department of

GEOGRAPHY

SPRING 2020

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of faculty members Christian Lentz (Chair and Editor-in-Chief), Paul nts Mary Biggs (Text Editor), Lily Herbert (Graphic Designer), an

In photo: From left to right: Maribel Herrera, Chloe Schneider, and rn Ecuador. As part of UNC geographer Diego Riv ent — spent seven weeks studying this environment to learn ho on and water travel through alpine tropical watersheds. This wo researchers understand how carbon emissions affect climate change



COLLEGE OF ARTS AND SCIENCES

LETTER from the CHAIR

It is difficult to formulate a greeting in times of dramatic change that has brought such hardship and sorrow to so many.

And yet.

This pair of words, "and yet", has become my way of reminding myself of the remarkable qualities of the Carolina geography community. Our department had one week to take all of our courses to virtual learning, and yet our staff, faculty, lecturers and teaching assistants worked tirelessly to ensure continuity of learning. Our students have faced disappointment and hardship leaving campus abruptly, and yet they continue to engage in their classes with good will and generosity towards their colleagues and instructors. Our seniors face a heart-wrenching early end to their time with us in Chapel Hill, and yet their work to create an

undergraduate lounge for all future geography students leaves a lasting legacy that humbles us in its spirit and commitment. Research projects have been delayed, and yet our faculty remain amongst the most prolific publishers of any geography department in the country.

Written largely before the pandemic closed UNC's campus, this newsletter is an account of the people who make our broader community so special. I'm struck by the number of additional accolades that have been earned by our faculty even in the short time since the content of the newsletter was finalized. Dr. Valdivia received the University's Tanner Award for Excellence in Undergraduate Teaching, the second year in a row that a Geography professor has received this honor. Dr. Delamater was awarded a prestigious NIH K Award that will fund five years of his research on the relationship between geography and herd immunity (catch him in a new podcast, COVID

Conversations). Graduate students continue to earn awards and accolades that are too numerous to list here, ranging from NSF research grants to fellowships to work alongside community organizations.

And yet, the consequences of the pandemic have uneven impacts upon our community. The financial insecurities of many of our graduate students have been thrown into stark relief, and international students face unprecedented uncertainties. The pandemic has hit household finances and resulted in the cancellation of grants and fellowships that represent years of work. It is here that our geography community, and the committed support of our dedicated donors, has made a true difference. The Stephen S. Birdsall Student Summer Award Fund will support the graduate student research that has made our program one of the most competitive in the country. Our Carolina geography community also reminds



us that in these times of hardship, we can continue to look forward to creating life-changing opportunities for our students. The new Alex T.

Robertson Study Abroad Fund will allow Geography undergraduates to travel abroad and experience first-hand the importance of geography for engaging with the world. We can't wait to share the impact of these programs with you in future years.

Geography matters more than ever, and our work at Carolina continues with unprecedented heart and dedication. Thank you for being a part of it.

Elizabeth Olson

Professor and Chair, UNC-CH Department of Geography



FEMINISMS HERE & NOW SHERAH FAULKNER

Feminisms Here & Now is an interdisciplinary conference organized by Ph.D. students in the Departments of Communication and Geography.

The 2019 theme, "Difficult Attachments," drew from discussions around the conference's three prior themes ("An Interdisciplinary Conversation," "Alongside | Across | Against," and "Continuities and Contradictions") by taking up the complexities of connection, wherever they may lie.

with the Feminisms Here and Now Conference (FHN) in 2018. "When Communications graduate students set this up, they wanted it to be an interdisciplinary conference," Faulkner explains. "The first years were more successful than they anticipated and they wanted to find a way to formalize the connections between our two departments." Faulkner had a political and academic background that aligned perfectly with conference goals.

Geography Ph.D. candidate

Sherah Faulkner got involved

"That first year, I didn't know what I was doing!" Faulkner laughs.

FHN IS "AN OPPORTUNITY TO SEE CAMPUS A LITTLE DIFFERENTLY AND TO SEE WHAT YOU'RE ACTUALLY CAPABLE OF ACCOMPLISHING."

In the past two years, she has drawn on her own interdisciplinary relationships across UNC's campus to arrange a performative keynote by Toshi Reagan, a Black Out Loud art show, a speaker series, and a staff panel, to name a few.

