



Porcupine in cottonwood at Rio Grande Nature Center State Park
photograph by Laurel Ladwig

Geography Awareness Week

To our fellow UNM Geography alumni – Geography Awareness Week (GAW) is of great importance to our department, our next generations of geographers, and to the role of geography in our institution. GAW is a great opportunity for outreach and connecting current and past students. At GAW, we showcase how a degree in geography can lead to a multitude of excellent opportunities in research, encompassing everything from physical and human geography to spatial science. By showcasing the possibilities in geography over a week across campus, we increase our ability to recruit new students into geography and train the next generation of geographers that are critically needed for the health and continuation of our discipline.

GAW was largely dormant and a shadow of its former self due to the Pandemic, which greatly hindered our ability to host in-person events and provide the networking opportunities GAW was known for. Therefore, as we come out of the pandemic, our goal is to revive GAW to its former glory; and indeed, this is gearing up to be the largest and most impactful GAW in our department's history, with major events happening every day of the week.

GAW will run from November 14th – 18th and consist of a diverse variety of outreach events, workshops, the GIS day conference, and the Murphy Lecture.

On **Monday (Nov. 14th)** come stop by the Duck Pond to check out the geography table! The Duck Pond is the main route of student activity on

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campus and this tabling event will be a great place to spread word about geography in the student population!

On **Tuesday (Nov. 15th)** is a workshop for eCognition software, an advanced platform for automating geospatial data analytics.

On **Wednesday (Nov. 16th)** is GIS day, our special flagship event. GIS day is a conference hosted by the department that includes a student poster competition, booths for outside vendors from academia, government, and industry, and a virtual reality interactive exhibit hosted by the UNM Centennial Science & Engineering Library. During GIS day, students will be able to engage with experts and come together as geographers. This will be the largest GIS event, with several vendors attending, and will be an engagement and outreach opportunity not only for UNM students, but also prospective geographers from local high schools. For example, over 80 students from Rio Grande High School will be attending the event! The Center for Advancement of Spatial Informatics Research & Education (ASPIRE) will also be hosting an open house (long delayed due to the Pandemic!) on this day, which will include tours of the facilities and networking events.

On **Thursday (Nov. 17th)**, we will have a film screening for *Soil, Struggle, and Justice: Agroecology in the Brazilian Landless Movement*, directed by our own **Andreas Hernandez**.

Finally, GAW will end on **Friday (Nov. 18th)** with the Murphy Lecture, as tradition. Every Fall during GAW, the department hosts the Richard Murphy Memorial Lecture to highlight a prominent researcher from the field. The lecture is funded through an endowment established in honor of the department's first chairperson, Professor Richard Murphy. This will be the 11th year of Murphy Lectures which started in 2011, representing a continuing and proud legacy. This will include giving out the Richard Murphy scholarship to students that demonstrate excellence in geography.

Here's to a great GAW this year!

Theodros M. Woldeyohannes
President of the Student Association of Geography and Environmental Studies (SAGES)

Register for the GIS Day conference

Printable flyers for Geography Awareness Week and GIS Day are on pages 19 & 20.

From the Dean of Arts and Sciences

Dear GES Alumni and Friends,

I would like to extend my sincere thanks to all who have worked to develop the Geography and Environmental Studies Alumni Chapter and newsletter. I have been impressed by the network that is being created through the GES Alumni Chapter and am pleased and grateful for the momentum that is building. This chapter will not only work to keep our alumni engaged with the department, it will also generate invaluable educational opportunities for our students, and serve as a model for other departments within the College of Arts and Sciences.

I welcome your participation with the GES Alumni Chapter and encourage you to please keep in touch and share your achievements with us. I would also be grateful if you could please keep our students in mind for opportunities to deepen their knowledge of Geography and Environmental Studies. I am excited about the future prospects of what we will achieve together in the coming years and thank you all for your support.

With gratitude,

Dr. Arash Mafi

Dean of the College of Arts and Sciences



35th Annual Geography Awareness Week



**Wherever you want to go, geography
gets you there.**

www.aag.org/geoweeek-2022/

Finding the 'new normal' in Geography and Environmental Studies

Chris Duvall

*Professor and Chair
Department of Geography and
Environmental Studies*



Greetings! The last few years have been unprecedented for the department. Since 2019, we have added seven new faculty members, two new research centers, a Ph.D. program, and a new undergraduate academic program. On top of all this, of course, we have faced the pandemic's innumerable disruptions.

Given all these changes, the department is working this year to establish a 'new normal' that moves us away from the emergency-response posture that has dominated the last five semesters. Stepping toward a new sense of normalcy means taking stock of what we do.

Operationally, the department's longstanding functions—teaching students, advancing research, and providing faculty leadership on and off campus—remain core to our new normal. However, we are doing more than ever before because we are a bigger, more complex department than ever before. Here's a sketch of how our components fit together:

- The **Sustainability Studies Program** is administered by the department, directed by a geography faculty member (**Prof. Melinda Morgan**), and has classes taught by other geography professors. However, the program's academic mission is separate from the department's. The program trains students to find creative ways to build an equitable and sustainable world. Sustainability students earn a minor to go with any degree available on campus, whether geography, business, biology, engineering, art, or something else.

- The **Center for Community Geography** is a research center that is administratively housed in the department. Its director is a geography professor (**Prof. Maria Lane**), and it works to connect students and faculty with community groups that seek geographic expertise. The Center funds projects that address community needs, to advance the university's mission to serve New Mexico.

- The **Center for the Advancement of Spatial Informatics, Research, and Education (ASPIRE)** is also a research center, although its administrative home is the College of Arts and Sciences, not the department itself. Yet ASPIRE is closely linked to the department. Its mission is closely aligned with the department's; its director (**Prof. Chris Lippitt**) is a member of the geography faculty; and many geography faculty and graduate students have research grants that are administered through ASPIRE.

