

The Boulder RUNdown

Summer 2024 Newsletter



Cover Photo: Folded meta-sedimentary rocks in a roof pendant of the Sierra Nevada Batholith in Kings Canyon NP. Scott Wilkerson for scale.

Department Review

Tim Cope, Chair

Hi everyone, welcome to the Boulder RUNdown! It's been two years since our last newsletter, and somehow I have ended up as chair. You'll all be pleased to know that I was initiated in grand fashion. As we do every semester, the chair hosts a lunch for majors and prospective majors in Fall 2022. Earlier that week, Scott was challenged by a student in his Earth and the Environment class to a footrace, which he lost. At the lunch, Scott raised his hand to announce that he was planning to retire from racing. All I heard him say, however, was "I am announcing my retirement...", which nearly gave me a heart attack!

Scott didn't retire, thank goodness. However, there has been one significant departure: our administrative assistant Rachel Curtis retired in January 2023. Many of you remember Rachel because she took so many of our classes and attended many of our events and field trips. She was replaced by the wonderful Hope Sutherlin, who now occupies the windowed office on the second floor landing in Julian. We still see Rachel from time to time, along with others who have recently retired: Jim Mills visits frequently to cut and image thin sections for continuing archaeological research with Pedar Foss and Rebecca Schindler. Jim also joined me and my Field Experiences class over Spring Break 2023 for a week in Death Valley!

The Department of Geology and Environmental Geoscience now consists of three faculty members (Cope, Brown, and Wilkerson) specializing in the three core components of our program (soft-rock, hard-rock, and structure, respectively); in addition, all three of us teach a broad swath of environmental offerings. Last year, we brought a part-time faculty member aboard for one semester. Marty Ryan is a professional hydrogeologist working in the Indianapolis area, and he taught Hydrogeology as a part-time faculty member in Spring 2024. Marty was a terrific colleague who brought a lot of professional experience and real-life examples to

the table. Students really seemed to enjoy his course!

We've been working over the past two years to bring in more guest speakers to offer our students a cross section of professional and academic career paths in the geosciences. We were very fortunate to host the renowned paleontologist **Lisa White**, Director of Education and Outreach at the University of California Museum of Paleontology (and also DPU President Lori White's sister!) in April 2023. Over a three-day visit, Lisa met with all of us and students, gave several talks to the department about her work at UCMP and opportunities in geosciences, and delivered a keynote address for a HHMI Diversity, Equity, and Inclusion Symposium at DePauw. It was a whirlwind visit! We hope to have her visit again soon.

We've had a diverse and dynamic slate of distinguished speakers and alumni come to visit or speak remotely since our last newsletter: in Spring 2022, **Chris Amidon '02** remotely shared his work with the National Park Service in Isle Royale; in October 2022, **Ben Magnin '20** presented remotely on his work with rare-Earth mineral deposits in Colorado; **Forrest Kunkel '15** and **Nick Williams '15** visited campus together in November 2022 to share research they'd done in graduate school and highlights of their work in industry; in October 2023, **Lauren Schaefer '09** gave us a virtual talk about her work with landslide hazards for the USGS; in March 2023, **Mark Loomis '06** remotely shared some of his work with the Great Lakes region of the EPA; also in March 2023, **Hannah Hensel** (UC Davis) visited campus to share her work on coastal ecosystems and the impacts of paleontological/geological resource extraction on Native American lands; **Collin Davidson '21** presented remotely in April 2023 about the Hydrogeology of the Grand Canyon area; **Bryce Brown '20** presented his graduate school geochronology work on recent tephra in the Canary Islands in October 2023; **Dan Kelleher** (Midwest Geosciences Group) led a workshop entitled "*Taking the Mystery out of the Subsurface*" in October 2023; **David Lampe** (USGS) visited to speak to us about the USGS Ohio-Kentucky-Indiana Water Science Center in February 2024; in April 2024, **Vanessa Gonzales '17** visited campus to share details of her work in the environmental

consulting field; in April 2024, **Tyler Donaldson '16** presented remotely for us on her work as a geoarchaeologist; and in May 2024 we had a visit from **Kelly Brown** (Current Consulting, LLC) about her work with the White River Alliance. All of these visits and talks were terrific! They were well-received and very informative for our students.

The pandemic certainly depressed our enrollments for a period of time, but we are recovering in spectacular fashion. In fact, next year I am pleased to report that we will be graduating one of our largest classes ever! AY 2024-2025's **class of rising seniors is 21 students strong**, which is larger than any class we have had in our department in at least the last 20 years. Senior Seminar will be taught in two sections this year! There are **currently 31 majors total in our department**, a number that we expect to grow in coming months—a testament to the dedication of our faculty in recruiting and retaining students in our department, to the strength of the Environmental Fellows Program at DePauw, and to the rising interest among DePauw students in environmental science.

