

THE JEFFERSONIAN

*The Official Newsletter of
Eastern Michigan University's Department of Geography & Geology*



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EASTERN
MICHIGAN UNIVERSITY
Department of Geography & Geology

Department Head Reflections

Christine Clark, Ph.D

Welcome to the Fall 2023 issue of the Jeffersonian, the annual newsletter of the Department of Geography and Geology at Eastern Michigan University.

As you'll see throughout this newsletter, our department and programs have been thriving. Faculty and students are conducting research and our students are learning through doing in our programs. Alumni and friends of the department are always welcome to come back to Strong Hall and see how we have grown. Our alumni continue to make waves in the field, driving innovation, and tackling the complex challenges facing our world. Your dedication to advancing geographical and geological knowledge is truly inspiring, and we take immense pride in the impact you are making across diverse industries and disciplines.



Please keep us apprised of what you are doing; we love hearing from our former students! If you would like to be included in our next newsletter, please let us know.

Within our department, the academic year has been marked by exciting developments and collaborative endeavors. Our faculty members have been at the forefront of cutting-edge research, pushing the boundaries of knowledge and involving our students in transformative learning experiences. The passion and commitment of our staff, students, and alumni form the bedrock of our success.

Looking ahead, we continue to enhance our curriculum, provide more research opportunities for students, and strengthen our partnerships. Your support and guidance will be crucial as we navigate these initiatives, ensuring the sustained excellence of the Department of Geography and Geology at Eastern Michigan University.

In closing, I extend my sincere thanks for your continued support. Together, we are shaping the future of geographical and geological studies, leaving a lasting impact on our students and the world. I look forward to the ongoing growth and success of our department, guided by the dedication of each member of our extended family.

-Dr. Christine Clark, Interim Department Head

Hannah Blatchford



Dr. Blatchford is starting research on the Archean gneisses of the Upper Peninsula and their Paleoproterozoic metasedimentary cover rocks located south of the Great Lakes Tectonic Zone near Iron Mountain, MI. She is interested in characterizing the geometry, kinematics, timing, and P-T conditions of deformation within Archean gneiss domes of the U.P. as well as in the cover rocks in order to better describe the Archean crust's behavior during early assembly of the North American continent.

In August 2023, Dr. Blatchford was selected to attend a three-day, NSF-sponsored workshop at Smith College focused on developing effective teaching strategies in igneous and metamorphic petrology. As part of the project, she is working to create a week-long lab activity on the Dutchess County (NY) Barrovian metamorphic sequence. She also received a Summer Research Award from EMU for 2023.

Nancy Bryk



Professor Bryk has continued her work in preservation over the last year working on the following topics: Collections gathering, foodways in museums and historic sites; “Old Timers” recollection of life in America before 1860 by transcribing the collection currently at The Henry Ford; Holocaust Survivor’s Life and Uniform, continuing research on the concentration camp uniform of a Detroit immigrant who was a Polish Catholic survivor of the Holocaust – this effort includes gathering additional documents from International Tracing Service as well as primary sources in this country relating to survivor’s extended family; and gathering of primary source research on Hermitage Plantation, Savannah, GA, where the Historic Preservation program is contemplating some research funds on exploring this plantation much more extensively via digitization of the slave quarters (already done) and the site itself.

Christine Clark

Dr. Clark is continuing her work on the crystal chemistry of the tourmaline mineral group. She is also involved in the use of generative AI in the classroom and establishing what policies, if any, EMU develops for its use. In the Fall of 2022, she took part in The Inclusive STEM Teaching Project run by Boston University.

In June, Dr. Clark and her family escaped for another epic road trip, this time to the desert southwest for three weeks of red rocks and no humidity.