- The department itself houses and administers most elements of our faculty's teaching and research work. We offer four degrees—B.A., B.S., M.S., and Ph.D. in geography—and two minors, in geography and geographic information science. We have about 70 undergraduate majors and minors in Fall 2022, and about 30 active graduate students. Our faculty are also highly active in research. In 2021, for example, we collectively published about 40 peer-reviewed articles—on average, more than two per professor—and generated nearly \$2 million in research funding.

This is only a glimpse of all the things that are happening within the department, but it captures the basis upon which we are building a new sense of normalcy to guide ourselves. Many of our activities are things we have always done, but we are also finding new activities and new ways to do old ones. We are excited to be back on campus almost entirely in person, and we look forward to new successes in the department's future.



The Southwest GeoBowl team won the national competition during the virtual AAG meeting! Congratulations to our grad students Blair Mirka and Daniel Beene who were essential to the victory. Blair and Daniel joined three Texas State students to form a dominant SWAAG team that won the preliminary rounds and faced off with APCG in the finals!

Greetings to all Geography and Environmental Studies Alumni,



My name is Chris Sylvan and I received my Bachelor of Science from the Geography Department in 2011. During my years of undergraduate study at the University of New Mexico (UNM) I often found myself to be the lone Black or African American student in every geography course. I felt this was a non-issue at the time because I was a non-traditional student returning to school to complete my coursework and having to walk the tight rope of school, work and life occupied a majority of my time. Yet attending classes with faculty and students who did not look like me had already been glaringly obvious to me. I recently returned from the Second National Conference: Justice in Geoscience this past August in Washington D.C. which brought together Black, Native/Indigenous, and Latinx students and scholars in the Geosciences to discuss the challenges facing the BIPOC community in the Geosciences and to brain storm about the ways to increase participation in the future. One of the common themes throughout the conference was "I was always the only one." Each of us had a unique story to share on that topic and it

created a sense of solidarity among the conference attendees. Yet despite this, I wasn't discouraged by being the "only one" in my courses at UNM. The reinforcement and support I received from the faculty in GES (some are still teaching today) and the students that I met who became not only great peers but also lifelong friends helped propel me to completing my degree. This sense of community appears to embody the nature of the discipline in which we have all obtained our degrees. It brings together a multitude of people who desire to collaborate and produce a sense of a global community with the purpose of making our world a better place through geography. And our department is a welcoming community.

Currently I am enrolled at UNM again as a graduate student at GES, while simultaneously serving on the UNM Geography Advisory Board. Since my return to school, I've come to find that the number of Black faces has not increased in our department. The department has gained one Black [faculty member](#) Dr. Natasha Howard and recently one Black [Master's student](#) Desiree Loggins (MS Spring 22) which has increased our numbers in recent years which is an astonishing feat given that the state of New Mexico merely has 3.2% Black or African American or Alone or in Combination as of the 2020 Census.

My request is simply this...despite our low population in this state historically and presently, we must continue to research and explore those untold stories about the Black experience in New Mexico and produce a narrative of this land that is oftentimes not adequately explored. Currently Dr. Howard is leading research and scholarship involving this effort. My proposition is to create a scholarship for Black students interested in bringing those untold stories to light. An award would be given to a Black scholar who is committed to studying Black Geography in New Mexico. By increasing the number of Black geographers at UNM and uncovering stories about our past, we can help shape the future of our state. It would be appreciated if UNM GES Alumni could contribute any amount of seed money they feel is necessary to kickstart this endeavor. And let us strive for future UNM Black GES students to be unable to utter the words "I was the only one."

Respectfully,

Chris Sylvan (BS '11 and MS '23)



Campus cottonwood
photograph by Dr. Caitlin Lippitt

Shared Futures Workshop

Perhaps you visited Explora Museum sometime this August and noticed some new art on the walls. You may not have known that this was the work of many Geography and Environmental Studies department members! The **Shared.Futures** workshop and exhibit, based in Albuquerque, New Mexico, looks at how artists and scientists can come together to effectively communicate a scientific perspective on the future through an artistic medium. This five-month workshop (April-August 2022), which I led and organized, brought together five professional artists and five academic researchers to collaborate across discipline and professional lines. Two of the featured researchers were GES's own Dr. Melinda Morgan and PhD student Ria Mukerji. The workshop culminated in a month-long exhibit of each of the five art-scientist pairs' resulting art at Explora Museum which ran from August 6-31, 2022. The first hour of the exhibit opening event, which we aligned with Explora's **Meet a Scientist** event series, sold out Explora's tickets! If you are an artist, or know an artist who would be interested in this, we'll be recruiting our next set of workshop participants this fall. Let me know (ycl@unm.edu) if you're interested in participating or want to stay up to date on when our next exhibit will take place.

Dr. Yolanda C. Lin

Assistant Professor, Geography and Environmental Studies

Associate Director, [ASPIRE](#)

<https://news.unm.edu/news/unm-team-joins-art-and-science-at-explora-event>



CENTER FOR ADVANCEMENT
OF SPATIAL INFORMATICS
RESEARCH & EDUCATION

ASPIRE Open House

We are excited to invite you to the Center for Advancement of Spatial Informatics Research & Education (ASPIRE) open house on Wednesday, November 16th from 4:30 - 6:30pm in the PAIS courtyard (210 Yale Blvd NE, Albuquerque, NM 87106). The open house will be a great opportunity to learn more about the exciting things going on in ASPIRE!

Additional Details and Updates closer to the event will be posted online at: <https://aspire.unm.edu/news-events/upcoming-events.html> or follow us on Twitter @aspireUNM.

CENTER FOR COMMUNITY GEOGRAPHY LAUNCHES SUCCESSFULLY, AWARDS FUNDING

After two successful “startup” years, The R.H. Mallory Center for Community Geography is now entering a “strategic buildout” phase. As we continue to pursue our mission -- to create partnerships between UNM and its surrounding communities that are effective in addressing critical human-environment issues – we are building capacity and adding new structures to support the Center’s growth and ongoing work.