We have continued to offer field trips, conference trips, and hands-on activities for our students. We continue to lead local field trips to the **Nature Park** and **Shades State Park** for students in our Earth and the Environment class, and to the Mansfield Formation at **Cagle's Mill** and **Turkey Run State Park** for Sedimentology and Stratigraphy. Scott Wilkerson leads his trip to **Baraboo, WI** for Structure and Tectonics and to several local sites for Environmental Geophysics and Map Interpretation. In Fall 2022, I led a co-curricular week-long Fall Break trip to Colorado and Utah for 12 students, which included visits to some old standards in **Canyonlands, Arches**, and the **San Rafael Swell**, as well as sites en route in Kansas and Colorado. Over Spring Break 2023, Jim Mills returned to co-lead my Field Experiences trip to Death Valley and the Resting Spring Range in California for 12 students. In April 2024, Marty Ryan and I led a field trip to **Mammoth Caves National Park** for 13 students in Marty's Hydrogeology class. Our students attended the GSA National Meeting in Denver in 2022 and in Pittsburgh in 2023, as well as the NC-SC joint sectional meeting in Springfield, MO in May 2024. In addition to

hands-on work with drones, GPR/seismograph/electrical resistivity units, the SEM, XRF, & XRD, and various other types of instrumentation, we have recently purchased a new set of water-quality meters for use in our classes and research.

The Department of Geology and Environmental Geoscience celebrated our Centennial Anniversary in 2021, which means as of 2024, we now have been around for 103 years! Although the Department has had several names over the years, reflecting the growth and broadening of our science, our department culture remains the same: we have always been a student-centered department that is committed to preparing citizens of our planet to live an informed and productive professional life—wherever their careers may take them. With your continued support, participation, and success as graduates of our program, we hope to continue our tradition of producing excellent geoscience professionals well into the Anthropocene!

- Tim



Dusk on the Shafer Trail, Canyonlands National Park during Fall Break 2023. Photo: Tim Cope



Kyra Copp '25 was one of 8 STEMSEAS students who joined Dr. Lisa White during Summer 2023 on a 9-day voyage from Honolulu, HI to Sidney, BC on the E/V Nautilus (<https://nautiluslive.org/cruise/na150>). Photo: Lisa White



GEOS 220 field trip led by Tim Cope over Spring Break 2023 to Death Valley, CA (sometimes known as Deatn Valley!). Photo: Tim Cope

**Dept. of Geology & Environmental Geoscience
Endowed Funds & Scholarship Awards**

Department alumni are incredibly generous with their time, talent, and treasure. They often ask how they can best support the department with their donations...that is a great question! The financial landscape in higher education is constantly changing, so the best course of action would be to work with folks in [Development & Alumni Engagement](#) to direct your donations to Department of Geology & Environmental Geoscience (GEOS) endowed funds. Currently, the department has three GEOS endowed funds from which we can budget expenditures:

- the **Geoscience Discretionary Fund** (a default fund for GEOS donations that can be budgeted to support expenditures at...well...the department's discretion),
- the **James A. Madison Fund for Research** (income from this fund can be budgeted to support GEOS faculty-student research activities), and
- the **F. Michael & Dorothy W. Wahl Endowed Fund for Geosciences Field Trips** (income from this fund can be budgeted to support GEOS field trips).

Your gifts to these endowments allow the department to thrive and to support learning opportunities for our students that we simply could not accomplish otherwise. The department decides how to best use these funds to support our mission, subject to fund donor agreements and to budgetary approval by the administration (sometimes using income from these funds before dipping into our annual department budget).

The department also recognizes GEOS majors who have shown academic excellence and outstanding department citizenship with named awards (see below). Monetary support from these awards typically is incorporated into students' financial aid packages.

Ernest R. "Rock" Smith Memorial Scholarship

2023: Kyra Copp '25, Dipson Pradhan '25, Danielle Sommerman '25, & Claire Wolfe '24

2024: Josh Krusenklous '25 & Lauren Cote '25

Charles L. Bieber Memorial Fund

2023: Katelyn Adams '24, Caleigh Claar '25, Callum Dalenberg '25, Nicholas Emanuelson '25, & Kelsang Shrestha '24