Matt Cook

Dr. Cook's NSF team is in its third year of researching Black history and cultural museums. This year, they applied for and were awarded a no-cost one-year extension to continue their work until June 2025, to help make up for time at the beginning of the grant during which they were unable to conduct fieldwork due to the pandemic. At EMU, Dr. Cook developed and taught GEOG 313 Geography of Michigan for the first time in Fall 2022. This course had fallen out of the rotation, but was needed to be offered for a number of degree programs. For some reason, they let the Tennessean teach this one!

As of May 2023, Dr. Cook is now an Associate Editor of *Emotion, Space and Society*, a peer-reviewed journal under the Elsevier company of academic publishing.



He wants to assure you all that he remains utterly ridiculous: maintaining—in addition to his full teaching and scholarly load—a considerable professional singing career (highlight of last season included company debuts with the choruses of Toledo Opera and the Oregon Bach Festival), a part-time student load (he's SO close to finishing a third bachelor's degree, a Music BA here at Eastern), and somehow found time to train for and run his third half-marathon over the summer (it was absurdly humid in early August in Ohio, and therefore the race time was terrible. Let's not talk about it.)

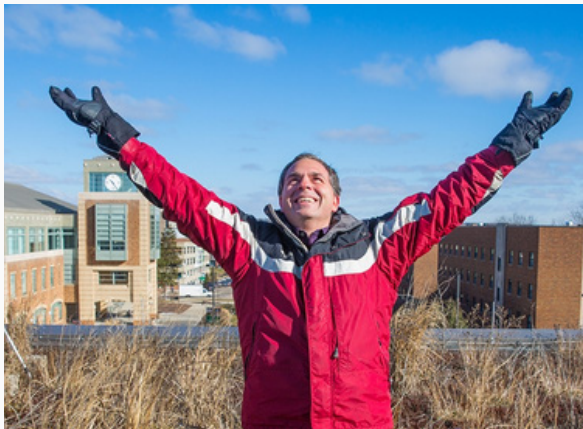
Chris Gellasch



In Winter 2023, Dr. Gellasch taught a brand new course at EMU, CIVE 350 Environmental Engineering, to support the new Civil Engineering major. Students from engineering, geology, and environmental science and society programs took the course and it was well received. One of his undergraduate research students, Rose Allen, received an EMU Undergraduate Research Stimulus Program grant (\$2,800) for her work at Fish Lake during Winter 2023.

During 2022-23, Dr. Gellasch served as Chair of the GSA Hydrogeology Division. Personally, Dr. Gellasch's son, Brian, graduated high school in 2023 and is currently enrolled at EMU.

Tom Kovacs



Along with Dr. Pawlowski in the Physics Department, Dr. Kovacs is collaborating on the Nationwide Eclipse Ballooning Project (NEBP), which tests atmospheric conditions during eclipses. More details about the project are featured in several recent news articles, including [MLive](#) and [EMU Today](#).

The project is student-driven with a number of students from ENVI, Geography and Geology, and Physics participating in test flights in southern Michigan and a research flight during the annular eclipse near Albuquerque, NM on October 14, 2023. There will be a total solar eclipse on April 8th, 2024 where they will make their next research flight.

The professors agree that the best viewing of this eclipse will be somewhere in the middle of the country, like Missouri, or Arkansas, but the launch location has not yet been decided. Anyone interested can contact Dr. Kovacs (tkovacs@emich.edu) and tag along at their next flight.

Dr. Kovacs also worked with Dr. Allen Kurta on a bat kill event over Lake Michigan where a severe thunderstorm has been found to be the cause. He continues to serve as the chair of the President's Commission on Sustainability since 2018. Last year (2022) the university was awarded a Bronze Certification for its STARS report and is excited to report that EMU will be listed in the 2024 Princeton Review List of Green Colleges. He believes this is the first time that EMU received this honor. You can get more information on our efforts at emich.edu/sustainability. If you are interested in getting solar panels, please use our cobranded website with [EnergySage](#).