Director Maria Lane and Associate Director Miriam Gay-Antaki (both professors in GES) oversaw a wide range of activities in 2021-22, including hosting a national speaker, facilitating community engagement in classes, supporting citizen science projects, and directly contributing to numerous mapping and outreach projects with partner organizations outside the university.

Lane said that the Center has become well-known across campus and is increasing its resources and capacity to support community engagement initiatives. “We just received office space for the first time, and we have doubled the size of our student staff, thanks to grant funds and on-campus support,” she said. She added that GES faculty have shown increasing interest in community partnerships: “That’s a great sign that we are achieving our mission.”

A few highlights from recent and ongoing Center for Community Geography projects include campus leadership for the 2022 City Nature Challenge event, student production of two StoryMaps focused on the Pajarito Acequia and its surrounding South Valley community, support for a collaborative project to design signage and interpretation for the Tijeras Cultural Corridor, a “community geography lexicon” social media campaign, participation in a geospatial internship program for Diné College students, and a community workshop to highlight key aspects of community geography.

In addition, the Center awarded funding to students and faculty to explore community-engaged research and teaching in 2022-2023. Two graduate students will be using their \$1,000 Graduate Fellowships for Community Engagement to complete the following projects:



*Diné College students at Gutierrez Hubbel House as part of their geospatial internship program this summer
photograph by Dr. Yan Lin*

- Joshua Driscoll’s “**Albuquerque Overlay Map**” project is focused on creating a web-based data aggregator for Albuquerque, New Mexico and the surrounding region. He hopes that the site can serve as a communal resource for data, but also as a place where people can make maps and explore different datasets. Joshua’s project operates from the premise that spatial questions are better answered when paired with a visual component. His goal is to host as many open-source datasets in JSON format as possible (converting from GeoTIFF, KMZ, SHP, etc) so that community members can use the map to visualize community characteristics in an intuitive way.

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- Cassidy Tawse-Garcia's project "Alternative Agriculture and Mutual Aid in the South Valley of Albuquerque in Response to the Covid-19 Pandemic: Social and Ecological Resourcefulness in a Shifting World" is focused on understanding how mutual aid influences the "resourcefulness" of communities in response to social and ecological crisis, and how that is demonstrated through the politics of community care. Her project will develop a community inventory of existing mutual aid resources, to be shared with and utilize within the geographic area of Albuquerque's South Valley. The inventory will combine graphics and maps visualizing resources.

Two GES faculty members also received \$1,000 each, through our competition supporting Seed Funding for Community Engaged Classrooms in 2022-2023:

- Dr. Yolanda C. Lin received a \$1,000 award for community engagement in "Information Design for Science and Society" (GEOG 2115), a course in which students learn the basics of visual information design and then craft a set of data-driven infographics. Dr. Lin successfully implemented two community-engaged projects last year, and we are happy to support her again in this work. Students will again design infographics to support the City Nature Challenge, a citizen science event held every spring in Albuquerque and other cities around the world.

- Dr. Caitlin Lippitt received \$1,000 to support ongoing work to connect students and faculty with Petroglyph National Monument. She will host a panel event in fall 2022 for Petroglyph/NPS staff to learn more about GES faculty/student research expertise and interests. The goal of the event is to promote future research collaborations between GES faculty and students and Petroglyph NM.

Further information about our ongoing projects is available at <http://communitygeography.unm.edu>, and we encourage alumni to get in touch with ideas for community partnerships. We hope to welcome you all to an open house in spring 2023, after our new office space is up and running. Please contact us with ideas at communitygeography@unm.edu.



Be sure to follow @nmcommunitygeog on Instagram and Twitter to see our work in real time.

What is Community Geography?



GES Master's students at Valle de Oro National Wildlife Refuge's Build Your Refuge Day

This subfield of geography recognizes that community residents generate meaningful spatial knowledge through local experience, and it seeks to identify and value this knowledge. Typically using participatory methods, community geography is grounded in strong partnerships between community residents and university researchers who provide tools and technologies to support and sustain their work to achieve positive community change.

Sustainability Studies Update

The UNM Sustainability Studies Program offers an undergraduate minor degree to students in any department or college on campus. It became part of the department of Geography and Environmental Studies in spring of 2020. Our shared vision is to cultivate a learning community that transforms paradigms and creates pathways to an equitable and sustainable world.

Eco-Internship Program

In this past year, led by Dr. Andreas Hernandez, we have been cultivating our growing "Eco-Internship" program for undergraduates in Sustainability Studies. We hope that soon these Eco-Internships will be a center of gravity for the Program and a key experiential learning opportunity for students. Last semester, students Kasey Lemming and Cameron Calhoun worked with the leaders of the Senegalese Ecovillage Movement to design a service-learning program for US students. Brian Boney interned with the ABQ Backyard Refuge Program and Valle de Oro National Wildlife Refuge, engaging with diverse multispecies communities. Lastly, Tiffany Naes worked at Petroglyph National Monument as part of creating a long-term sustainability plan with multiple and often competing stakeholders.

We believe that Eco-Internships will continue to grow in our curriculum as a critical part of developing hard and soft skills for students to effectively and creatively engage the world. These experiences are also a space to test, refine and reflect upon theories from the classroom. We have found that Internships can be crucial for students to transition from the university to working with NGO's, government at all scales, and business. Students who leave undergraduate study with two or three rigorous internships often able to leapfrog into advanced positions in professional settings, or choose the very top graduate programs to continue their education and professionalization. We hope to develop the Eco-Internship Program into a lasting relationship with local and global communities where students can learn from and support the best initiatives in sustainability, resilience and regeneration. This coming semester, we have added two positions in the global NGO Grassroots International and one position in the highly innovative Coalition of Sustainable Communities New Mexico.

Welcome Lobo Gardens

The Lobo Gardens is a physical space located in northeastern corner of campus, just behind the UNM Real Estate Department offices. "Lobo Gardens: Health, the Environment, Community Gardens, and Social Change" is an undergraduate course, offered both in the Fall and Spring semesters, designed to provide hands-on learning to students on food systems, social justice, community health, and global climate change.

