our next phase of the process. In 2014, we began attending a variety of conferences so that we could directly share onGEO's professional opportunities with a cross-section of potential students, as well as talk about experiences in developing and delivering professional courses.



Adrienne Goldsberry

In May of 2014, Adrienne Goldsberry was invited to sit on a panel of distinguished speakers at the **Center for Geographic Analysis (CGA) 2014 Conference on Geospatial Technology and Online Education** hosted by Harvard University. As a panelist, Adrienne discussed the reach, purpose, and uniqueness of geospatial education offered online, as well as the distinction between professional and academic avenues in this type of education.

Then, in November of 2014, Adrienne got to test out our new booth at the **Austin (ATX) GIS Day** event held at the Lyndon B. Johnson School

of Public Affairs at the University of Texas - Austin. Adrienne had a great time meeting students of all ages, giving out fun swag, tweeting/posting from the event, and answering the question, "Why is Michigan State Geography down here in Austin?" (Adrienne works for the Department from her home in Austin, Texas). Adrienne even got to meet the son of a former MSU-GEO professor, Dr. Charles Boas, who left State after about 6 years to pursue his passion for a life under the big top! (No, we did not make this up.)

We are scheduled to attend at least three more conferences this year--perhaps we will see you at one of them! Here is where you will find us:

SXSWedu Education Expo, on 10 March 2015 in Austin Texas

AAG Annual Conference, from 21-25 April 2015 in Chicago, Illinois (We will present an illustrated paper.)

ESRI Academic GIS Fair, on 20 July 2015 in San Diego, California

Keep an eye out for notices about additional conference appearances on our website (ongeo.msu.edu) or social-media sites.

Juliegh Bookout's Experience as a Professional Development Student



Last January I began working on a Professional Development Certificate in Online Education, specializing in course design. I had been given a generous stipend from a workshop I participated in, and with the remaining support coming from the Depart-

ment of Geography, I was eager to enroll. I thought about how I would fit the course work into my schedule, how I would like to use the skills and assignments to develop a course I was working on, and what knowledge I might glean from the material and my cohort, but had not given much thought to my motivation - that is, until my husband began working on an advertising pitch to a small university in Boston looking to attract professionals to an online program. He began telling me about different types of learners and that is when I discovered he really had no clue about the people he wanted to attract with his proposed ad campaign. They were people like me: goal driven, seeking street cred, and focused more on the application of knowledge than knowledge for the sake of knowledge. My husband named one of the archetypal consumers in his pitch "Juliegh," and went on to win the job because, the client said, he understood their audience.



PLEASE JOIN THE MSU GEOGRAPHY CELEBRATION



Timothy O'Toole's Pub
Thursday, April 23, 2015 @ 7PM
622 N. Fairbanks Ct.
Chicago, IL 60611

ALL ARE WELCOME!
Cash Bar | Appetizers Provided



Photo courtesy of Communications and Brand Strategy

Highlights from Career Day 2014.

GEOGRAPHY CAREER & INTERNSHIP EVENT

SAVE THE DATE

Friday, March 20, 2015
2:30PM - 4:30PM
BESSEY HALL - ROOM 108

DOOR PRIZES AND GIVEAWAYS

Snacks provided
Handicapper accessible
Questions: geo@msu.edu

MAP your FUTURE



MEET POTENTIAL EMPLOYERS

Hear about job prospects, what people in geo careers do, and more.

The format is informal, a brief introduction and then talk one-on-one with those of your choice. Come as your schedule permits and leave when you need to!

Past participants have included:

- Arcadis
- Boise Labs
- MSU-MS&IS
- Lansing Office of Emergency Management
- Southern Michigan Council of Governments (SOMCOG)
- Michigan Department of Natural Resources (MDNR)
- Michigan Department of Community Health (MDCH)
- Michigan Department of Environmental Quality (MDEQ)
- Michigan Department of Agriculture and Rural Development (MDARD)
- USDA Farm Service Agency
- U.S. Forest Service
- Tetra Tech
- Targis Analytics, LLC
- Environmental Data Resources (EDR)
- Skywatch Services, LLC
- IDV Solutions
- River Roads Software
- Point & North
- Drifter Location Based Services
- Student Conservation Association
- Tri-County Planning Commission
- Michigan State Police Emergency Management Services (MSP)
- East Lansing Planning Department
- Michigan State Historic Preservation Office
- U.S. Geological Survey
- Center for Space Science and Technology Partnerships (CSSTP)
- Michigan Geographic Alliance
- Michigan Department of Transportation (MDOT)
- Michigan Department of Transportation, Statewide Planning (MDOT)
- National Geospatial Intelligence Agency
- MSU Institute of Water Research
- Michigan Tech Research Institute (MTRI)
- Ducks Unlimited
- MSU Map Library
- MSU Career Services
- MSU College of Social Science Away and Internship Programs
- MSU College of Social Science Domestic Internship & Service Learning
- MSU Economic Development Authority

MAP your FUTURE



THANK YOU !

To all who contributed to the various Geography Department funds and scholarships. We are making continued efforts to increase our departmental contributions to enhance our programs and benefit students. Please consider donating to one of the Geography Department funds listed .

Please specify desired fund and make checks payable to:
Michigan State University

Mail to:
Department of Geography
Geography Building
673 Auditorium Rd Rm 116
East Lansing MI 48824

You may make a credit card donation on-line at:
<http://www.geo.msu.edu/giving.html>

Geography at MSU Fund

Established in 2001 to promote the MSU Department of Geography, including related advertising, fundraising, travel, and similar expenses.

Geographic Field Experience Fund

Established in 2001 to fund student field experiences, including field trips, primary data collection, course related field experience, and transportation and lodging expenses.

Geographic Literacy Fund

Established by Harm de Blij, this fund promotes the field of Geography to students.



Name: _____

City/State/Zip _____

Please specify: Alumnus/Degree/Yr _____

\$ _____ Geography at MSU Fund

\$ _____ Geographic Field Experience

\$ _____ Geographic Literacy Fund

\$ _____ de Blij Geography Scholars

\$ _____ Ian Matley Memorial Fund

\$ _____ GTU/Geography Endowment Fund

The de Blij Geography Scholars Endowment

Established in 2013 as a scholarship to be awarded to incoming freshmen who choose to major in Geography.

Ian Matley Memorial Fund

Established to bring guest speakers to campus to enrich the geographic education of students and faculty.

GTU/Geography Endowment Fund

Established in 1999 by Robert and Dorothy Thomas to fund geography-related student activities.

E. James Potchen Awards in Geography for Graduate and Undergraduate Students

Established in 2008 by Harm de Blij to fund yearly cash awards for outstanding graduate and undergraduate students based on GPA, progress towards degrees, and other quality indicators such as field work and research.

Harold A. "Duke" Winters Scholarship

To support graduate study in Geography at MSU.

Jay R. Harman Undergraduate Scholarship in Geography

To support undergraduate study in Geography at MSU.

Marjorie & Lawrence Sommers Geography Graduate Fellowship for International Research & Travel

A graduate fellowship to be awarded yearly for Masters or PhD students to support international research and travel.

Owen Gregg Endowment for Global Climate Change Research

Established in 2012 to support global climate change science research in the Department of Geography

Address: _____

Email: _____

Friend of MSU Geography _____

\$ _____ E. James Potchen Awards

\$ _____ Harold A. "Duke" Winters Scholarship

\$ _____ Jay R. Harman Undergrad Scholarship

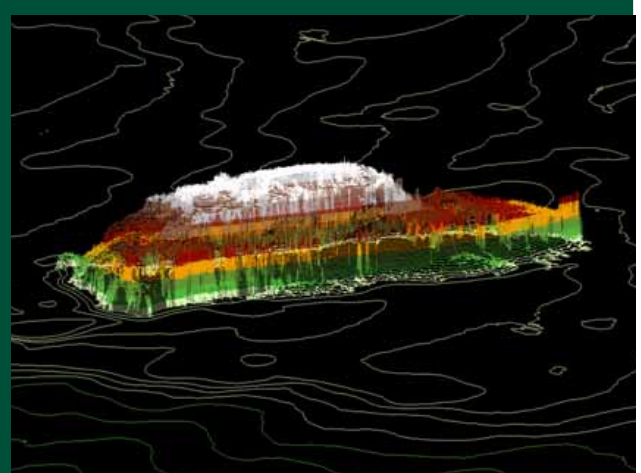
\$ _____ Marjorie & Lawrence Sommers Int'l Rsch

\$ _____ Owen Gregg Endowment-Global Climate Chg

Started as the Remote Sensing Project at MSU in 1972, RS&GIS was among the first university programs nationwide to experiment with the use of remote sensing technology for issues related to land use. Since then, RS&GIS has continued to be a leader in the field of applied geospatial technology and research. As we celebrate our 13th year with the Department of Geography, we look forward to bringing new and innovative solutions to research while enhancing the works of others through collaboration and outreach. Below are some recent projects.

