



GEOSCIENCES

NEWSLETTER | 2021-2023

THE UNIVERSITY OF AKRON | BCAS

A NOTE FROM THE CHAIRMAN

Dear Alumni and Friends,

This Geosciences Newsletter covers the calendar years 2021, 2022 and 2023. David Steer was Department Chair until June 2023 after which John Peck became chair. Their welcome messages are below.

After a year delay due to COVID, we vacated Crouse Hall in the late spring of 2021 and moved to the former Central Hower High School. The faculty, staff and students did a fantastic job getting us moved on relatively short notice. Everything had to go. If you left samples from your graduate or undergraduate research project in Crouse Hall, I am sorry to say they are no more. I have to admit, it was interesting unwrapping samples that were packed away sometime in the 1960's. One thing for sure, we confirmed geologists are packrats! Rest assured, we repurposed or recycled as much as possible. We sorted and moved all of our collections and most of our equipment to Central Hower. Some instruments were relocated elsewhere on campus

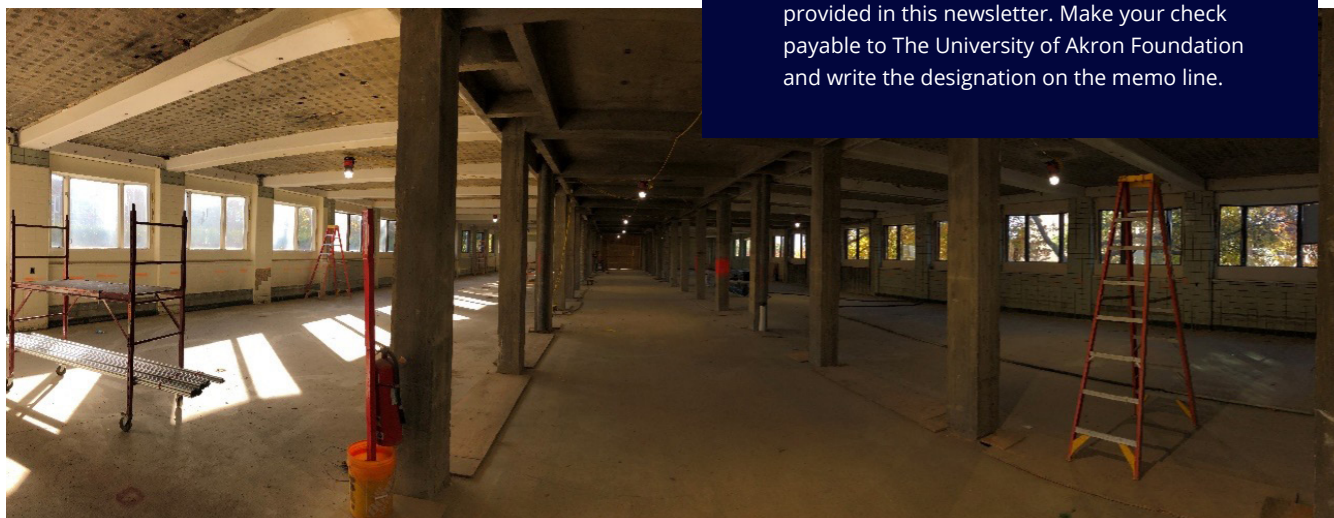


Image of the first floor (former mineral display area and main office of Crouse Hall in November 2021. Photo faces west).

because they required special installation. As you can see from the picture, Crouse Hall was gutted and the renovation was fully underway by fall of 2021. By the end of summer 2021, we were fully operational in Central Hower. Classes resumed as normal (at least what we now call the “new normal”). We are operating at 90% in-person and 10% on-line as was the case prior to the pandemic. Though we were limited in our

ability to transport students in vans to field sites in the spring of 2021, we were still able to conduct field camp in the summer. By fall 2021, field-based classes resumed as they had pre-pandemic with appropriate safety measures. In the summer of 2022, we were able to return to “normal” field camp in the Black Hills and Wyoming. As of December 2022, we have 77 undergraduates and six graduate students. Incoming students are more interested in environmental science than ever before. Our Environmental Science Certificate program has

PLEASE SUPPORT GEOSCIENCES!

Your annual gift is important and makes a real difference for students and programming!

3 WAYS TO GIVE:

- Online at www.uakron.edu/giving/geo
- Text GEO to 41444 on your mobile device
- Mail a check using the postage-paid envelope provided in this newsletter. Make your check payable to The University of Akron Foundation and write the designation on the memo line.

7 students enrolled and we continue to draw majors from across campus as they choose new career paths.

-David Steer

In summer and fall of 2023, we moved back into the renovated Crouse Hall. Geosciences faculty, staff, and students are resilient and were quick to adapt to the new space. They worked hard to unpack

and set up equipment and sample collections so that fall 2023 classes were ready for the 80 undergraduate and four graduate majors. There are nice hallway display cases which we have begun to fill and a large free-standing case containing the cave bear. Hallway TVs on each floor display photos of past geosciences majors engaged in field studies, lab work and meeting presentations. These features make for a modern and clean looking building and teaching labs. What has not changed with the renovation is the faculty's long-standing commitment to teach a quality geosciences education using hands-on classroom activities and field- and laboratory-based learning. In fall 2023 we began the process of searching for a new tenure-track faculty member and hope to welcome them in 2024. You are always welcome to visit the new Crouse Hall, touch base with faculty, and try to find the spaces that had existed when you spent time in the old Crouse Hall.

Thank you once again for your continued financial support. Your donations make a direct impact on our undergraduate and graduate students. Due to your generosity, over the past three years we were able to award over \$17,000 in scholarships and awards to 48 students. Through the Dr. Roger Bain Endowment we were able to assist students presenting their research at scientific meetings. Similarly, directed giving now provides us funds earmarked for graduate student support. You can continue to support students by clicking the "Give online" button found near the bottom right side of our webpage (www.uakron.edu/geology). You can direct your donation to support scholarships, field camp, for general use or for a designation of your own choosing. Our students truly appreciate your expression of interest in their well-being through your generosity.

Remember to check out to our Facebook alumni page. It is a great place to rekindle old acquaintances and make new contacts. Keep in touch. Again, I welcome your email updates, phone calls and visits if you are in the area. Feel free to contact me any time (jpeck@uakron.edu; 330-972-7659).

-John Peck

ALUMNI LETTER

Theresa Egresi: BS 2010, MS 2012

A career in geology, or science for that matter, didn't even cross my mind until I graduated with a degree in Business Administration from SUNY

Buffalo in 2008. I decided to go right back to school and read through every single major Buffalo offered, and somehow Geology sucked me right in. After telling people my plans I was immediately hit with "What does a geologist actually do?", and I hadn't the slightest idea, but was sure I wanted to figure it out.

After starting back at Buffalo for a year of pre-requisites, life brought me to Ohio where I found the University of Akron and met with Dr. John Szabo. With my rose-colored glasses on I told him I wanted to complete my undergraduate and graduate degrees here, and I wanted to do something to help the environment. I dove in and immediately started working as a lab assistant to Dr. John Senko, after that I worked with Dr. Ira Sasowsky doing field work and research. I joined the Geology Club and our student chapter of AAPG. I may be biased, but the field trip classes offered at Akron were incredible and invaluable. From Dr. Peck taking us around locally to parks with exposed stratigraphy, to the Mushroom Farm with Dr. Senko, to the Adirondacks with Dr. Friberg, to the Bahamas with Dr. Park, and caving from here to the Bahamas with Dr. Sasowsky, not to mention field camp out west. The Geology department at Akron had all kinds of opportunities; all I had to do was look.



Theresa & Family

EDITOR'S NOTE

The period 2021-2023 was a very challenging one, and we did not issue annual newsletters in 2021 or 2022. Some factors that played a role in this delay: retirement of long-time newsletter producer Elaine Butcher, COVID pandemic, moving out of Crouse hall for renovation, and moving back to Crouse Hall after renovation. However, all of the news of the past 3-years has been compiled in to this deluxe multi-year edition. Additionally, we have employed the services of UA Graphic Design major Quinn Smith to update our look, and to take care of layout and production. We hope you enjoy the result and reading about your Department. Thank you for your patience and support.

-Ira D. Sasowsky



Students gathering data for slope stability analysis during summer 2021 Geology Field Camp in Ohio

Dr. Sasowsky and Dr. Senko helped take my love of hydrogeology and married it with geochemistry to create a master's thesis at a reclaimed coal mining site (aka the Mushroom Farm). Working as a teaching assistant at Akron allowed me to deepen my understanding, as I got to teach and help others succeed in Geology courses. All the while I was still being asked by people "what does a geologist actually do?", and I felt like I still didn't know.

Through my thesis I worked with the Ohio Department of Natural Resources, Division of Mineral Resources Management in gathering samples and research and was lucky enough to get an internship with them when I graduated with my MS. After 6 months an opportunity arose, and I was hired on as a Geologist with the Division of Oil and Gas Resources Management. I moved down to Columbus to work in the Permitting Section. At that time the Division of Oil and Gas was expanding from about 35 to 135 people with the boom of the Utica/Point Pleasant play. The oil and gas laws in Ohio were also expanding to fit the play, requiring more regulatory oversight.

I never aspired to work for the government in any capacity, let alone regulatory work. Ten years later, I am still in the same spot because it's proven to be a very dynamic and historic time to be with the

Division of Oil and Gas. Since 2011 there have been over 3,000 Utica/Point Pleasant wells drilled with 157,052,893 barrels of oil and 14,166 BCF of gas produced (as of end of 2021).

My job ranges from things like interactions with the public and industry, review of drilling and completion data, prescribing well construction plans, to bigger picture things like database design and management and rule writing. I've always felt truly prepared for any task because of the work I put in at the University of Akron.

The other gift Akron gave me is my husband, Brett Egresi, whom I met while he completed his Geology graduate course work at Akron. Brett has been very successful working in right-of-way the last ten years, first in oil and gas and now electric. We married in 2015 and have two incredible daughters, Ruby (5) and Winter (3), who are always stuffing their pockets with rocks, so we must be doing something right.

Everyone I went to school with ended up in a different direction, whether it be consulting, working for an oil and gas company, working for a service company, mud logging, education, the Peace Corps, USGS, etc. To put it simply, a geologist is a problem solver. So, what does a geologist actually do? More like what don't we do?

-Theresa Egresi

BAIN AWARD IS ESTABLISHED

The Dr. Roger J. Bain Memorial Award in Geosciences was established in 2021 by his cherished wife, Leslie Bain, also a geologist, and family as a tribute to his life-long service as a professor in Geosciences. Roger had a wonderful, inquisitive mind and his enthusiasm for geology was felt by his many students. He was always excited about taking students 'into the field' helping them discover the geologic underpinnings of the natural world. Dr. Bain loved to encourage and mentor students who were enthusiastic about getting involved in meaningful research.

Dr. Bain earned both his bachelor's (1962) and master's (1964) degrees in geology at the University of Wisconsin and his Ph.D. (1968) in geology at Brigham Young University. He taught geology at the University of Rhode Island and the University of Virginia before landing at The University of Akron, where he taught in the Geology Department for 30



Students on 2022's Coastal Trip

years. He ultimately served as department chair, retiring in 2000 as Professor Emeritus. Dr. Bain passed away October 18, 2020, leaving Leslie, two daughters -- Cassandra Stopar and Laura Prexta -- and five grandsons Matthew, Steven, Benjamin, David and Justin. He is greatly missed, and his legacy lives on through the countless wonderful memories of family, colleagues students and friends.

The Award supports costs related to field, lab and other expenses incurred by undergraduate and graduate students in the Department of Geosciences engaged in field and lab-based research. First consideration is given to students whose research is suitable for presentation at professional meetings and conferences. In 2022 there were 10 students supported by this donation

who went to GSA in Cincinnati and presented their work. In 2023 four students received awards allowing them to attend/present at the GSA Annual Meeting in Pittsburgh.

