

Geography



Zenith

2023-2024

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DEPARTMENT OF
GEOGRAPHY
College of Arts and Sciences



Letter from the Department Head

Dear Friends of Geography,

We are excited to present to you another edition of the annual departmental newsletter, highlighting the activities, achievements, adventures, and awards of our department. While we continue to feel echoes of the pandemic while pursuing our academic endeavors, geographers are back out there in the field conducting research, leading field trips, teaching our diverse slate of classes, and preparing our students for their lives in an ever more connected world. Evidence of this is everywhere in this newsletter!



If you missed last year's Zenith, you might be surprised by the change in leadership evident from this welcome note. After five and a half years, Dr. Alyson Greiner stepped down as Department Head in June 2023 and I was appointed Interim Head for 2023-24. At the time of last year's newsletter, my status beyond 2024 was uncertain, but I have accepted an appointment as full-time head for a three-year term, through June 2027, and look forward to guiding this department that I have been a member of since 1994.

I would like to highlight some significant activities from this past year, but please be sure to dig into more of our accomplishments and accolades as you read through this newsletter. In personnel matters, we welcomed several new colleagues to the department during the past year. Ana Segoviano joined the department as the Administrative Support Assistant in July 2023, welcoming visitors to the main office, and in August 2023 we welcomed two new faculty members, Dr. Rory Hill (Assistant Professor) and Dr. Dani Dempsey (Teaching Assistant Professor). Dr. Dempsey has a joint appointment with the Religious Studies and Gender and Women's Studies multidisciplinary programs on campus as well as being academically and physically housed in Geography. In August 2024 we will welcome Dr. Brittany Lauren Wheeler to the department as a Visiting Assistant Professor. Dr. Wheeler, whose research is centered on political, environmental, and socio-economic practices of responsibility and repair, will teach our field methods courses as well as cultural geography and other offerings.

Additionally, Dr. Hamed Gholizadeh was successfully promoted to Associate Professor with tenure, Dr. Tao Hu was reappointed as Assistant Professor, and office manager Barbara Goodnight was promoted to Administrative Associate. We anticipate 1-2 tenure-track searches in the coming year to fill recent vacancies.

We had a busy graduation season again this year, with a large contingent of students receiving their bachelor's, master's, and doctoral degrees. Please see page 5 for a listing of our newest alumni. With OSU revamping its general education program, Geography successfully collaborated with History to propose (and have accepted) a general education "Trail" focused on migration, which will allow undergraduate students to concentrate their general education path with a set of linked, themed courses relating to human and animal migration. We have also partnered with the College of Veterinary Medicine to collaborate in creating an online graduate certificate and MS program in OneHealth, which is a collaborative, multisectoral, and transdisciplinary approach with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment. Several GEOG courses are embedded in these new programs.

Geography faculty continued to be successful in obtaining grants across the spectrum of funding agencies, including the NSF, USDA, AmericaView, and many more. These projects allow the faculty to engage in high-level, sustained research in their focus areas, address pressing societal and environmental issues, and fund Graduate Research Associates (GRAs) to propel their own research and progress towards their degrees.

In conclusion, you will find within these pages evidence of the myriad ways the Department of Geography fulfills its mission in teaching, research, and service; engages with the community; prepares the next generation of geographic scholars; and explores our world for both work and pleasure.

Enjoy, keep in touch, and please send in your news for us to share with our network of Friends of Geography,

Jon Comer

Awards & Scholarships

Your contributions to department funds and scholarships enable us to support our current students and enhance their education. Thank you so much for your support!

Congratulations to Our Spring Awardees!

2023-2024 Academic Year Recognitions



John F. Rooney, Jr. Scholarship for Outstanding Junior
Tayyab Ghazniwal



**Outstanding Senior
Alumni Association**
Lily Chavez



**Robert E. Norris Memorial
Scholarship for Outstanding
First-Year Graduate Student**
Katelyn Cooke



Susan Shaull Medal For Excellence in Teaching Geography
Katelyn Cooke

2024-2025 Academic Year Travel Awards

Norris Conference Travel Award

Benjamin Biney
Ehsan Foroutan
Katelyn Cooke

**Alyson L. Greiner Undergraduate
Travel Scholarship**
Manon Mowery

Ny Aina Rakotoarivony
Una Yu



**Jerry Croft & Family Award in
Geographic Education**
Harmony McSorely

**Stephen W. Tweedie Travel
Scholarship**
Manon Mowery

Geography Graduates 2023-2024

Undergraduate Degree Earners

Fall 2023

Paris Dirksen—B.A. Global Studies
Jared Lewis—B.S. Geographic Information Science
Kary Spruill—B.S. Geography
Cody Sutton—B.A. Global Studies

Spring 2024

Lily Chavez—B.A. Global Studies
Campbell Crabtree—B.A. Global Studies
Levi Feazel—B.S. Geography
Sydney Galante—B.A. Global Studies
Julia Haggard—B.A. Global Studies
Baylee Hart—B.A. Global Studies
Perri Lewis—B.A. Global Studies
Jacob Mote—B.S. Geospatial Information Science
Rachel Porter—B.S. Geography
Jade Sullivan—B.S. Geography



Graduate Degree Earners

Fall 2023

Kimberly Johnson, PhD
Amanda Weber, MS

Spring 2024

Brice Zoungrana, PhD
Emmanuel Kumi, MS
Saiyed Nori, MS

Summer 2024

Ofuje Amune, PhD
Kathy Osei, MS

GIS Certificate Earners

Fall 2023

Belem Carrasco
Amanda Cooper
Levi Feazel
Jared Lewis
Christopher Tucker
Jordyn Walls

Spring 2024

Ofuje Amune
Courtney Dolterweitch
Jacob Mote
Rachel Porter

Spotlight On Recent Graduates

Outstanding Senior

The Outstanding Senior Award was presented to **Lily Chavez**, who graduated in May with a BA in Global Studies. In her time at OSU, Lily demonstrated leadership and service as the Undergraduate Student Director of Leadership Programs and as a member of the President's Leadership Council. She earned a Certificate in Ethical Leadership and founded the Wishes for Water Foundation, which has contributed to freshwater access in Zimbabwe. Lily plans to further her education in international development.