2024: Danielle Sommerman '25 & Mikah Mayes '25

H. Richard Gault Memorial Scholarship

2023: Mikah Mayes '25

2024: Dipson Pradhan '25

**Charles M. & Frances Wylie-Condit
Science Scholarship**

2023: Lauren Cote '25 & Quincie Simmons '25

2024: Caleigh Claar '25 & Callum Dalenberg '25

Ken Brown

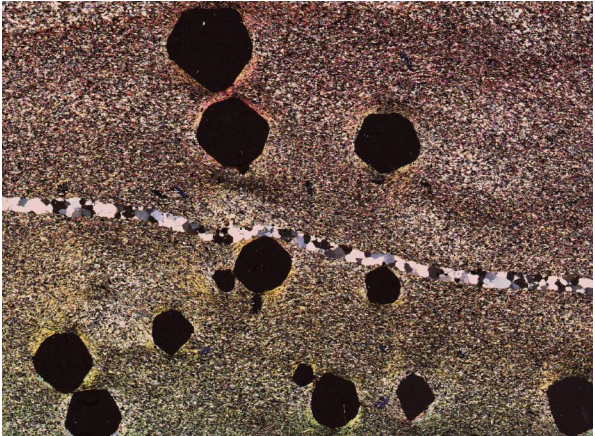


Greetings from Greencastle! It's been a busy, but exciting two years since our last newsletter. In December 2022, Emily and I welcomed our daughter, Raya, to the family. We absolutely love watching her grow up, but she is definitely growing way too fast. It's hard to believe that she is almost two years old already! Besides being fascinated by the gravel within our flower beds, I am happy to report that Raya has already added “rock” to her growing vocabulary – so it won't be long before she is saying cool geologic words like *monoclinic*, *porphyritic*, and *tectosilicate* (don't worry...she is already learning the universal truth that *rocks and minerals* are fun). Speaking of how fast time has gone by, a few GEOS majors might even recall the lecture I gave on geologic time in GEOS 110 (Spring 2023) while holding Raya as an infant. Looking back on that moment I realize that nothing will get you thinking about time more than holding your three-month old child while talking about geologic time!

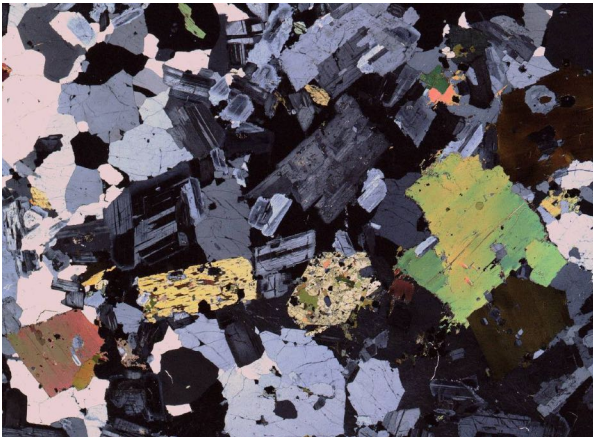


This past spring, I enjoyed a pre-tenure leave that allowed me to focus my energy on updating teaching materials, publishing scholarly works, and spending more time with my family. One of my pre-tenure leave projects focused on updating lab materials for Mineralogy (GEOS 280) and Petrology (GEOS 320). During this leave, I created over 150 new thin section slides that span a broad range of minerals and rocks specimens (see photomicrograph examples). There is no doubt that this new collection of slides will give GEOS students more opportunities to expand their knowledge of Earth materials and participate in research. I'm definitely excited to explore these

samples with students in the upcoming academic year.



Photomicrograph of a Garnet Mica Schist containing idiomorphic garnet porphyroblasts and abundant fine-grained quartz, biotite, and muscovite.



Photomicrograph of a Hornblende Biotite Granite containing euhedral plagioclase (showing oscillatory zoning), anhedral quartz and orthoclase feldspar, subhedral biotite, and euhedral hornblende grains.

My research has also been quite active over the last two years. In fact, I collaborated on two environmental research projects with **Dr. Philips Akinwole** (DePauw Biology) that utilized the department's portable X-ray Fluorescence Spectrometer (p-XRF). In late 2022, we published a study that investigated the impacts of anthropogenic pollution on microbial ecology within the Des Plaines River (Chicago, IL). More recently, Dr. Akinwole and I published a study that examined the ecotoxicological response of soil microorganisms to contaminated Superfund soils and microplastics. I also published a peer-reviewed article with colleagues at Miami University that

investigated the contamination found within a 1985 bottle of Johnson’s baby powder. This study also utilized department instrumentation (pXRF and XRD). The bottle of baby powder contained evidence of asbestos-form minerals as well as high concentrations of nickel (Ni) and chromium (Cr). This project definitely makes you wonder what hidden dangers might exist in other consumer products.

From investigating the magmatic processes that form Icelandic rhyolites to exploring the anthropogenic pollution found in local street sediments, GEOS majors have also been busy contributing to my research. In fact, recent graduates, **Chris Shannon ’23**, **Kelsang Shrestha ’24** (non-major), and **Claire Wolfe ’24**, published abstracts and presented their Petrology (GEOS 320) projects at the Fall 2022 Annual GSA Meeting.



Fall 2022 GSA Annual Meeting photo showing Dr. Lisa White with several current/former DePauw students (L to R): Chris Shannon ’23, Maggie Keller ’23, Claire Wolfe ’24, Kelsang Shrestha ’24, and Peter Steiner ’17.