Thank you to Mrs. Bain and family for establishing this Award. Further donations are humbly solicited from alumni and friends – see details within this newsletter.

BARRET HORROR!

Bob Barrett wins contest!

In October 2022 Dr. Robert Barrett, Senior Lecturer, Geosciences, vanquished more than 50 authors



*Megan Ryan and Molly Witter
Shelleman helping move out of
the old Crouse Hall*

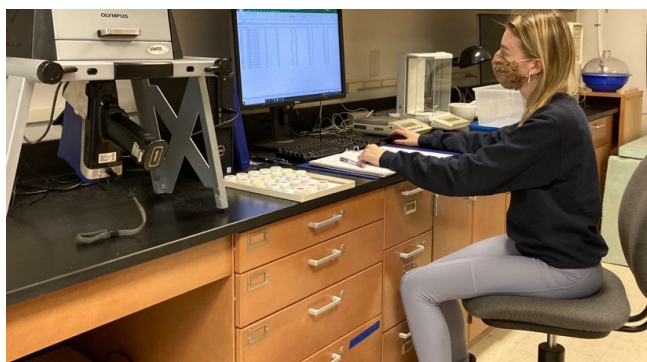
who submitted their creepiest stories to University Libraries' Two-Sentence Horror Story Contest.

His First Place entry was: "Leprechauns do guard pots of gold, but they're not full of coins like on the box of Lucky Charms. After the little guys relieved us of our jewelry and dental fillings, they marched us over to a much bigger pot, simmering over a roaring fire."

NEW ANALYTICAL CAPABILITY SUPPORTED BY GENEROUS DONOR

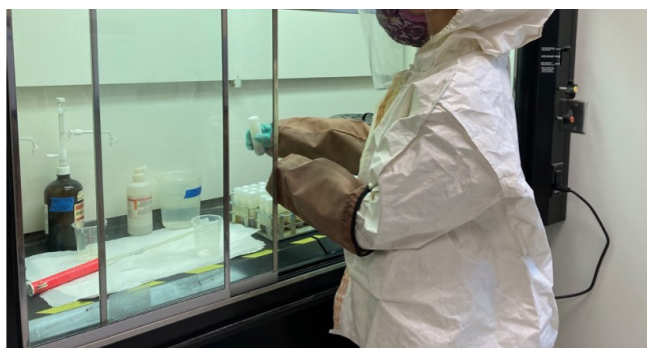
In 2022, thanks to a generous donation by Rich Lorson (MS, 77) the Department acquired an Olympus Vanta C series handheld X-ray Fluorescence (XRF) analyzer. XRF technology allows the rapid, non-destructive, semi-quantitative determination of elements (Mg through U) in geologic samples. Such data are critical to understand the nature and origin of these materials. The XRF method is much faster and safer than older methods which required acid digestions of samples and subsequent Atomic Absorption Spectroscopy. In addition, we were able to purchase a bench-top workstation to contain the XRF analyzer and to provide the safest measurement environment for students. After much work with the university radiation safety office and registering

the equipment with the university and state, we have now been measuring samples. Rich Lorson's donation also allowed us to purchase a camera attachment to the petrographic microscope. This camera is routinely used in the mineralogy and petrology courses to share images to the entire class, conduct some quizzes, and aid in graduate and undergraduate student research. It has also been used during the Goodyear STEM high school student visit day.



Undergraduate major Cordelia Hoffmann (BA, 22) analyzing samples by XRF

High-quality data are a requirement for advancing science, and the Department seeks to give students the skills and knowledge needed for their careers. An adjacent photo shows a major measuring samples for her undergraduate research project, the results of which she later presented at the North-Central Geological Society of America meeting. The donation has greatly enhanced the department's analytical capabilities, and provided us the means to better teach and train our majors. In 2022 and 2023 this donation contributed to 1 completed and 2 in-progress MS theses, 3 completed undergraduate research projects, 2 completed Honors theses, and 8 published abstracts. The generous contribution of Rich Lorson is greatly appreciated.



Undergraduate major Cordelia Hoffmann analyzing samples by using the labor intensive traditional wet chemistry method

CHARTOLANI VISIT

In December 2021 to January 2022 the Department hosted a visiting scholar from the county of Georgia. Giorgi Chartolani is a graduate student at



Giorgi Chartolani determining sinkhole morphometry in the UA GIS lab

Tbilisi State University's Vakhushti Bagrationi Institute of Geography who is interested in karst landscapes. He came to UA to work with Professor Sasowsky on GIS based analysis of sinkholes. This has led to an ongoing collaboration (now remotely) with colleagues at the Ohio Geological Survey, and the publication of a paper on the sinkholes of the Bellevue-Castalia Karst Plain.

AN INTERVIEW WITH PROFESSOR EMERITUS ANNABELLE FOOS

IS: It's Wednesday, February 2nd, 2022, and this is Ira Sasowsky. I'm here with Emeritus Professor Annabelle Foos who is making a brief visit to Akron.

AF: Hello, Ira.

IS: What brings you to Akron?

AF: I'm passing through on my way to Texas. I'm headed to Big Bend National Park and then I was going to go do some birding along the Rio Grande River.

IS: Great, well it's wonderful to see you. I'm glad you stopped over. Can you tell us a little bit about when you retired and what your career was at University of Akron?

AF: Well, when I was at University of Akron, I taught geochemistry and I was also the Director of Environmental Studies. For a while I was the undergraduate advisor for the geology students and I spent three years as an associate Dean of Arts and Sciences.

IS: And how did you end up at the University of

Akron? Can you tell us about your career before you came to Akron?

AF: I went to Graduate School in Texas, and I was working for an oil company, Mobil Oil, while I was in grad school. When I finished up in 1984, there were a number of openings in soft rock geology. I interviewed for the position at Uakron and I got it.



Annabelle Foos visiting new friends in an orphanage in Kenya

It's a beautiful part of the country, so I've been enjoying that; I was gardening and doing kayaking. And, after my parents passed away, I started doing some more traveling. I've been to Guatemala and Peru and Panama and Africa, and I've also recently purchased an RV, so I've been driving back and forth across the country.

IS: I'm looking forward to checking out your RV which is parked in our driveway here. Can you tell us a little bit about your recent trip to Africa?

AF: Yes, it was a mission trip, and we went with a group of dentists to an orphanage, and I was just scheduled as a support person. But, when we arrived, they had just gotten new computers for the students, as well as peripherals. So actually, we spent a lot of time helping with that setup. That fit into my wheelhouse more so than serving as a dental assistant.

IS: Are there any stories you can share with us from your time at Akron? Any field events or things that sort of stand out?

AF: Well, the one thing I kind of miss from Akron is doing the field trips with the students. I always took students out west to Colorado and Utah, and that was always a highlight. Getting to know the students on those trips was always nice. Most of the

IS: Super, and you retired about 10 years ago, and you moved to upstate New York where you have family? What have you been doing in your retirement?

AF: Well, initially I had elderly parents, so I was taking care of them for about five years. I bought a house in the Finger Lakes



Selfie with Ira Sasowsky (left) and Annabelle Foos (right)

students had just had historical geology, and it was a mix of geology majors and education majors.

IS: When I look back on your time at Akron, I should mention that I really appreciate how much of a mentor you were to me when I was a starting faculty member, you really helped me out over the years. But what really stands out is all the times



Annabelle Foos washing her laundry by hand

that you would go in the field, and in fact I think you initiated the service-learning course at University of Akron, didn't you?

AF: Yes, one of the things that I wanted was students to come, not just geology majors, but I also wanted students in education. I felt that to really learn geology, and to learn science, you had to do geology and you had to do science. So that was sort of the whole idea behind that course, to give students an experience doing research. You know, sometime before they reached graduate schools. So, start them early on learning how science really works.

IS: That course has been a great success over the years, and Dr. Senko continues it to the present.

IS: On your trip to Texas that you're taking now, you have a companion with you in your RV. Can you tell us about your companion?

AF: Yes, this is Lulu, my dog. I call her a Texas street dog because she came from San Antonio, TX and she's a mix of lots of different breeds. I actually got her from a rescue. During the pandemic, when I was housebound, I was fostering dogs for a rescue, and I had 25 puppies and she was the mother of

12 puppies. I had been thinking to adopt one of her puppies, but in the end all of her puppies got adopted. So, I adopted her.

IS: Are there any last things before we close out that you'd like to share with the current students or with the alumni?

AF: One piece of advice I got early on was they say that the best geologist is the one who's seen the most rocks, and so I was told to take every opportunity. I had to get out in the field and, you know, do a fieldtrip and get out there and look at the rocks. But you can also look at water and other stuff, or course.

IS: That sounds like great advice. Thanks, Annabelle, for coming to visit and for doing this brief interview

AF: You're welcome.

FACULTY NEWS

HAZEL BARTON

In fall 2023 Hazel left the University of Akron to take the position of Loper Endowed Professor of Geological Sciences at University of Alabama.

MR. JOHN BELTZ

John is teaching in his 31st year at the University of Akron by continuing to instruct Historical Geology, Physical Geology, Earth Science, Wetlands, Geology of Energy Resources, Earth's Atmosphere and Weather and Dinosaurs. He continues to teach the Historical Geology laboratory as well. Spring 2024 will be the first time he will have instructed this lab in the newly renovated Crouse Hall. For those that remember old Crouse, the lab room is located in the area formerly occupied by the Conference Room and the Mineralogy Lab. Due to moving out of Crouse to Central Hower in 2021 then back in summer 2023, the fossil collection has been much reduced in size, but is now much better sorted out and organized. It will be good to have a modern college laboratory classroom to instruct in, and he is sure the students will agree.

John and Tom Quick continue to teach the Wetlands class. John instructs the sections covering wetland types and determination, wetland soils and basic plant identification, Tom instructs sections covering the chemical analysis of wetland water and soil samples collected on field trips. They take the class to the Bath Nature Preserve, Jackson Bog in Stark

County and to the wetland behind Tom's house. Tom's wetland has developed from an old pond, and they are continuing to look for changes over time as it transitions. Having fully dedicated labs in Crouse Hall in 2023 has made Tom's part of the class much easier, as he had to instruct makeshift labs in a converted classroom in Central Hower over the previous two years.

John still serves as secretary for the Department's faculty meetings after more than twenty-one years. He also continues his second year as Undergraduate Advisor (previously Caleb Holyoke).



Jacob Tallon presenting poster at Fall 2021 AGU

In his spare time, he takes his family on field trips around Ohio and Pennsylvania looking for fossils and abandoned places to explore. Nineteen-year-old Hollie is in her second year at The University of Akron, working toward a degree in early childhood education. Fifteen-year-old Will is in high school and still likes math and science. He has started to express interest in Geology and is considering going to Akron in the future. His main hobby over the last year is collecting old coins and currency.

DR. MEERA CHATTERJEE

Meera has been very active teaching multiple sections of Cultural Diversity and Introduction to Geography. Following the trend of increased demand of remote learning, she has worked on getting Introduction to Geography and Cultural Diversity online (100%). These sections have attracted substantial number of students to take the courses. She along with Jeremy Spencer applied for a grant to adopt Open Educational Resources (OER) for the course "Introduction to Geography". The project was selected for funding. The course has been fully revamped and offered since Spring 2020. However, as the course is using

open educational resources, she has been working continuously on fine tuning the course. In Fall 2021 she adopted a different book for cultural Diversity and recorded all the lectures using Learning Glass for her online sections. Thus, the course was fully revamped for online and face-to-face sections. Ever since she has been continuously revising her lectures and constantly introducing experiential learning activities in her courses. Meera has been successfully delivering her courses through all modalities throughout 2022 and 2023.

Outside of teaching, Meera has served on the Merit Raise Committee, NTT Evaluation committee, GIS search committee, NTT evaluation committee. She was peer reviewer for NTT faculty and served as a chair for NTT promotion and retention committee. Meera has revised the Gen-Ed Assessment for Cultural Diversity which has been approved. She also developed additional assessments for Introduction to Geography required for Gen-Ed renewal.