This year, the Sustainability Studies program is in the process of becoming the new academic home for the Lobo Gardens. We hope this will deepen our work in food systems and continue to foster interdisciplinary engagements in this area.

In mid August, the Lobo Community Garden delivered its first box of produce to the Lobo Food Pantry! The fresh herbs, tasty produce, and cut flowers are now available weekly for students to enjoy in the Student Union Building, or by volunteering in the Garden to help harvest, on Tuesdays from 1 - 2 pm.

Farewell Faron Stout

Our academic coordinator, Faron Stout, recently left UNM to join the ranks of teachers at Albuquerque Public Schools! We wish her all the best and want to recognize all the contributions she made to our program during her time with us.

You can learn more about the Sustainability Studies Program at Website: <http://sust.unm.edu>

Social media: [Instagram](#) / [Facebook](#) / [Twitter](#) Follow us!



SUST Intern Brian Boney rescuing cacti for upland habitat restoration at Valle de Oro National Wildlife Refuge

photograph by Laurel Ladwig

GES Student News

GES graduate students researching at the intersection of Geography, Geospatial Data Science, and Health

Indigenous communities throughout the United States have been impacted by environmental contaminants from hard rock mining and lack of solid waste disposal infrastructure. It has been a significant research challenge to examine and address environmental health disparities experienced by Indigenous communities.

Geography graduate students in the Health & Environmental Research GIS Lab directed by **Dr. Yan Lin** (Associate Professor in Geography) in the Department of Geography & Environmental Studies and UNM Center for the Advancement of Spatial Informatics Research and Education (ASPIRE) are working on cutting-edge research intersecting Geography & Environmental Health to understand and address health disparities in these indigenous communities.

Theodros Woldeyohannes, a second-year PhD student in Geography, is leading research on community-level trash fire detection on tribal lands based on remote sensing. The trash burning presents a source of environmental contaminants and therefore is a potential public health hazard in indigenous communities. "Our study utilizes satellite data in order to detect and visualize these fires on the Crow Nation. We have been able to detect and visually confirm several of these fires, producing some of the first high-resolution satellite imagery of this type of small, community-scale fire," Teddy said. This detailed visual and data-driven record of trash-fires has the potential to highlight environmental disparities in these communities and inform public policy surrounding municipal waste needs.

Daniel Beene, a third-year PhD student in Geography, is working to better understand rurality on the Navajo Nation, the largest tribal reservation in the United States. "The reality of rural life on the Navajo Nation is complex and has deep cultural roots, but it may also be indicative of diminished access to resources in underserved populations across the reservation," he said. Daniel's research looks at how the relationship between accessibility to health services, healthy food, social support, and other infrastructure either characterizes or fails to characterize populations deemed as rural according to commonly used classifications. By employing advanced geospatial methods like machine learning

and big geospatial data analytics, he is working to disaggregate these measures to identify the extent and way in which Navajo communities are misrepresented in population health models and policies that aim to intervene in the long history of environmental injustice and adverse health outcomes.

Chris Girlamo, a second-year master's student in Geography, is working on a paper to compare the impact of different sources of weather data on a geospatial model of environmental exposure potential on tribal lands. He compared local airport weather data, local weather station data from other sources, and weather data interpolated from earth observation and local data and found significant variation in modeling results between these sources. His finding about better modeling results derived from well-distributed network of local weather stations helps inform decision making on local weather station installation on tribal lands.

Zhuoming Liu, a Geography alumnus and a first-year PhD student in computer science, developed a spatial-temporal model to estimate individual-level exposure potential to environment among livestock animals in communities from the Navajo Nation. In this study, published in *Annals of GIS*, Global Positioning System (GPS) collars were used to track livestock movement behaviors and overlaid with environmental data to quantify exposure potential. Results from this work may be used for future intervention and policymaking on remediation efforts in communities where grazing livestock may encounter environmental contaminants.

Funded by the National Institutes of Health, these students are also trainees with transdisciplinary research centers: the Center for Native Environmental Health Equity Research and UNM Metals Exposure and Toxicity Assessment on Tribal Lands in the Southwest (UNM METALS) Superfund Research Program Center. Says Dr. Lin, "the transdisciplinary research training from geography, geospatial data science, and health which is built on community-based research practice significantly benefits the students and prepares them to become future leaders of this cutting-edge research area to address community concerns and health disparity challenges."

Elinore Barrett and Robert Campbell Endowed Scholarship in Geography Created

The Department of Geography and Environmental Sciences is thrilled and honored to announce the creation of the **Elinore Barrett and Robert Campbell Endowed Scholarship in Geography**, which was made possible through a generous donation from **Dr. Hsi-Tien (Dan) Chang** and **Ms. Cecilia Lee Chang**.

Cecilia Chang earned her bachelor's degree in mathematics in 1973 from the University of New Mexico. While studying Math, she took a Geography class and got to know **Professors Elinore Barrett and Robert Campbell**. Cecilia was inspired by Professors Barrett and Campbell and developed a friendship with them – she loved their classes so much that she decided to pursue her Master's degree in Geography, which she earned in just one year.

Cecilia and her husband, Dan, got married at the UNM International Center; they both shared a passion for higher education and throughout the years, UNM has held a special place in their hearts. UNM laid the groundwork for Cecilia's career path; she went on to start a successful computer business in Albuquerque, and in 1992, she was selected as one of the top 25 business women of the year in New Mexico. Several years later, Cecilia sold her business and moved to California, where she started a non-profit organization, "Justice for New America" to advocate for the rights of new immigrants.

Before Cecilia passed away in August 2021, she and Dan decided to create the Elinore Barrett and Robert Campbell Endowed Scholarship in honor of Cecilia's beloved professors and friends. Cecilia worked throughout her college career and didn't benefit from any scholarship opportunities. She experienced hard times as a student, and it was important and meaningful for her to give back to future generations.

