MACALESTER GEOLOGY

FALL 2026 NEWSLETTER

GREETINGS FROM THE CHAIR
RAY ROGERS

Hello again Macalester Geology Alums. Another school year is in full swing, and we have lots of news, updates, and excitement to share in our Fall Newsletter!

To get things rolling, let's start with ARGENTINA! You might remember from our last newsletter that Kristi and I traveled to Argentina in January 2024 to plan a trip for the department. And so, this past January, it happened! Five faculty (Ray, Kristi, Kelly, Emily, Jeff) and 16 lucky geology students took the long journey from St. Paul MN to San Juan Province, Argentina. Our two-week adventure explored amazing rocks and fossils of the Argentine Precordillera. We traveled together in five 4WD Toyota Hilux trucks all over San Juan Province, visiting countless rocks, fossils, and incredible landscapes along the way. We spent a few lovely days in Ischigualasto Provincial Park, home of the oldest and best-preserved dinosaurs (two of which are on display in our hallway) and one heck of a lot of guanacos! We then headed due west and drove deep into the Precordillera. Our wonderful Argentinean colleagues and friends Carina Colombi and Juan Drovandi were outstanding guides throughout the journey, and they made sure that we had our fair share of rocks, empanadas, carne, and Malbec. Our trip included a hike up Cerro Mercedario (8th highest peak in the Andes) in the Frontal Cordillera (we made it to ~13,000 feet – we only had 9,000 more to go)! We concluded our journey in Buenos Aires, where we shopped for soccer jerseys and enjoyed a tango show before returning home to the cold north.



Argentina, January 2026













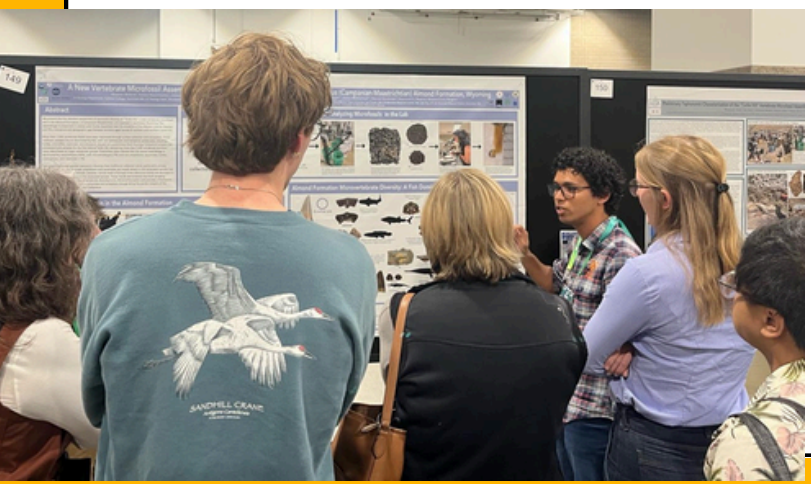




(Ray cont.) Summer was spent, as usual, largely in Montana. Before heading to Montana, Kristi and I co-led a Keck Geology Consortium Gateway Project in southwest Wyoming. Ten students, including three from Macalester, worked with us to decipher the rocks and study the fossils in the Upper Cretaceous Almond Formation. We also collected some ash beds in the unit and we now have brand new high precision U-Pb ages to report for the Almond. Once the Wyoming project finished in mid-July we headed out to Montana to continue various projects on the strata and the fossils (including a plesiosaur that is still spilling from the rocks) and the fish (trout). Mac geology alum Jansen Smith (class of 2012, now a professor at UM Duluth) joined us out in Montana in early August with his own students. Jansen is starting a new project on the clams and snails of the Judith River Formation. We look forward to working with Jansen and his students in coming years.

On the teaching front, I am doing my upper-level sequence stratigraphy course again this fall (after a seven-year hiatus) and we have been field tripping in the Cambrian and Ordovician of Wisconsin and Minnesota, devoutly chasing and characterizing surfaces of significance. The late summer and fall weather has been ideal for field forays, and I am planning my next outing to the Ordovician as I type.

Just a few weeks ago most of the faculty and several students hit the road again to attend the annual meeting of the Geological Society of America in Denver. All of our Keck students reconvened and presented their research at the meeting, as did many Mac Alums and current students! It was great to see so many Macalester friends at the meeting, and almost all came to our alumni event at the Rhein Haus restaurant a few short blocks from the Convention Center. Thanks to all who attended!