She is very excited to share that she became a proud grandmother to a beautiful baby girl, Lily Marie Mukherjee and a baby boy, Max Edward Mukherjee. In a nutshell it's been challenging years but eventful.

DR. SHANON DONNELLY

Shanon Donnelly began a new position in the department in the Fall of 2022 as an Associate Professor of Instruction. His teaching focuses on GIS and the use of drones for mapping and attracts students from across the campus. Shanon often engages his classes with community partners with the goal of students getting experience with real world problems involving GIS and drones. Over the past two years, the students have worked



Students learning about mine operations before entering a Vanport Limestone mine during summer 2021 Geology Field Camp in Ohio



Fourth floor of Crouse Hall being renovated

with Summit Metro Parks, the Oriana House, and Habitat for Humanity's Neighborhood Network program collecting, analyzing, and creating maps with geospatial data from these partners. One recent project completed with Summit Metro Parks involved mapping wetland invasive species in one of the Portage Lakes just south of Akron.

DR. CALEB HOLYOKE

In the past three years Caleb taught Field Camp, Structural Geology, Engineering Geology, Advanced Structural Geology and Graduate Seminar. He stopped being the general undergraduate advisor in 2022, but took over being the Honors and graduate advisor in 2023. The spring 2023 semester was spent on a professional development leave squishing rocks at the Massachusetts Institute of Technology and learning about active and passive in-situ ultrasonic measurement techniques to listen to the rocks the sounds the rocks made while deforming. For the majority of this three year period, he and his students were investigating how melts, foliations and lattice preferred orientations affect the strength of rocks. Over this period, seven undergraduates worked on research projects in the rock deformation laboratory (Geoff Hilliard, Maria Razo, Megan Ryan, Andrew Steward, Nicole Wagner, Treston Woodley and Nadilee Nottingham). Nadilee will finish her Honors Thesis and graduate in May 2024. Geoff and Andrew left to positions in the environmental consulting industry. Nicole (U. Minnesota) and Megan (Texas A&M) went to earn their M.S. degrees squishing rocks in new labs! Maria and Treston pursued M.S. degrees at U. Akron and finished in 2023. Five other graduate students also worked in the lab over this three year period: JJ Kullberg (2021), Jake Waller (2022), Jacob Tallon (2022), Carly Leventhal (expected 2024) and Karl Wehner (expected 2025). Carly and Karl are co-advised by Molly Witter-Shelleman. Six of these

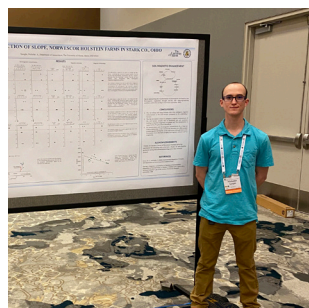
students presented their U. Akron research at the fall AGU meetings in New Orleans (2021; Jake and Jacob), Chicago (2022; Maria) and San Francisco (2023; Carly) and/or the regional GSA in Cincinnati (Spring 2022; Geoff, Jake, Maria, Megan). Caleb was also very fortunate to get a three-year grant with a collaborator, Dr. Kevin Mahan of the University of Colorado-Boulder, to explore how water content affects the strength of quartz and other minerals in the deep crust. Karl Wehner and Nadilee Nottingham are performing experiments related to this award and Karl and Caleb will perform field work with Kevin and his graduate students in the summer of 2024 at a remote location in Saskatchewan.



Rivers class canoe trip down the Cuyahoga River (2021).

DR. JOHN PECK

From 2021 to 2023, John adapted to changing Covid restrictions as he taught Sedimentology-Stratigraphy, Physical Geology, Environmental Magnetism, Rivers, Coastal Geology, Independent Research and Field Camp. In these courses students were able to go on numerous field trips to hone their field skills. On these trips students are required to make measurements, interpret the results, and often produce substantial written



Nick Speight presenting his research poster at the 2022 GSA meeting

reports. Although these reports require much effort by everyone involved, the reports provide hardcopy evidence of the student's abilities when they apply for graduate school or jobs. Moving out of and back to Crouse Hall required John to disassemble and reassemble all the environmental magnetic

equipment. Thorough labeling of numerous wires allowed the equipment to be used without interruption during the renovation. In 2021, the Rivers class was fortunate to be back in canoes for trips down the Cuyahoga River and Geology Field Camp was held in Ohio and expanded to include more sites and projects. In 2022, we returned to SD and WY and with careful planning and diligence by UA students, no one contacted Covid. Highlights of past few years were visits by Gary Harris who, for many years, has provided generous support to help UAkron students have research opportunities. After social distancing in 2020 it was a treat to walk around campus with Gary and learn about UAkron history. Another highlight was Richard Lorson's generous donation to purchase an XRF analyzer used to measure elements from Mg to U. Richard's donation has greatly expanded student research possibilities. Many students completed research under John's supervision. Undergraduate Kayley Martin completed a quantitative assessment of flooding events on the Chagrin and Cuyahoga Rivers for her Honors project and found that heavy rainfall and flooding is worse now than it was several decades ago. Undergraduates Nick Speight and Hailey Connor each completed a heavy metal pollution study using dam pool sediment cores. Undergraduate Cordelia Hoffmann conducted an environmental study of Lake Isaac in Middleburg Heights, OH. Madison Isaac studied the relationship between forest type and the underlying bedrock in the Black Hills, SD for her Honors thesis. Every few months John spent time in a canoe on Summit Lake with MS student Melisa Rego. She characterized varve formation and internal loading of P from the sediment into the anoxic hypolimnion of Summit Lake for her MS degree. Graduate student Matt Rechenberg finished his MS thesis assessing construction activities on watershed erosion and he reevaluated Wolman's classic sediment yield



Students on a field trip to Furnace Run, Spring 2023

model. Current graduate student Madison Wood is far along with her research on land use impacts on heavy metal pollution in the Black River. All these students were able to present at GSA meetings thanks to generous student travel support provided by Leslie Bain in memory of Dr. Roger Bain. John continues to spread the good word about Geosciences to 4th graders, high school students, UA Geosciences and Engineers for a Sustainable World clubs, and a regional environmental technical advisory group.

MR. THOMAS QUICK

Tom has had a couple of very busy years. Tom assisted with the move from Crouse Hall to Central Hower and back to New Crouse Hall. Tom set up the new GIS lab and ran cables for computers and projection equipment as needed in Central Hower. Analytical equipment was relocated to 3 different buildings. Two years went by quickly and all the computers and analytical equipment had to be moved once again back to Crouse. It took part of the fall semester to get everything set up, but it was worth it as the renovated building is very nice.

Tom teaches Earth Science classes online and is constantly updating help videos for the students. Last spring Tom created a series of introductory videos in Earth Science to attempt to show the online student how each chapter relates to everyday life. The 2021 wetlands class that Tom



Tom checking one of the recording stations

taught with John Beltz was much like the previous year as an online class, but more video tours were added. The videos included taking soil and water samples in the wetlands and were used for students to view in case they could not attend the field trips due to illness or other circumstances. But in 2022 we went back to in-person classes and added an additional field trip. In summer 2023 we taught our Wetland class in Crouse and were able to use the new Geochemistry lab for some of the assignment work.

Tom is continuing to assist John Senko in a project where very weak currents produced by bacteria are measured. Tom created a circuit board design that converts current to voltage and can be recorded on a commercial data logger. 7 channels needed to be recorded but not simultaneously, so a commercial multichannel logger was ruled out. Tom decided to build a custom Arduino based system that controls which electrode pair is connected to a single amplifier at any one time for current measurement. Initially two units were built, one for the lab and another that was placed in the field during the summer of 2022. A lot of data has been collected and additional units with modified circuits were deployed in 2023.

Tom is still doing the usual equipment maintenance in the department from equipment and chemical inventory to repairing equipment as needed.

DR. NITA SAHAI

Nita Sahai welcomed a new Integrated Bioscience graduate student, Reghan Ruf, to her group in 2021. Reghan will work on Origins of Life research. Nita had a very heavy teaching load and College/ University service load that year. She is also Chair of the Gordon Research Conference in Origins of Life that was to have been held in January 2022. She invested a huge amount of time in organizing and fundraising for this conference, only to have it cancelled due to the omicron Covid19 variant. Nita also serves on the National Academy of Science and Engineering and Medicine's Committee for Astrobiology and Planetary Science (NASEM-CAPS) that advises NASA, and serves as Associate editor for three peer-reviewed



Hailey Connor, Fall 2023 karst trip



Fall 2023 karst trip

journals (Scientific Reports; Astrobiology; and Life) and for Geochemical News, the weekly magazine of the Geochemical Society of America. The Sahai group published several peer-reviewed journal papers, and presented several invited talks at conferences and other universities' colloquium series both virtually and in person.

DR. IRA SASOWSKY

What a few years it has been. We moved out of Crouse Hall in to Central-Hower, then moved back again to Crouse after renovation, with interminable sorting, arranging, and discarding. Add in the complications that Covid-19 has brought, it has been a wearing time.

Over the last 6 semesters Ira taught Seminar in Environmental Studies, Groundwater Hydrology (twice), Geomorphology (every fall), Introduction to Environmental Science, an Honors Natural Science Colloquium titled "Our Great Lakes", the Caves

module (1- credit), and the Field Studies Karst trip. He conducted an interesting experiment in the Great Lakes class in Spring 2023. He brought in crackers one day along with fresh smoked whitefish that was sourced from Lake Erie. The class split into thirds in their opinions; 1/3 loved it, 1/3 thought it was okay, and 1/3 refused to try it. The Karst trip was safe and successful. We visited Lost World Caverns, Thorny Hollow, and the Friars Hole Cave Preserve. The latter included a through trip from the North Entrance to the Snedegar's entrance, and was the first time Ira did not get lost on the way. We had some great meals at the field station, including a barbeque which we did using wood (in desperation because the gas grill was broken). We finished the trip with a visit to the mouth of Piercy's Mill Cave, but did not have the energy to go inside.



(Front to back) John Senko and Tom Quick with CSU collaborators Bukola Adeyemi and Chelsea Monty-Bromer after installing sensors to detect microbiological activities in wetland sediments at the Old Woman Creek State Nature Preserve in Huron, OH

MS student Trevor Dwyer completed his research on the springs of north-central Ohio. He discovered that these groundwater discharge points are completely free of any agricultural contaminants, which was surprising given that much of the surrounding area is fields.

Ira did not attend many conferences over the period. In 2023 did go to the 17th Multidisciplinary Conference on Sinkholes in Tampa, and the GSA annual meeting in Pittsburgh. Research on the Bellevue-Castalia



Renovation of Crouse Hall

Karst Plain with colleagues from ODNR continues; they meet weekly on Teams. He remains on the Editorial Board for the journal Environmental & Engineering Geoscience, and served the Cave Conservancy of the Virginias as a Director, the Karst Waters Institute (as Secretary), and the faculty union (AAUP) as Treasurer. He stepped off of the CCV Board in 2023, and intends to step down from the KWI Secretary and AAUP Treasurer roles in 2024, to make more time for other activities.

DR. JOHN SENKO

John taught Geomicrobiology (Spring 2021, 2022, and 2023), Geochemistry (Fall 2021, 2022, and 2023), Service Learning (Spring 2022), and Introduction to Environmental Science. Geomicrobiology was especially exciting during our “journal club” meetings, where we discussed a lot new papers on how microorganisms mediate a variety of biogeochemical cycles. In Geochemistry, we didn’t do as much wet chemistry as we normally do in 2021 and 2022, but we are starting to ramp that work back up this year (2023).