Osei Receives AAG Water Resources Specialty Group Student Paper Award

MS graduate **Kathy Osei** received the **Award for Best Master's Paper** at the 2024 sessions of *Untapped: Fresh Voices in Water Resources Geography*, sponsored by the Water Resources Specialty Group of the American Association of Geographers (AAG). Her paper, "Assessing the Influence of Climatic Variables on Long-term Seasonal Evaporation Trends of Reservoirs in Urban Oklahoma: Implications for Sustainable Resource Management," highlights her research in sustainable water management. Kathy has been accepted to the PhD program at the University of Georgia. Congratulations, Kathy!

Alumni Spotlight Feature

The Interview Portal recently spotlighted

Aswin Subanthore, who earned his MS and PhD in Geography from Oklahoma State University. Here is an excerpt of the interview. Aswin writes:

. . . In my second Master's degree, this time in Geography, I specialized in agricultural geography and my thesis focused on the effect of conservation programs to the attitudes of farmers in the Northwestern corner of Oklahoma. This place is literally called the "No man's land" due to its sparse population. However, it is also the epicenter for the "Dust Bowl" disaster in the 1930s that wiped out the agricultural heartland of America and laid the foundation for protecting the country's food security. I chose this topic to gain more insights into field research and explore an area of the world which was vastly unknown to many people. As I was finishing up my second Master's degree, in Geography, I decided to pursue my deepest passion and interest, and that was teaching. I was always interested to share knowledge with others around me and I wanted to be-

come an educator and a professor. For this reason, I started my PhD degree in Cultural Geography at Oklahoma State University. At first, I was not sure what I wanted to take up, but then I was fortunate to have a wonderful PhD advisor by the name of **Dr. Rebecca Sheehan** in the Geography Department at Oklahoma State University. Dr. Sheehan nurtured in me the art of research writing and more than a mentor, she became a friend and as important as a family member even to this day. Writing is a very important skill, and one cannot express great ideas, be it teaching or conducting research without knowing how to write.



Student Organization Updates

Gamma Theta Upsilon (GTU) News

The Gamma Theta Upsilon Chi Chapter organized and participated in multiple events.

On Saturday April 13th, GTU organized an outing the **Turkey Mountain Urban Wilderness Area** in south Tulsa. Spanning 738 acres, Turkey Mountain was designated as part of the National Recreation Trail System in 2016. Its 20 miles of trails weave through a section of sandstone bluffs and old growth Cross Timbers woodland, offering hikers panoramic views of the Arkansas river and downtown Tulsa. Thank you to President **Erin Templeton** for organizing the trip.



GTU Leadership Fall 2023-Spring 2024

President: **Erin Templeton**

Vice President: **Ofuje Amune**

Secretary: **Wenqi Liu**

On April 23rd, GTU held its induction at the annual Geography Department Awards ceremony.

Inductees. (left to right)

Saiyed Nori (MS 2024, GEOG), **Cameron Wingfield** (GSIS Senior),

Jacob Mote (BS 2024, GSIS), **Erin Templeton** (GTU President).

Congratulations on this impressive academic achievement!



Geographers in the Field

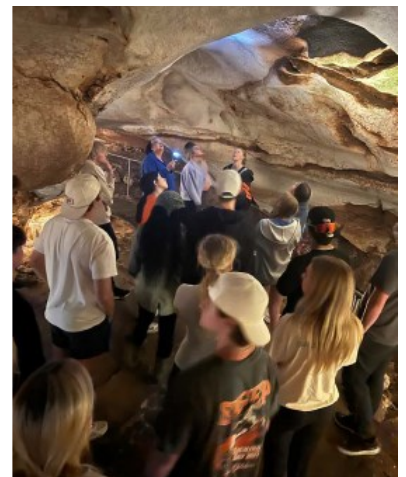
1114 Fall 2023

On October 10-11 the Physical Geography Field Trip staff included instructor and Physical Geography Coordinator **Dr. Carlos Cordova**, instructor **Dr. Brad Bays**, and Teaching Assistants **Sadril Khan**, **Lauren McIntosh**, **Katelyn Cooke**, and **Chloe Taylor**.



1114 Spring 2024

On April 9th and 10th, the Physical Geography Field Trip returned to northwest Oklahoma to examine the Glass Mountains, the Cimarron River, Little Sahara sand dunes, and the Karst features at Alabaster Caverns State Park.



The state-of-the-art stream table is doing its thing in the **GEOG 1114** Teaching Lab.

Katelyn Cooke's students observing fluvial processes (near right); **Sadril Khan's** model of the floodplain of the lower Ganges (far right)

(all photos by C. Cordova)



Geographers in the Field, continued

Recruiting Events

On Wednesday October 11, **Thomas LaVanchy**, **Jean Wang**, and **Jon Comer** represented the department at **OSU Up Close**, an annual recruiting event at Gallagher-Iba Arena for high school seniors (and their parents). Our new drone was of great interest to the students, and Pistol Pete paid a visit.



Freshman Reception

On September 5, the Geography Department collaborated with Sociology and Communication Sciences & Disorders to offer a departmental reception. This come and go event was designed for students in A&S 1111 (Freshman Orientation) to learn about departments and majors in the college. Students played trivia bingo for door prizes, there was a karaoke machine (that no one was brave enough to do!), and pizza and drinks to feed the students. Several departmental faculty and staff participated in the event.



On Wednesday, October 18, **Brad Bays**, **Don Colley**, and **Jon Comer** staffed the Geography table at the annual **OSU Majors and Minors Fair** in the SU Ballroom. Current freshmen were the clientele at this browsing event, where they learned about the department's majors, minors, and certificate programs. MS student Melissa Wynn also helped out during most of the 3-hour event, with other grads and faculty stopping by as well.

Geographers in the Field, continued



SCAUG 2023 Winter User Group Meeting, Stillwater
November 8

Dr. Hongbo Yu presented “Development of a Web GIS Application for Calculating Livestock Populations in the U.S.” at this South-Central Arc Users Group meeting.