She has empowered other geography graduate students to get involved as well. For the 2019 conference, Andreina Malki (first-year Geography Ph.D. student) organized a panel of activist community groups.

"It was fantastic," Faulkner says. "It was so cool to get to organize a conference around my own interests and realize that other people are interested in this stuff too." Faulkner emphasizes that UNC Geography is positioned well for these kinds of interdisciplinary endeavors and encourages other geography students to get involved with FHN.

NEWS & HIGHLIGHTS

SHARE YOUR NEWS! Visit **geography.unc.edu** for more news. Fill out our form at **geography.unc.edu/gotnews** to share your own news.

faculty news



Dr. Elizabeth Havice and Dr. John Pickles published a book chapter entitled "On Value in Global Value Chains" in the *Handbook on Global Value Chains*.

Dr. John Lepofsky was granted a Curriculum Devleopment Award by UNC's Center for European Studies.

Dr. Elizabeth Olson was awarded a National Science Foundation grant for her project: "Youth, Family Caregivers, and the Geography of Childhood." The study enhances an ongoing partnership with the American Association of Caregiving Youth, and with youth caregivers living in Palm Beach County, Florida.

Dr. Banu Gökariksel led a group of Duke undergraduates for the 2019 Duke Middle East in Europe summer program. They conducted research about migration and refugee spaces in Barlin

Dr. Conghe Song was featured in UNC's *Endeavors* series for his work on remote sensing and changing landscapes in China.

Dr. Clark Gray received an NIH award to investigate climate-induced migration in Sub-Saharan Africa with a focus on how this process varies over space and how destination areas are affected

Dr. John Pickles led a group of UNC undergraduates for UNC's 2019 Summer in Paris program. Students took courses in French and urban geographies, and completed independent research projects.

Dr. Gabriela Valdivia received Tanner Award for Excellence in Undergraduate Teaching. This recognizes both her innovations in undergraduate education and her commitment to excellence in teaching, research and mentorship.

Dr. Christian Lentz, in partnership with the National Humanities Center, won award from the National Endowment for the Humanities to hold a Summer Institute for K-12 Teachers in July 2020. Over 30 teachers from across the US will come to the Triangle for two weeks to learn about 'Contested Territory: American's Role in Southeast Asia, 1945-75.'

Dr. Erika Wise received a 3-year NSF award for her project on "Multi-Century Perspectives on Current and Future Flow in the Lower Missouri River Basin."

PALLAVI GUPTA

Pallavi Gupta is a third-year Ph.D. student studying the intersection of waste, space, gender, and labor relations in India. Last summer, she was one of 10 UNC graduate students awarded a Professional Pathways Fellowship by the Mellon-funded Humanities for the Public Good Initiative.





WHAT DO YOU BRING TO GEOGRAPHY AT UNC? HOW HAS STUDYING GEOGRAPHY HERE INFLUENCED YOU?

I come with a bachelors in law, a masters in social work, and nearly 10 years of work experience in the non-profit sector in India. The strength of geography as an interdisciplinary field has been very rewarding for me. Scholarship in the fields of political geography, feminist geography, and geographical materialism, to name a few, have shaped my current research on space, waste and power.



WHY DID YOU CHOOSE GEOGRAPHY AT UNC?

I had the opportunity to meet Dr. Sara Smith before applying for the program. Her warm personality and welcoming approach convinced me to come here. Equally importantly, the interdisciplinary nature of the department and the ongoing research in various sub-fields of human geography made it a compelling choice for my graduate studies.

IN A RAILWAY STATION"





WHAT ARE YOUR PLANS FOR THE

I aspire to pursue a tenure track position and research questions of inequality based on caste, race, gender, space and labor. I am further interested in building stronger synergies between South Asian scholarship and those here in the U.S.





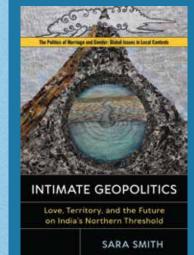


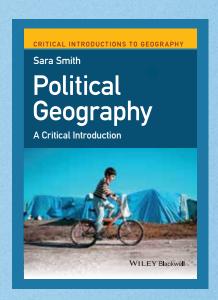
TRACKS AND

STAFF USE A JET PLATFORM.