In the lab, we carried out our Ohio Department of Health and US Centers for Disease Control and Prevention-supported work to measure SARS-CoV-2 gene copies in sewage from municipal wastewater treatment plants and some of UA’s dorms. This work ended in June 2022. Olivia Hershey led our lab work, and several undergraduate students from Biology (Blake Bilinovich, Clay Hubler, and



A view from High Dune facing Northeast (Photo courtesy Maggie Mahaney class of 2026)

Lukas Mossora) and Geosciences (Ally Ripley, Pavlos Sisamis, Nick Speight) made important contributions to the project. Additionally, Joshua Davis (Integrated Bioscience PhD) is continuing his US Department of Transportation- and United

States Geological Survey-supported work to develop electrochemical techniques to detect microbiological activities in the environment. He has focused on microbially influenced corrosion and presented his work at the American Chemical



Some of our students at Black Canyon of the Gunnison.

From left to right: Forest Pence, Josh Kuhn, Henry Sarsfield, Treston Woodley (Graduate Student), Maggie Mahaney and Maria Razo (Graduate Student).

Society Spring Meeting and Midwest Geobiology Conference. Melissa Mulford (Integrated Bioscience PhD) is continuing her work to understand how microbiological iron metabolism influences the formation of caves in banded iron formation and iron ores that host unique caves in the “Iron Quadrangle” of Brazil. Melissa’s work on iron formation caves is continuing on the NSF-funded project in collaboration with Hazel Barton and Ira Sasowsky. She also presented her work at the Midwest Geobiology Conference. In Fall 2022, MS student, Terry Heard joined the lab, and he will be developing electrochemical techniques to detect microbial activities in wetland sediments. We have published several papers with collaborators from The University of Akron and elsewhere.

DR. DAVID STEER

In 2021-2022, Dr. Steer continued as Chair of the Department of Geosciences and Associate Dean for the Natural Sciences. During that period, much of his time was spent dealing with COVID-related issues at the College and Department levels. Dr. Steer taught a variety of project-based GIS graduate seminars. Students investigated land use change in the Akron area, analyzed crime patterns in San Francisco, mapped spatial distributions of future NE Ohio college students, and planned a potential pipeline route through the mid-west.

In the summer of 2022, Dave took a group of incoming students on a 9-day trip to the four corners area of the Colorado Plateau. This trip was free of charge to those students. That was made possible by your generous unrestricted donations with supplemental funding from the Dean of the Buchtel College of Arts and Sciences. After two days of driving, their first stop took them to Great Sand Dunes National Park in Colorado. There they hiked



Summer 2020 Geology Field Camp in Ohio.

to High Dune where they discussed the origin of the dunes and how they relate to the regional geology. From Great Sand Dunes National Park the group traveled west to Mesa Verde National Park and Hovenweep National Monument where they explored ancestral Puebloan culture. The next stops focused on erosional features found at Natural Bridges National Monument and Canyonlands National Park (Needles District and Island in the Sky). Since the students were in the area, they took time to explore Arches National Park to compare the processes associated with carving canyons and forming bridges to those responsible for arch formation. The next destination was a quick visit to the Quarry Exhibit Hall of Dinosaur National Monument before heading to Black Canyon of the Gunnison National Park. At Black Canyon, students had the opportunity to observe metamorphic and igneous rocks unlike anything they had seen to that point in the trip.

While the trip was long and exhausting (4500 miles in 9 days), the students were extremely impressed with the trip that gave them a great introduction to their chosen fields. We plan to organize similar trips for our new students in the future.

In the summer of 2022, Dr. Steer stepped down as Associate Dean to focus on Department matters related to moving from our temporary facilities in Central Hower to the newly renovated Crouse Hall. Those efforts began in early 2023 and continued through the summer. In the summer of 2023, Dr. Steer completed his 6th and final year as Chair of the Department of Geosciences. He then began a one-year professional development leave to rebuild a geophysics research program and to explore applications of artificial intelligence for teaching and learning.

DR. MOLLY WITTER SHELLEMAN

Molly has now been at University of Akron for 3 years! She has been teaching Introduction to Physical Geology every semester as well as Mineral Science during the Fall semesters and Silicate Mineralogy and Petrology in the Spring semesters.



Students building topographic features with augmented reality sandbox

Molly has enjoyed exploring new ways to learn with her students—including working with an augmented reality sandbox to understand topography and visiting local field sites like Furnace Run to see crystalline cobbles in the streambed that were transported by glaciers. She has also been impressed by her students' work as they put together amazing

final projects, including lightning presentations and scientific poster presentations, highlighting geologic topics of their choosing. At the end of the Spring 2021 semester, Molly spent a lot of time packing up tons of rock and mineral treasures in Crouse for our building move. After two years in Central Hower, we are back in the newly renovated Crouse and Molly is looking forward to putting mineral and rock samples back on display for students and visitors to enjoy.

Outside of teaching, Molly has been enjoying being the faculty adviser to the Association of Women Geoscientists (AWG) club (now officially recognized as "Zips chapter"). She also recently finished advising an honors project with an undergraduate student that was looking at mineralization of San Diego pegmatites. Molly has served as an honors thesis reader for undergrads and a committee member to several grad students in the department as well as an independent study

adviser. Molly has been involved with several outreach events on campus with students ranging from elementary to high school age. Outside of UA, Molly was involved with the Education Section of the American Geophysical Union (AGU) as an early career representative from 2020-2022. She penned an opinion piece for AGU about the Universal Design for Learning (UDL) teaching method during the pandemic setting. She also organized several events, workshops, and sessions for AGU's Fall Meetings that occurred in New Orleans in December 2021 and in Chicago in December 2022. She is a co-author on a published commentary piece about diversity, equity, inclusion, and justice in geosciences. With her spare time, Molly has been keeping busy with her family and chasing after her son, Graham, who was born in May 2022.

OBITUARIES

DR. ALLEN G. NOBLE

Dr Allen G. Noble, Distinguished Professor Emeritus at the University of Akron, Ohio and a longtime American Association of Geographers (AAG) member, passed away on March 24, 2020. He was 90 years old.

In his early career, Dr. Noble served as a United States Foreign Service Officer in Bombay, India, and Curitiba and Belém, Brazil. He went on to a distinguished academic and publishing career in regional, cultural, and physical geography. His book *Wood, Brick, and Stone: The North American Settlement Landscape* was nominated for a Pulitzer Prize in 1984. In the late 1980s, AAG recognized Dr. Noble with the AAG Honors, the highest award offered by the AAG. The Ohio Academy of Sciences cited him in their 100th Year Celebration as one of Ohio's Distinguished Scientists.

Noble's ability to keep his family goal oriented and organized will be greatly missed. He was predeceased by his daughter and is survived by his wife, two sons, four grandchildren and three great grandchildren.

DR. RON RUNERIC

Ron Runeric, 71, of Akron OH, passed away on June 9, 2023, while doing what he loved, trout fishing. Ron was born on September 22, 1951, in Youngstown, Ohio, to Joseph and Phyllis Runeric. He received his Doctorate from the University of Akron and went on to teach there.

Ron was a kind, gentle, and faithful man who was often hilarious, even in difficult situations. He was beloved by all who knew him. Ron had a passion for trout fishing and spent much of his free time pursuing this hobby.

Ron is survived by his wife, Donna, and step-daughter, Katie Boman of Portland, OR. He was preceded in death by his father, Joseph, mother, Phyllis, and brother, Don.

A private service was held for Ron. In lieu of flowers, contributions can be made to the ASPCA in his memory.

BIRDSALL-DREISS DISTINGUISHED LECTURER



In March 2022 the Department hosted Dr. Abe Springer of Northern Arizona University. Dr. Springer presented a lecture titled "The stories told by springs", as part of his Geological Society of America's Birdsall-Dreiss Distinguished Lecture tour. He also led a spring inventory workshop for students which was held at Castalia Blue Hole, Erie County.

TEACHER OF THE YEAR 2022 AWARD

At the 31st Annual Teacher of the Year awards ceremony held May 19, Akron Public Schools (APS) gave two of its highest honors to UA alumni.

APS recognized Hannah Couch with the David W. James Award, presented to a teacher within the first years of his/her career. Couch, who teaches at Ellet CLC, graduated from UA in 2015 with a degree in geology and later completed her AYA Life Science Licensure in 2021.

To be considered for this award, a teacher must:

- have taught for the district for fewer than 18 months;

- be an advocate for excellence through equity;
- use data effectively;
- monitor and adjust learning conditions;
- demonstrate culturally responsive teaching practices
- be respected by students

LAPLANTE VISIT

On September 10, 2022 Professor Sasowsky visited with alumnus Tom LaPlante at his home in Brimfield. They went for a hike at Springfield Bog Metro Park where they discussed the glacial history of the area as well as taking in many views of the restored prairie. After, they returned to Tom's house where they enjoyed craft cocktails and a breezy sunny afternoon with Tom's wife Therese Lueck, a retired Professor of Communications from UA. Tom is a Water Quality/Environmental Planner for the Northeast Ohio Four County Regional Planning and Development Organization (NEFCO). Prior to that he worked for Summit County Public Health dealing with water well and septic system permitting.



ALUMNI NEWS

HUNTER BULLOCK - BA 2015 GEOLOGY

Hunter Bullock & Meaghan Rooney married in 7/18/2020, but we missed it, sorry; he works for Davey Resource Group.

EMILY WOODWARD-BA 2010 GEOLOGY

I moved back to PA last March, and I'm working for the USGS Pennsylvania Water Science Center



Matt Rechenberg (MS 23) preparing to obtain sediment cores from Wyoga Lake.

at the Pittsburgh Field Office. It feels really good to be back in PA. I'm still working a bit on pesticide research, but now I'm fully immersed in the PFAS forever chemical world. I guess that's the life of an emerging contaminant researcher- always chasing the hot button contaminant.

ANDY HILLIER-BS 2016 GEOLOGY

I left my role in geotechnical engineering as a project geologist and laboratory manager as I started pursuing graduate school for business. While studying business, I also dedicated much extra time to the study of programming, statistical modeling, and data analytics, something I was passionate about in my previous roles when I was able to find projects to implement them. I'm graduating in May (2022) with my Masters of Science in Accountancy, and I've also taken all of the core coursework (including programming, software development, AI/Machine Learning and statistics) towards a second Masters of Science in Management - Business Analytics and Information Systems. I received a job offer from Ernst & Young's US East innovation team to start in May as an experienced staff Data & Analytics Delivery Specialist, where I will get to help leverage data for and create custom solutions for fortune 500 clients in the East US, while working remotely from Akron.

SARAH ASHA BURGESS-BS 2018 GEOLOGY

Sarah Burgess completed her MS thesis in 2021 at Indiana University; the title is "Sulfur systematics and carbonate diagenesis in the Mitchell Plateau, Indiana".



Fall 2023 karst trip

AN INTERVIEW WITH JOE HANNIBAL

February 2022

IDS: This is Ira Sasowsky, and I'm here today with Joe Hannibal, Senior Instructor in our Department, to introduce you to him. Joe, can you start by telling us about your background in geology? How you got interested in it and where you went to school and so forth.

JH: I became interested in geology as a young person. when I found fossils in my yard. My dad

used to make us work in his garden. It was pretty heavy-duty stuff turning over soil and occasionally I'd find piece of rock, or a fossil, and I didn't know what this stuff was. And so I brought it into my teacher who happened to know about this kind of thing and was the one grade school teacher who was extremely interested in geology.

Later I was a turning over soil and hit a shale layer. It was the famous Cleveland Shale and like a nascent geologist I broke a piece off. I didn't know exactly what I saw in it but thought it could be a fossil bone of something. I took it to the Natural History Museum and they identified it as a median dorsal that is middle of the back bone of Dunkleosteus which is now the state fossil fish.

IDS: So, you had an early interest, and then did you study geology as an undergraduate?