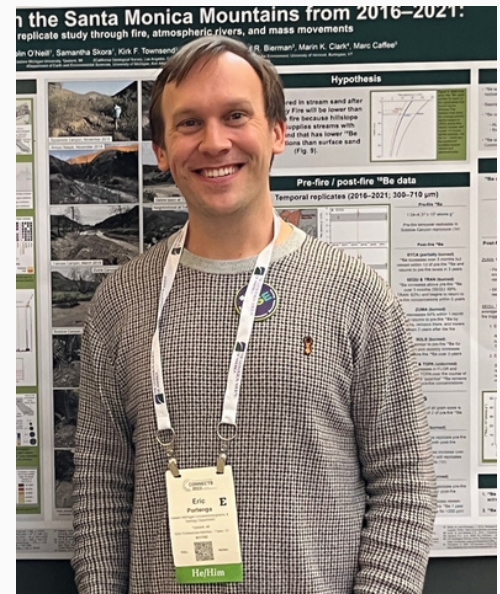
Steve LoDuca

Dr. LoDuca is currently working on the early evolution of marine macroalgae ("seaweeds"), including the description of several new fossil species from the Silurian of Michigan and Ontario. In December, Dr. LoDuca received the "Outstanding Educator Award" from the Michigan Chapter of the American Institute of Professional Geologists.



Eric Portenga

The isotope beryllium-10 (^{10}Be) is produced only at Earth's surface and is used by geomorphologists to measure landscape erosion rates. Currently, Dr. Portenga is finishing a grant funded by the National Science Foundation in which he is quantifying how well ^{10}Be data measured in stream sand reproduce in steep, tectonically active landscapes following wildfires. Specifically, he supervised three EMU undergraduate students who have been working with ^{10}Be data that was collected 3 to 6 times from the same locations in California's Santa Monica Mountains between 2016 and 2021; in this time the Woolsey Fire burned through most of the mountains, which provided us the opportunity to assess ^{10}Be data reproducibility. Dr. Portenga is also working in the Great Lakes region on efforts to better constrain when the Laurentide Ice Sheet melted from the region.



He has a paper on the glacial history of Isle Royale in preprint at the online journal, *Geochronology*. This work was funded through an EMU Faculty Research Fellowship in 2018, and it is exciting to see this work finally get published! Dr. Portenga has also been mentoring an undergraduate Professional Geology major through her work that aims to develop a Schmidt Hammer exposure-age dating calibration curve for the Great Lakes region. This would make estimating the exposure of glacial erratics left behind in the region as the Laurentide Ice Sheet melted possible and could help fill in many of the spatial gaps in our knowledge of the timing of ice retreat. He is looking forward to continuing his research momentum in the field of Michigan's glacial history.

Bill Welsh

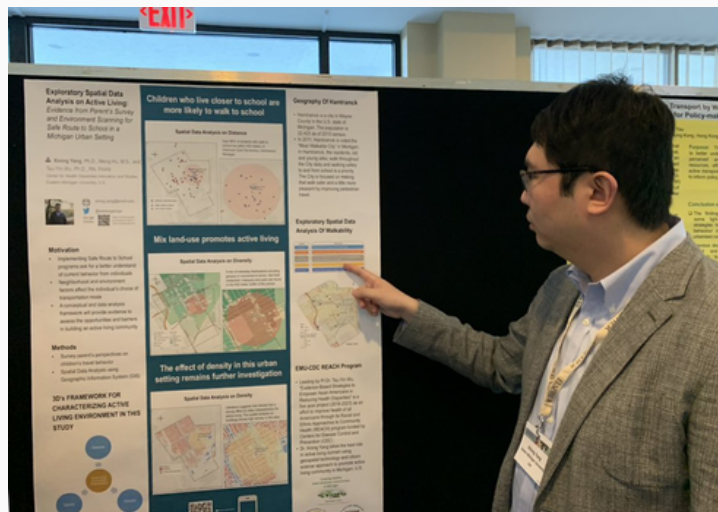
Dr. Welsh spent the Summer of 2023 working on an NSF proposal on behalf of the Geospatial Technologies Talent Consortium (GTTC). For this 3-year proposal, Dr. Welsh is Principal Investigator, and Drs. Yichun Xie and Dr. Heather Khan are Co-Principal Investigators. They submitted to the ITEST – Innovative Technology Experiences for Students and Teachers program. The proposal's title is Developing and Testing Innovations [DTI]: Southeast Michigan Drone Geospatial Technologies (D-GT) Consortium. If funded, they would be awarded \$1,299,046 for the 3-year grant period.