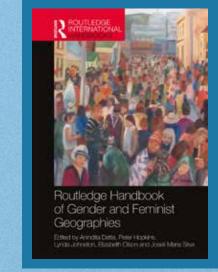
FACULTY BOOKSHELF







Edited by Professor and Chair Elizabeth Olson and colleagues, this handbook features 48 new contributions from both experienced and emerging scholars, artists and activists who critically review and appraise current feminist theory and politics.



SEBASTIAN COBARRUBIAS

Sebastian Cobarrubias graduated with his Ph.D. in Geography in 2009 and joined Dr. John Pickles' research group as a post-doctoral fellow. He has since been teaching in International Studies at the University of North Carolina

This year he and his partner Maribel Casas Cortes (Ph.D. Anthropology UNC Chapel Hill and post-doc in Geography) have now taken up exciting new positions at the University of Zaragoza in Spain. Both were — and remain — active members of 3Cs: the Counter-Cartography Collective.

As collaborating authors, Sebastian and Maribel have written extensively on the changing geographies and cartographies of migration and border management in Europe, with particular case studies of EU policies in Spain and Morocco. Maribel has also written extensively on precarious work and feminist research practice.

Sebastian has joined ARAID, the Development and Research Agency of Aragon's Government at the Geography Department. Maribel has been awarded the very competitive international Spanish Government Ramon y Cajal research fellowship funded by the European Union.

PAUL DELAMATER

Dr. Paul Delamater, Assistant Professor in the Department of Geography, studies the geographic aspects of health outcomes and behaviors, as well as health care access and utilization. His recent research has focused on understanding childhood vaccination, herd immunity, and vaccine-preventable diseases in the U.S.



WHY DID YOU CHOOSE TO TEACH AT UNC-CHAPEL HILL? WHAT WOULD YOU WANT OTHERS TO KNOW ABOUT GEOGRAPHY HERE?

I chose to come to Geography at UNC-Chapel Hill because it is a world-class department at a world-class university. As a health geographer, I was also drawn to the department because of its rich history in health and medical geography. Research conducted by UNC Geography professors Mike Emch, Melinda Meade, Robert Erickson, and Will Gesler (to name just a few) has been highly influential in my development as a scholar.



HOW DID YOU BECOME A GEOGRAPHER?

Free pizza! I began my undergraduate education as an engineering major (because my father was an engineer). After a couple of years, I realized that engineering was not for me. One day, when I was heading into a classroom, I saw a sign for a Geography Open House where they were serving free pizza. I couldn't pass up a chance to get free pizza, so I went to the event that afternoon and was blown away when seeing the components of GIScience (GIS, remote sensing, and cartography) for the first time.



WORD CLOUDS CREATED
WITH VOCABULARY FROM
DELAMATER'S RESEARCH







WHAT IMPACT DOES YOUR WORK HAVE, AND HOW WOULD YOU LIKE TO SEE IT DEVELOP NOW AND IN THE FUTURE?

One of my best early career successes has been my ability to integrate geographic ideas and approaches to population health issues in a way that is interesting to a broad range of people. In the last few years, my research on vaccine hesitancy and vaccine-related policty has been featured in popular press outlets such as the Wall Street Journal, CONN.com, the Los Angeles Times, and Mother Jones. I recently received an NIH K-01 grant which will allow me to ask and answer some important questions about how outbreak risks are associated with geographic clustering of vaccine hesitancy. I think that this work will provide important information that can be used by scientists, policymakers, public health practitioners, and others to reduce the risk of vaccine-preventable disease outbreaks.



TELL US MORE ABOUT YOUR RESEARCH, AND WHAT THE PERSPECTIVE OF GEOGRAPHY BRINGS TO YOUR WORK.

I use GIS and spatial analysis methods to study population health issues. Recently, my work has focused on vaccination, vaccine hesitancy, and vaccine-preventable disease outbreak risk in the United States. Geography plays a huge role in all aspects of this work because the geographic arrangement of beliefs and behaviors (i.e., not vaccinating children because of objections to vaccination) has a direct effect on the risk of an adverse outcome (outbreak). Another very interesting and important aspect of this work is that people's reaction to vaccine-related policy changes is highly variable across space. This results in a highly variable and constantly changing landscape of vaccine beliefs and behaviors and disease outbreak risk.