Ray, senior Ava Ver Ploeg, '27, and alum Patrick Sullivan '16 check out a local outcrop in October



In other news, we sadly had to say bon voyage to Oberg Postbac Alexandra (Alex) Parr ('25) in July. Alex did great work during her time as postbac, and, after some vacation time in Ecuador and a stint on a research vessel that sailed from Guam to Hawaii, she is now off to Nevada, where she will work in the Mojave Desert monitoring springs. Our new Oberg Postbac is Violet McCann. Violet's senior honors thesis focused on microbial taphonomy and fossil bone modification at the micro-scale, and she continues to spend quality time in the Keck Lab chasing her interests. We all look forward to spending this year with Violet! Thank you again Rollie Oberg, class of 1960, for making this endowed postbac position possible.

Kate Anders, our now fully seasoned Department Coordinator, continues to keeps things organized and on track around here. We all owe Kate a big shout out for driving this newsletter to the finish line!

To close – things are still going great in Mac Geology thanks to the support and generosity of our alums and the college. We continue to accomplish our goals and enrich the learning experience for our students. Our classes remain well enrolled, and we presently have 40 declared majors and 5 minors. Nine majors graduated this past spring, and 14 more will graduate this coming spring. Go Mac Geology!

Felipe Nascimento, '29, was one of several students who presented on the Keck group research at GSA.

SPECIAL THANKS

Generous alums and department friends help make it possible for us to take care of our students, support collaborative summer research, reduce costs for amazing field camp opportunities, and keep Mac Geo culture strong. We thank all our recent donors for their gifts and continued support.



Ray, Emily, Mary Anderson, and Jeff in front of the agate display cases

ANDERSON COLLECTION RECEPTION

Mary Kazeil Anderson is a department friend and benefactor who kindly donated an amazing agate and mineral collection now displayed outside Jeff's office. This September we were finally able to host Mary, her sister June Kazeil, and niece Lu Harper, for a reception and talk celebrating the history of the family and collection. Lu put together an amazing slideshow and shared rich and vibrant details that center these wonders of nature in the landscape of one family across three generations. Watch for an article in the next issue of Macalester Today (link to come) on the event, and stop by to bask in the splendor of the collection.





(left) Lu Harper and Jeff presenting; (right) Mary and June getting ready for the talk

ALAN CHAPMAN

The 2025-2026 academic year was all about readjustment for me. Readjustment to off-trail life after hiking the Pacific Crest Trail in summer 2025; readjustment to not chairing the department; readjustment back into a teaching headspace; and readjustment to getting relatively small doses of adventure via trail running.

Last year I taught intro level “Geohazards” (i.e. all the ways the earth can take you out) and upper level “Structural Geology” (i.e. breaking rocks) courses. I balanced teaching with progressing on a few conventional manuscripts, while also carving out at least 15 minutes every day to progress on a book I’m assembling on the geology and landscapes of the Pacific Crest Trail. Progress is slow but steady.

In summer, 2025, I supervised Ellie Smith (’28), Jack Riley (’28), Mosissa Tadesse(’29), and Zoe Zachary (’29) on field-based projects in Southern California. Together, we sampled mafic inclusions in subduction-related rocks, with the goal of figuring out where they came from. Do they represent fragments of subducted oceanic plateau? Subducted “normal” oceanic crust? Forearc basement? A bit of geochronology, isotopes, and rock chemistry should provide some answers!