The Department of Geography and Environmental Sciences is deeply grateful to Dan and Cecilia Chang for their generosity. Their endowed fund will support GES undergraduate and graduate students for years to come, and will keep the legacy of Professors Barrett and Campbell alive.

If you have any questions about donating to GES, please feel free to contact Diana Martinez, Director of Development at Diana.Martinez@unmfund.org.



Cecilia and Dan Chang

*photographs provided
by Dr. Dan Chang*



*Dr. Robert Campbell (left)
Dr. Elinore Barrett (center)
Cecilia Chang (center right)*



Dr. Robert Campbell (center)



*Dr. Elinore Barrett (center left) and
Cecilia Chang (center right)*

GES Faculty Work Overseas

GES Associate Professor Marygold Walsh-Dilley spent just over 6 weeks in Ecuador this summer working on several different projects. Dr. Walsh-Dilley is the director of a summer study abroad program that brings UNM students to Cuenca, Ecuador every other summer for a month of Spanish language immersion, coursework on the Geographies of Food & Development, and trips to the field. The program had been postponed from 2020 when it was originally scheduled to run. During the program, an 18-day nationwide protest and blockade led by the country's Confederation of Indigenous Nations derailed the itinerary but enhanced learning opportunities about social movements, racial politics, and development. Before the blockade, the group did get to visit shrimp and banana producers. Ecuador is one of the world's largest producers of both, and it was interesting to see how the war in Ukraine is affecting exports here.

While she was in Ecuador, Marygold also participated in the annual workshop of the Transect of the Americas research network. This NSF funded project brings together scientists across many disciplines and countries in the Americas to build capacity for the resilience of headwaters and headwaters dependent systems. She was joined at the workshop by GES PhD student **Ria Mukerji** and GES affiliate faculty **Jami Nuñez**. During the week-long workshop, participants looked at the highland páramo marshes from different disciplinary perspectives, explored food-energy-water connections with a site visit to a hydropower project that supports agroecological development in neighboring communities, compared water governance and infrastructure in highland (indigenous) areas versus

lowland (mestizo) areas, and learned the state-of-the-science on water and water politics in Ecuador and South America more broadly.

The Transect of the Americas research network has allowed Marygold to build collaborations with faculty and students in the department of Hydrology and Natural Resources at the University of Cuenca. In the final project that Marygold undertook while in Ecuador, she worked with UCuenca students on a study of the political ecology of páramo conversion. The páramo is a high elevation marshland that serves important ecological functions including water storage, filtration, and erosion control. Páramos help buffer from some of the effects of climate change. But in many communities along the highlands, the páramos are threatened as farmers convert páramo grasslands into improved pasture for livestock, especially for high-efficiency milk production. Dairying often improves rural livelihoods, providing income and requiring less labor and skill. However, the same farmers that convert páramo to pasture are also noticing a real disruption in their ability to irrigate during dry months – an outcome of the combination of climate change and páramo loss. Our project examines the political ecologies of páramo conversion to understand the histories of dairying in the region, examine the distribution of benefits and costs from páramo conversion, understand the social impacts of páramo loss, and explore ways to support rural livelihoods while also protecting the páramo. We learned that shifting migration flows – and the monetary and migration politics of the United States and other countries in the Global North – profoundly shape how páramo conversion happens.



Ria Mukerji and Marygold Walsh-Dilley in the páramos of Cajas National Park in the Ecuadorian Andes.
Photographs by Marygold Walsh-Dilley and Ria Mukerji

“How your geography degree has served you?”

Alumni landing great jobs

William Mehle (BS '21)

GIS Specialist at AECOM

Since graduating from UNM last winter, I've been delighted to use my Geography degree in many different ways. I started out the year working with a tech startup in Washington state designing the new hiking/recreation app, TREAD Map. Recently, I've started at AECOM as a GIS Specialist! A few resources I would recommend (because Indeed and LinkedIn only get you so far) would be job-specific email lists. The substack run by Ali Ahmadalipour, [Geospatial Jobs](#), is an invaluable asset where I discovered my first contract position post-college. Signing up for emails from NMGC (New Mexico Geographic Information Council) is also a good idea. In general, applying to plenty of positions and even applying to some that you'd normally never consider can get you far. Have an up-to-date resume that highlights your best skills, including non-work experience if you haven't been working for long, and you have a recipe for success. Good luck!



Zach Taraschi (MS '18)

Geospatial Project Manager at Souder, Miller & Associates

I would say that while my undergrad from NMSU exposed me to a lot of fundamental GIS and remote sensing topics, it was during my time at UNM I gained a lot of my more marketable skills. While pursuing my Geography degree at UNM I was fortunate enough to have office space in Chris Lippitt's lab and it allowed me exposure to technologies such as 3D reconstruction of aerial photography and GNSS. These more marketable skills gave me a leg up on others when pursuing a career within the Architectural, Engineering and Construction industry.

At Souder, Miller and Associates, I'm the GIS Program Manager, Principal Photogrammetrist, and manage survey projects. As the GIS Program Manager, I manage the companies ArcGIS Online and partnership with Esri. I also educate, consult, and aid in the use of GIS throughout the firms five technical sectors. As the principle photogrammetrist, I establish workflows, QA/QC standards, and accuracy metrics for the companies UAS data. I also refine most of the companies UAS data to produce 3D reconstructed surface models and orthophotography. Within the survey department I perform field work, create digital and hard copy deliverables, and QAQC surveying work under the supervision of a licensed surveyor.



please distribute this newsletter widely

Alumnus supports Ukrainian students seeking refuge

James Bowers (BA '77) who lives in Alaska most of the year and has started the **Ukrainian Student Support Fund** to provide financial assistance to college students seeking refuge at the University of Alaska Anchorage. See link for complete story.