Cameron Taylor, BA class of 2010, uses her GIS and health geography training in her role as malaria technical coordinator at the Demographic and Health Surveys Program.



As a first year at UNC, Cameron Taylor noticed that a lot of courses she wanted to take were geography courses. "The classes ranged from environmental systems to culture and globalization, but they all fell under the umbrella of geography. I was hooked!" Geography fostered and broadened Taylor's interest in environmental science, and she credits the department with laying the foundation of her career in public health.

During the summers of 2007 and
2008, Taylor worked with Dr. Michael
Emch to integrate GPS data collection
into ongoing vaccine trials in
Lilongwe, Malawi. "My time in Malawi
did more than just build my research
skills," Taylor says now. "It also
introduced me to my love of studying
malaria."

Taylor explains that malaria
epidemiology often varies over
relatively small geographic areas.
Understanding spatiotemporal
variation has important implications
for national programs seeking to
control and eliminate malaria. After
graduating from UNC with her
Bachelor of Arts in 2010, Taylor earned
a master's in public health at Tulane
University.

She continued to work with malaria data using skills in GIS she learned at UNC. After graduating from Tulane, Taylor began working at The Demographic and Health Surveys (DHS) Program in Rockville, Maryland. She is now the malaria technical coordinator at the DHS.

I MET A LOT OF AMAZING STUDENTS,
TEACHERS, AND MENTORS IN THE UNC
GEOGRAPHY DEPARTMENT WHO I STILL
INTERACT WITH TODAY ON A PERSONAL
AND PROFESSIONAL LEVEL. I AM STILL
CROSSING PATHS WITH PEOPLE I KNEW
FROM THE GEOGRAPHY DEPARTMENT
EITHER AT CONFERENCES, TECHNICAL
MEETINGS, OR IN WALKING THROUGH
THE AIRPORT IN NAIROBI! YOU NEVER
KNOW WHEN YOU WILL RUN INTO A
FELLOW TARHEEL GEOGRAPHY MAJOR!

ERIKA WISE

Dr. Erika Wise is Associate Professor in the Department of Geography and head of the Climate and Tree Ring Environmental Science (C-TRĒS) research group.

As a paleoclimatologist, Erika Wise studies climate trends from the past thousand years.

Her methods of inquiry may be complicated — using microscopic crossdating and isotope analysis — but her research begins with something far more common: trees.

Wise studies climate trends from the past millennium through tree-ring science, known as dendrochronology. "I think most paleoclimatologists are actually quite interested in future climate change," she says. "When you want to look at the future we rely on models, and the models can only be calibrated using previous data." By focusing on the past, Wise and her peers hope to gain insight on what's to come.

One limitation of
dendrochronology is that samples
usually provide only one value per
year. For example, a sample can
indicate that, overall, 1725 was a
drought year but discrepancies can
occur within that year. Although
1725 could have been dry on
average, it may have also
experienced lots of precipitation in
the winter due to unusually
abundant snowfall.

To branch out beyond one value per year, Wise partnered with Cary Mock, a colleague at the University of South Carolina. Mock, a historical climatologist, approaches the topic through an entirely different method – human documents, including newspapers, diaries, and shipping records — to study previous patterns. These documents are more detailed, with some measurements taken multiple times per day. Historical climatologists' information can be limited to where humans live, but dendrochronology's strength is in the spatial coverage trees provide. By teaming up, Wise and Mock can fill in gaps of their respective

The two are analyzing records from West Coast states like Washington, Oregon, and California, between the 1840s and the 1860s — the end of what is known as the Little Ice Age and the beginning of climate change due to human actions. "A lot of our storm systems come off the Pacific and can affect the whole country," she says. "And the West is really a place of extremes."



NEWS & HIGHLIGHTS

graduate student news

Mary Biggs (MA student) received UNC's Horizon Award, an NSF Graduate Research Fellowship, and a 2020 summer Humanities Professional Pathway fellowship for her research on landscape, memory, and the U.S. South. She will begin her PhD in our department in the fall.