GSA23, Pittsburgh

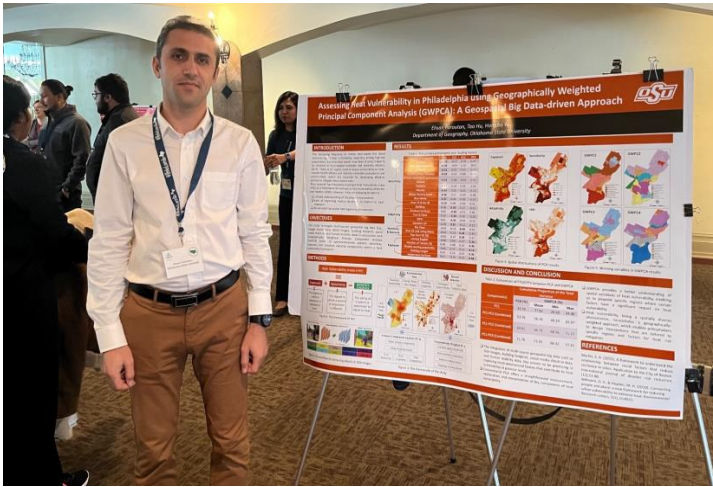
Dr. Carlos Cordova participated in the annual meeting of the Geological Society of America in Pittsburgh. He organized a session sponsored by the Geoarchaeological Division of the GSA, which has a number of geography members.



Sheehan Highlighted in *Research on Tap*

On Monday April 15th **Dr. Rebecca Sheehan** provided a Research on Tap talk with OSU Vice President for Research Kenneth Sewell at Stillwater’s Iron Monk Brewery titled “Why Do Protests about memorials in Public Spaces Matter?: Geographers to the Rescue.”

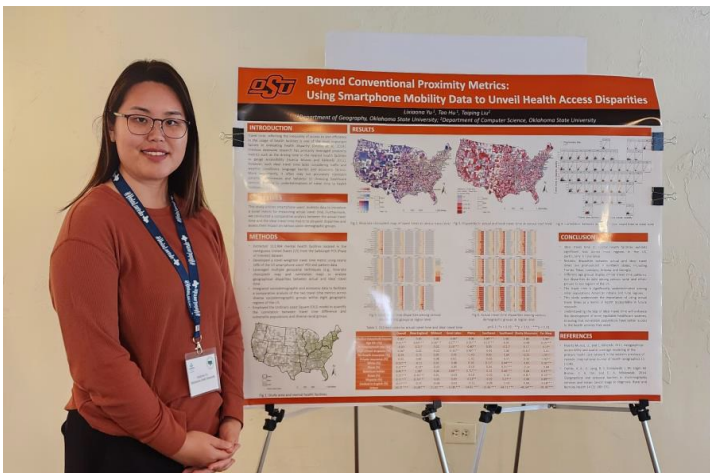
Research And Presentations



SWAAG Meeting, Laredo, TX. November 1-4

First Place, Graduate student posters

Doctoral student **Ehsan Foroutan**, who presented "Assessing Heat Vulnerability in Philadelphia using Geographically Weighted Principal Component Analysis (GWPCA): A Big Data-driven Approach."



SWAAG Meeting, Laredo, TX. November 1-4

Second Place, graduate students posters

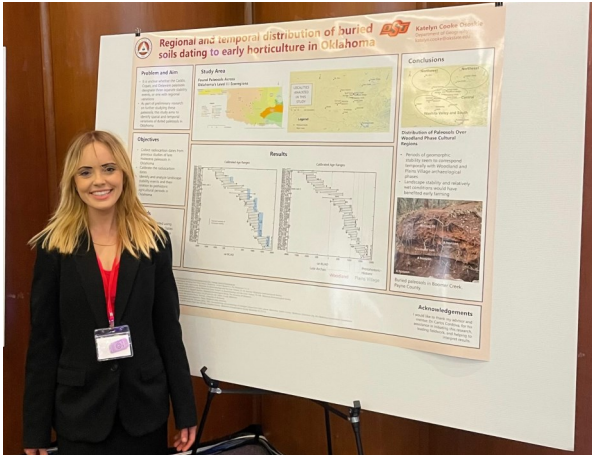
Doctoral student **Una Yu**, who presented "Beyond Conventional Proximity Metrics: Using Smartphone Mobility Data to Unveil Health Access Disparities."



SCAUG Conference, Frisco, TX. April 24-25

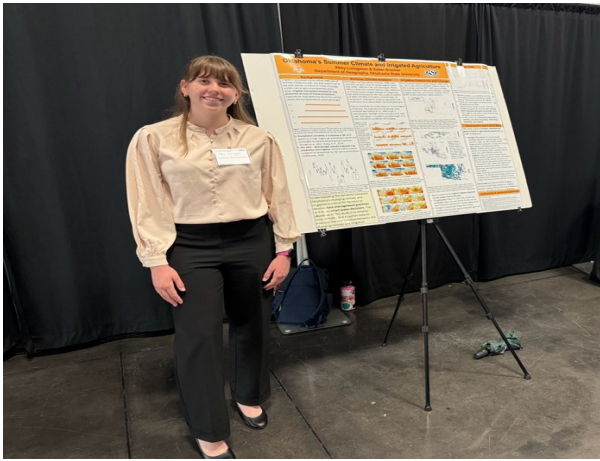
Students were recognized at the South Central Arc Users (SCAUG) Conference in Frisco, TX. **Abby Curry** won the Undergraduate Collaborative Scholarship and **Ehsan Foroutan** won the Graduate Collaborative Scholarship

Research And Presentations Continued



Oklahoma Archaeology Conference – Norman, February 29 - March 2

Doctoral student **Katelyn Cooke** presented on her preliminary dissertation research regarding paleosols in central Oklahoma and how they temporally overlap with early horticulture practices.

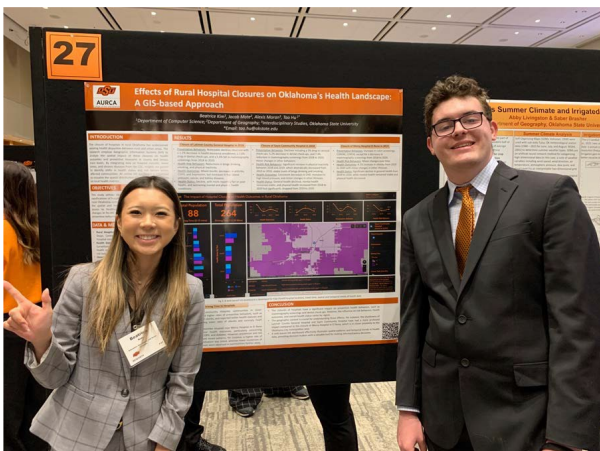


Undergraduate Research Symposium, on April 16

Undergraduate student **Abby Livingston** presented her and **Dr. Brasher's** research, "Oklahoma's Summer Climate and Irrigated Agriculture." She also presented at the Oklahoma Clean Lakes and Watersheds Association Conference. They integrated crop yield, climate, and irrigation frequency data to better understand the dynamics between the three. Oklahoma is trending hotter, and precipitation variability is increasing. How these changes manifest in irrigation usage and crop production will be vital to the state as it adjusts for the future.



