

# Projections from the Chair

From the Desk of Professor Dan Trudeau

Cartographers use a projection to represent the complexity of a three-dimensional object on a two-dimensional surface. In the spirit of cartographic projection, this column of *The Graticule* will similarly transfigure the goings-on of everyday life in the Geography Department into a brief discussion.

#### Geography and STEM

Earlier this fall, the Geography Department was able to change its CIP code at the college so that its major is listed among those providing STEM education. This was announced in mid-October; in case you missed it, you can access the statement <a href="here">here</a>. This is a significant development, but it has also raised a couple of questions that I want to address here.

In some of the conversations I have had about this news, people have expressed wonder and even perplexity about Geography's connection to STEM, which stands for science, technology,

Dan Trudeau, Geography Professor & Chair

engineering, and mathematics. Allow me to clarify Geography's association with each.

Science. Mac Geography is firmly situated in the social sciences and one must engage in scientific and learn about scientific methods of knowledge production through a



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variety of contexts in the process of completing the major.

**Technology.** The technology association is perhaps the clearest as Mac Geographers have solid training in Geographic Information Systems and learn to apply and even develop this technology to produce knowledge and understanding about the world around us. Advanced coursework in GIS and in Remote Sensing doubles down on this association.

**Engineering.** The connection to Engineering may be less apparent, but if we consider engineering as a multidisciplinary approach to design that embraces systems thinking, the connections are more visible. A Mac Geography major emphasizes graphic representation and communication, which follow design processes. Similarly, a Mac Geography major centers "geographic thinking," which focuses on understanding specific locations in relationship with wider phenomena and situating them as placed within broader systems that operate at different scales. Engaging in the work of practicing geography, as we do at Mac, is undoubtedly aligned with the operations of engineering.

**Mathematics.** Mathematic thinking is baked into Geography. This is clearly the case in geospatial analysis and cartographic representation, which serve as a form of applied mathematics. However, the software geographers use nowadays automates this, which can separate us from mathematics. Fortunately, a Mac Geography major ensures that applied mathematics is a part of thinking geographically through training with GIS and using statistics to answer geographic questions.

Hopefully, this discussion provides some food for thought or talking points for pondering Mac Geography's connections to STEM.

Another question I have fielded in response to the announcement is whether Mac Geography's major is changing to be more aligned with STEM initiatives. On this matter, I want to clarify that Mac Geography has long been aligned with STEM education objectives and the recent CIP code change only affirms this. In fact, the US government revised its CIP codes in January 2022 and for the first time acknowledged "Geography and Environmental Studies" as offering multidisciplinary training aligned with STEM education. Thus while some may consider this recognition long overdue, we are excited for the recognition all the same and for the additional employment opportunities that international students may now access through a Geography Major.

In sum, the new CIP code does not reflect a change in a Geography Degree from Macalester. Rather it reflects a change in the US government's thinking about the boundaries of STEM education. Speaking for Mac Geography faculty, we are glad Geography is now recognized as a pathway to STEM education. And we look forward to the opportunities that such recognition will offer our majors.

# Geography Majors' Fun Facts

### Whats are Majors' Favorite Food to Cook?



#### Favorite musician or band?



#### Childhood favorite books?

Who would you put on Mt. Rushmore?



Out of My Mind
Calvin & Hobbes
Hondo & Fabian
Harry Potter Series
Flat Stanley
Go Dog Go!

Frankenstein
The Phantom Tollbooth
When You Reach Me
Holes
Life of Pi
Miss Rumphius
Wings of Fire: Darkstalker
Charlie Bone



# Catching Up With Our GTU Co-Presidents

By Cecelia Kaufmann '24 (Geography & Computer Science Major)

On a brisk and sunny day in late September, I had the opportunity to sit down with GTU Co-Presidents, Maura Haas '23 and Noah Velick '23. With the beginning of the new year, I was curious to hear what plans they have for the Geography Department and GTU! I also took the opportunity to ask them to reflect on their time at Macalester and the Geography Department as they start their senior year.