Amy Braun (PhD candidate) published book chapter entitled: "'Got Algae?:' Putting Marine Life to Work for Sustainability" in Blue Legalities: The Life and Laws of the Sea.

Madeline Giefer (PhD candidate) accepted a tenure-track position as Assistant Professor of Geography in the Department of Geosciences at Austin Peay State University in Clarksville TN

Trey Murphy (PhD candidate) was interviewed by the NPR bureau in west Texas on the booming oil economy and the possibility of a bust. Murphy is currently conducting research on his dissertation related to mineral rights in Texas.

Mark Ortiz (PhD candidate) awarded a NSF DDRI for his project entitled "Visible Cleanliness, Invisible Cleaners: Examining Caste, Waste, and Space in the Railway Stations of Hyderabad City, India."

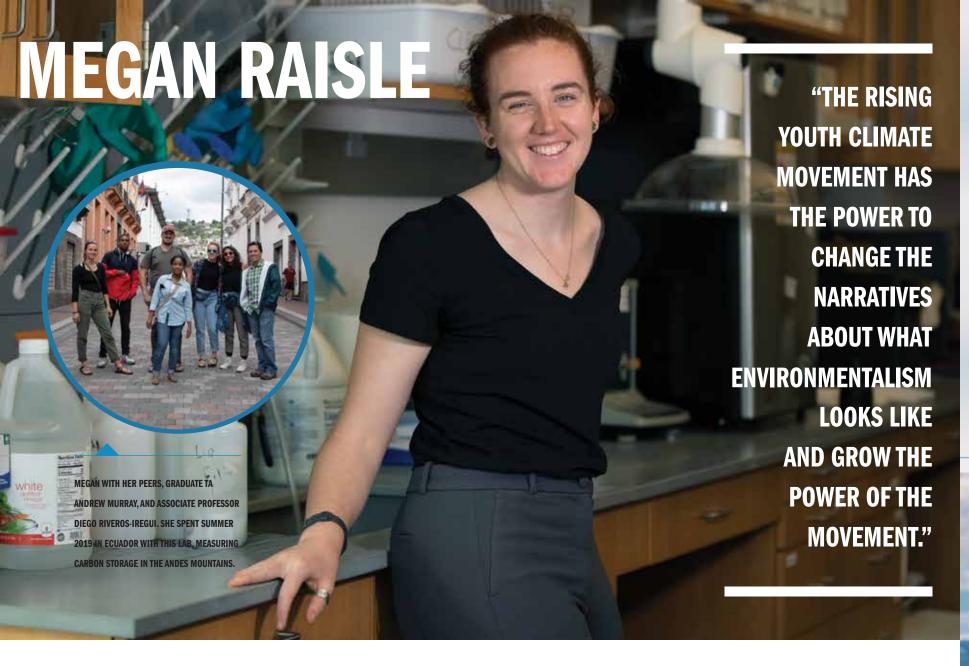
Pallavi Gupta (PhD candidate) received a 2020 UNC Graduate School Summer Research Fellowship for research in India is on, "Visible Cleanliness, Invisible Cleaners: Examining Caste, Waste, and Space in the Railway Stations of Hyderabad City, India."

Adrienne Hall (PhD student) received a 2020 UNC Graduate School Summer Research Fellowship for research in Ethiopia and Zambia on epidemics, the formation of the African CDC, and Pan-African worldmaking and governance.

Prabisha Shrestha (PhD student) received a 2020 UNC Graduate School Summer Research Fellowship for research in Nepal on "The other half of the Community Forestry story: how has women's participation in local forestry governance affected the socio-environmental outcomes?"

undergraduate student news

Geography undergraduate students are refashioning an old laboratory in the basement of Carolina Hall. In collaboration with the department, their efforts will create a social and study space called "the Hurston Lounge" to foster a sense of place and community.



THERE IS SPACE FOR EVERYONE AND EVERY IDEA IN THIS MOVEMENT.

Megan Raisle (Geography '20) is passionate about the environment and our place in it.

Recipient of the the 2020 McNally Award for Excellence in Geography, Megan Raisle's many activities include environmental activism and research.
Raisle was instrumental in organizing the Chapel Hill Climate Strike on September 20th, 2019. She says there has been a renewed sense of purpose within environmental organizations on campus to work together to encourage UNC's administration to take immediate and transparent action to get to net zero water, waste, and emissions.