Eddy Lyonsi (Geology) presented "DroughtChat: Connecting Online Voices to Real-World Drought," at the undergraduate symposium under the guidance of **Dr. Yuting Zhou**.



Beatrice Kim (Computer Science) and **Jacob Mote** (Geospatial Information Science) presented "DroughtChat: Connecting Online Voices to Real-World Drought," at the undergraduate symposium under the guidance of "Effects of Rural Hospital Closures on Oklahoma's Health Landscape: A GIS-based Approach," supervised by **Dr. Tao Hu**.

In Memoriam

Jerry Croft (OSU Faculty Member 1966 -1991)

Jerry Croft, Oklahoma State University Professor Emeritus of Cultural Geography, died on November 19, 2023, in Iowa City, Iowa, surrounded by his family and in peace, after battling chronic lymphocytic leukemia and a variety of complications for 25 years.

A native of southern Kansas, Jerry's fascination with the local environment began to expand when his mother gave him a set of encyclopedias. A first-generation college student, Jerry graduated from Oklahoma State University in 1962 with a BA in Geography. He continued with a master's degree in in geography at Kansas State, the first student there to earn a Master of Arts in the field. In 1966, he began his career at Oklahoma State, where he encouraged thousands of students to gain an understanding and appreciation of an endlessly fascinating world. He chose to earn his Ed.D. from the University of Tulsa in education, wanting to understand the most effective ways to make a difference for those enrolled in his classes.



In 1974, Jerry was able to take sabbatical leave at Macalester College in St. Paul, Minnesota. He felt the opportunity provided him with inspiration from geographers he esteemed, participating in programs with the University of Minnesota Department of Geography. As well, he was able to play center in their winning intramural basketball team, something he continued with "noon time" basketball throughout his career at OSU.

Jerry was dedicated to geographic education, developing strategies for teaching that engaged his students. He used a thematic approach to his teaching, facilitating student research in spatial analysis, place analysis, and the interaction of humans and the environment; he was involved in the development of the landmark national geography standards in the 1990s, Geography for Life. Using John Denver's music, poetry from Dan George, a chief of the Tsleil-Waututh Nation in British Columbia, and the paintings of Frederic Remington, Charles Russell, and Alexandre Hogue in a unit entitled "How Fine Arts Can Tell Environmental Stories," Jerry introduced greater geographic and environmental understanding in his Introduction to Cultural Geography class. He also taught the Geography of Europe, and the Geography of the US and Canada. Toward the end of his career, he received a grant from the Canadian government to visit the Maritime provinces. Believing that field trips were an integral part of learning, he took students to Lindsborg, Kansas, to better understand Sweden and Swedish immigrants, and he introduced students to Dr. Angie Debo at her modest home in Marshall, Oklahoma, to learn more about her decades of research about the state. By the end of his career at OSU, he was meeting students whose parents had also taken his classes. When he retired at the age of 51, he became one of the youngest Professors Emeriti in the history of Oklahoma State.

Jerry continued his association with OSU by establishing the Jerry Croft and Family Award for an undergraduate or graduate student in the Department of Geography or Secondary Social Studies Education. Over the last several years, he also taught some of his favorite interests through the Osher Lifelong Learning Institute (OLLI), a 'senior college' opportunity for those at least 50 and older.

ConocoPhillips Geography Career Spotlight Speaker

We were honored to host **Dr. Joe Hoover** as our speaker this year on March 4. His presentation was titled “**Supporting Indigenous environmental health using geospatial technologies.**”



Departmental Colloquia

October 9, 2023—Dr. Michael Kerwin Associate Professor and Director, Environmental Science Program Department of Geography & the Environment University of Denver.

As megadrought lingers in the Colorado River basin, can US policy makers learn from South Africa’s response to the Day Zero crisis?

January 22, 2024—Dr. Ian Chang

Paths Toward Reducing Uncertainties in Climate and Health Impacts of Anthropogenic Aerosols

January 29, 2024—Dr. Tobi Morakinyo

Intra-Urban Heat Risk Assessment, Health Outcomes, and Greening Solutions: Case Studies from Selected Global South Cities

February 12, 2024—Dr. Tyler Fricker

Toward a Place-Based Understanding of Tornado Casualties in the United States

April 8, 2024— Graduate Students

Ofuje Amune

The Role of Socioeconomic, Sociodemographic, Weather and Health Factors in Influencing COVID-19 Cases and Deaths in Oklahoma

Emmanuel Kumi

The Impact of Land Use Change on Hydrological Ecosystem Services in the Tano River Basin in Ghana

Brice Zoungrana

Sustainable Water Resource Management and Agricultural Production in Central Burkina Faso: Perspectives on Environmental Change

Staff Updates



Barbara Goodnight

Barbara Goodnight is the Administrative Associate for the Department of Geography. She handles the online New Hire UKG Onboarding system, compiles the spreadsheet of EPAFs (Electronic Personal Action Forms) and keeps track of the OK Corral submissions. Barbara reconciles departmental accounts, faculty IDC accounts, the OSU Foundation accounts, and the OSU Foundation Vouchers. She assists with travel requests and travel vouchers. She keeps record of the pcard charges and reconcile the monthly statements. Barbara works closely with **Dr. Jon Comer**, the department head, and **Ana Segoviano**, the Administrative Support Assistant. She and Ana maintain the main office organization while keeping track of needed office supplies and departmental equipment inventory. She is also in charge of getting the vacant offices cleaned, painted and ready to be occupied. If you have a question, she will help you find an answer. Take a moment to stop by and say ‘Hello’ and have a lifesaver.



Ana Segoviano

Ana Segoviano is the Administrative Support Assistant in the Department of Geography. Her first year was full of great learning opportunities, she attended several training sessions, and keeps learning to work with OSU’s systems. Working under the leadership of **Dr. Comer** and under the supervision of **Barbara Goodnight** makes her job easier. Overall, it has been a great experience working close to the department’s faculty and staff, seeing closely how they help shape students’ lives. It is very enriching helping and getting to know students from different countries and cultures. Outside work, she enjoys life sharing moments and creating wonderful memories with her two daughters and son.



Michael Larson

Michael Larson, the Manager of Geospatial Systems at Cartography Services, will start his 29th year with the Department of Geography this fall. While Michael performs cartographic work for the faculty members and students of the Department of Geography, he also continues to support faculty, staff and students from other departments on campus as well as work for various entities, large and small, public and private, off campus.