Left to Right: GTU Co-Presidents Noah Velick and Maura Haas

C: Thinking back to your first semester or year at Macalester, what was your first impression of the Geography Department?



### What Is GTU?

"GAMMA THETA UPSILON
(GTU) IS AN
INTERNATIONAL HONOR
SOCIETY IN GEOGRAPHY.
MEMBERS OF GTU HAVE
MET ACADEMIC
REQUIREMENTS AND SHARE
A BACKGROUND AND
INTEREST IN GEOGRAPHY.
GTU CHAPTER ACTIVITIES
SUPPORT GEOGRAPHY
KNOWLEDGE, AWARENESS,
AND COMRADERIE."

-GTU WEBSITE

(THEY ALSO OFFER SCHOLARSHIPS)

<u>JOIN HERE!!</u>

M: My FYC was Geography of Environmental Hazards with Eric Carter. I thought I was going to be a sociology major and I enjoyed the approach that Geography takes but then the community of the Geography Department appealed to me as we moved through the semester and the year. Just meeting other people in the department and professors were great! I declared in October or November of my first year... mostly because I was told I could get into GIS but then I didn't...I don't regret it though!

N: Similar story, I took Holly's contemporary Mongolia FYC and I loved it. I was going to do International Studies but the Geography events were fun and I liked the people! I somehow got into GIS second semester of my first year and I liked the class and really vibed with the people and went "this is it!"

C: That's awesome! I feel like I have a very similar story with how I ended up in the Geography Department -- Urban Geography with Dan Trudeau, Module One, and it was all up from there! On that same note, what are you going to miss about the Geography department?

M: I will miss the Mac and Geography communities when I go onto my job, there is not a ton outside of that. When I have been in this Macalester bubble, where everyone is very welcoming and thinking

about equity and justice, it's difficult to go into that corporate world where it goes away or gets pushed to the side. That's something I am really battling internally right now, I really appreciate the Mac perspective and looking into the justice stuff and how to bring that into a corporate setting.

N: This morning I logged out of my internship computer after three and a half hours of working and I walked to campus to eat lunch and go to class. I was thinking 'It's so nice to be on campus!'. I will miss people interactions!

C: I feel like I have already started to preemptively reflect on the things I will miss when I leave Macalester. I think that there is something to be really said about the community here. I will definitely miss it! Now, switching gears: What can we look for with GTU this year?

N: We set some goals at the beginning of the year where the main one was to increase social interaction between, students but also between students, staff, and faculty.

M: Especially with the pandemic that was something that was really lacking over the past couple of years. We got a taste of that at the beginning of our first year and it's coming back, but more of it.

N: We feel like the department is a little divided based on the classes someone takes. I have never taken a class with Bill or Eric because those aren't the areas I am as interested in and then you don't get to know the student or faculty within those classes. I think the goal is to expand social interactions with the people outside the subdiscipline you're in. We also, thinking back to the sit-in last year, we want feedback from students on how and what the Geography Department can do better, how we can hold each other accountable. A way for students to communicate with staff and faculty that isn't as scary as approaching them. And continuing to identify ways that white supremacy is a part of our department and discipline, and work to disentangle that from the department and discipline. Not a short-term goal, but one that we hope to move forward this year.

C: Thank you so much! I am looking forward to some of these goals being enacted because this is really important work. Last question, what is some advice you would give to current students at Macalester?

To read Maura and Noah's advice, click here!

### **Announcements**

#### Macalester Registration for Spring 2023

Mac Registration will be open soon! Make sure to <u>sign up</u> if you need to get on a waitlist for Intro to GIS, Remote Sensing, and Indigenous Futures. And check out all geography has to offer for this spring.