Peyton Dewaelsche ’23 published an abstract and presented at the Spring 2022 NC-SE GSA Sectional Meeting on his investigation of plagioclase inclusion compositions within a megacrystic feldspar. My Fall 2022 Environmental Geology (GEOS 230) class used DePauw’s scanning electron microscope to investigate atmospheric pollution created by the Buzzi Unicem USA facility in Greencastle. Led by recent graduate, **Zach Kitchens ’23**, the class published an abstract and presented their collaborative project at the Spring 2023 NC GSA Sectional Meeting.

Similarly, the Fall 2023 GEOS 230 class investigated heavy metal pollution within Terre Haute street sediments. Led by rising seniors, **Lauren Cote ’25** and **Kyra Copp ’25**, the class published abstracts and presented their results at the Spring 2024 NC-SC GSA Sectional Meeting. Finally, **Katelyn Adams ’24** also published an abstract and presented her Senior Seminar (GEOS 450) project that explored the anthropogenic pollution hidden within Terre Haute street sediments.

The GeoClub also continues to be quite active. With rock painting, jewelry making, hiking & camping trips, and sponsoring department luncheons & alumni speakers, the club’s executive board has really worked hard to continue to provide engaging opportunities for its members. As the club’s faculty advisor, I’m very grateful for the strong group of students that have served in GeoClub executive positions during the past few years.

Well...until we meet again, best wishes, stay in touch, and be excellent to each other! - Ken



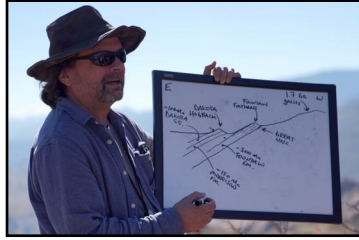
(L to R): Claire Wolfe ’24, Katelyn Adams ’24, Kyra Copp ’25, and Lauren Cote ’25 at the Spring 2024 NC-SC GSA Sectional Meeting.

Visit our **website**:
<http://www.depauw.edu/academics/departments-programs/envgeo/>

Visit our **Facebook page**:
<http://www.facebook.com/pages/DePauw-University-Geosciences/118662514879623>

Visit us on **Twitter** (Twitter handle: @DePauwGeo):
<https://twitter.com/DePauwGeo>

Tim Cope



Hi everyone! Just last weekend, I received a text from **Ali Sullivan '14**, who was wondering how **Jim Mills** and I were doing. I replied to say how clairvoyant she was to have messaged on a weekend while Jim was down in Greencastle for a visit! Moments later, Jim and I were at my dining room table, having a spontaneous FaceTime conversation with an alumnus from ten years ago. I love it when that happens! Last Fall, I visited **Steve Dobbs '15** at Stanford University, where he is now a lecturer. I'd love to hear from more of you! Who is gonna be next?

It's hard to believe another two years have passed since we spoke. I became department chair in Fall 2022, and that's kept me pretty busy. But I've still found plenty of time to have fun! One of my first acts as chair was to run a Fall Break field trip to Colorado and Utah with **Rachel Curtis** (who was our administrative assistant at the time). Rachel had created a Story Map in Scott's class about the geology of the San Rafael Swell (Google "San Rafael Swell Geology" and you'll see her work), so visiting there in person was a highlight for her. It was a terrific trip for everyone, including me —we packed a LOT into that one week! In addition to the San Rafael Swell, we visited sites in Kansas, Colorado, Utah, and even had time for a quick visit and tour with **Audrey Gehlhausen '06** and her co-owner Chris Della Bianca at their award-winning Billy Goat Hop Farm in Montrose, CO.

In January 2023, I sponsored an independent study course for **Tommy Martin '25** on the topic of nuclear waste. The course was taught by **Dennis Kelly '72**, President of Vista Nuclear Solutions. I learned a great deal from Dennis about how nuclear waste is managed and the problems involved with nuclear proliferation. I hope to get him back to teach another course like this again!



Tim in the field near Gypsum, CO over Fall Break 2022 doing what we can only describe as "teaching" (or he just saw a rock with some cool sedimentary structures...).

For the past two years I've been working with **Dipson Pradhan '25** measuring bank retreat along Big Walnut Creek using drone photogrammetry. We've been flying regular missions over a cutbank on the creek near Oakalla Covered Bridge. Dipson obtained his remote pilot's license in December 2022, and since then he's been my co-pilot on drone missions out to the creek. He showed that it's possible to measure the volume of sediment eroded from the cutbank during a single storm using photogrammetry.



Drone photo flying high above Oakalla Covered Bridge, viewing a cutbank eroding into a cornfield. Channelized floodwaters that have swept gravel off the road re-enter the creek along the unvegetated cutbank, causing rapid bank retreat.