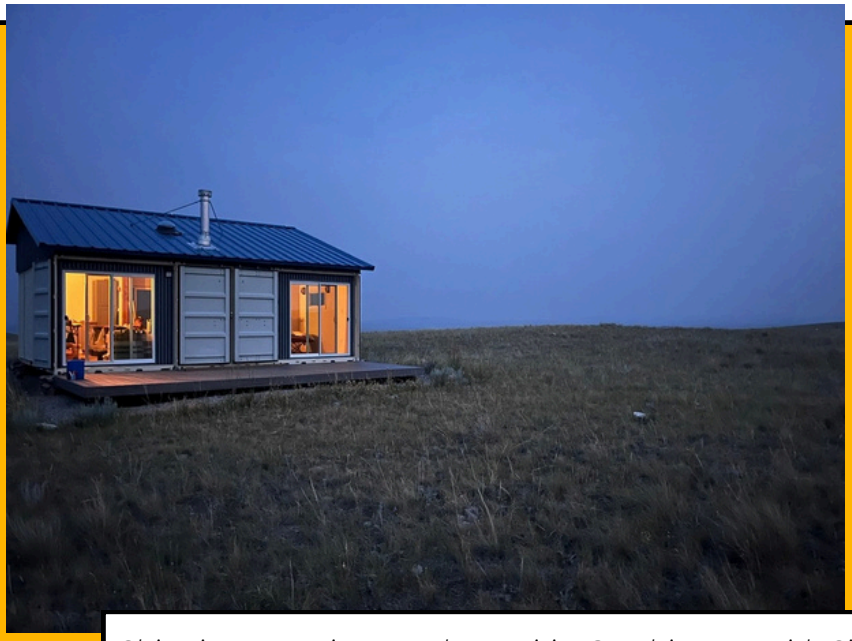
Bring on the 2026-2027 academic year (my twelfth!) at Macalester! When I’m not at work or running, I’m hanging out with my besties – my wife Kelly, our high school sophomore Gabriel, and our 8th grader Jake.



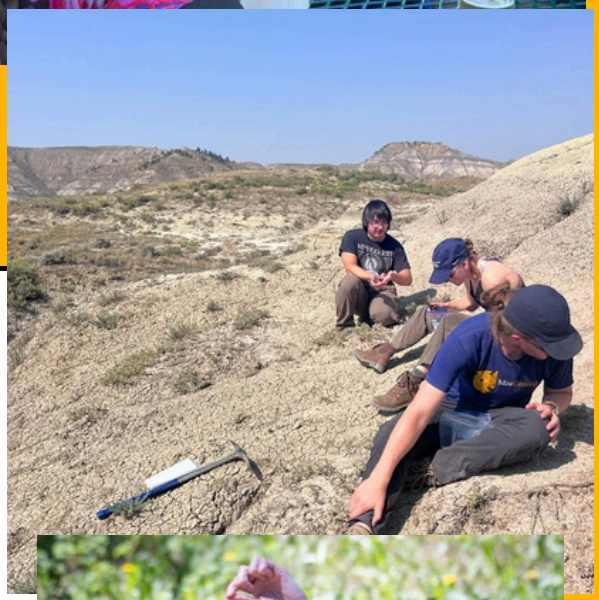
Macalester Geology hosted an event at the Rhein Haus during the GSA conference in Denver this October. Faculty, staff and current students had a blast catching up with the 30-ish alumni who attended and represented graduation years spanning 2002-2026.

KRISTI CURRY ROGERS

It's hard to believe that summer has already wound down and the new school year is well underway. I guess that packing the summer full of fun, including research, fieldwork, fishing, and cabin creation makes time fly! I kicked off summer break with a productive visit to the Denver Museum of Nature and Science, where I got to hang out in the fossil collection with alum Sierra Swenson '17, who has been working with our collections from the Mahajanga Basin Project (Madagascar) over the last few years. While in Denver, I also got to check in with Julia Ricks '22, who is working in education and outreach at the DMNS (and created a whole play about Mary Anning, of early paleo fame), Brooke Noonan '23, who was just back from field work and headed to a new job in Utah, and Marisa (Zuul) Luft, '24, who is working with the DMNS teen science education program. It was an awesome mix of reconnection and reflection on old bones – my perfect kick off to summer!