<https://www.alaskanewssource.com/2022/08/31/alaskan-philanthropist-supporting-ukrainian-students/>

JB was at our original formation meeting February 2020, and has helped serve as a sounding board for ideas as we started our alumni chapter. This is just another example of UNM Geography degree holders making a difference. Please tell us what you are doing to make a difference. Please share your story.



photograph provided by James Bowers

CNM and UNM Geography Lay the Seeds of Greater Partnership

In spring 2022, Marissa Isaak Wald of CNM and Miriam Gay-Antaki of UNM, organized the first ever joint induction ceremony of CNM and UNM geography honor societies, Gamma Theta Upsilon. With some poetry, read by CNM inductee **Kevin Carpenter** and the official language from the GTU charter, approximately 15 students and faculty became lifelong GTU members. Membership is based on exemplary work in Geography courses and can be showcased at graduation and on resumes.

Even more important than the honorifics, we hope that this first event will draw CNM and UNM together, with mutual respect, on a path to grow the discipline. These type of events may also prove valuable for students when they consider future career paths. And we hope that this event provides a bridge for faculty to renew relationships between schools, foster respect, and understanding.

Graduate students shared their research topics with the group, hopefully sparking ideas in the undergraduates. Faculty shared drinks, toasting to our students' success.

Gamma Theta Upsilon offers scholarships and a sense of accomplishment to honorees, so that students feel as though they are part of a long history of distinguished scholarship. Especially in this time of disconnection, we felt it was important to gather in person, although we did have at least one student inducted over zoom. We draw our inspiration from Marissa Isaak Wald's mentor, **Dr. Susan Hardwick** RIP, who used to don a globe hat and draw out this induction ceremony in ways both silly and somber.



Even though the event was windy and a bit cold – true to a New Mexican spring day – we hope to hold this joint event every spring going forward, celebrating the accomplishments of our students and cementing relationships among faculty.

Thanks for everyone's participation.

Marissa Isaak Wald

[Read Dr. Isaak Wald's profile at AAG.org](#)



First joint CNM & UNM Gamma Theta Upsilon induction ceremony.

photographs provided by Marissa Isaak Wald

GES Alumni of the Year

This year the GES Department named Robert H. Mallory, class of 1990, Alumni of the year for his efforts to get our alumni chapter formed and up and running. At our graduation event on May 13th, Robert was the keynote speaker and gave a brief history of his career and how he has benefited from his Geography degree from UNM.

More importantly he discussed the formation of the Alumni Chapter and why the chapter is important.

"We are working to build a networking organization around the department just like an atmosphere around a planet. When I graduated in 1990, the word "Jobs" was never even mentioned. Now, thanks to "Big Data," there are all kinds of jobs in GES and to support jobs and opportunities, there has to be a strong network. We call it "The Pathfinders' Network," which is the Alumni "Family" of the Department."

"Today, you become part of a new Family and this Family is spelled with a capital "F." Your new Family has 853 members who hold a degree from the Department. The Family is here to help you thrive, and we do that through networking. The thing about Family, is that Family helps Family. We help by sharing information, as well as by linking people and ideas to help create a path. Our network is our Family and by building our network we enrich our Family. On future Friday the thirteenth, take a moment to remember the day you graduated into the Family. Take stock in what you are doing and think of how you can help other Family members."

He further laid out the Alumni Chapter's Mission and Vision as follows:

"The Mission of our Alumni Chapter is: "To provide a platform for professional development and networking for Geography Professionals in the New Mexico Region."

And our Vision is: "To Build The Alumni Chapter of the Future,"

He ended his comments with the following:

"Please help us build the "Alumni Chapter of the Future" and help us put this Department on the map. (Pun intended.)"

Please help us build by joining us for events, and read and contribute to our newsletters. The best way you can help, is by participating and helping us develop ideas for how to make the chapter productive, relevant and important. The other big help is forwarding our newsletters to anyone you think would be interested.



GES Alumni of the Year Robert Mallory at the May 2022 GES Convocation

Regional Transportation Management Center Tour

On Friday September 30th, our Alumni Chapter hosted a tour of the Regional Transportation Management Center. Our Alum **Steven Montiel '08**, was very gracious in putting together a wonderful tour of the facility which was part of **Chris Duvall's** GEOG 501 class, and open to UNM GES Alumni.

It was great to hear how the Intelligent Transportation Stakeholders within the Albuquerque Metropolitan Area have established a Regional Transportation Management Center that serves as a central command facility for regional transportation management. The facility houses roadway operations agencies, and stakeholders.

The presentations centered on real time alerting of roadway conditions such as traveler information, traffic/incident management, and weather conditions, as well as,

- Co-location/presence for transportation, dispatch, and first responders to coordinate more effectively.
- Coordinated response among roadway operators and responders on incidents and adverse travel conditions for timely incident response and improved public safety.
- Shared utilization of existing ITS infrastructure and deployments among agencies within the metro and NMDOT ITS across the State.

Senior Transportation Planner, and fellow geographer, **Nathan Masek** from the Mid Region Council of Governments gave a presentation on Intelligent Transportation Systems Planning and Architecture and how it relates to geographers and to career paths for GES students. He, as well as Steven Montiel '08 and NMDOT Traffic Engineer, **Charles Remkes**, provided a wealth of information regional transportation planning and practice and brought to life the topic in a working classroom, which is a wonderful way for students to learn in real time.

It is functions like this tour which can really help build the alumni chapter of the future and a much stronger GES Department.

We want to thank Steven Montiel, '08, along with Nathan Masek and Charles Remkes for their work giving us the tour and explaining the logic of what they do to make us all safer.

Geography Matters!



*Regional Transportation Management Center
photographs by Robert Mallory*

Notes from the Alumni Association

The UNM Alumni Association is working hard to connect our alums to UNM, their respective school or college and to the Association. We are so glad to have you as a lifetime Lobo and specifically as a member of our Geography Chapter. And now we hope you will celebrate with us during the Homecoming Happy Hour at Hodgkin Hall. We're welcoming back our alums for an evening of connections, networking as well as food and drink. We hope you will be there on Tuesday, October 18, 5 pm, at the Alumni Center. And stay informed with all of our activities and programs through the monthly Howler emailed to you on the first Thursday of every month. Be a part as we award scholarships to very deserving students from across the country, recognize our outstanding alums, provide career advice and opportunities to students and alums, and find ways to support and be a part of the amazing academic and research programs that make UNM the great university it is!