JH: No, I didn't. It's a long story, but I started in a two-year college, a community college in Cleveland, and I was going to major in biology in college, but then the school I transferred to, which was Kent State, would not accept my organic chemistry class. And I thought my God, I can't take that over again. So, I changed over to anthropology. Then I went to library school, and I was working as a librarian and realized that, oh my gosh, I'm working and you only have to work 40 hours a day a week. And I found myself watching television in the evening, and I thought "what am I doing?" I'm wasting my life and so I decided to take a night-course in the subject that everybody said, well don't take anything in that because it it'll delay your graduation, and that of course was introduction to geology. And that was great, and the information was wow, why didn't ever do this before? It turns out it was taught by a grad student from the University of Akron.

JH: So, I took that night course and then I took



Nicole Wagner (U. Minnesota) presenting talk at AGU 2022



Maria Razo discussing results with (Left to Right) Leif Tolke, Julien Gase and Dianne Czeck at Fall AGU

the next semester another one and then I started taking more geology. And so, I took courses at Cleveland State, and then back at Kent State again. I was finishing my bachelors when Barry Miller (KSU Professor) said, what are you doing? And I said, well, it's because I don't have a bachelors in geology and he said you've got all these courses just change over to grad school and so I did. After that I had a couple of job offers and they took the one for Amerada Hess. And then I got laid off. But my well came in and they sent me the information afterwards, and it was kind of cool. I worked after that at the Natural History Museum in Cleveland. I also earned my Ph.D. at Kent State at that time.

IDS: And when did you join CMNH?

JH: 1983, and I retired a few years ago. I was curator of invertebrate paleontology. Now I am emeritus there. We're doing some final designs on completely new exhibits having to do with geology and biology.



IDS: OK, great and now can you tell us about how you have now become involved with the University of Akron and what you're teaching?

JH: Well, I'm teaching a paleobiology at the University of Akron, as there was not anybody teaching it for a couple of years. The laboratories

were most difficult to develop because you had to find things and maybe say this gently, things that were not in the best order. So the first thing was to find things for the course and then the next thing you know we were moving everything to Central Hower for the Crouse building renovation.



Measuring steep dip

IDS: And within the field of invertebrate paleontology, do you have a subspecialty or certain organisms that you focus on or

areas?

JH: My big thing over the years has been fossil myriapods, which include fossil of millipedes and centipedes.

IDS: know you've also been really involved in the Northern Ohio Geological Society. Can you tell us a little bit about that organization?

JH: I haven't been too involved with lately because we haven't done anything because of a series of problems with meeting locations and we haven't quite organized an online presence. But over the years, I've been active in that group, helping to organize meetings is my basic role. I've also been involved with the Geological Society of America and the little bit on committees of the International Union of Geological Sciences.

IDS: If I'm not mistaken you were an officer for the North Central section of the GSA.

JH: That is correct. I was secretary for eight years. What you had to do was provide oversight of the organization. They had meetings and they gave away money to students and those were the really two big things that we did, and my role was to

watch the budget. While I was doing it we went from \$20,000 to over \$200,000

IDS: Wow, great.

JH: And then the other thing you would have to do is line up people to host the next meetings. So, what I would do is go to meetings and sometimes take people out to lunch, buy them a beer, whatever it took, and talk to them about possibly running a Section meeting, which is a really big job.

IDS: If I recall correctly, you also have been designated as a Fellow in the Geological Society, is that correct?

JH: It is, but you are too Ira!

IDS: That is true – it is a nice honor.

IDS: Sort of looking back so you've had a very diverse career with industry and with the museum and now with the teaching. Are there any hints that you would give to students that are coming in? Or considering geology in terms of choices they should make?

JH: I would follow your passion. And I would do well. OK, that's hard to do well and everything, but once you get in what you need to do is get an A in something because you got that professor on your

side when you're going to need the, you know, some kind of letters written in the future.

IDS: Super, good advice! Are there any last comments that you'd like to make before we close up?

JH: Yeah I do. I wanna say that I'm impressed with the Geology faculty at the University of Akron, and I think the faculty are especially helpful to students. I see what you folks do. And, I try to emulate you as much as possible. So, with the various concepts and ideas you have on how to do things, and I think you're probably the most helpful-to-students faculty that I know of. Especially considering the amount of time that you folks put into the evaluation of student works. It's admirable.

IDS: Well, thank you for the compliment. Then I guess going back the other way, I would say we're just so incredibly thankful that you're willing to participate in the education of the students. You know, paleontology/paleobiology is such an important facet of understanding Earth history. And of course, most of geology, when you really look at it, is thinking about Earth history. I hope you continue to participate in teaching paleo, and also participate in new ways if it's possible.

JH: Well, sounds good to me. I have to tell you one more thing. I love Zippy! I saw a plush Zippy toy at the bookstore and I thought this is really cool and I started playing with it with my grandchildren in California, they're two and six, on the web using zoom. And then I thought, well, wait a minute, let's make this bigger. So I bought them each one and mailed them to them, and now we play with our Zippys every week!

IDS: You are truly a Zip now! Thanks for taking the time to let us know about you.



Field lecture at Gorge Metro Park during the summer 2021 local field camp

SCHOLARLY PUBLICATIONS

(Geoscience faculty are bolded while current or previous Geoscience students are in italics)

BOOKS

Wissek, M. and **Barton H.A.** (eds.), 2022, Lechuguilla Cave: Discoveries in a Hidden Splendor. Speleo-photo editions, 240 p.

PAPERS

Auler, A.S., **Barton, H.**, Zambelli, B., **Senko, J.**, Parker, C.W., **Sasowsky, I.D.**, Souza, T.A.R.; Pujoni, D.; Peñaranda, J., and Davis, R., 2022, Silica and iron mobilization, cave development and landscape evolution in iron formations in Brazil *Geomorphology*, v. 398, p. 1-22 (doi 108068).
Baird, G.C., Harper, J.A., Over, D.J., **Hannibal, J.T.**, McKenzie, S.C., and Temer, I.H., 2023, Chapter 4: Late Famennian Conneaut Group to basal-Mississippian stratigraphic succession and geochronology, New York/Pennsylvania borderland and Lake Erie region, p. 113–209, in: *Devonian of New York, Volume 3: Frasnian to Famennian (Upper Devonian) stages and the Devonian terrestrial system in New York*, C. A. Ver Straeten, D. J. Over, and D. Woodrow (eds.), *Bulletins of American Paleontology*, 407–408. DOI: 10.32857/bap.2023.407.04.



Caleb Holyoke explaining folds and faults in Summit County during Summer 2021 Geology Field Camp in Ohio.

Boherova, Z., Brinkman, N.E., Chakravarti, R., Chattopadhyay, S., Faith, S., Garland, J., Herrin, J., Hull, N., Jahne, M., Kang, D.-W., Keely, S.P., Lee, J., Lemeshow, S., Lenhart, J., Lytmer, E., Malgave, D., Miao, L., Minard-Smith, A., Mou, X., Nagarkar, M., Quintero, A., Savona, F.D.R., **Senko, J.**, Slonczewski, J.L., Spurbeck, R.R., Sovic, M.G., Taylor, R.T., Weavers, L.K., Weir, M. 2023. Ohio coronavirus wastewater monitoring network: implementation of statewide monitoring for protecting public health. *Journal of Public Health Management & Practice*. 29:845-853.
Breley, George J., Matthew E Jennings, Kathleen Gisser, Anna Drabik, Joe Kainrad, **Hazel A Barton**, 2023,

Techniques for Quantifying Bacterially Induced Carbonate Mineralization in *Escherichia coli*. *Geomicrobiology Journal*, v. 40, no. 1, p. 88-99.
Calapa, Kayla A , Melissa K Mulford, Tyler D Rieman, **John M Senko**, Augusto S Auler, Ceth W Parker, **Hazel A Barton**, 2021, Hydrologic alteration and enhanced microbial reductive dissolution of Fe (III) (hydr) oxides under flow conditions in Fe (III)-rich rocks: Contribution to cave-forming processes. *Frontiers in Microbiology*, v. 12, p. 696534.
Chartolani, G., Aden, D. J., **Sasowsky, I. D.**, Parrick, B. D., and Fisher, T. J., 2023, Morphology of Sinkholes on an Extensive Glaciated Karst Plain, Bellevue, Ohio, USA, in Land, L., Kromhout, C., and Suter, S., eds.,



Dr. Sasowsky disinfects tables, during COVID

Proceedings of the 17th Multidisciplinary Conference on Sinkholes and the Engineering and Environmental Impacts of Karst, Tampa, Florida, National Cave and Karst Research Institute Symposium 9, National Cave and Karst Research Institute, p. 253-264.
Davis, A., Keely, S.P., Brinkman, N.E., Boherova, Z., Ai, Y., Mou, X., Chattopadhyay, S., Hershey, O., **Senko, J.**, Hull, N., Lytmer, E., Qunitero, A., Lee, J. 2023. Evaluation of intra- and inter-lab variability in quantifying SARS-CoV-2 in a state-wide wastewater monitoring network. *Royal Society of Chemistry: Environmental Science Water Research & Technology*. 9:1545.



UA Geoscience majors who presented at 2022 NC-GSA met a dinosaur.

Fortner, S. K., Manduca, C. A., Ali, H. N., Saup, C. M., Nyarko, S. C., Othus-Gault, S., Perera, V., Tong, V. C. H., Gold, A. U., Furman, T., Arthurs, L., Mulvey, B. K., St. John, K., Singley, J. G., Johnson, E. T., **Witter, M.**, Batchelor, R. L., Carter, D. T., Damas, M. C., LeMay, L., Layou, K. M., Low, R., Wang, H. H., Olson-Sawyer, K.,



Photo of elevator during Crouse reconstruction

- Pallant, A., Ryker, K., Lukes, L., LaDue, N., Ryker, K., and van der Hoeven Kraft, K. (2022). Geoscience Education Perspectives on Integrated, Coordinated, Open, Networked (ICON) Science. *Earth and Space Science*, 9, e2022EA002298. <https://doi.org/10.1029/2022EA002298>
- Martin, G., S. Sharma, W. Ryan, N. K. Srinivasan, J. **M. Senko**. 2021. Identification of microbiological activities in wet flue gas desulfurization systems. *Frontiers in Microbiology*. 12:1771.
- Mifflin, Ryan, Jung Eun Park, Mikang Lee, Prasant Kumar Jena, Yu-Jui Yvonne Wan, **Hazel A Barton**, Mirjavid Aghayev, Takhar Kasumov, Li Lin, Xinwen Wang, Robert Novak, Feng Li, He Huang, Leah P Shriver, Yoon-Kwang Lee, 2023, Microbial products linked to steatohepatitis are reduced by deletion of nuclear hormone receptor SHP in mice. *Journal of Lipid Research*, v. 64, no. 12, 10054.
- Miller, R. B. II, Ghademi, H., Chinthala, S.P., Sadek, A., Crouch, A.L., Floyd, J.G., Stevenson, B.S., Crookes-Goodson, W., **Senko, J.M.**, Monty, C.N. 2023. Evaluation of microbial corrosion in biofuel storage tanks using split-chamber zero resistance ammetry. *Journal of Applied Electrochemistry*. 53:1269-1277.
- Namani, T., Reghan J Ruf, Iskinder Arsano, Ruibo Hu, Chrys Wesdemiotis, **Nita Sahai**, 2023, Novel Chimeric Amino Acid-Fatty Alcohol Ester Amphiphiles Self-Assemble into Stable Primitive Membranes in Diverse Geological Settings, *Astrobiology*, v. 23, no. 3, p. 327-343.
- Namani, T., Savannah Snyder, James M Eagan, Philip C Bevilacqua, Chrys Wesdemiotis, **Nita Sahai**, 2022, Amino acid specific nonenzymatic montmorillonite-promoted RNA polymerization, *ChemSystemsChem*, v. 3, no. 3, p. e2000060.
- Parker, C. W., **Senko, J. M.**, Auler, A. S., Sasowsky, I. D., Schulz, F., Woyke, T., and **Barton, H. A.**, 2022, Enhanced terrestrial Fe(II) mobilization identified through a novel mechanism of microbially driven cave formation in Fe(III)-rich rocks: *Scientific Reports*, v. 12, no. 1, p. 17062. Submitted July 6, 2022. Available at <https://rdcu.be/cXoaE>
- Prakash, A., **Holyoke, C. W.**, Kelemen, P. B., Kirby, S. H., Kronenberg, A. K., Lamb, W., 2023, Carbonates and Intermediate-Depth Seismicity: Stable and Unstable Shear in Altered Subducting Plates and Overlying Mantle Wedge, *Proceedings of the National Academy of Sciences*, v. 120, No. 21, e2219076120, doi: 10.1073/pnas.2219076120
- Rae, E., Xinyu Sun, Yuqing Yang, Xiaohan Xu, Yifan Zhou, **Nita Sahai**, Tianbo Liu, 2022, Electrostatic interaction regulated self-assembly of simple inorganic macroions into blackberry structures and their possible role as compartment systems in the origin of life, *Giant*, v. 12, p. 100125.
- Rae, E., Bingqing Liu, Yuqing Yang, Trishool Namani, Yunpeng Cui, **Nita Sahai**, Xiaopeng Li, Tianbo Liu, 2022, Side Group of Hydrophobic Amino Acids Controls Chiral Discrimination among Chiral Counterions and Metal–Organic Cages, *Nano Letters*, v. 22, no. 11, p. 4421-4428
- Ranjan, S., Khaled Abdelazim, Gabriella G Lozano, Sangita Mandal, Cindy Y Zhou, Corinna L Kufner, Zoe R Todd, Nita Sahai, Dimitar D Sasselov, 2023, Geochemical and photochemical constraints on S [IV] concentrations in natural waters on prebiotic Earth, *AGU Advances*, v. 4, No. 6, p. e2023AV000926.
- Sadek, A., Chinthala, S.P., **Senko, J.M.**, Monty, C.N. 2023. Effects of hydrodynamic environment on the interaction of *Shewanella oneidensis* with low carbon steel and the impacts on corrosion. *Corrosion*. 79:957-963.
- Sahai, Nita**, Segun Adebayo, Martin A Schoonen, 2022, Freshwater and Evaporite Brine Compositions on Hadean Earth: Priming the Origins of Life, *Astrobiology*, v. 22, no. 6, p. 641-671.
- Sasowsky, I. D.**, Byle, M. J., and Rana, A. J., 2023, Breadth is critical when evaluating zone-of-influence