### Leland And Kathleen Hansen Geography Research Endowed Fund Open

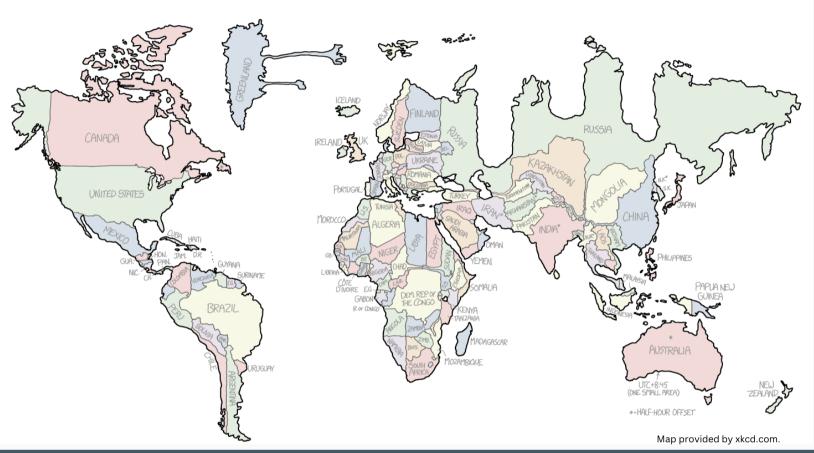
As featured in last month's Graticule in Milosz's spotlight, the fund supports students involved in summer research in the field of urban geography. <u>Deadline for this years application is Feb. 7, 2023</u>.

# BAD MAP, Great Map, AND COOL MAP

KINDA COOL THO

BAD MAP PROJECTION #79:

WHERE EACH COUNTRY SHOULD BE, BASED ON ITS TIME ZONE(6)



# Celebrating Geography Awareness Week

November 12- Kick Off

"Human Toll" museum field trip, please register in advance

#### November 15- Geoguesser Trivia And Pizza Night

Come enjoy some pizza and test your geography skills at CARN 304 from 7:30 to 9 PM

#### November 16- Tea and Cookies with GTU Co-Presidents

Tea, biscuits, and plenty of pleasant conversation at CARN 104 from 2:15 to 3:15 PM

#### November 17- Barcus DeWitt Wallace Endowed Lecture and Celebration (please register to attend)

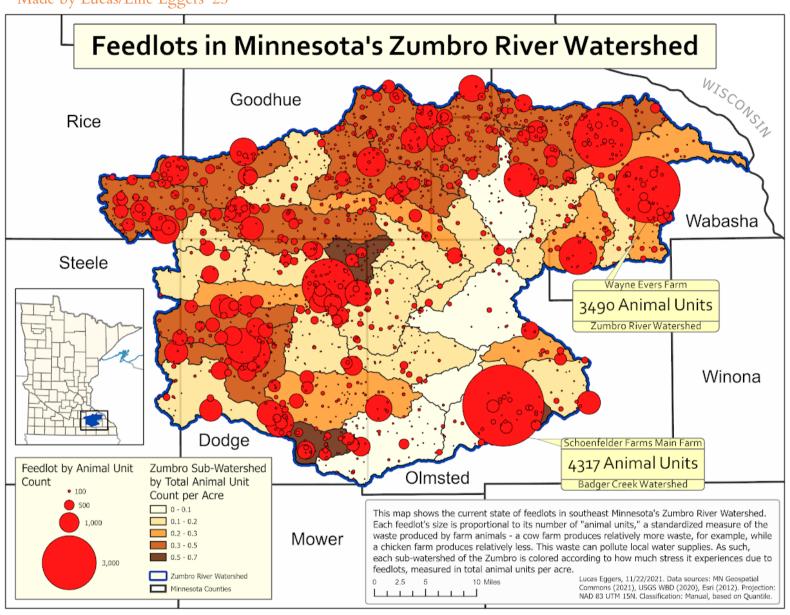
The Importance of Place: Exploring Geographies of (Im)Mobilities, Landscapes, and People 4:45-6:45 PM, Alexander G. Hill Ballroom, Kagin Commons, Macalester College