I also have been working with **Quincie Simmons '25** to assemble a georeferenced 3-D photomosaic of Putnam County using air photos from 1946. Quincie scanned all the hardcopy photos and build a high-resolution point cloud that she used to orthorectify the imagery into a base map that we will use to map land use change across the county since 1946.

Finally, last year I worked with **Claire Wolfe '24** to date limestones at the Nature Park using Sr-isotope stratigraphy. Claire collected several limestone samples from different levels within the Nature Park stratigraphic column. She found that brachiopod fossils in the lower part of the Nature Park have Sr-isotope ratios consistent with seawater values at about 333 Ma—the first time that rocks of the Nature Park have ever been dated!

I've been teaching all the usual hits for the past two years: Senior Seminar, Sed/Strat, GIS, Historical Geology, Weather & Climate, and my First-Year Seminar. As usual I've made significant changes to all these courses over the years, trying to keep them fresh for my students (and for me!). I've noticed something peculiar about the students in all my classes, though: they seem to be getting younger with every passing year!



Field - Trips - R - Us! Department of Geology & Environmental Geoscience field trip led by Tim to Utah during Fall Break 2022.

My kids, however, are both getting older. Zoe and Tessa are now both in high school (11th and 9th grades, respectively). Zoe is producing astounding artwork. She recently won Curator's

Choice Award for her work at the Swope Art Museum. Tessa has been dancing ballet with the Academy of Dance in Terre Haute. Last November, she performed in a production of *The Nutcracker* by the State Ballet Theater of Ukraine at Rose-Hulman Institute of Technology. Last spring, she performed with her ballet troupe in *Annie* at ISU.

My wife Kate has been working from home for the past few years as a career counselor for a technology boot camp. She continues to make a tremendous impact with her volunteer work for the community. Since 2019 she has played a lead role in bringing artists from across the world to our community with the Putnam County Mural Project, which has been very successful in creating vibrant art throughout the county. She continues to serve in various roles with the Putnam County Community Foundation, where she was recently named an Honorary Board Member. She has also taken the lead on fundraising and installing the Putnam County Winter Wonderland Lights Festival in Robe-Ann Park every holiday season, which has quickly become a beloved Putnam County tradition.

- Tim



Tim visiting with Audrey Gehlhausen '06 on her farm.

Scott Wilkerson



Greetings...I hope that this note finds you and yours happy and healthy! Life remains very busy, so I'm constantly challenged to find that "right" work-life balance!

On the teaching front, I continue to offer many of the courses that you all probably recall...Earth & the Environment, Structural Geology, Environmental Geophysics, National Parks, Map Interpretation, etc. I've been very blessed to have many excellent former students with whom I can collaborate with (and learn from) for my classes. For example last fall, **Forrest Kunkel '15** not only coordinated a GPR rental for Environmental Geophysics, but he also conducted an electrical resistivity (ER) survey with the class at my farm.



Forrest Kunkel '15 explaining the layout and operation of the ER survey equipment to the Environmental Geophysics class.

As you might expect, fieldwork is still a staple in my courses, and we continue to make regular pilgrimages to places like Shades State

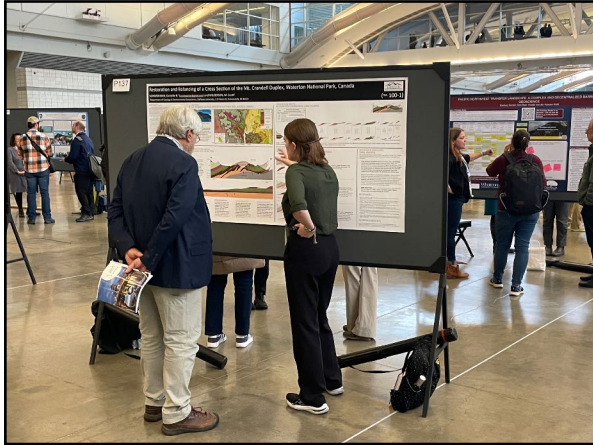
Park, Baraboo, WI, etc. Beth and I also tag-teamed on a Summer 2023 Lilly-funded workshop for under-represented high-school students. We offered sessions where students learned to make 3D virtual outcrops of the DePauw Nature Park quarry wall with drones, measure the Earth's circumference with a GPS, appreciate the geology and features exposed at Shades State Park, and observe volcanic processes using the "Trashcano" (thanks Ken!).



Lilly Summer Workshop students learning to fly a drone in the DePauw Nature Park.