Senko setting a pump up in the dorms

and collapse sinkhole risk for carbonate rock quarries, in Land, L., Kromhout, C., and Suter, S., eds., Proceedings of the 17th Multidisciplinary Conference on Sinkholes and the Engineering and Environmental Impacts of Karst, Tampa, Florida, National Cave and Karst Research Institute Symposium 9, National Cave and Karst Research Institute, p. 221-228.

Sharma, S., **N. J. Wander**, W. G. Ryan, M. Lautzenheiser, T. J. Cutright, **J. M. Senko**. 2021. Potential for passive treatment of coal mine-derived acid mine drainage in abandoned stream channels. *Mine Water and the Environment*. 40:1016-1024.

Singer, D., E. Herndon, L. Zamanek, K. Cole, T. Sanda, **J. Senko**, N. Perdril. 2021. Biogeochemical controls on the potential for long-term contaminant leaching from soils developing in historic coal mine spoil. *Soil Systems*. 5:3.

Tantisuwanon, C.; Dang, F.; Bender, K.; Spencer, J. D.; Jennings, M. E.; **Barton, H. A.**; Joy, A. Synergism between Rifampicin and Cationic Polyurethanes Overcomes Intrinsic Resistance of *Escherichia Coli*. *Biomacromolecules* 2021, 22 (7), 2910– 2920, DOI: 10.1021/acs.biomac.1c00306

Ustriyana, P., Fabian Schulte, Farai Gombedza, Ana Gil-Bona, Sailaja Paruchuri, Felicitas B Bidlack, Markus Hardt, William J Landis, **Nita Sahai**, 2022, Spatial survey of non-collagenous proteins in mineralizing and non-mineralizing vertebrate tissues ex vivo, *Bone Reports*, v. 14, p. 100754

Vishwakarma, A., Francis Dang, Allison Ferrell, **Hazel A. Barton**, and Abraham Joy 2021 Peptidomimetic polyurethanes disrupt surface established bacterial biofilms and prevent biofilm formation. *Journal of the American Chemical Society* 143 (25), 9440-9449 DOI: 10.1021/jacs.1c02324

Wengert, P.C., Narayan H Wong, **Hazel A Barton**, Han Ming Gan, André O Hudson, Michael A Savka, 2021, Genomic characterization of bacteria from the ultra-oligotrophic Madison aquifer: insight into the archetypical LuxI/LuxR and identification of novel LuxR solos. *BMC Research Notes*, v. 14, no. 1, p. 175.

Wisshak, M., **Hazel A Barton**, Katey E Bender, Harvey R Duchene, 2022, the barite conundrum: active



Field studies students having appetizers at the WVACS field station, Fall 2023



Structural geology field trip looking at isoclinally folded contact between a Precambrian gneiss and Catoclin Greenstone

growth of non-hydrothermal BaSO₄ speleothems in Lechuguilla Cave (New Mexico–USA), in: Proceedings of the 18th International Congress of Speleology–Savoie Mont Blanc, p. 177-180.

Witter, M. (2021). Designing Geosciences for All. Perspectives on Earth and Space Science Educational Research, Vol. 2, Issue 3, American Geophysical Union Education Section. <https://connect.agu.org/education/resources/pesser/vol2-issue3>

ABSTRACTS

Barton, H.A., Parker, C.W., **Senko, J.**, Auler, A.S., and Sasowsky, I.D., 2022, Exothenic speleogenesis: Microbes making caves from the outside in: in, Pelczarski, C. and Kambesis, P. (eds.), 2022 NSS Convention Program Guide, Rapid City, South Dakota, p. 43.

Byle, M. , **Sasowsky, I.D.**, and Rana, A.G., 2021, A 25-year history of induced sinkhole development due to quarry dewatering in Bucks County, Pennsylvania, in: Program with Abstracts, Association of Environmental & Engineering Geologists 2021 Annual Meeting in San Antonio, Texas, AEG News, v. 64, n. 4, p. 54-55.

Connor, H. and Peck, J.A., 2023. Refining the pollution history of the former Munroe Falls Dam impoundment, Cuyahoga River, Ohio. Geological Society of America Abstracts with Programs. Vol. 55, No. 6, doi: 10.1130/abs/2023AM-391114

Dwyer, T., Sasowsky, I.D. and Bullerjahn, G.S., 2022, Chemical and flow characteristics of major karst springs of north-central Ohio: Geological Society of America Abstracts with Programs, v. 54, no. 4, doi: 10.1130/abs/2022NC-374263.

Fisher, T., Chartolani,



Hailey Connor field mapping



Packing the GRC to move to Central Hower

- G., Aden, D., **Sasowsky, I.D.**, and Parrick, B., 2023-Subglacial meltwater erosion presages landscape for renewed karstification, Geological Society of America Abstracts with Programs, v. 55, no. 3, doi: 10.1130/abs/2023NC-386753.
- Ghaffari, H., **Holyoke, C.W.**, Seltzer, C., Cohen, M., Ortega-Arroyo, D., Pec, M., 2023, Listening to stories rocks tell at high pressures, Abstract MR31A-0050 presented at 2023 Fall AGU Meeting, 11-15 Dec.
- Hilliard, G.**, **Holyoke, C.W.**, 2022, Effect of Pre-existing Shear Zone Orientation on Rock Strength, Geological Society of America Abstracts with Programs. Vol. 54, No. 4, doi: 10.1130/abs/2022NC-374560
- Hoffmann, C.** and **Peck, J.A.**, 2022. Environmental history as recorded in the sediments of Lake Isaac in Middleburg Heights, Ohio, 2022. Geological Society of America Abstracts with Programs. Vol. 54, No. 4, doi: 10.1130/abs/2022NC-374845
- Holyoke, C.**, Braccia, C., 2021, Transient effects of a pre-existing lattice preferred orientation on the strength of foliated quartzite, EGU General Assembly 2021, online, 19-30 Apr 2021, EGU21-1860, <https://doi.org/10.5194/egusphere-egu21-1860>.
- Hu, Ruiibo, **Nita Sahai**, 2022, Citric Acid-modified Hydroxyapatite Nanoparticles as an Antibiotic Protein Carrier, APS March Meeting Abstracts, p. S05. 009.
- Isaac, M.** and **Peck, J.A.**, 2023. Using soil and forest type to map bedrock at Nemo, South Dakota. Geological Society of America Abstracts with Programs. Vol. 55, No. 6, doi: 10.1130/abs/2023AM-391471
- Kelemen, P., Goldsby, D., **Holyoke, C.W.**, Kirby, S., Lamb, W., Prakash, A., Spiegelman, M., Hirth, G., Homburg, J., Kronenberg, A.K., McCarthy, C., Skarbek, R., 2023, Viscous earthquakes, Abstract MR31A-0058 presented at 2023 Fall AGU Meeting, 11-15 Dec.
- Leventhal, C.**, **Witter, M.**, and **Holyoke, C.W.** (2023). Development of melt interconnectivity during ductile deformation of an amphibolite.
- Leventhal, C.**, **Witter-Shelleman, M.**, **Holyoke, C.W.**, 2023, Development of melt interconnectivity during ductile deformation of an amphibolite, Abstract MR23B-0084 presented at 2023 Fall AGU Meeting, 11-15 Dec.
- Namani T., Snyder S., Eagen J., Bevilacqua P. C., Wesdemiotis C. and **Sahai N.**, 2021, Amino acid specific montmorillonite-promoted RNA polymerization. ChemSystemsChem. 3, e2000060. Conference Abstracts and University Colloquium Seminars.
- Namani, Trishool, Iskinder Y Arsano, Reghan Ruf, **Nita Sahai**, 2022, Primitive Membrane Compartments, 2022 Astrobiology Science Conference.
- Petersen, A.K., **Witter, M.**, and Johnson, E.J. (2021). What is the Student/Early Career Working Group (SECWG) of the AGU Education Section?
- Prakash, A., **Holyoke, C.W.**, Kelemen, P., Kirby, S., Kronenberg, A.K., Lamb, W., 2023, Stable and Unstable Shear within Carbonate Shear Zones in Altered Subducting Plates and Overlying Mantle: Viscous Earthquakes and Intermediate-Depth Seismicity, Abstract MR31A-0059 presented at 2023



Coastal Geology students at Headlands State beach (2021).

- Fall AGU Meeting, 11-15 Dec.
- Rae E., Li H., Sun X., Ustriyana P., Luo Jiancheng, Chen Jiahui, **Sahai N.** and Liu T., 2021, Self-assembly of chiral metal-organic cages at the presence of chiral counterions; Chirality effects on the intermolecular interactions. Bull. Amer. Phys. Soc.
- Rae, Ehsan, Bingqing Liu, Yuqing Yang, Trishool Namani, **Nita Sahai**, Xiaopeng Li, Tianbo Liu, 2022, Interplay between physical interactions controls chiral discrimination during the self-assembly of chiral metal-organic cages, APS March Meeting Abstracts, p. M19. 003.
- Razo, M.**, **Holyoke, C. W.**, 2022, Evolution of Strength Anisotropy and Microstructures of a Foliated Gneiss as a Function of Strain, Abstract T55C-0072 presented at Fall 2022 AGU Meeting, 12-17 Dec.
- Razo, M.**, **Holyoke, C.W.**, 2022, Effects of Melt Interconnectivity and Composition on the Strength of



Fall 2023 visit to the Lost World Caverns

a Fine-grained Gneiss, Geological Society of America Abstracts with Programs. Vol. 54, No. 4, doi: 10.1130/abs/2022NC-374542

Rechenberg, M. and Peck, J., 2022. Testing Wolman's sediment yield model: A 220-year record from Wyoga Lake, Summit County, OH. 51st Annual Water Management Association of Ohio Conference Proceedings, Nov 8-9, 2022, Columbus, Ohio.