THE GRATICULE

# BAD MAP, Great Map, AND COOL MAP

### **Great Map**

Made by Lucas/Ellie Eggers '25



Save the Nates

Lunch for Juniors November 3

Geography Awareness Week November 14-18

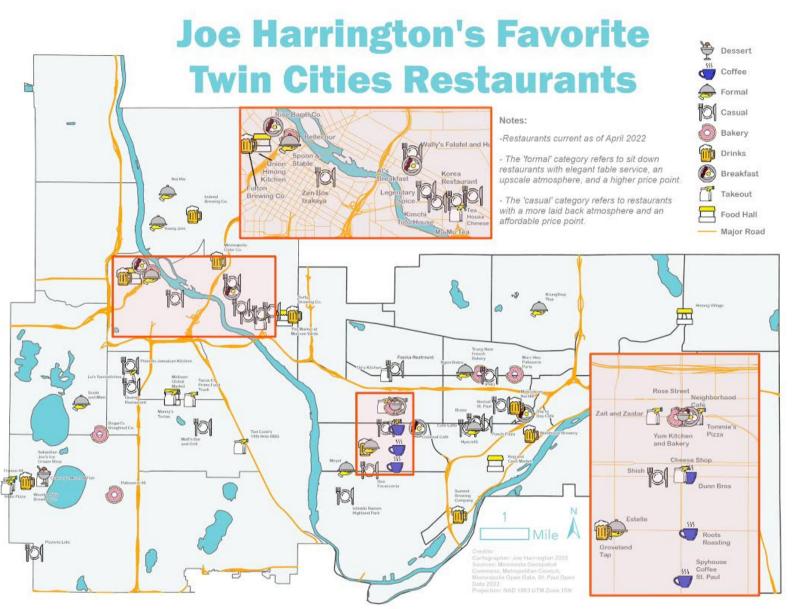
Professor Barcus's Endowed Chair Lecture and Celebration November 17

> Geography Winter Dinner November 28

Save the Notes

# BAD MAP, Great Map, AND COOL MAP

## COOL MAP



Joe Harrington '24

# Welcome Back Kelsey McDonald!

Don't let her PhD in epidemiology fool you. <u>Kelsey McDonald</u> is a geographer through and through. Trained first in geography (MA San Francisco State University), she brought those skills to epidemiology (PhD Univ. of Minnesota, School of Public Health). Next, she used those skills with her German (BA in German) in a postdoctoral fellowship at the Center for Urban Epidemiology (now the Institute for Urban Public Health), University Hospital Essen, Germany. Clearly a creature of the liberal arts, she enjoys teaching at Macalester and has taught several courses, including Health GIS, Intro to GIS, and Epidemiology. Kelsey will join us again Spring 2023 to teach Health GIS.

# Faculty Spotlight



Holly Barcus (she/her)

Holly Barcus has been teaching geography at Macalester since 2005, specializing in the complexities of rural places and their rich intersections of migration, ethnicity and community. Her journey in geography began in part with the variety of places she grew up in which inspired curiosity and a need to understand how people accessed, comprehended, and were affected by place. This early movement and the community surrounding her also helped an early observation that the connections or depth of roots to a place is not inherently tied to time in space. Holly got her BA and MA in geography at UNC Charlotte, before earning her PhD at Kansas State and later a MAPS degree from The National Australian University. Prior to coming to Macalester, she taught at Morehead State University in Eastern Kentucky, giving her an opportunity to work with many first-generation students from rural backgrounds and HUD. From Appalachia to Mongolia, Holly has collaborated and worked with a population focus to explore participants' place identities and decisions and the complex factors that inform their movements and feelings towards space.

In addition to her work in geography, Holly is the Director of the Asian Studies Minor and has co-authored *Lives Across Space*: An Introduction to Contemporary Populations Geographies with Keith Halfacree. However, her proudest accomplishment at Macalester has been her partnerships with students in learning and engaging with the world and seeing their success and innovation after graduation. She encourages new geographers to follow their passions, that geography has a place for everyone's interests. She also advises an intentional investigation of your post-gradation goals and work values. For example, what's the job and what class may help prepare for it? And what work environment do you want to work in? If you are a new geographer, she looks forward to seeing you in Intro to GIS, and promises you that the Spain Map isn't that scary.