On the research front, Steve Marshak and I published "*Kinematic and tectonic implications of crenulation cleavage, kink bands, and mesoscopic folds in the Baraboo Syncline, Wisconsin (~1.45 Ga Picuris Orogen)*" in the January 2024 issue of the Journal of Structural Geology (<https://www.sciencedirect.com/science/article/abs/pii/S0191814123002249>). In Summer 2023, **Danielle Sommerman '25** and I worked on a research project "*Restoration and Balancing of a Cross Section of the Mt. Crandell Duplex, Waterton National*

Park, Canada” that we presented at the 2023 Annual GSA Conference in Pittsburgh, PA. This project focused on highlighting balancing errors in the famous Boyer & Elliott (1982) cross section through a part of the Canadian Rockies fold-thrust belt.



Danielle Sommerman '25 presenting our poster at the 2023 Annual GSA Conference in Pittsburgh, PA.

You may recall that in my last message, I had worked with **Zach Wilkerson '20** (CS/Physics & my oldest son) on developing **AROutcrop**, a Javascript app for Android mobile devices that visualized 3D photogrammetry models of geologic features. **Ben Wilkerson '24** (CS/Math & my youngest son) worked with me on developing an iOS version of **AROutcrop** from scratch using Apple’s Swift programming language. This work expanded on the original feature set with a more versatile toolbar, enhanced loading of 3D models, etc. Ben presented this work as “AROutcrop: An augmented reality mobile application for enhancing geoscience learning and comprehension in the field and classroom” at the 2023 GSA Conference in Pittsburgh as well.

On the home front, Ben (22) graduated from DePauw in 2024 and was named one of three Murad Medal finalists. He is now a software engineer at Eli Lilly in Indianapolis. Zach (26) continues his Ph.D. graduate work

at Indiana University focusing on CS/artificial intelligence. He hopes to wrap everything up in a year or so. Beth continues to be the driving force behind the GIS Center at DePauw, working on various projects for faculty, staff, and the administration.



3D virtual model of Cagles Mill Spillway outcrop placed in the department hallway using **AROutcrop**. Beth & I created this 3D photogrammetry model using a drone to map the outcrop facade.

I hope that 2024 brings health and happiness to you and yours...please stop by if you are in town and/or drop me an email update!

- Scott



Wilkerson family on our Summer 2024 hike to the top of Yosemite Falls in Yosemite National Park.

Alumni News

We *very much appreciate* your emails, cards, and texts with updates on your lives, families, careers, etc. (and job openings & internship opportunities!). Despite our best efforts, given the length of time since the last newsletter, a few may have slipped through the cracks (...please forgive us!). We would love to hear from you, so please continue to reach out to us and/or stop by when you are in the area.

Jeff Winton '87 (see photo) stopped by with his son to visit DePauw and to catch up with old friends.



Tony Gibson '99 is delighted to report that his daughter Megan just completed her first year at DePauw and is loving it here (now we just have to get her to take a geo-class)!

Katie Glover '01 is now the Associate Director for Environmental Education for the Jasper Ridge Biological Preserve at Stanford University.

Phil Rykwaldler '01 was featured in the Summer 2022 issue of the DePauw Magazine (pp. 20-23; https://issuu.com/dpupublications/docs/dpu_mag_summer_2022_pages_1).

Katy (Adank) Ward '05 writes that after a stint working for the Railroad Commission of Texas as a West Texas field inspector (2018-2022), she has been promoted to Geoscientist in the Groundwater Advisory Unit. She now works through the Austin office remotely from West Texas. She explains, *“Our group issues groundwater protection depth determinations for various oilfield activities, and also conducts geological investigations as needed. It was a major change that involved lots of learning, and I am really enjoying it.”*

Dannena Bowman '05 and her husband John and daughter Dannena traveled from TN to Greencastle for Alumni Reunion Weekend 2023

(see photo). We had a great visit catching up on old times over a few cold beers. Dannena recalled Scott's fondness for apple pie, so she and John brought an apple-pie-flavored gift from their neck-of-the-woods.



Mark Loomis '06 gave a great talk to the department in Spring 2023 on the *“Remediation & Restoration in Great Lakes Areas of Concern”*.

DEPAUW
GEOLOGY & ENVIRONMENTAL GEOSCIENCE

Thursday, March 9, 2023
11:30-12:20 in Julian 223

Remediation & Restoration
in Great Lakes Areas of
Concern

Mark Loomis '06
Federal AOC Taskforce Lead & Project Manager
U.S. Environmental Protection Agency
Great Lakes National Program Office

EPA

Environmental Geoscience - Geology - Earth Science

Sara Smaltz '06 and her husband welcomed Aaron Smaltz Bault into the world in April 2023. This little guy will be ready for GEOS 350: Structural Geology & Tectonics in no time! Photo: Sara Smaltz



Bill Alward '08 lives in the Omaha, NE area with wife Rebecca and sons Ansel and Quincy. Bill now works full-time as owner/operator of the Little Mountain Ranch and Garden (<https://www.littlemountainrg.com/>).

David (PJ) Della Chiesa '08 works as VP of Sales for Stryker Drilling. David also recently got married...congratulations!