This winter, Raisle was part of a group of students who represented UNC-CH at the

United Nations Framework Convention on Climate Change's Annual Conference of the Parties in Madrid. "It shone a light for me on the importance of localized, informed action that is fueled by the knowledge that global institutions have failed us and climate activists around the world stand with us."

She encourages all UNC students to get involved. "If you ever want more information, to share ideas, to talk about any of this, or to jump on a project at UNC, I can help direct you."

ADAM HASAN

Adam Hasan graduated from UNC-CH in 2019 with a Bachelor's degree in Geography. At UNC, he completed an honors undergraduate thesis under the mentorship of Dr. John Pickles. Now, one year later, he fills us in on where his geography degree has taken him.



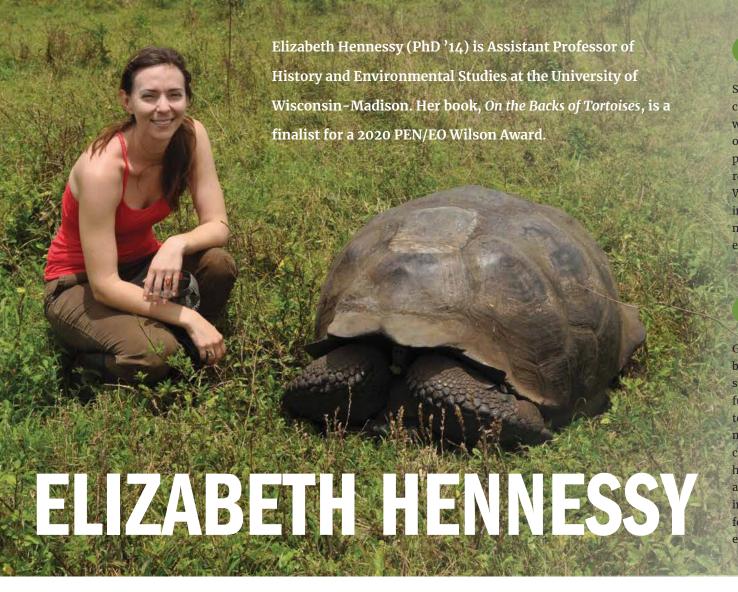
"MY PROFESSORS AND PEERS IN THE UNC GEOGRAPHY DEPARTMENT
HAVE BEEN SOME OF THE BIGGEST INFLUENCES IN HELPING ME ORIENT
MY MORAL COMPASS. GEOGRAPHY CONTINUES TO INSPIRE ME TO STAY
CURIOUS ABOUT THE WORLD, TO KEEP ASKING CRITICAL QUESTIONS, AND
TO WORK TO CREATE MORE JUST, EMPATHETIC COMMUNITIES AROUND
ME, WHEREVER I HAPPEN TO FIND MYSELF."

"I'm a research assistant at the Martin
Luther King, Jr. Research and Education
Institute at Stanford University. I conduct
historical research for the King Papers
Project, an effort of the King Institute to
publish an authoritative 14 volume
collection of King's most significant
speeches, sermons, correspondence, and
other notable documents from his life and
legacy.

Perhaps because of my family's diverse geographic origins, I've always had an affinity for thinking about the world through my relation to my "place" within it. But I usually tell people it's to compensate for falling short of my childhood dream of winning the Tennessee Geography Bee in middle school.

As a geographer working as a historian, I'm often most curious about the places that inspired and framed the Civil Rights

Movement. From political economies associated with industrial plantation systems, to political struggles that emerged in response to urban renewal projects, to the spatial manifestations of voter disenfranchisement, understanding the role of place has always been critical for understanding freedom movements around the United States."



? HOW DID UNC GEOGRAPHY INFLUENCE YOU?

Studying geography at UNC truly changed the way I think and see the world. When I started I never dreamt of visiting the Galápagos or being a professor. In my first semester I remember telling my advisor Wendy Wolford that I wasn't really interested in nature or political ecology—but now I think of myself as a political ecologist.

WHAT GEOGRAPHIC SKILLS AND IDEAS HELP YOU NAVIGATE YOUR CAREER?