Continuing his role as an educator, spring 2024 was Michael’s 23rd year teaching the Computer Cartography/Mapping in Modern Society course. In addition to teaching, Michael continues to be involved with students in a variety of ways. He helped sponsor several students to attend the OKSCAUG 2023 Conference, participation at the GIS Day at the Capitol event, and had one student assist him giving an outreach talk about all things cartography for the Fourth grade class at Waynoka Public Schools. When he is not involved in Departmental and geospatial business, Michael enjoys spending time with his wife and family and time allowing, putting in his garden.



Jing Wang

Jing Wang, the Coordinator of Center for Application of Remote Sensing (CARS) is starting her 10th year in the department. Last year she finished Oklahoma As Art 2023, a continuation of Oklahoma As Art 2022 with a focus on the unique and diverse landscape of Oklahoma. The 2023 work displays the environmental impact of human and nature's activities in Oklahoma. Using ground photography, UAS, and satellite imagery, the same locations/events are portrayed through three levels of remote sensing methods.

The projects are funded by AmericaView and all contents from the two years projects are available through the OklahomaView website (okview.org) for viewers to appreciate the rich history of Oklahoma geography, and to see some examples of the benefit of remote sensing for environment modeling and conservation.



Jing Wang and Wenqi Liu in the Field collecting



Logging site showing various stages of timber growth

Faculty Updates



Dr. Saber Brasher

Dr. Saber Brasher completed her second year in the department, and somehow, it managed to be busier than the first! She has many climatological projects currently underway. She is a co-PI on an NSF project that is completing its first year of four and has recently received news that a second externally funded project will begin this upcoming August. Aside from writing proposals, in the last year she published a couple papers, and made some progress on others, while also teaching ~170 students in her climate/meteorology courses. In total, she has recruited four graduate students to OSU to work on funded projects (two who just completed their first year in their programs!). She is proud that all her advisees have made great progress this year.



Abby Livingston (Brasher's undergraduate RA the past two years) graduated with her BS and is moving on to graduate school at the University of Illinois, and multiple students Brasher is a committee member for have either graduated or passed into PhD candidacy as well. Aside from work, in August 2023 she was married in the mountains of Colorado, and she and her husband (+ pup River) have wandered off into the outdoors any chance they get (with Brasher's camera, of course!)

Overlooking the blue lake they were married by at sunrise earlier that day.



River enjoying the mountains of Colorado.



A heron friend at Sanborn Lake, in Stillwater.

Dr. Jon Comer

Jon Comer spent his 30th year at OSU in a new role, as Interim Department Head. It proved to be a very busy year learning all the ins and outs of the position, but he found it to be a very rewarding experience and is excited to take on the role full time for the next three years, through June 2027.

Jon got back into his normal conference routine, attending both the Applied Geography Conference (AGX) in Pittsburgh in October 2023 and the annual AAG meetings in April 2024, which conveniently were held in Honolulu this time around. Both trips were amazing, and besides doing the usual conference activities he was able to make some excursions. While in Pittsburgh he ventured out to the Flight



Jon and former Ph.D. student Dr. Stacey Brown Amilian.

93 memorial and to Punxsutawney, PA (photo). He also got to hang out with OSU alumna **Stacey Brown Amilian** (B.S. 2002; Ph.D. 2011), his first doctoral student, who became Department Chair at SIUE at the same time Jon became Interim Head.

Honolulu was a trip of a lifetime, including visiting Pearl Harbor (photo) and touring the eastern and northern parts of Oahu. While it was tempting to try to make excursions to some of the other islands, Oahu has plenty to offer in terms of beautiful scenery, diverse climates, and its history.

Jon remains active with the Applied Geography Conferences as a Board Member, campus assessment committees, consulting for school districts from time to time, and walking the dogs many times a day.



Jon at the stump where it all happens on February 2 every year.



Jon and Shannon aboard the USS Arizona Memorial, with the USS Missouri in the background.

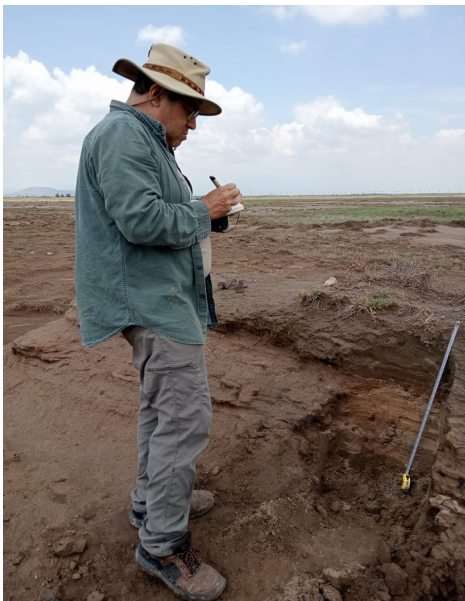


Dr. Carlos Cordova

Carlos Cordova this year taught Climate Change, Field Techniques, and Current Geographic Research. Carlos has been for the past 3 years coordinating the GEOG 1114 lab. With a team of TAs, instructors, and with funds from CAS, the lab has been transformed. There is new equipment and exercises, as well as a handbook. However, as of Fall 2024, Carlos will pass the coordination of the lab to **Brad Bays**.

Carlos has been traveling for research, meeting and for fun: Estonia, Latvia, Lithuania, Poland, Italy, and Mexico, and in the US to Pittsburgh and New Orleans. He has an upcoming field research in Kazakhstan as part of a project called the Paleo Silk Road, an NSF funded project of New York University. The project deals with Ice Age human populations connecting Europe with Asia. His main research project deals with prehistoric aquatic landscapes around Lake Texcoco, which involves geoarchaeology and ethnography.

The time frame is from the time of mammoth hunters to the most recent times. He has also been working on lacustrine deltas in the same lake and elsewhere. His PhD student, **Clayton Lucas II** is working in Mexico in the same area of his geoarchaeological research but working on matters of common lands. His other PhD student, **Katelyn Cooke**, is starting a research project on prehistoric agricultural landscape in Oklahoma using geoarchaeological and experimental methods. Katelyn will also participate in a study of a modern deltaic complex in the Great Salt Plains lake, and a study of reconstruction of prehistoric bison grazing and fires in northwest Texas.