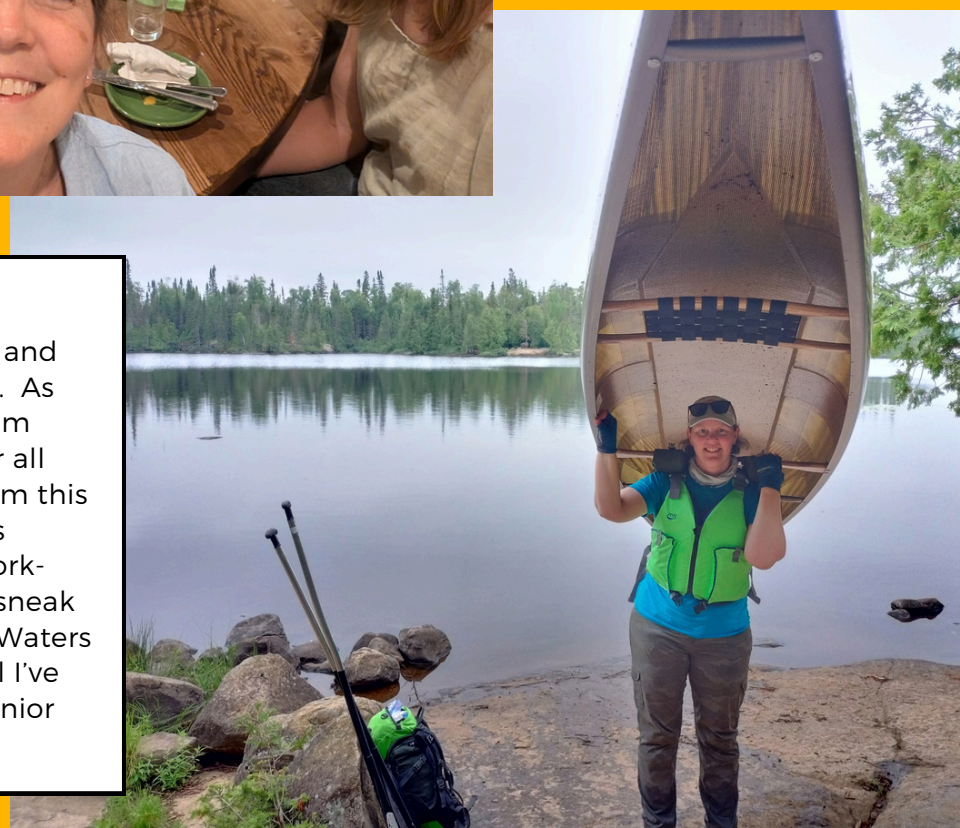


Shipping container on the prairie; Catching up with Sierra; Matt and Julie; Jansen Smith and UMN students; Tiny Trout

Soon after Denver, Ray and I welcomed 10 rising sophomore students to Macalester as a part of a Keck Geology Consortium Gateway project. Along with Jeff Thole and Alex Parr ('26, our fantastic postbac), we worked with this group of students, which included four Mac students Felipe Nascimento, Izel Moix, and Ana Ramirez (all '29) and Kathryn Teske ('28) served as a near-peer mentor over a five-week period in June and July. We started off in the microfossil world in the lab, and then headed to Rock Springs Wyoming to explore rocks and fossils in their native environment. From there it was off to Montana, where we visited our old stomping grounds in the Upper Missouri River Breaks National Monument where we collected at the plesiosaur site that we first worked in the summer of 2024. We also got to connect with Mac student Andy Grott ('27) who is working on a senior thesis on Hell Creek Formation microvertebrates, and Jansen Smith ('12) and his undergrads from the University of Minnesota Duluth, who were collecting clams and snails from our old sites in the Breaks. It was a whirlwind of a summer, full of fossil fun, fly fishing, and exploring new and old places.

April 2026, Students celebrating Jeff Thole on receiving the 2026 Staff Outstanding Service Award





KATE ANDERS

Hello from OLRI 116 - the department office and home to both the Coo and the geo-flannels. As usual, I'm kept busy with paperwork, problem solving, and provisioning pizza/treats/tea for all manner of events. The photo above was from this summer when we said farewell to last year's postbac Alex Parr. What a fun and joyful work-family we have! This summer I was able to sneak in a trip with my husband to the Boundary Waters Canoe Area despite forest fires. And this fall I've also been busy as my daughter starts her senior year of high school.

Keeping Warm over the last of the Jökulhlaup feast (winter BBQ)





Kelly, Cate Stacy, '29, and a water sampler (from their field work this past October)

KELLY MACGREGOR

Hello amazing Mac alumni! The last year has been busy and wonderful, including visits and connections with some of you! Fall 2025 had me teaching Geomorphology (still heading to Minnehaha Creek for the Rivers Project!) and a First-Year Course (Dynamic Earth and Global Change) with a wonderful field trip up to the North Shore with Jeff and our postbac Alex Parr. Good weather and great swimming, although Soudan Mine was closed for visits due to a power outage and subsequent flooding of the tunnels (it is back open now!). I'm sure you'll read about our January trip to ARGENTINA (it was AMAZING!) – Ray and Kristi did an incredible job of planning and running logistics, and I got to enjoy a surprise hike up to a glacial meltwater stream and view of Andean glaciers and high peaks. Driving a manual transmission mining truck, drinking an "occasional" glass of local Malbec, and getting to know our amazing students were all highlights! It was a rough re-entry to come back to Operation Metro Surge in the Twin Cities. Spring semester was busy with Surface and Groundwater Hydrology, including visits by several alumni and a great trip to Emily MN to sample wells as part of a partnership with the Emily Mine Information Group (there is a proposed Mn mine in the area). Current student Cate Stacy '27 continued working on this research over the summer – we got to do an additional round of summer well sampling and will be collecting more data in October to support the community and Cate's honors thesis. I also taught Geocinema last spring – still enjoying the terrible geology movies and using them to inspire those science-wary undergrads!