Dr. Welsh is also interested in using remote sensing and historical aerial photographs obtained from Washtenaw County's aerial photographic database to determine how the housing subdivision landscape has changed since WWII and to track how sustainable the development has been by using hierarchical land classification techniques. By using geospatial software for analysis, he hopes to determine lot sizes and characteristics, and then create land classification system attributes for each subdivision to judge the sustainability of growth. In addition, he hopes to judge the connectivity of the area by recognizing road quality, and public transportation options and how these may have impacted growth in relation to existing and new infrastructure.

Xining Yang

Dr. Yang has been working with a team of health scientists and community health workers to conduct community participatory research to close the gap of health disparities in underserved and disadvantaged neighborhoods. The topic areas of his research are active living, firearm injury, health equity, and infectious disease. He uses mixed methods (quantitative and qualitative) and GIS technology in his research projects. Dr. Yang was the Co-PI on two funded grants: Virtual Reality (VR) De-escalation Project to the Department of Justice, and Adaptable Community-Engaged Intervention for Violence Prevention: Michigan Model to the National Institutes of Health.

Dr. Yang presented in the AAG 2023 conference at Denver, Colorado on research from a team of former students who graduated from EMU GIS program. This student-engaged research developed a GIS-based classroom management system to support seat allocations in the public health emergency such as COVID and it informed scientific decisions during the safe return to campus planning during the pandemic.



Program News: Earth System Science Program

The Earth System Science (ESSC) faculty were very active in the field and labs, both for teaching and research. Dr. Steve LoDuca ran fossil-collecting trips to Milan in both Fall and Winter and the Sedimentology and Stratigraphy trip to Grand Ledge in April; Dr. Serena Poli co-lead the Winter Milan trip. Dr. Hannah Blatchford took the Structural Geology class to Baraboo, Wisconsin for two days. Dr. Chris Gellasch took his Environmental Engineering class to both a water treatment and a wastewater treatment plant, ran a field trip to Fish Lake and a community water testing event with the Washtenaw Conservation District for his Groundwater Contamination class, and conducted field research at Fish Lake with three undergraduate students. Dr. Eric Portenga ran several field trips for his Geomorphology class, including stream gaging at Parker Mill County Park. Dr. Lindsay Kolbus took her Introduction to Earth Science class out to measure stream flow in the Huron River.

Dr. Hannah Blatchford led a group of other faculty in submitting a proposal for a new Scanning Electron Microscope to the National Science Foundation. Drs. Poli, LoDuca, and Clark were also involved in this proposal, as well as faculty from several other departments. Although not funded, the initial proposal received positive reviews and the team were encouraged to reapply.

ESSC was well-represented at the 43rd EMU Undergraduate Symposium in March 2023. The following is a list of students and their topics by faculty mentor, as always, this gives a good sense of the variety of projects and research in the program:

Dr. Hannah Blatchford:

Emily St. Onge: Geochemistry of Quartz & Rutile Record: Pressure-Temperature History of the Western Gneiss Region

Dr. Christine Clark:

Jenna Thompson: Investigations in Tourmaline Crystal Chemistry

Dr. Chris Gellasch:

Rose Allen and Annie Wisner: Comparison of Groundwater Chemistry in Wetland Systems at Fish Lake, Lapeer County, Michigan