Lauren Schaefer '09 shared that she is now a permanent research scientist with the Landslide Hazards Program in the USGS Geologic Hazard Science Center in Golden, Colorado.



Lauren Schaefer '09 and family enjoying a beautiful day in the mountains. Lauren reports that Nell loves rocks as much as her parents...future DePauw geo-major? Photo: Lauren Schaefer

Lauren also gave the department a great virtual presentation on some of her recent work entitled *“Multi-sensor landslide detection and characterization in southcentral Alaska, and implications for tsunami hazards”* (see photo at bottom of page).

Julia (Shaw) Sessions '11 has assumed a new role in her company as Assistant Director of Geosteering. Her daughter Genevieve is now in 1st grade and her husband Nephi completed his Masters in December 2022!

Jordan Thomas '13 is now married and working as a Senior Project Manager with Partner Engineering & Science, Inc. in Chicago, IL.

Mackenzie Cremeans '14 recently taught for the Department of Geology at the University of Kansas (in addition to her hydrogeology consulting work). *“This return to academia was largely inspired by fantastic instruction I received with all of you at DePauw (which has stuck with me for all these years)...Thank you for putting in all the consistent effort. It never went unnoticed and really made a difference (almost 10 years later!)”*



Katherine Shover '14 works at Epic Systems (a medical records company; those who use MyChart are probably familiar with the company) in the Madison, WI area. She and her husband Matt have two children (Zinnia and Clif). Katherine & Matt recently traveled to both Ireland and Iceland (see photo of Katherine in front of some basaltic columnar joints in Iceland). She and **Madison (Gallegos) Beatty '13** still keep in touch (and were able to get together for a hike to Devil's Lake near Baraboo). Photo: Katherine Shover



Steve Dobbs '15 completed his Ph.D. and is now a lecturer at Stanford University. Last year, Steve taught Mineralogy, Petrology, Field Methods, and Sedimentology/Stratigraphy.

Tyler Donaldson '16 works for Stantec out of Louisville, KY as a staff geoarchaeologist. Tyler gave an excellent virtual presentation to the department in Spring 2024 on the nature of her work for several protohistoric indigenous sites (see photo below).



Nick Williams '15 and **Forrest Kunkel '15** teamed on an excellent joint presentation “*Subsurface Site Characterization: An Exploration of Invasive & Noninvasive Methods*” in late Fall 2022 (see photo below), sharing their experiences working in the environmental consulting industry using various case studies. Nick also did a presentation for the GEOS 350: Structural Geology & Tectonics class on his M.S. work titled “*Structural Evolution and Paleohydrology of a Tertiary Salt Weld, Willouran Ranges, South Australia*”.



Peter Steiner '17 completed his M.S. at the University of Georgia, and is now working at Tetra Tech in Georgia. He shares that “*it truly is a dream job...*”, and that he uses his map, sedimentology, and general fieldwork skills in his new position.

Genna Chiaro '17 let us know that she received a Mendenhall postdoc to work in the Mono Craters area for the California Volcano Observatory in Mountain View, CA. She plans to “*...model magma storage in 4D for the youngest mono domes (~ 600, ~1300, ~1600 years BP) so that means lots of glass (pumice + obsidian) geochemistry, storage pressure calculations, tephrochronology, and some cosmogenic nuclide ages!*”.

Vanessa Gonzalez '17 now is a staff geologist for ETS Environmental & Associates in Indianapolis, IN. She and husband Mark returned to DePauw in April 2024 when she gave an interesting talk entitled “*Environmental Risk Assessments: The Necessary Part of Commercial Real Estate*” to the department explaining the nature of her environmental work through several case studies (see photo on next page).



Bryce Brown '20 recently gave an interesting presentation on his work for the Indiana Division of Natural Resources (see photo below).

Nathan Carey '20 graduated from the University of Nevada - Las Vegas in December 2022 with an M.S. in economic geology. He writes that he is now a mineral resources research scientist at the Arizona Geological Survey in Tucson, AZ.