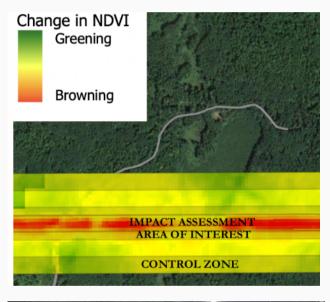


Holly at IGU Executive Committee Meeting with colleagues

Fun Holly fact: In her spare time, she loves to hike, bike, and paddle board with her family and probe expressions of space through the material such as in food, pottery, and glass (she has even dabbled in glass blowing).

# Student Spotlight

Left to Right: Brennan Standel '24 (conference assistant) and Jacob Orser '23, at the 2022 MN GIS/LIS Conference.





2022 MN GIS/LIS Conference, Bemidji, Minnesota

# Jacob Orser (he/him) By Brennan Standel '24

Jacob is a senior geography major and just placed second in a project presentation competition at the Minnesota GIS/LIS 32nd Consortium! The consortium is a yearly gathering of GIS professionals from wide-ranging fields such as local government, insurance, utilities, agriculture, surveying, etc. It provides a space to connect fellow GIS users and learn from the expertise of others. This year Jacob provided some of that expertise in presenting his project measuring the impact on vegetation from the Line 3 construction.

Jacob began his project in Professor Xavier Haro-Carrión's Advanced Remote Sensing class before presenting at MUGS and than being nominated by the department to present at the consortium. His project asked "if the impact of Line 3 construction on vegetation extend beyond Enbridge's stated environmental impact assessment?" To answer this question he employed NDVI (metric for plant health) derived from Copernicus Sentinel 2 images, land cover classes from NLDC, and change metrics to calculate any change in vegetation. His findings noted no significant difference in the area of interest and his control, meaning Line 3 did not impact vegetation beyond what it said it was going to.

The most challenging part of his project Jacob believes was the lack of revelatory findings. Jacob still thinks his project and projects like his are important to contextualizing information and laying the groundwork for future work. He encourages anyone and everyone to be unafraid of getting into the weeds with projects. Your passions don't have to be related to your capstone instead you can let loose and connect with your interest and the passions of your professors. Jacob is grateful to the Geography Department and Professor Haro-Carrión and thanks them for all the support and opportunity of the consortium. In the future, he is looking forward to refining his project with the help of criticism, insights, and tools from the consortium and applying it to new areas.

# Where Are They Now?

# Finn Odum (she/they) Class of 2021

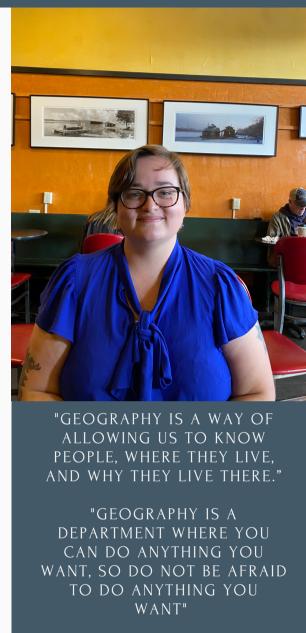
Interview by Cecelia Kaufmann '24

Finn is currently working at a tech non-profit as a Communications and Development Coordinator "I'm kind of a 'Finn of all trades' because I was hired for social media work but I have taken on a number of roles in my time." Finn was a Geography Major, a concentration in community and global health, a minor in media and cultural studies. a little bit of body text

# Give us your backstory! How did you end at Macalester and where you are at?

"So when I was in high school I had a geography class that was basically life-changing and that's how I decided to become a geography major. I thought 'This discipline can help me with basically anything and any field I wanted to take on'. When I got to Macalester I was placed in Eric Carter's FYC, Regional Geography of Latin America and he was my advisor from the jump, but I also took a Media Studies course with Michael Griffin and fell in love with the class... and then I decided that this could be a little side thing because of my love of film."

"My sophomore year I had an internship with the Midway Coalition and I was doing research about community benefit agreements and how that affects the community in regards to the soccer stadium down there and so I sort of started to grow a love of community work and just that kind of... Geography is a way of allowing us to know people, where they live, and why they live there."