Dr. Steve LoDuca:

Sydney Orman: A Case Study in Rapid Digitization Using Fossil Sea Scorpions

Dr. Serena Poli:

Maximilian Ehinger and Heather Bricker: Paleoenvironmental Changes in the Western North Atlantic Between 340,000-490,000 Years Ago

Dr. Eric Portenga:

Colin O'Neill: Effect of the Woolsey Fire on ^{10}Be Measurements in Stream Sand from Burned and Unburned Catchments

Brianna Shepherd: Schmidt Hammer Exposure Dating Unsuitable in the Humid Great Lakes Region

Samantha Skora: Reproducibility of ^{10}Be Measured from Stream Sand in the Santa Monica Mountains Between 2016-2021

In addition, several faculty members and students traveled to Grand Rapids in May for the North-Central Geological Society of America conference. Both Dr. Blatchford and Dr. Gellasch served as session chairs at the conference.

Program News: Earth System Science Program



*Structural Geology students at
Van Hise Rock, Wisconsin.*



Students conducting groundwater sampling



Introduction to Earth Science students learning about stream flow



Students and faculty at the 43rd Undergraduate Symposium



Fossil collecting in Milan with Drs. LoDuca and Poli

Program News: Historic Preservation

The Graduate Program in Historic Preservation has been renamed: it is now the Graduate Program in Preservation Studies. Our three full-time faculty members, Dr. Matt Cook, Dr. Dan Bonenberger, and Prof. Nancy Bryk, believe this will be a good umbrella name for the various long-standing concentrations we offer: Historic Preservation Planning and Administration; Digital Heritage; Museum Practice; Heritage Interpretation. Our program currently includes about 35 grad students in various stages of the program. Some curriculum changes also encourage EMU undergrads with a Historic Preservation minor to come into our program, potentially, with six credits under their belt (if they take some specific courses already). We are excited to offer this to our EMU undergrads.

The curriculum still includes our popular summer field school; for the past two years we have spent ten days in beautiful Beaver Island, Michigan repairing mortar on a lighthouse tower and inventorying collections at the Beaver Island Historical Society. We reconnected with an HP grad, Lori Taylor-Blitz, who invited us to work there. Last summer we had an alumni reunion there during field school.



Preservation Studies students touring Beaver Island, Michigan.

Program News: Geographic Information Systems

GIS graduate student, Christine Calleja, attended the 27th annual MiCAMP Fall GIS Conference at Boyne Mountain Resort on September 22, 2022, and presented her research on “Prisons Exposed: Using Environmental Justice to Identify Exposure Risk.” The GIS methodology and application were developed to empower and inform citizens who may be subjected to environmental health hazards and give voice to all stakeholders. MiCAMP is the Michigan Communities Association of Mapping Professionals — a group aiding the development of geographic information systems between government, nonprofits, agencies, and the private sector. Recently Christine Calleja has been working with GIS faculty Dr. Xining Yang as a Graduate Assistant on an NIH research project examining firearm injury and neighborhood characteristics using GIS and spatial analysis.



Pictures of Christine Calleja presenting at the MiCAMP conference in September 2022.

Preserving Civil Rights Heritage: Detroit's Malcolm X House

Professor Dan Bonenberger's (G&G) preservation students conducted field and archival research and recorded several places related to Detroit's civil rights heritage over the past year. They spent two weekends in April working to help preserve the Malcolm X House on Detroit's east side, where Malcolm X lived in 1953. At the end of that year, the charismatic leader was sent by the Nation of Islam to revitalize the New York, Philadelphia, and Boston temples. From there he rose to become one of the most important and controversial figures in American history. The house on Keystone Street (near Mound and Seven Mile), is perhaps the best surviving place associated with Malcolm X at this pivotal point in his life. In connection with his brother Wilfred Little's house in Inkster, and other civil rights places in and around Detroit, it provides a profound opportunity to expand public understanding of the past.