Geographic understanding of relations between nature and society – and science and economies – is fundamental to my work and how I teach. I want to understand—and want my students to analyze—how changing human societies and histories of extraction, colonialism, and racism have shaped the world we inhabit today. That basis is essential for addressing global warming and environmental justice.

WHEN DID YOUR PROJECT BEGIN, AND HOW DID IT EVOLVE INTO ON THE BACKS OF TORTOISES?

The project began the summer after I started graduate school, when I was invited on a research trip to the Galápagos. I had planned a research project in Brazil and almost didn't go, but realized I would be a fool to pass up the opportunity. The trip changed my life, and I've been privileged to return now many times for research and to present the book. It tells the history of human relationships with the iconic giant tortoises from Darwin's time to today to show how deeply human and nonhuman life are entangled, and why this understanding is crucial for conservation.

2 AMONG OTHER UNIVERSITIES, WHY DID YOU CHOOSE UNC-CH?

I was excited about the diversity of faculty interests that matched my own. Plus North Carolina was such a great place to live—I miss the mild winters now that I live in Wisconsin.

AMONG OTHER DISCIPLINES, WHY GEOGRAPHY?

Honestly, it was chance. I happened to take great geography classes as an undergraduate in international studies at Miami University, so I thought it would be an interesting field in graduate school, though I had little idea of where it would take me.

IS THERE ANYTHING ELSE YOU'D LIKE TO TELL US ABOUT YOUR EXPERIENCES AS A GEOGRAPHER?

One of my favorite aspects of being a geographer is the emphasis on fieldwork—wherever "the field" may be, we are closely engaged with trying to understand the world as it is and find ways to make it better. That sense of responsibility and action doesn't exist in all disciplines. I feel lucky to have found geography for all the opportunities it has opened for me, and I share that focus on research for social and environmental change with my students.

NEWS & HIGHLIGHTS

undergraduate student news (cont'd)

Chloe Schneider, Maribel Herrera, and Megan Raisle spent last summer in Ecuador as part of the International Research Experience for Undergraduates

International Research Experience for Undergraduates Program, led by Dr. Diego Riveros-Iregui. Their field experience focused on hydrological and ecological data collection in the Tropical Andes.

Students in Dr. Nina Martin's Geography 429: Urban Politics of Durham, NC worked in groups to create a podcast series on urban geography-related topics that carefully examine the transitions underway in Durham.

Claire Strack was awarded a Summer Undergraduate Research Fellowship (SURF) for her project entitled, "Geography of Vaccination Uptake and the Impact of Policy Change in Pennsylvania."

Ezra Rawitsch (Class of 2019) received the 2019 McNally Award for Excellence in Geography and the 2019 J. Douglas Eyre Award for Outstanding Leadership.

Suad Jabr (Class of 2019) and **Adam Hasan** (Class of 2019) received the Melinda Meade Award for Excellence in Undergraduate Research.

JAMES ELLSMOOR

STUDYING GEOGRAPHY GAVE ME

A BETTER UNDERSTANDING OF
THE PROCESSES THAT IMPACT
THE WORLD AROUND ME AND

HAS IMPACTED THE WAY THAT I

THINK TO THIS DAY.

James Ellsmoor knew he wanted to study geography, but not where he wanted to study geography. He originally applied to universities in his native UK, but UNC's Morehead-Cain Scholarship drew him to the U.S.

"My first ever trip to the U.S. was to visit UNC-Chapel Hill, and I was sold!" he says now. "It was the best decision."

While at UNC, Ellsmoor double-majored in geography and economics. Together, both departments gave him a wide breadth of skills and frameworks for analysis. Beyond the course offerings in Geography, Ellsmoor emphasizes the importance of the people within the Department to his undergraduate experience.

"The Geography Department is small enough to have a warm and embracing community while big enough to have a wide breadth of courses – the perfect combination!"

Since graduating, Ellsmoor has founded and continues to direct two companies:
Island Innovation and Solar Head of State.

In 2017, he was recognized on Forbes Magazine's 30 Under 30 List for his dedication to sustainable development and renewable energy.