I spent last year learning the ropes as co-Director (with Karl Wirth!!!) for the Keck Geology Consortium (Keck Project). We just found out in August that our NSF REU project was funded for the next four years – the funding will help support summer research opportunities for ~17 students each year. We received some additional funds from a fairly new philanthropic organization (Maxwell/Hanrahan Foundation) that was a wonderful source of funding for this past years' cohort of students (including a project offered by Kristi and Ray in Wyoming!). In June I started another co-Director gig (this time in Macalester's Center for Scholarship and Teaching), so I'll be splitting time between Olin-Rice and my 3rd floor Library office doing faculty development work. I had a couple of manuscripts published (one from my research in Glacier National Park, MT and another from my research on native river mussel flume experiments at St. Anthony Falls Lab) – it was great to see that work finally get out! I still enjoy reading novels, hanging out in my garden, and going for runs with friends and colleagues. We are fully empty-nesting now that our youngest is a Macalester junior! I miss so many of you and would love to hear how you are doing!

FIELD TRIPS FALL 2026



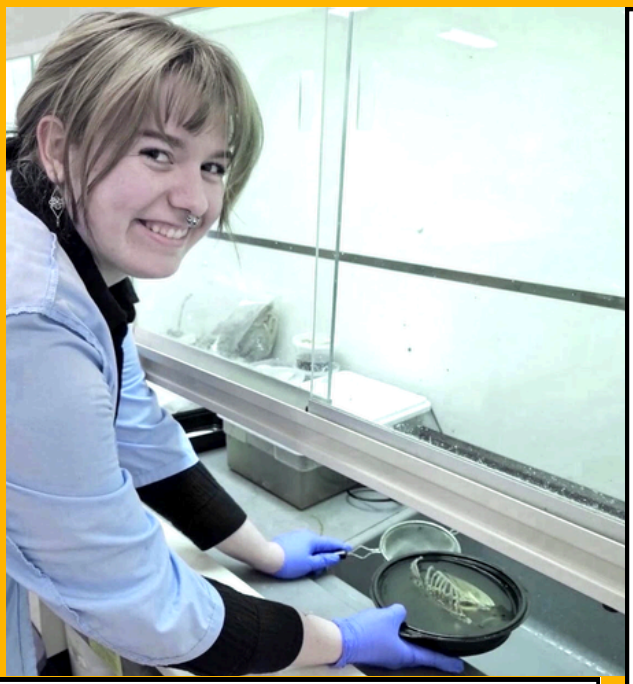








(from top) Fall 2026 Mineralogy, Lake Superior;
Archean Pillow Basalt;
Advanced Stratigraphy at the great unconformity;
Dynamic Earth touring Soudan Underground Mine;
Autumn in Jay Cooke State Park



Violet macerating a wood duck skeleton in the SMM bio lab

POSTBAC SIGNING-ON

Hello! My name is Violet Shay McCann, and I am over the moon to be this year's post-baccalaureate department assistant! I graduated in spring with majors in Biology and Geology and minors in Chemistry and English. I also completed an honors thesis in the geology department on microbial tunneling in fossil bones.

Over the summer, I continued volunteering in the biology collections and exhibits at the Science Museum of Minnesota, interned at the Minnesota Transportation Museum, worked for a historical fiction publisher, and worked on a project with the Mac Anthropology department! In October, I'll be presenting some of the work I've done for my thesis at the Midwest Geobiology Symposium.

Thank you so much to the geology department, and to Dr. Rollie Oberg for this opportunity. I can't wait to spend the year fine-tuning my microscope skills and looking at rocks and bones.