Carlos Cordova documenting the deposits of a deltaic system in former Lake Texcoco, Mexico.



I will do my collections around the area in this Soviet van



The cave where I am doing my research



Dr. Alyson Greiner

For Alyson, a rare, much-needed, and bona fide vacay to Denmark, Norway, and Sweden last summer provided a fun and wonderfully life-affirming experience. Additionally, she continued to make progress on a collaborative research project related to the history of geography and its major journals, and presented some of the results of this research at the SWAAG meeting in Laredo in November. She opted

out of making the trek to the Aloha State for the AAG meeting in the spring, but enjoyed attending virtually instead as she and graduate student Katelyn Cooke co-presented a paper. On the home front, life-partner Luis is completing his 12th year as Department Chair of Chemistry at UCO and continues to work on accreditation issues in conjunction with the Higher Learning Commission.



A blast from the past!



Dr. Tao Hu

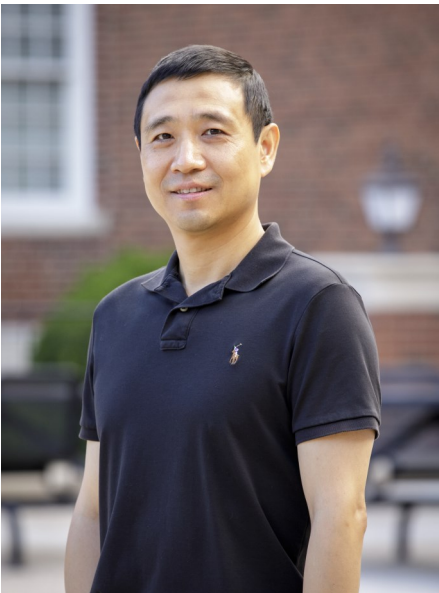
Dr. Tao Hu completed his third year in the department and was successfully reappointed as an Assistant Professor. During the past year, Dr. Hu was awarded two external grants. The first, funded by the NSF, aims to develop epidemiological models to understand the mechanism of disease transmission in Oklahoma. The second project, funded by a USDA subcontract, focuses on developing a disease monitoring system, which collect various animal disease, environmental, and human health data and build a GIS-based dashboard to demonstrate spatial-temporal patterns of diseases. Additionally, Dr. Hu published five peer-reviewed research articles in prestigious journals, including the *International Journal of Applied Earth Observation and Geoinformation* and the *Journal of Remote Sensing*. He also advised two PhD students and supervised three graduate students and three undergraduate students. Notably, his team received several awards, including 1st and 2nd places in the poster competition at the 2023 SWAAG Conference and 2nd place in the poster competition at the 2024 CADRE Conference. Dr. Hu looks forward to seeing more achievements from his team in the coming year.



Dr. Brad Bays

Brad Bays teaches Introduction to Physical Geography and the Geography of Oklahoma. During the 2023-24 academic year, he served as the department's associate head and was elected treasurer of the Oklahoma Alliance for Geographic Education (OKAGE). Trained as a historical geographer, Brad's current research focuses on how regional scale evolution manifests at local scales, particularly in agricultural specialization and residential patterns. He is currently working on a project that connects historical qualitative data, such as farmers' journals, manuscript census schedules, local market records, and landscape evidence, to understand the processes of agricultural mechanization in the Winter Wheat Belt before significant federal influence. Specifically, this research examines the local manifestation of mechanization from the post-settlement period, when animal-powered general farming was prevalent, until the Agricultural Act of 1949, which established

permanent legislation for subsidies and price supports. The project aims to uncover how local, short-term decisions affect agricultural intensification, generally understood at a coarse scale from county-level census data. More recently, in the spring semester, Brad began a collaborative research project using manuscript census schedules to study historical changes in local-scale residential patterns in the historic African American community of south-central Stillwater.



Dr. Hongbo Yu

Dr. Hongbo Yu continued to enjoy being a member of the geography family. In the past year, he worked on a few projects in collaboration with colleagues within and outside the department. In the project supported by the Joint Funding Opportunity from the National Animal Health Laboratory Network and the National Animal Disease Preparedness and Response Program, he and colleagues from the OSU Oklahoma Animal Disease Diagnostic Laboratory continued to develop a point of care (POC) foot-and-mouth disease (FMD) diagnostic assay and an interactive online mapping system to visualize the geolocation-enabled records collected from the assay. **Ehsan Foroutan**, a geography PhD student working as a GRA on the project, was helping him to complete the tasks related to the creation and development of a web GIS system that can support the entry and visualization of detected disease cases and provide wise routing decisions of livestock animals during a disease outbreak to reduce disease spread risk. Hongbo also worked with **Michael Larson** and **Dr. Allen Finchum** on the Oklahoma Historical Society/State Historical Preservation Office project last year and successfully renewed the project in the new fiscal year. In a Rural Research Initiative project led by Dr. **Tao Hu**, Hongbo joined the team effort to evaluate the usage of mobile wellness units and investigate the accessibility issues related to rural healthcare services in Oklahoma. In the fall semester of 2023, Hongbo successfully developed and offered an online version of the GIS for Socioeconomic Applications course. This new addition to the online curriculum brings the option of completing the GIS Certificate program fully online one step closer.

Dr. Thomas LaVanchy

Dr. Thomas LaVanchy: I completed my 5th year at OSU in 2024 and continue to enjoy the mix of teaching, research, and service that make up my life as a professor. On the teaching front, I taught Global Sustainability (GEOG/GLST 2002), Global Water Resources & Sustainability (4910/5510), and a Physical Geography (1114) Honors add-on that explored America's public lands. In August, I moved from being a member of our Graduate Committee to becoming the Graduate Coordinator for the department. Despite a big learning curve, the position is rewarding and allows me to walk alongside our graduate students as they progress from applying to our program to graduating as future leaders. As an adviser, I had the privilege of seeing four of my students defend their thesis/dissertation and graduate. Each of them had interesting research that advanced knowledge in water resources and contribute to making the world a better place. I am proud of their hard work and celebrate their accomplishments:

Emmanuel Kumi (MS in Geography) - The Impact of Land Use Change on Hydrological Ecosystem Services in the Tano River Basin of Ghana.

Kathy Osei (MS in Geography) - Analyzing the long-term trend of evaporative water loss at Lake Hefner for Sustainable Urban Water Management.

Brice Zoungrana (PhD, Geography) - Sustainable Water Resources Management and Agricultural Production in Central Burkina Faso: Perspectives of Environmental Change.