Mapping the RMS Titanic

Since 2007, RS&GIS has been part of the Titanic Mapping Project, assisting RMS Titanic, Inc. in producing a digital re-creation of the RMS Titanic shipwreck site. Geographic Information Science was instrumental in bringing the massive amount of data collected over seven expeditions into a common coordinate system and database. The team at RS&GIS was tasked with translating sonar point cloud data from Woods Hole Oceanographic Institute into topographic layers of the wreck site, including seafloor contours and raster elevation models. Additionally, thousands of artifact locations, photographs, and other supporting information were assembled into a geodatabase to be used for future research and education. Work completed by the mapping team will be featured in an upcoming documentary “*Draining the Titanic*” scheduled to premier this spring on the National Geographic Channel and Discovery Channel Canada.



RMS Titanic bow section digital elevation rendering. (Photo credit: RMS Titanic, Inc.)

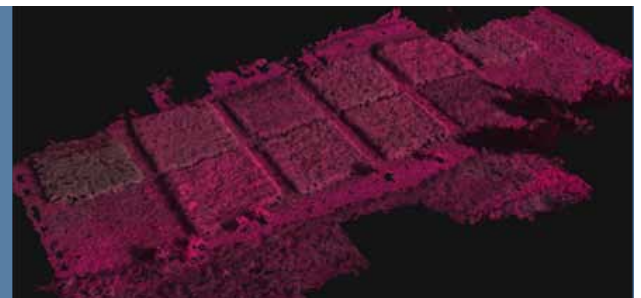


Mobile LiDAR combined with street-level photography used to create the City of Monroe's tree inventory. (Photo credit: City of Monroe, Michigan)

Using mobile LiDAR to map trees

RS&GIS staff and technicians are currently completing a tree inventory for the City of Monroe, Michigan. RS&GIS partnered with Surveying Solutions, Inc., a local surveying company to acquire mobile LiDAR data along every city-owned street. The resulting information included precise 3D point cloud data and 360-degree street-level photography. This two-phase project involves using cutting edge software to extract tree locations and descriptive information directly from the LiDAR data, and then visiting each tree in the field with mobile GIS technology to collect data on species and arboricultural issues. This exciting project is providing student technicians at RS&GIS with valuable job-related experience in a rapidly expanding industry.

RS&GIS is leading the way at MSU in unmanned aerial system (UAS) research. For several years, we have invested heavily in UAS technology and research, flight training, sensor integration, and field testing to become MSU's only program to maintain two FAA registered UAS platforms along with two certified pilots-in-command. Last year, we collected imagery over row crops, chestnut orchards, switchgrass research plots, and forest stands for MSU AgBioResearch scientists and are actively building upon those successes for 2015. RS&GIS has positioned itself to be a leader in this emerging field, providing valuable experience to MSU students, and creating an innovative research tool for MSU faculty.



3D color infrared image of Dr. Carolyn Malmstrom's switchgrass research plots created from UAS acquired data.



RS&GIS

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We hope you find this newsletter informative and interesting. One way you can help keep it that way is to send us news about yourself. Share news about your career, family, or other things with your fellow alumni. Send an e-mail or letter and we will insert it into the next issue of the newsletter. Thanks for helping make the newsletter even better.

We also encourage you to keep in touch and provide your contact information. We have been working very hard to update and correct our e-mail and mailing lists. Please notify us whenever you have a change of mailing or e-mail address. This and past newsletters can be viewed on-line at our website, <http://www.geo.msu.edu/aboutus/newsletters.html>

Please join our Facebook page at: <http://www.facebook.com/MSUGeography?fref=ts>

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