Connie Beimer

Thank you, Scott Sanchez

Scott Sanchez, who was our Alumni Relations Officer at the UNM Alumni Association, graduated in June with his masters in Public Administration. Shortly thereafter, Scott secured a position as Financial Analyst for the Legislative Finance Committee at Santa Fe. Scott has been a huge help to us getting started. He was always available to lend a hand or to discuss ideas to help us build the chapter.



Scott's strengths are in his professionalism and his ability to get stuff done. He was highly skilled at navigating the ins and outs of the UNM administration and prided himself on his abilities. Scott has a very bright future ahead of him and we wish him our very best going forward.

I have a feeling that we will see more of Scott in the future as he gets settled in his new position and thrives. Scott understands what we are trying to build with our chapter, which is a Family centered around the GES Department. Since we are working with a different management concept and are one of just a few department specific alumni chapters, Scott was able to help us grow and thrive by understanding our approach. We owe Scott a huge thank you for all he has done for us.

On a side note, while getting his Masters degree in Public Administration, he realized the importance of Geographers and once stated that "Geographers provide us with all of our data." He was reminded that GES Professionals provide rigorous analysis before he gets the data.

Best wishes with the State and THANK YOU for your help these past two years. Job well done!

The importance of Geography Awareness Week..

As I write this, preparations are being made for this year's Geography Awareness Week. Teddy Woldeyohannes, Yolanda Lin, among others, are working on producing the event(s) and there is more information in other articles in this newsletter. What is so important about this week of events is that it is a networking event. Please bring your business cards. If you do not have business cards, print some with one of your devices. Students need business cards, too. Networking is an art form and it needs to be practiced. Networks are how communities grow and how Geography Departments thrive.

It would be fantastic if GES Alumni would attend one or more of the events that the team has put together. Networking is very important. Networking builds "The Alumni Chapter of the Future."

Robert Mallory

Manager's Report

Robert Mallory (BA '90)

Our chapter continues to grow. We have been making friends and connections at a steady pace and hopefully providing a venue for GES Alumni to stay in touch with each other and the Department.

- We have been working with The UNM Foundation to help us with development. Diana Martinez who is the Director of Development for UNM College of Arts & Sciences has been extremely helpful with bright ideas, encouragement and feedback. Diana has a clear vision of how a vibrant alumni chapter can help the GES Department grow and thrive. Diana has been invaluable in helping us make connections and navigate the UNM System. The UNM Foundation has been instrumental in helping us distribute our newsletters and is very supportive of our effort.

- This spring we started a [LinkedIn Group](#) - which is growing. The idea is that this group is a good place to share career information. There are a few posts at this point, and it would be thrilling to see it grow and flourish. If you are a LinkedIn user, please add our group to your account and help us grow.

- We are excited to meet our new Alumni Relations Officer from the UNM Alumni Association as soon as the position is filled.

- We helped organize a tour of the NMDOT Regional Transportation Center, which is where the NMDOT monitors hundreds of traffic cameras and where the freeway Dynamic Message Signs are updated. This tour was held on September 30th at 1:30pm as part of Chris Duval's intro-to-grad-school class for MS students, GEOG 501. Special thanks to Alum Steven Montiel BA'08 at MRCOG for his hard work. Steven is also newly appointed to the department's Advisory Board and has helped up build in many ways.

Initiatives we are working on for later this fall...

- ASPIRE Lab Open House. This event will be held on Wednesday November 16th from 4:00pm until 6:00pm. The Open House will showcase the Lab and provide a venue for alumni and current students to visit the Lab and network. Please join us for that. We have a limited number of special parking passes available, so please contact us at. Least 10 days and advance and we will mail one to you. ASPIRE is located in the PAIS Building on campus.

In the works for next spring...

- GES Department Open House. The Alumni Chapter will assist with the Department's upcoming Open House. The date for this is still being worked out as the Department is waiting for new carpeting to be installed in the Computer Lab. Chris Duval has been working tirelessly throughout the pandemic to get the offices relocated and shuffled as a result of getting access to more space in Bandelier East and West. This has been a gargantuan effort by Chris and we hope that alumni will attend and make the Open House a joyous and fun occasion.

Once plans are finalized, we will provide more information to keep everyone informed through our LinkedIn Group, by eBlast and through the various department ListServes. Please consider subscribing to the Alumni ListServe. See the second to the last page of this newsletter for instructions on how to do that. The ListServe is our main rapid communication method for timely information.

The core group of this chapter is working to build an alumni Family. The reason we are all working to build this alumni chapter is because Geography Matters. There are a lot of things that matter, but Geography and GI Sciences are basic to our life on Earth. The more we know about our planet, the more we can preserve it for further generations. It all boils down to Geographers, so building a network of Friends who are interested in helping the Department thrive seems pretty darned important.

As professionals who have graduated from The University of New Mexico Geography Department since 1965, we should all support our program and work to further its mission. Obviously, we all have a great interest in the planet Earth. If not, we would not be Geographers. As a society we need more Geographers, so, we need to make opportunities for graduates and help build a thriving network of UNM Geographers.

We are working to build "The Alumni Chapter of the Future."

Please help us build....