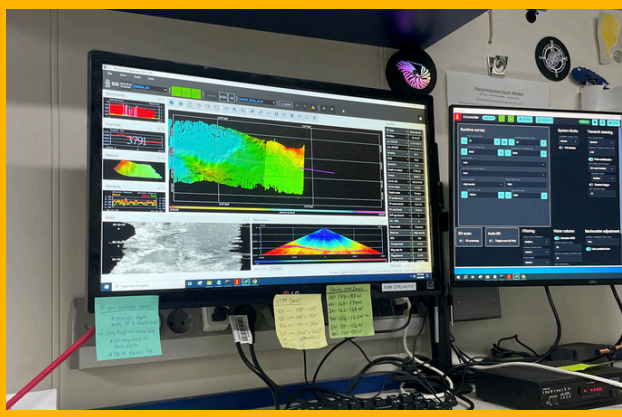
POSTBAC SIGNING-OFF

In late August we got this update from last year's postbac, Alex Parr '25, who was off to wild adventures and an amazing 31-day internship:

Hello from the Pacific Ocean!

We left from the Port in Guam a few days ago and we are currently heading eastward towards Wake Atoll. We have had a couple days of rough weather and have more days on the horizon because of Hurricane LaLa but I haven't had any issues with seasickness. So far, it has been great and the people on the ship are very nice and helpful! I am now both the seafloor mapping intern and the ocean science intern (because the ocean science intern had to drop out last minute). I have watches for seafloor mapping where I have to keep an eye on the Multibeam sonar data coming in and make little adjustments if it is looking weird, process the data (AKA "cleaning lines"), and also keep an eye on the Sub Bottom profiler and make adjustments (this one is more elusive and no one seems to really understand how to interpret the data). We also launch XBTs which measure water column data. "Launch" is a dramatic word for it, it is more like dropping something off the side of the ship that has a tiny copper wire attached. As the ocean science intern, I will act as a data logger during ROV dives (sending the robots down to collect samples and videos) and help process the samples that come up. Since we are in transit, those tasks won't start for a couple of days and I can focus on learning the mapping side of things. The dives are all livestreamed and they write updates on their website if you are interested.



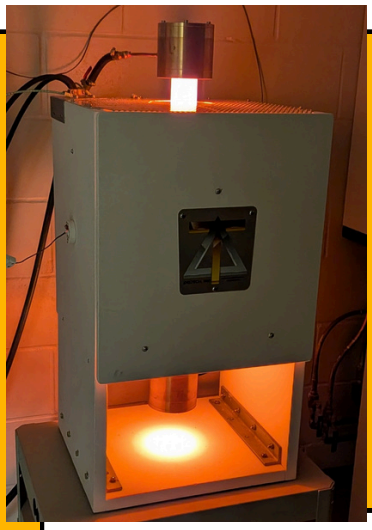


Congrats!

Congratulations to the 9 majors who graduated in May, 2026:
(left) Lily Hatrick, Caleb Bartlett, Brenna Somdahl-Sands, Scarlet Dunning, Liz Trevathan, Henna Schecter, Violet McCann, Sadie Cutler, Grace Bettenburg



From left: New laboratory furnace glowing red-hot for the first time. Lab Selfie! And machinist Dave Bailey fabricating the top seal for my furnace tube







EMILY FIRST

Hi Mac Geo friends! This past academic year was a big one. In the fall, I taught a bumper crop of Mineralogy students (20!), and in January I spent two incredible weeks in Argentina with our Mac Geo J-term crew. Spring semester was my pre-tenure sabbatical, during which I published a co-authored paper with physicists from Georgia Tech, including my own father! We examined the mineral ilmenite in a sample from the Moon, and our findings could be leveraged to better quantify the redox conditions of lunar magmas. For that to work, we would need to run some experiments…

Luckily, I know just the place. In the spring and over much of the summer, I got down to the nuts and bolts (literally) of setting up the experimental petrology laboratory. And the process continues! I am particularly grateful to have the support of our college machinist extraordinaire, Dave Bailey, and recent UMN PhD Sanath Aithala, now a visiting Assistant Professor at Gustavus Adolphus College. Together we managed to install heating elements, program the furnace controls, get the cooling line working, troubleshoot a host of equipment issues, and at long last, test the furnace. The low buzzing and pumpkin-orange glow of a furnace at rock-melting temperatures brings joy to my heart!