Rechenberg, M. and Peck, J.A., 2022. Surface sediment distribution by lake processes in Wyoga Lake, OH. Geological Society of America Abstracts with Programs. Vol. 54, No. 4, doi: 10.1130/abs/2022NC-374925

Rego, M. and Peck, J., 2021. Using lake sediment to project future conditions: An example from Summit Lake, Akron, Ohio. 50th Annual Water Management Association of Ohio Conference Proceedings, p. 33. Nov 3-4, 2021, Columbus, Ohio.

Rego, M. and Peck, J.A., 2022. Interactions between urban lake hydrology and sediments: An example from Summit Lake, Akron, Ohio Geological Society of America Abstracts with Programs. Vol. 54, No. 4, doi: 10.1130/abs/2022NC-375164

Ruf, Reghan, Trishool Namani, Iskinder Y Arsano, **Nita Sahai,** 2022, The Effects of Alkali Cations and Alpha Amino Acids on Nonenzymatic Montmorillonite-Catalyzed RNA Polymerization, 2022 Astrobiology



Preparing lunch for the Karst Trip

Science Conference, AGU.

Ryan, M., Holyoke, C.W., 2022, Relative Viscosities of Wet Olivine Aggregates with Different Crystallographic Preferred Orientations: Implications for Seismic Anisotropy in the Mantle Wedge, Geological Society of America Abstracts with Programs. Vol. 54, No. 4, doi: 10.1130/abs/2022NC-374555

Sahai N., 2021, Mutualism and coevolution of biopolymers, metals and minerals. XIXth meeting of the International Conference of on the Origin of Life (virtual) organized by the International Society for the Study of the Origins of Life (ISSOL).

Sasowsky, I.D., 2022, Cave growth in relation to rock failure, near surface stresses, and critical zone propagation in: Program with Abstracts, PRF 2022: Progressive Failure of Brittle Rocks, A GSA Penrose Conference, Flatrock, North Carolina, p. 16.

Sasowsky, I.D., 2023, Role of geologic history and basic factors in karst models (Abstract for invited keynote lecture), in: Švara, A., Zupan Hajna, N., and Gabrovšek, F., (eds.), Karst – Approaches and Conceptual Models, Abstracts and Guidebook for the 30th International Karstological School "Classical Karst", Karst Research Institute, Založba ZRC, Scientific Research Centre of the Slovenian Academy of Sciences and Arts, p. 147.



Geology Field Camp in SD (2023).

Sasowsky, I.D., and Alexander, E.C., Jr., 2021, Processes and problems in sandstone karst, in: Program with Abstracts, Association of Environmental & Engineering Geologists (AEG) Karst Hazards Virtual Forum (Invited Lecture), March 23-April 1, p. 19.

Sasowsky, I.D., Auler, A.S., Senko, J., and Barton, H.A., 2022, Autogenic clastic sedimentation in iron formation caves: in, Programme & Abstracts, Climate Change: The Karst Record IX (KR9), Innsbruck, Austria, p. 135.

Sebree, J., Justin P Peters, Marek K Sliwinski, Morgan L Cable, **Hazel A Barton,** Jennifer G Blank, Daniel Jones, 2022, Wind Cave as a Terrestrial Analog for Subsurface Liquid Reservoirs of Icy Moons. The Astrobiology Science Conference (AbSciCon) 2022, held in Atlanta, Georgia, US, 15-20 May 2022, Session: Subsurface habitability and life, id. 304-04.

Senko, J., Barton, H.A., Auler, A.S., Sasowsky, I.D., Calapa, K.A., Mulford, M.K., and Parker, C.W., 2022, Identifying mechanisms of cave formation in Fe(III)-rich rocks: Invited Abstract,



Coastal Geology students in Lake Erie (2021).

American Chemical Society Spring 2022 Meeting (March 20-24). <https://www.morressier.com/o/event/623377e0b300ee00119b311f/article/6234a1aa818a915252b80bd4>

Speight, N., 2023, Soil magnetism as a function of slope, Norwescor Holstein Farms in Stark Co., Ohio: Geological Society of America Abstracts with Programs. Vol. 54, No. 4 doi: 10.1130/abs/2022NC-374644

Tallon, J., Holyoke, C.W., 2021, Viscous anisotropy of a gneiss with interconnected micas, Abstract T15A-0168, presented at 2021 Fall AGU Meeting, 13-17 Dec.

Waller, J., Holyoke, C.W., 2021, How strong does foliation have to be in order to affect the rheology of the continental crust?, Abstract T15A-0166 presented at 2021 Fall AGU Meeting, 13-17 Dec.

Waller, J., Holyoke, C.W., 2022, Foliation Intensity and Orientation and Their Effect on Rock Strength, Geological Society of America Abstracts with Programs. Vol. 54, No. 4, doi: 10.1130/abs/2022NC-374564

Witter, M. and Johnson, E.J. (2022). Providing Outreach and Engagement Programming through the Education Section Student and Early Career Working Group.

Wood, M. and **Peck, J.A.**, 2023. Dilutional effects of upstream sediment on downstream heavy metal content, Black River, OH. 52nd Annual Water

Management Association of Ohio Conference Proceedings, Nov 7-8, 2023, Columbus, Ohio.

Wood, M. and **Peck, J.A.**, 2023. The effect of land cover on sediment quality in the Black River, OH. Geological Society of America Abstracts with Programs. Vol. 55, No. 6, doi: 10.1130/abs/2023AM-391210

PART-TIME TEACHERS

In the period 2021-2023 the following part-time teachers contributed to our programs

- Dr. Robert Barrett
- Ms. Chrystal Fretz
- Dr. Joseph Hannibal
- Dr. Ron Runeric

MSA DISTINGUISHED LECTURER VISITS

November 16, 2022 we had a visit from Mineralogical Society of America Distinguished Lecturer Emily Stewart. Dr. Stewart is Assistant Professor at the Dept. Earth, Ocean and Atmospheric Science, Florida State University, and spoke on The intertwined fates of lithospheric carbon and life on Earth. She also enjoyed a stroll in Gorge MetroPark with Drs. Sasowsky and Donnelly.



Geology Field Camp in SD (2023).

DEGREES AWARDED

SPRING 2021

MS Geography/Geog Info Sci – Abdulaziz Alazzam

BSME Geology (Minor) – Joshua King

MS Geology – Jonathan Kullberg

BA Geology – John Kinder

BA Geology – Kayley Martin

BA Geology – Brooke Noll

CER Environmental Studies (Cert) – Ashley Miihlbach

CER Environmental Studies
(Cert) – Brianna Rymer

SUMMER 2021

BS Geology – Cayman
Goostree
BS Geology – Vang Lor
BS Geology – Maria Razo
BS Geology – Andrew
Steward
BS Geology – Nicole Wagner
BS Geology – Treston
Woodley
BA Geology–Nathan Hoffman
BA Geology–Teigen Woodruff
CER Environmental Studies
(Cert) – Vang Lor

FALL 2021

MS Geography/Geog Info Sci
– Abdullah Aljubair
BS Geology – Amanda Collins
BS Geology – Asia Dudik
BS Geology – Nathaniel
Sowko
BA Geology – Juley Bogdan
BA Geology – Sarah Gerding
BA Geology – Brendan
Niehaus
BA Geology – Korey Valentine
CER Environmental Studies
(Cert) – Jessica Ross
CER Environmental Studies
(Cert) – Sarah McInerney

SPRING 2022

BS Geology – Alexandria
Ripley
BA Geology – Russell Pier
BA Geology – Owen
Goodheart
BA Geology – Amber Mack
BA Geology – Randy Nguyen
CER Environmental Studies
(Cert)–Alexandria Ripley
CER Environmental Studies
(Cert) – Colton Ritchey

SUMMER 2022

BS Geology – Rex Jackson
BS Geology – Charley
McCune
BS Geology – Megan Ryan
BS Geology – Nicholas
Speight
BS Geology – Leah Stanevich
MS Geology – Melissa Rego
MS Geology – Jacob Tallon
MS Geology – Jacob Waller
BA Geology – Cody Lamb
BA Geology – Pavlos Sisamis
BA Geology– Liam Smartt
BA Geology–Cordelia

Hoffmann
CER Environmental Studies
(Cert) – Cody Lamb
CER Environmental Studies
(Cert) –Leah Stanevich

FALL 2022

BS Geology – Geoffrey
Hilliard
BS Geology – Susami Seth
MS Geology – Trevor Dwyer
BA Geology – Heather
Suppan
BA Geology – Ryan Everett
BA Geology– Monica Rowles
CER Environmental Studies
(Cert) – Olivia Koval

SPRING 2023

BS Geology – Matthew Sheets
BSCE Geology (Minor)
Kendra Sanner
MS Geology – Maria Razo
MS Geology – Matthew
Rechenberg
MS Geology – Treston
Woodley
BA Geology – Andrew Halko
A Geology– Kirsten Handley
CER Environmental Studies
(Cert) – Samuel Hudik
CER Environmental Studies
(Cert) – Alexis Kiefer
CER Environmental Studies
(Cert) – Stephen Smith
CER Environmental Studies
(Cert) – Anna Richards

SUMMER 2023

BS Geology – Jonathan
Blackert
BS Geology – Elise Hansen
BS Geology – Ethan Rang
BS Geology – Nina White
BA Geology – Meghan
Weinberg
BA Geology – Garrett Wiley
CER Environmental Studies
(Cert) – Meghan Weinberg
CER Environmental Studies
(Cert) – Nina White

FALL 2023

BSGIS Geography – Stephen
Benes
BS Geology – Hailey Connor
BS Geology – Madison Isaac
BA Geology– Haley Ikey
BA Geology– Gabrielle Potter
CER Environmental Studies
(Cert) – Brooklyn Hunger
CER Environmental Studies
(Cert) – Danne Symon

GEOSCIENCE DONORS

2021

- Mr. Michael P. Angle
- Mr. and Mrs. Bruce E. Archinal
- Mrs. Leslie Bain
- Mr. Christopher M. Bauer
- Dr. William C. Beck
- Mr. John A. Bickley
- Mr. James V. Bikun
- Mr. Michael E. Bolas
- Ms. Stephanie Bosze Salisbury
- Ms. Rebecca S. Bralek
- Mr. Pierre W. Bruno
- Mr. Eric D. Buie
- Mr. George J. Cherpas
- Mr. Glenn C. Cranston
- Mr. Nathan P. Croasmun II
- Mrs. Barbara G. Crotty
- Mr. Philip J. Daly
- Mr. Gregory A. Del Mastro
- Mr. Connor D. Estes
- Elaine Estes
- Mr. Richard J. Fantel
- Mr. Waldo J. Frlich
- Mr. John R. Gifford
- Dr. Ellen O. Goggins
- Mr. Charles E. Gross
- Ms. Sandra D. Gruber
- Ms. Denise M. Hancsak
- Mr. Patrick A. Harrington
- Mr. Gary M. Harris
- Mr. George D. Havale
- Ms. Karen A. Heffley
- Mr. and Mrs. Philip D. Heppard
- Mr. Brian T. Huber
- Mrs. Jody A. Kaufman
- Mr. Joseph C. Kelly
- Mr. Douglas S. Kenaley
- Dr. A.W. Gerhard Kunze
- Mrs. Selena M. Kunze
- Mr. William Landin
- Mr. Thomas M. LaPlante
- Mr. Albert W. Layton
- Mr. Richard C. Lorson
- Mr. Frank A. Marsek
- Mr. Peter J. Mazzeo
- Mr. Michael R. McVan
- Mr. Merrell A. Miller
- Mr. Theodore T. Mowers
- Dr. Arpita Nandi
- Mrs. Dena L. Nay
- Mr. Patrick L. Noon
- Mr. Joshua A. Novello
- Mrs. Doritza
- Pagan-Rodriguez
- Mr. James D. Pennino
- Ms. Aimee Pergalsky
- Mr. and Mrs. Patrick T. Pringle
- Mr. David Prochazka
- Mrs. Christine G. Pyscher
- Mr. Thomas J. Quick
- Mr. James A. Ruberti
- Mrs. Sharon M. Sartain
- Mr. David A. Shank
- Mr. William B. Stachowiak
- Dr. David N. Steer
- Mrs. Cassandra M. Stopar
- Mr. Jeffery A. Sussman
- Mr. Dennis R. Theoret
- Mr. Thomas J. Tobias
- Mr. Bill A. Van Sickel
- Mrs. Verna J. Vander Kooi
- Mr. Jerry W. Weber
- Mr. James R. Weise
- Mr. Grant B. Wilk
- Mr. Warren L. Woolford
- ConocoPhillips Company
- Lubrizol Foundation
- Mary Ann and Bruce E. Archinal Charitable Fund
- Richard Lorson Family Charitable Foundation Fund
- Saint-Gobain Corporation Foundation
- Shell Oil Company Foundation
- Southwestern Energy
- The Cleveland Foundation
- Vanguard Charitable
- WCBeck Incorporated