"Island Innovation is an international consulting and media agency that specializes in environmental issues," Ellsmoor explains. "Our ability to connect disparate communities and work across the public, private and academic sectors was largely inspired by my experiences studying geography."

In 2019, the company's annual Virtual Island Summit was attended by nearly 4,000 islanders worldwide. "We explored many relevant topics from sustainable fisheries to island journalism to cultural preservation," Ellsmoore says.



Asked to sum up his experiences as a UNC geographer, Ellsmoore replied:
"Geography gave me the chance to travel and learn about new places. Best of all, it gave me a community while studying at UNC!"

MAKE A GIFT

Please consider making a gift to the
Geography Department to support our
excellent undergraduate and graduate
students as they become leaders on and off
campus. Even a small gift can make a
big difference.

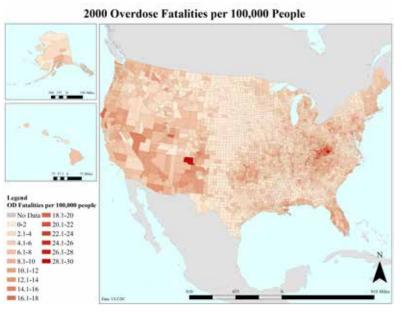
geography.unc.edu/give

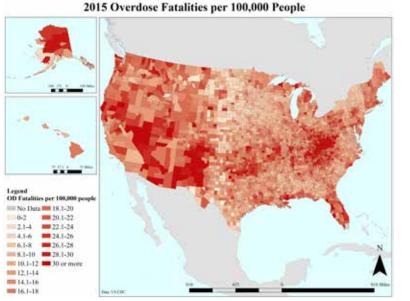
NEW MINORS

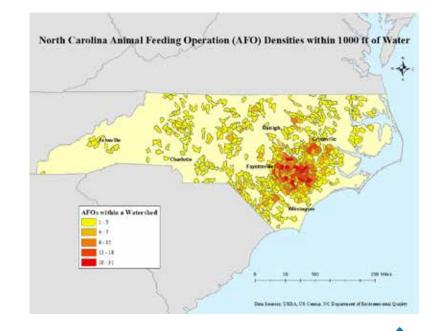
ENVIRONMENTAL JUSTICE

GEOGRAPHY IS TAKING A BOLD AND SMART LEAP TO PROVIDING AN ENVIRONMENTAL JUSTICE CURRICULUM IN THE STATE WHERE THE EJ MOVEMENT STARTED. IT'S BEEN A LONG TIME COMING — AND MUCH IN DEMAND — AND I'M THRILLED THE DEPARTMENT IS LEADING THE WAY.

 POSTDOC & INCOMING ASSISTANT PROFESSOR DANIELLE PURIFOY







ANIMAL FEEDING OPERATION (AFO) DENSITIES WITHIN 1000 FT OF WATER
BY ENVIRONMENTAL SCIENCE MAJOR/GEOGRAPHY MINOR ABBY HUDSPETH & ENVIRONMENTAL
SCIENCE MAJOR CALEIGH SEWELL | FIRST PLACE, 2019 UNC GIS DAY MAP COMPETITION

The new Environmental Justice Minor responds to student interest and a pressing need to understand the human dimensions of environmental change in the state and wider world.

The Minor will train students in critical social analysis of racial,

economic, and political differences as they intersect with environmental concerns. Students will have opportunities to participate in the North Carolina Environmental Justice Summit and the Environmental Justice Symposium.

GISCIENCE

THE GISC MINOR OFFERS THE OPPORTUNITY TO OBTAIN FRESH INSIGHTS INTO THE SPATIAL-TEMPORAL PATTERNS OF SOCIOECONOMIC, CULTURAL AND ENVIRONMENTAL PHENOMENA.

- PROFESSOR CONGHE SONG

Students in the GISc Minor will gain skills in the state-of-the-art geospatial digital technologies, including geographic information systems, remote sensing, global positioning systems, and spatial

data analysis. These skills are in high demand for resource management, planning, marketing, healthcare delivery, environment and health, environmental policy and more.

TRACKING THE OPIOID CRISIS, BY FIRST-YEAR PHD STUDENT DEVON MALONEY
THIRD PLACE, 2019 UNC GIS DAY MAP COMPETITION