**Share articles, updates, and photographs
for the next issue!**

**Email contributions to:
unmGESalumni@gmail.com**



FALL 2022 COLLOQUIUM SERIES IN GEOGRAPHY

Hosted jointly by

NMSU Department of Geography & Environmental Studies
UNM Department of Geography & Environmental Studies

All events are free and open to the public, they will be held from 3:00-4:00pm MST in Mitchell 102

Friday, September 23

Jennifer Frey - Professor in Fish, Wildlife, and Conservation Ecology in the The College of Agricultural, Consumer, and Environmental Sciences, New Mexico State University (ACES)

"Resource Selection Across Spatial and Temporal Scales Informs Wildlife Conservation" -
Streamed from NMSU

Friday, October 7

Sophia Stamatopoulou-Robbins - Associate Professor of Anthropology, Bard College

"Waste Siege: The Life of Infrastructure in Palestine" (Co-sponsored with ISI)

Friday, October 21

Maurice Hall - PhD, PE, Vice President, Water Environmental Defense Fund

"Resilience from below: Proactive groundwater management and the water future of the U.S. West."

Friday, October 28

Gary Nabhan - W.K. Kellogg Chair in Southwest Borderlands Food and Water Security, University of Arizona

"Climate Friendly Agriculture in the Face of Water Scarcity" (Co-sponsored with ISI)

Friday, November 11

Marygold Walsh-Dilley - Associate Professor of Geography and Environmental Studies, University of New Mexico

"Quinoa: Castaway to Climate Cure-All" (Co-sponsored with ISI)

Friday, November 18 *Murphy Lecture*****

Juanita Sundberg - Associate Professor Geography, The University of British Columbia

"Unstable grounds: Desert soils and boundary enforcement at the United States-México border"

Friday, December 2

Julian Agyeman - Professor of Urban and Environmental Policy and Planning and Fletcher Professor of Rhetoric and Debate, Tufts University

Title TBA - *Streamed from NMSU*

*****Light refreshments will served before each talk at 2:30 in Bandelier East 'lobby' outside of room 105.***

There will also be a happy hour at Hausmann Brewery after each event . **

Geography Awareness Week

Monday, November 14th

Geography Tabling

Duck Pond | Time: TBD

Tuesday, November 15th

eCognition Workshop

Location: TBD | Time: TBD

Wednesday, November 16th

GIS Day

Poster Competition | Academic and Industry Reps. | VR Booth | Lightning Talks
UNM SUB Atrium & Ballroom B | 9:00 - 4:00 pm

Wednesday, November 16th

ASPIRE Open House

Tours | Networking Event
UNM PAIS | 4:00 pm

Thursday, November 17th

Film Screening: Soil, Struggle, and Justice: Agroecology in the Brazilian Landless Movement

Led by Andreas Hernandez (director)
Location: TBD | Time: TBD

Friday, November 18th

Murphy Lecture

Juanita Sundberg - Associate Professor of Geography, The University of British Columbia

"Unstable Grounds: Desert Soils and Boundary Enforcement at the United States-Mexico Border"

Location: Mitchell Hall 102 | Time: 3:00 pm - 4:00 pm



For information: geography.unm.edu | geography@unm.edu | (505) 277-5041



Geography Awareness Week
Nov 14-18, 2022

Wednesday, Nov 16
9am-4pm
Student Union Building, UNM
Atrium / Ballroom B

poster competition door prizes
spatial technology industry experts
geography puzzles lightning talks
virtual reality experience

Brought to you by: Student Association of Geography & Environmental Studies (SAGES)
Department of Geography & Environmental Studies | University Libraries
More info: twoldey94@unm.edu | yanlin@unm.edu

Alumni Communications

At the Department's website geography.unm.edu under the "Keep in Touch" pull down menu there is a list of three Listservs which you might find interesting.

Colloquia & other department events:

publicgeo-L@unm.edu

Job announcements:

GEOG-JOBS-L@LIST.UNM.EDU.

General updates from our chapter:

GEOG_ALUMNI-L@LIST.UNM.EDU

These Listservs are a great way to stay in contact with current events and goings on at the department.

To sign up, follow these steps:

Send an email to listserv@list.unm.edu

Leave the subject line blank

In the body of the email type:

"subscribe (name of the listserv) and your first name and last name" ONLY.

You will receive a confirmation email right back. These listservs are very easy to unsubscribe from and instructions for that are listed not eh "Keep in Touch" page as well.

Please post to the GES alumni listserv whenever you have news or events that might be of interest to fellow alumni. The alumni listserv is an expedient way to get timely information to our community. This newsletter will be published a two times per year and we look forward to this being a forum for sharing articles about both academic and professional work. Please contribute articles about your professional and community projects or applications of geographic research. You can send articles to UNMgesAlumni@gmail.com. We are working to keep our alumni connected and would appreciate more alumni to join us in this effort!

Chapter Business

Help us keep your contact information accurate:

On the UNM Alumni Association Website:

www.UNMALUMNI.COM

Under "Chapter & Groups" navigate to:

"UNM Geography & Environmental Studies Alumni Chapter"

About half way down on the page you will see at red bottom marked "Membership Form"

Please click on that and fill in your information. This will provide the most accurate information to the Association for distribution of The Mirage, our newsletter and any other alumni-related information.

Support our Department!

For many alumni, there is a strong desire to make a difference in our world by supporting future generations of students. If you have been touched by your experience with the Department of Geography at UNM, and would like to support our work, please consider contributing to one of the following funds.

Elinore Barrett and Robert Campbell Endowed Scholarship in Geography:

<https://www.unmfund.org/fund/Barrett-Campbell/>

R.H. Mallory Center for Community Geography:

<https://www.unmfund.org/fund/r-h-mallory/>

Brad Cullen Geography Grad Student Fund:

<https://www.unmfund.org/fund/brad-cullen/>

Richard Murphy Memorial Scholarship in Geography:

<https://www.unmfund.org/fund/richard-murphy-memorial-scholarship-in-geography/>

Friends of Geography Fund: <https://www.unmfund.org/fund/friends-of-geography-fund/>

Department of Geography and Environmental Studies Chair's Fund: <https://www.unmfund.org/fund/geography-and-environmental-studies-chairs-fund/>

Our sincerest thanks go to all of you who have already donated.

If you would like more information about contributing to the Department of Geography, please feel free to contact Diana.Martinez@unmfund.org.



UNM Duck Pond
photograph by Dr. Caitlin Lippitt