Yaema Fornah (MS, Environmental Science) - The Role and Efficacy of the Private Sector in Urban Water Provision: A Case Study of Water4ever in Waterloo, Freetown.

On the research front, I continued collaboration with colleagues at the Future Water Institute of the University of Cape Town. Our research evaluates the efficacy of nature-based solutions to improve water security and contribute to economic stability and social justice. I published an article in the *Annals of Tourism Research* Empirical Insights on the role of tourism water literacy in hotel management during climate shocks and submitted two proposals to the NSF to support student involvement in my water research.

In the Field: I traveled back to southern Africa in June to collect data and work at the Water Hub research site near Cape Town. The trip began with a side journey to Windhoek, Namibia to tour the Wingoc Water Reclamation Plant. The city of Windhoek has successfully recycled wastewater for potable use since 1968 and provided a good resource and point of reference for a paper I am writing on Cape Town's initiative to adopt water recycling as well. I also spent a week working at the Water Hub on a variety of practical tasks and collecting data.



Sampling sun-dried mopane worms in an open Market in Windhoek, Namibia. (all Photos by Thomas LaVanchy)



Helping students from the University of Cape Town with water testing. The source of the water contamination is an informal settlement, visible in the top center of the picture.



The job of Graduate Coordinator is never finished – working on tasks during a flight delay at the airport.

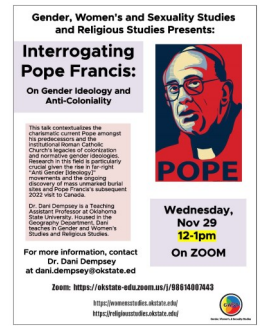


Enjoying a sunset in Betty's Bay, South Africa with research colleague Dr. **Kevin Winter**.



Dr. Dani Dempsey

Dr. Dani Dempsey completed their first year in the Geography Department, and very much enjoyed getting to know their colleagues and teach in the Religious Studies and Gender, Women’s, and Sexuality Studies programs. In November 2023, Dani presented their research in a talk entitled “Interrogating Pope Francis: On Gender Ideology and Anti-Coloniality.” Dani is currently turning this research into a manuscript. In 2024, Dani introduced a new course, Gender and Religion Across Cultures, which will run as a cross-listed course in Geography, Religious Studies, and Gender, Women’s, and Sexuality Studies in future semesters.



Dr. Hamed Gholizadeh

Dr. Hamed Gholizadeh started two new projects as the lead PI within the past year. The first is an NSF-funded project titled “MRI: Track 1 Acquisition of an Advanced Low-altitude Earth Observing System (ALEOS) with Hyperspectral and LiDAR Capabilities to Advance Interdisciplinary Research and Training.” The second is a USGS-funded project, “Optimizing Invasive Plant Management in Grasslands: Integrating Remote Sensing and Climate Sciences,” with Geography co-PI Dr. Saber Brasher. Additionally, Dr. Gholizadeh is leading a NASA-funded project aimed at using remotely-sensed data to monitor plant diversity.



Dr. Rory Hil

Dr Rory Hill was appointed Assistant Professor in the department and started work in August 2023. He is a cultural and historical geographer with research interests in wine, food, tourism and sense of place. Since arriving in Oklahoma, Rory has taught the Regions and Nations in Global Context and Global Studies Senior Capstone courses, as well as developing a new course for Fall 2024 entitled Global Geographies of Food and Drink. In December 2023, he published a chapter on wine in New Zealand's Waipara Valley in the Elgar Companion to Valleys, along with Dr Joanna Fountain. In early 2024, he was awarded the CAS Summer Research Award as well as a Millennium History Grant from the Société Jersiaise, to undertake a new project on the Red Cross delivery of war-time food aid to the Channel Islands. In June 2024, Rory got married to Madeleine in the Seattle and Snoqualmie area of Washington.



Hooding **Dr. Kim Johnson Maier**

Dr. Rebecca Sheehan

Last academic year, I served .5FTE as Interim Associate Dean of Academic Affairs in OSU’s Graduate College. In addition to academic affairs, I led two projects for the college: 1) Revising Procedures for Graduate Faculty Appointment, Nomination, and Renewal and having these procedures run through an online platform and 2) Orange Rise: Cultivating a Culture of Mentoring, a workshop series to assist graduate faculty in their work with graduate students. (I will be back in the Department of Geography full-time for the 2024-2025 academic year!) In October, I presented a co-authored paper, with Kim Johnson Maier, “Obfuscating Gender and Race in the American Frontier through Embodied Affect: Historical Fiction Tourism at the Ingalls Homestead in De Smet, South Dakota” at the annual SWAAG Conference in Laredo, TX. The conference coincided with the Day of the Dead 2023! In October 2023, my advisee, **Kim Johnson Maier**, successfully defended her dissertation, *Sustaining the Frontier Myth at the Ingalls Homestead: A Relational and Spatialized Analysis of a Wilderness*. She then graduated with her PhD in December 2023. We have already coauthored a submitted book chapter, “The Ethics of Simple Technologies: Affect, The Frontier Myth, and Literary Tourism at the Ingalls Homestead in Desmet, South Dakota, USA,” to the *International Handbook of Heritage and Affect: Designing and Experiencing Places of Heritage*. Dr. Johnson Maier will begin a tenure-track assistant professor position at South Dakota State University in the Department of Geography and Geospatial Sciences in Fall 2024. I look forward to continued collaboration with Kim. I also continued research on public spaces and memorialization, especially in the US South. Over the last year, I spent time hiking and relaxing at the Black Mesa in Oklahoma as well as in Abiquiu, New Mexico!



Day of the Dead, La Posada Hotel, Laredo, Tx



Abiquiu, New Mexico

Dr. Yuting Zhou

Dr. Yuting Zhou taught three courses during the last academic year: Digital Tools for Environmental Problem-Solving (Spring and Fall), Fundamentals of Geographic Information Systems (Fall), and Advanced GIS: Resource Management Applications (Spring). Two graduate students, **Sadril Khan** (Ph.D.) and **Adeyinka Olusanya** (M.S.), joined CARS in Fall 2023. Ph.D. student **Wenqi Liu** has passed her comprehensive exams. Dr. Zhou also served as faculty advisor for a Global Study student, Brianna Lucas, in her Honors thesis course and for a Geospatial Information Science (GISci) student, **Eddy Lyonsi**, with the support from the Advancing Undergraduate Research and Creative Activity (AURCA) program. Dr. Zhou attended the 2024 Junior Day, an event attracted around 1,500 high school juniors and their families to OSU.