-FINN ODUM

"I had this whole four-year plan with my major, minor, concentration and I was going to do an honors thesis based off the work in Midway on the new soccer stadium and gentrification and accessibility to resources but then the pandemic hit and I had a grant from Macalester so Eric and I put our heads together and went 'Hey you have the media studies minor, what if you looked at how social media impacts COVID-19 information' and so it sort of turned into a love child of my three disciplines; Geography and how the internet is a geographic space, and then public health and issues of safety, and then social media and the epistemology of social media. And then at the same time, someone whom I worked with on a project for Dan Trudeau reached out to me and said 'Hey, I know you did social media at Macalester, I have a Mac alum who is looking for a position that sounds like it would be a good fit for you. And here I am! I feel very lucky to have had that experience.

Continued on page 12

I think for some Mac students, the pressure of Mac can be really hard and some people just do not have that same access."

"My mother and I did an MN college tour where we did Mac, Carleton, and the U [of Minnesota]. My mom LOVED Carleton, I did not love Carleton to the point that I told her if I have to go to Carleton I would be a Film major and she would have to deal with that... I come from a family where we pursue our interests but we didn't really have the money for me to pick a major that didn't have a lot of clear career prospects. We came here and they split us up, so I went on one tour and my mom and sister went on another I don't really know what it was that made me feel like I clicked here but I just remember something washed over me and when I met up with my mom and sister after the tour...they were like 'we could see you here, this is where you are meant to be' and it was all kind of uphill from here."

"I think as Geography majors we are thinking about the place all the time but it is a small campus in the middle of two great cities and we sit at this intersection that has places to hang out immediately and transportation access, it just felt like it made sense."

#### What else were you involved in during your time at Mac?

"I was on the rugby team, I played all four years and was president my senior year, which was a really important experience for me...not just because I had a second family but because it was a very queer-friendly space. I have been out most of my life, I'm bi but being in a space where everyone was gay but it wasn't necessarily a gay rights org, it was really good to have as a resource. I was in and out of faith orgs...I was on student government senior year...I wrote for the Mac Weekly and the Hegemonicle, and I led Habitat for Humanity. Going back to the "ideal Macalester experience", you are encouraged to do a lot and stretch yourself thin and I definitely was stretched thin. I had to drop stuff which was a hard thing to do when you love everything you are doing...I also worked those four years."

To read Finn's "Shout Outs" to Professors Carter and Chang and Finn's advice to current students, click here.

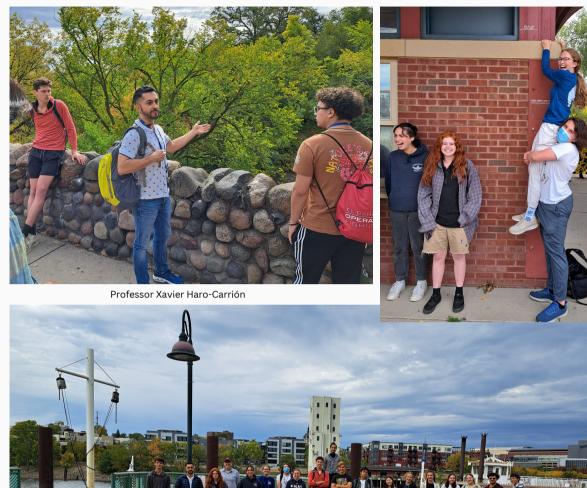
# **Geography Open House!**





# Out & About

### **Environmental Hazards and Physical Geography Joint TC Field Trip**



# THE GRATICULE

Newsletter of the Macalester Geography Department

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44.938951, -93.169306 macalester.edu/geography

### Support Geography

When giving to Macalester, consider making a gift to the Geography Department. To direct your gift to our programs, please select "other" in the "designate gift to" option and write "Geography" in the comments. Your gift will support high-impact activities, including field trips and professional development opportunities for students that are a signature part of the Macalester Geography experience.