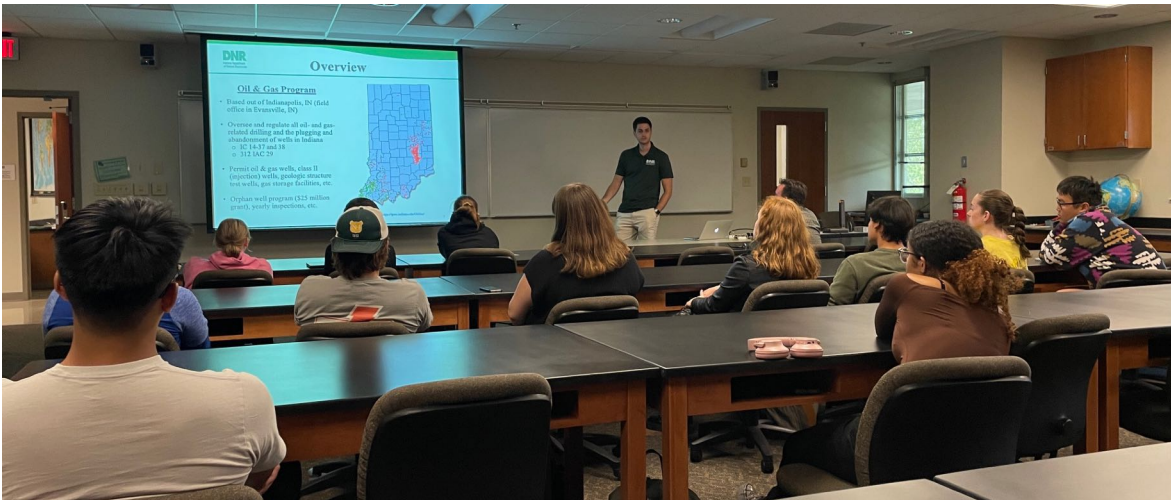
Ben Magnin '20 recently completed his Ph.D. at the Colorado School of Mines (see below) and is now working for the USGS in Golden, CO... congratulations! Ben, Laura, and daughter Roux stopped in Greencastle in July 2024 for a short visit...great to see you!

Nick Meszaros '18 dropped by earlier this summer and loaned some cool mineral specimens to the department for display (see photo below). Nick wrapped up his post-doc at Purdue and will start teaching this fall in a 3-year term position at Earlham College.



Matt Dauw '19 completed his M.S. in geological engineering at the Missouri University of Science and Technology, and is now a project geologist/engineer with Feffer Geological Consulting in Los Angeles, CA.

Mary Stute '20 now works as a senior staff professional at Geosyntec in Indianapolis, IN.



Hannah Baker '21 graduated from Indiana University with a concentration in municipal sustainability (photo below). Hannah volunteers with Keep Indianapolis Beautiful and has been interviewing with environmental consulting firms.



Collin Davidson '21 graduated from UNLV and is now a hydrogeologist with GSI Water Solutions Inc. in Portland, OR. He gave a great virtual presentation to the department on *“From Greencastle to the Grand Canyon: Navigating Graduate School and Conducting Hydrogeologic Research in Two National Parks”* (see flyer below). Collin writes *“...It was such a great experience to share my research and graduate school experiences with current DePauw students. My time as undergraduate at DePauw was such a rewarding experience for me, and it was such a privilege to make a small contribution towards the future of the next wave of tiger geoscientists.”*

Sarah Hennessey '21 completed her M.S. in invertebrate paleontology at Ohio University in Spring 2023. She now is the Collections Manager of Earth Sciences at the Cleveland Museum of Natural History. She shared that Illustrator/Inkscape skills developed in her DePauw coursework have been “super useful” and that a ESRI Story Map on stylolites that she made for Structure was being used to help explain the concept to someone online.

Laura Spasske '21 is an environmental scientist for Environmental Information Logistics in Highland, IN. She also shared that she is doing martial arts in her spare time.

Sarah Bird '22 is a services project manager at Ultimate Kronos Group (UKG) in Fishers, IN. She writes that her company is frequently hiring and that she would be happy to talk to interested students about currently available opportunities.

Zach Kitchens '23 writes that he spent time after graduation as an intern with the Student Conservation Association and Americorp on the USACE GIS Inventory Team. This fall he will begin graduate work at Michigan Tech University.

Claire Wolfe '24 is currently wrapping up an internship with The Mammoth Site in Hot Springs, SD. She will begin her M.S. in paleontology at the South Dakota School of Mines and Technology this fall.

DEPAUW
GEOLOGY & ENVIRONMENTAL GEOSCIENCE

**From Greencastle to the Grand Canyon:
Navigating Graduate School and Conducting Hydrogeologic Research in Two National Parks**

Collin Davidson '21
M.Sc. Student
University of Nevada, Las Vegas

UNLV UNIVERSITY OF NEVADA
SCIENTISTS

Hydrogeology Virtual Presentation:
Tuesday, April 11, 2023
4:00 - 5:00pm in _____
insert zoom link here

Environmental Geoscience - Geology - Earth Science



Dan Kelleher (Midwest Geosciences Group) conducting a “Taking the Mystery out of the Subsurface” course for the Env. Geophysics class.



David Lampe (USGS) presenting “Interpretative Studies and Available Data Characterizing Indiana’s Water Resources” for the Hydrogeology class.



Ben Wilkerson '24 (CS/Math) showing his AROutcrop AR research to First Gentleman Tony Tillman at GIS Day. Photo: Brittney Way



Lisa White (UC-Berkley Museum of Paleontology & sister of President Lori White) describing her paleontology research on microfossils.