Dr. Zhou continued his role as PI for OklahomaView and Co-Director of the Center for Applications of Remote Sensing (CARS). This year, Dr. Zhou and the CARS Coordinator, **Ms. Jing Wang**, are trying to promote the usage of remote sensing in agriculture and natural resource management in local communities in northwest Oklahoma. Dr. Zhou is also collaborating with a USDA ARS scientist to estimate corn yield using UAV imagery and machine learning algorithms. Two manuscripts about this topic are under development. Dr. Zhou recently got another funding from the USDA ARS to investigate the impacts of climate and management practices on agroecosystems using remote sensing and in-situ observations. With the support from the Bureau of Land Management, Dr. Zhou recruited another Ph.D. student to study vegetation and fuels using remote sensing and machine learning algorithms. Collaborating with **Dr. Gholizadeh** in the department, Dr. Zhou obtained funding from the College of Arts and Sciences to purchase a thermal camera, which will sit in CARS.



Social Events



Department of Geography 2023-2024

(Back row) Tao Hu, Hongbo Yu, Reuel Hanks, Don Colley, Brad Bays, Barbara Goodnight, Jon Comer, Rebecca Sheehan, Thomas LaVanchy, Rory Hill, Youting Zhou, Hamed Gholizadeh, (front row) Jing Wang, Michael Larson, Ana Segoviano, Saber Brasher, Carlos Cordova, Dani Dempsey, Alyson Greiner.



On August 17, Geography faculty and staff gathered for a dinner party at the Comer residence to kick off the school year and Jon's Interim headship. Though it was ghastly hot outside, the inside temperatures were Comeresque and it seems like a good time was had by all.



On February 28, Professor Emeritus **John Rooney** and his wife **Sandy** hosted a reunion of long-time and retired OSU geographers. It also turns out that other than 1989-1992, every Department Head dating to 1969 was present. From left to right: **Richard Hecock** (Department Head 1978-89), **Steve Tweedie**, **Tom Wikle** (DH 1994-2000), **John Rooney** (DH 1969-78, 1992-94), **Alyson Greiner** (DH 2018-23), **Dale Lightfoot** (DH 2000-18), **Steve Stadler**, **Jon Comer** (DH 2023-present), and **David Waits**.



On May 9, geography had a second successful bowling night (the first was on February 29, 2024). As is evident from the photo, it was a great turnout though certain graduate student bowlers had to take advantage of the assistance of a dinosaur bowling ramp...

Cartography Services

By Michael Larson

Cartography Services: Cartography Services maintains a rather full schedule. Headed by **Michael Larson**, Manager of Geospatial Systems, we have spent most of our time split between several key working areas, including major cartographic projects, outreach activities, as well as map design and compilation work.

Cartography Services continues its traditional role assisting the faculty in the Geography department with their various projects and research. We have completed the final drafts of 101 maps for **Dr. Dale Lightfoot**'s book on Qanats. Additionally, we have completed a number of maps for other entities on campus, including a couple faculty members from the Department of History and a set of maps for the Ag Extension Office.

Cartography Services is now in its 15th year working with **Drs. Hongbo Yu** and **Allen Finchum** on the SHPO/OLI project. Our portion of this project, funded by the Oklahoma State Historic Preservation Office, is a dual role. The first part involves developing an interactive, web-based server to help facilitate the Section 106 activities. This work is being led by **Kellen Bullock**, our GIS Specialist III and staff member, with assistance from **Dr. Matthew Haffner**, a consultant from the University of Wisconsin at Eu Clair. The second portion of the project involves data entry, cleaning, and updating the Oklahoma Landmark Inventory (OLI) database. Undergraduate students who worked on the project this past year include **Jacob Shepherd**, **Levi Fazel**, and **Abby Curry**.

This fall marks our third year involved with the InternOSU program. The first two interns, **Isabelle Ley** and **Abby Curry**, each worked on a number of varied projects including cartographic design and construction, GIS data entry, conference attendance/presentation, and whatever random project work the Cartography Service Manager came up with. This fall, our newest intern, **Everett Bonine** will be joining our ranks.



Center for Applications of Remote Sensing (CARS)

By Dr. Hamed Gholizadeh



CARS had a productive year both in research and educational outreach. CARS co-director **Dr. Hamed Gholizadeh** started two new projects as the lead PI: NSF-funded project “MRI: Track 1 Acquisition of an Advanced Low-altitude Earth Observing System (ALEOS) with Hyperspectral and LiDAR Capabilities to Advance Interdisciplinary Research and Training”, and USGS-funded project “Optimizing Invasive Plant Management in Grasslands: Integrating Remote Sensing and Climate Sciences” with co-PI **Dr. Saber Brasher**. **Dr. Gholizadeh** is also leading a NASA-funded project to use remotely-sensed data to monitor plant diversity.



CARS co-director **Dr. Yuting Zhou** continues his role as the PI for OklahomaView and CARS coordinator **Jing Wang** as the state coordinator. With the completion of the Oklahoma As Art project, new outreach effort will focus on helping local communities in northwest Oklahoma to apply remote sensing to agricultural and natural resource management. Dr. Zhou is also collaborating with a USDA ARS scientist to estimate corn yield using UAV imagery and machine learning algorithms. Two manuscripts about this topic are under development. Dr. Zhou recently got another funding from the USDA ARS to investigate the impacts of climate and management practices on agroecosystems using remote sensing and in-situ observations.



Wenqi Liu, Ph.D. student passed her comprehensive exam in the Spring. Two graduate students, **Sadril Khan** (Ph.D.) and **Adeyinka Olusanya** (M.S.), joined CARS in Fall 2023.

CARS is also awarded with the tech-fee fund to purchase a thermal sensor.



The mission of the Department of Geography is:

- ◆ to provide an exceptional educational experience in a student-centered departmental community that emphasizes the value of lifelong learning, employs engaging instructional activities, and prepares students for careers in an increasingly globalized world;
- ◆ to conduct innovative theoretical and applied research that promotes discovery, cultivates interdisciplinary and collaborative partnerships, fosters socioeconomic development, and responds to the needs of society;
- ◆ to promote the importance and relevance of geography to the public and to provide geographic expertise to the university, community, and state.

The OSU Zenith is a publication of Oklahoma State University, College of Arts and Sciences, Department of Geography.

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