This summer I also supervised three research students. Jorge Mico-Crump and Tyler Smith made great progress investigating the rocks in our backyard – our rock garden. Delilah Acosta started a new project on lavas from Mauna Loa volcano (Hawai'i), thanks to ongoing collaboration with USGS scientist Kendra Lynn. As we begin this new academic year, I'm reveling in the memories of another tropical volcanic island, Réunion. The island combines spectacular geology, delicious food, and my husband's family. We were able to visit this August, and our 6-year-old met the French side of his family for the very first time. Here's to another great year!



Summer research crew lunch



Réunion island: A view up the 2007 lava flows to the steep volcanic cliffs beyond

LETTERS FROM FIELD CAMP



"Thank you for supporting my experience at Hydrocamp! I learned a great deal, and now find I can much better visualize a career in hydrology for myself. I was introduced to a number of different field techniques—pump tests and slug tests, land surveying and sediment description, even an introduction to GIS and computer modeling! My favorite of our activities was stream gauging on the Mississippi River.

On top of that, I was able to take advantage of IBSL's incredible location right on Lake Itasca to spend free time paddle boarding, biking, and kayaking in a gorgeous state park."

- Ellie Smith '28, attended UMN Hydrogeology Field Course





"Thank you for helping fund my experience at Hydrocamp! I enjoyed deepening my understanding of hydrogeology by diving into the complexities of north-central Minnesota's glacial aquifers and conducting a wide range of fieldwork. I gained so many valuable skills, including aquifer testing, stream gauging, surveying, well-bailing, and measuring groundwater-surface water interactions. I also strengthened my data interpretation, mapping, and technical writing abilities. This course affirmed my passion for hydrogeology and desire to pursue a career in the field. I am grateful to have had the opportunity to learn from a variety of incredible UMN faculty and guest lecturers as well as connect with geoscience students from other institutions. I also loved taking advantage of the beautiful trails and water at the UMN Itasca Biological Station and visiting the Mississippi headwaters! Thank you again for your generosity. I hope many more Macalester geology students can participate in this impactful field camp in the future!"

- Cate Stacy '27, attended UMN Hydrogeology Field Course





“This summer I had the incredible opportunity to travel to Scotland for a month-long geology field camp at the University of St. Andrews. Going into the summer, I hadn't expected to have an experience like this. But with help from scholarships and Macalester's donor-funded financial support, I was jetting off to Edinburgh before I knew it. Though I lacked a few prerequisites and was admittedly less than confident in my geology skills, I was set on embracing this opportunity and gaining as much as possible from it.

After a week of introductory field work around St. Andrews, we spent the remainder of the month driving all across Scotland, doing field work at a diverse variety of locations. Though the mapping assignments were initially daunting, the supportive environment and increasingly hands-on lessons made the endeavor so rewarding despite (or perhaps because of) the difficulties I faced. Between the seemingly endless field mapping, cross sections and geological history reports, I gained immense experience in an aspect of geology that is difficult to reenact in the classroom.

But more than anything, it was the relationships that made the experience for me. I made so many incredible friends from all across the US with a wide range of experience and interests. Between our close-knit mapping groups and evenings spent in the pub alongside our instructors, we grew very close, and are planning a reunion next year.

Again, I am so incredibly grateful to have gotten this opportunity. Regardless of the future paths I pursue, I am confident what I've learned this summer will serve me well going forward at Macalester and beyond.”

- Ben Grijalva ‘27, attended University of St. Andrews’ Geology Field Camp in Scotland

ALUMNI UPDATE

Helicopter pilot Jesse Naiman '93, of Pathfinder Aviation helps fight fires and supports U.S. researchers in Antarctica. He stopped by the department last spring while his daughter was on a tour for admitted students. It was great hearing his stories and he was kind enough to share this follow-up message and photo:

Good Morning - I'm the guy who popped his head in your door while my daughter was on a campus tour and attending a class. Graduated from the department in 1993, as did my brother in 1997.

My daughter has been admitted and will be attending Macalester this fall. She's looking at Econ stuff, but I guarantee she'll be in a geology course or two…

I appreciate your time, and the mac geology shirt (see attached photo). It's been keeping me warm on these cool late summer Chilean mornings as we finish off our fire fighting contract.

Thanks again, and enjoy the pending springtime!

Jesse



Hey Alums - what have you be up to? We would love your updates, greetings, or stories. Send them to kanders@macalester.edu, or stop by and visit!