2022

- Mr. Michael P. Angle
- Mrs. Leslie Bain
- Dr. William C. Beck
- Mr. John A. Bickley
- Mr. James V. Bikun
- Mr. Cary C. Chen
- Mr. George J. Cherpas
- Mr. Glenn C. Cranston
- Mr. Connor D. Estes
- Kerry and Elaine Estes
- Mr. Richard J. Fantel
- Dr. Annabelle Foos
- Mr. Bruce M. Fowler

- Mr. Waldo J. Frlich
- Dr. Ellen O. Goggins
- Mr. Charles E. Gross
- Ms. Denise M. Hancsak
- Mr. Patrick A. Harrington
- Mr. Gary M. Harris
- Ms. Karen A. Heffley
- Mr. Philip D. Heppard
- Dr. A.W. Gerhard Kunze
- Mr. William Landin
- Mr. Thomas M. LaPlante
- Mr. Richard C. Lorson
- Mr. Frank A. Marsek
- Mr. Patrick L. Noon
- Mrs. Doritza
- Pagan-Rodriguez
- Mr. James D. Pennino
- Mr. Patrick T. Pringle
- Mr. Thomas J. Quick
- Mr. William B. Stachowiak
- Dr. David N. Steer
- Mr. Jeffery A. Sussman
- Ms. Katherine L. Thalman
- Mrs. Valerie J. Woodward
- ExxonMobil Foundation
- Fidelity Charitable Gift Fund
- Richard Lorson Family Charitable Foundation Fund
- Shell Oil Company Foundation
- The Young Family Charitable Fund
- WCB Beck Incorporated
- XL America

2023

- Mr. Michael P. Angle
- Mr. and Mrs. Bruce E. Archinal
- Mr. and Mrs. William A. Bailey, Jr.
- Mrs. Leslie Bain
- Dr. William C. Beck
- Mr. James V. Bikun
- Mr. George J. Cherpas
- Mr. Shafiu H. Chowdhury
- Elaine Estes
- Mr. Richard J. Fantel
- Mrs. Omalea Frlich
- Mr. John R. Gifford
- Dr. Ellen O. Goggins
- Ms. Sandra D. Gruber
- Mr. Patrick A. Harrington
- Mr. Gary M. Harris
- Ms. Karen A. Heffley
- Mr. and Mrs. Philip D. Heppard

- Mr. Andrew J. Hillier
- Dr. A.W. Gerhard Kunze
- Mr. William Landin
- Mr. Thomas M. LaPlante
- Mr. Frank A. Marsek
- Mrs. Rebecca McVey
- Mr. Patrick L. Noon
- Dr. John A. Peck
- Mr. James D. Pennino
- Mr. Patrick T. Pringle
- Mr. Thomas J. Quick
- Dr. and Mrs. Ira D. Sasowsky
- Dr. David N. Steer
- Mrs. Cassandra M. Stopar
- Mr. Thomas J. Tobias
- Mr. Bill A. Van Sickle
- Mr. Matthew J. Waldsmith
- Mr. James R. Weise
- Mr. Timothy M. Williams
- ExxonMobil Foundation
- Mary Ann and Bruce E. Archinal Charitable Fund
- Shell Oil Company Foundation
- Vanguard Charitable
- WCB Beck Incorporated

AWARDS 2021-2023

GEOLOGY ALUMNI MEMORIAL SCHOLARSHIP

- Maria Razo (2021)
- Alexandria Ripley (2021)
- Nick Speight (2021)
- Treston Woodley (2021)
- Jonathan Blackert (2022)
- Elena Ciolli (2022)
- Hailey Connor (2022)
- Ryan Everett (2022)
- Kirsten Handley (2022)
- Geoffrey Hilliard (2022)
- Cordelia Hoffmann (2022)
- Rex Jackson (2022)
- Charley McCune (2022)
- Megan Ryan (2022)
- Susami Seth (2022)
- Nicholas Speight (2022)
- Elise Hansen (2023)
- Madison Isaac (2023)
- Nadilee Nottingham (2023)
- Makala Nye (2023)
- Ethan Rang (2023)
- Leah Stanevich (2023)
- Nina White (2023)

JAMES FITZGERALD OUTSTANDING SENIOR AWARD

- Nicole Wagner (2021)
- Cordelia Hoffmann (2022)
- Megan Ryan (2022)
- Nina White (2023)
- Madison Isaac (2023)

ARTHUR E. BURFORD ENDOWED SCHOLARSHIP

- Megan Ryan (2021)
- Nicholas Speight (2022)
- Autumn Brown (2023)
- Hailey Connor (2023)
- Elise Hansen (2023)
- Ella Wildenhaus (2023)

PAUL C. FRANKS ENDOWED SCHOLARSHIP IN RESOURCE GEOLOGY

- Cayman Goostree (2021)
- Vang Lor (2021)
- Nathan (Alex) Sowko (2021)
- Andy Steward (2021)
- Teigen Woodruff (2021)
- Matthew Sheets (2022)
- Pavlos Sisamis (2022)
- Keenan Young (2022)
- Renee Bamberger (2023)
- Jordan Collins (2023)
- Erin Dugan (2023)
- Emily Gruich (2023)
- Josh Kuhn (2023)
- Skylar Looper (2023)
- Maggie Mahaney (2023)
- Forest Pence (2023)
- Kathleen Schultz (2023)
- Serenity Smale (2023)
- David Williams (2023)

DRS. ASHOK KUMAR DUTT AND HIRAN MOYES DUTTA SCHOLARSHIP

- Carly Leventhal (2023)

GEOLOGY ALUMNI SCHOLARSHIP

- Nicole Wagner (2021)

OUTSTANDING GEOLOGY GRADUATE STUDENT

- Jonathan (JJ) Kullberg (2021)
- Matthew Rechenberg (2022)
- Jake Waller (2022)
- Matthew Rechenberg (2023)

DR. ROGER J. BAIN MEMORIAL AWARD IN GEOSCIENCES

- Trevor Dwyer (2022)
- Geoffrey Hilliard (2022)
- Cordelia Hoffman (2022)
- Maria Razo (2022)
- Matt Rechenberg (2022)
- Melissa Rego (2022)
- Megan Ryan (2022)
- Nicholas Speight (2022)
- Leah Stanevich (2022)
- Jacob Tallon (2022)
- Jacob Waller (2022)
- Hailey Connor (2023)
- Madison Isaac (2023)
- Alexander Russell (2023)
- Madison Wood (2023)

DEAN'S INNOVATION FUNDS

- Ashely Chase (2023)
- Ella Pitz (2023)
- Ella Wildenhaus (2023)
- Grace Kruse (2023)
- Lana Garelnabi (2023)
- Olivia Boggs (2023)

GEOLOGY LEADERSHIP AWARD

- Cordelia Hoffmann (2021)
- Megan Ryan (2021)
- Susami Seth (2021)
- Ashley St. James (2021)
- Leah Stanevich (2021)
- Andy Steward (2021)

YOUR SUPPORT MAKES A DIFFERENCE!

Gifts from alumni and friends are vital to the success of Geosciences – both the program and the students! Each year, donor support makes it possible for deserving, hardworking students to attend field camp or afford tuition; for labs to be updated; and for programming to be enriched – all of which results in an outstanding academic experience. Your gift is tax deductible and 100 percent is used toward the designation of your choice. Please see the enclosed envelope for areas of greatest need or designate your gift to one of the following scholarships. Thank you for your consideration!

ARTHUR E. BURFORD ENDOWED SCHOLARSHIP FUND (638035)

Established in 2018, this scholarship will be awarded to full-time Geology students with demonstrated scholastic achievement, with an emphasis towards degree completion, as well as superior character and leadership. The scholarship is renewable provided recipients remain in good academic standing.

PAUL C. FRANKS ENDOWED SCHOLARSHIP FUND (637303)

The scholarship was established in 2010 in memory of Dr. Paul C. Franks to support geology majors interested in the resource side of geology (minerals, oil, gas, etc.). Preference is given to students from Northeast Ohio who are attending Geology Field Camp.

GEOLOGY ALUMNI MEMORIAL SCHOLARSHIP FUND (637348)

Established in 1991 with the express purpose of assisting eligible students to participate in the Geology Field Camp. This endowed fund provides support for a geology major with a 3.0 GPA or better who has completed at least 15 credits in geology. The student must have promise as a geologist and demonstrate enthusiasm, participation, interest and knowledge. Scholarship awards will be distributed each year from the fund's accumulated interest.

GEOLOGY ALUMNI SCHOLARSHIP FUND (636263)

This fund supports student attendance at Geology Field Camp as well as the Outstanding Graduate

Student award. Students must be a currently enrolled, major having completed 21 credits of science, engineering, or math courses, have at least 8 credits in Geosciences and have a 3.3 GPA or higher.

JAMES F. FITZGERALD, JR. MEMORIAL SCHOLARSHIP FUND (637285)

Established in 1980, this scholarship honors the memory of James F. Fitzgerald, Jr., a 1970 geology graduate killed during the eruption of Mount St. Helens volcano while engaged in field work for his doctoral dissertation as a graduate student at The University of Idaho. This scholarship is awarded to an outstanding geology senior selected by the faculty of the Department and is given to the outstanding senior graduating within the current academic year who has at least a 3.5 GPA, responsibility, integrity, industry, originality, ability to communicate and professional attitude.

GEOSCIENCES VAN MAINTENANCE AND REPLACEMENT FUND (639516)

This fund allows the Department to maintain and periodically replace our fleet of two vans and pickup truck used for field trips and Field Camp.

GEOSCIENCES FIELD EXPERIENCES FUND (639572)

This fund helps to defray student costs for field-based experiential learning activities.

DR. ROGER J. BAIN ENDOWED SCHOLARSHIP FUND (637308)

The scholarship was established in 2021 by the Bain family as a tribute to Roger's service as a Professor in Geosciences. The Award supports research costs related to field, lab and other expenses incurred by undergraduate and graduate students in the Dept. First consideration is given to students whose research is suitable for presentation at professional meetings and conferences.



Third floor of Crouse Hall during reconstruction



DEPARTMENT OF GEOSCIENCES
BUCHTEL COLLEGE OF ARTS AND SCIENCES
AKRON, OH 44325-4101

First Class Mail
U.S. Postage Paid
The University of Akron



GIVING TO GEOSCIENCES

Support from alumni and friends – **like YOU** – is vital to the Department of Geosciences at The University of Akron because your gift is an investment in students!

When you give to scholarships or field camp, you eliminate financial hardships, allowing students to focus on their studies and graduate on time. When you make an unrestricted gift to the department, you provide funds to update labs and enrich programming, ensuring today's students continue to receive an outstanding academic experience.

The University of Akron is an equal education and equal employment institution.