Unfortunately, the Keystone house suffered a fire during the pandemic, and thus is extremely endangered. The work of the EMU preservation team provides the preliminary data needed to promote awareness and begin raising support for its complete restoration and eventual designation as a National Historic Landmark. The team produced field sketches and photographs, identified hardware, tile, fixtures, and other materials remaining from the 1950s, noted the most significant conservation issues, and created a digital SfM scan of the interior and exterior with digital recording specialist Greg Bensinger of VeryGood Virtual.

The work is part of a larger effort by EMU's Preservation Studies (formerly Historic Preservation) Program to teach its students how to identify, record, preserve and interpret common landscapes, houses, living spaces, and stories of the working class and other marginalized people. As Bonenberger seeks to facilitate the restoration of the Malcolm X House, he and his fellow Preservation faculty and students are engaged in advocating for the preservation and interpretation of other places associated with Black heritage and civil rights, particularly on Detroit's east side. Among these, the Sarah Elizabeth Ray House, Ossian Sweet House, and Gladys Mitchell Sweet House are connected to landmark U.S. Supreme Court decisions. Remarkably, like the Malcolm X House and despite their significance, all face an uncertain future due to various threats. The situation of the Gladys Mitchell Sweet House is most precarious. Despite evidence of the national significance of the Gladys Mitchell Sweet House produced by HP students this spring, the Detroit Land Bank recently put house the back on its demolition list. Much work remains to be done.

[Photos on the next page]

Program News: Historic Preservation

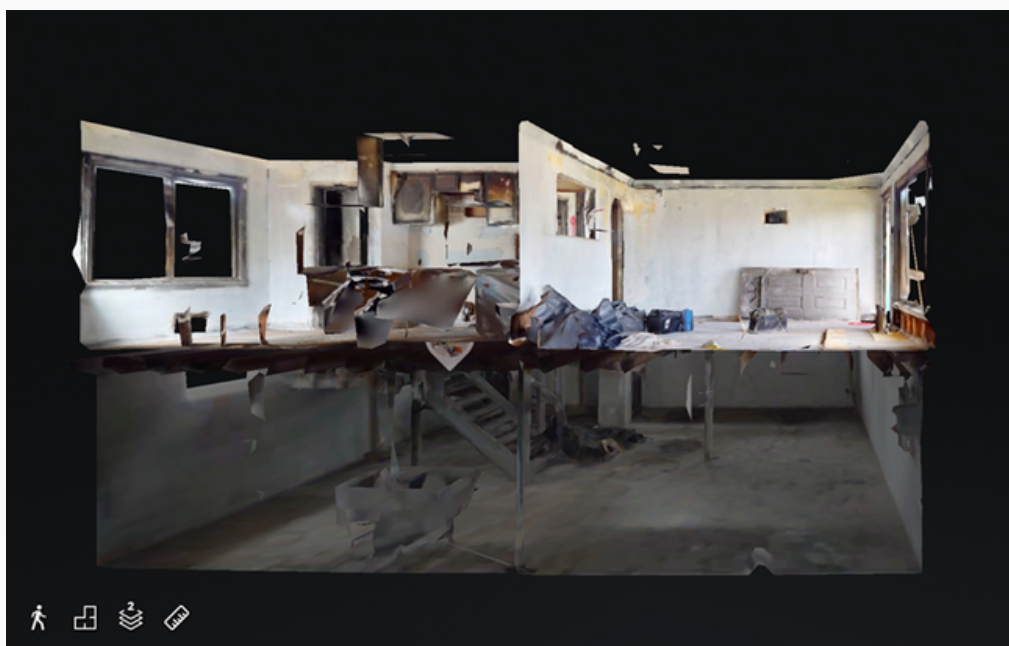
Preserving Civil Rights Heritage: Detroit's Malcolm X House



EMU Preservation students Jaclyn Panter, Brooke Boyst, and Taylor Williams record the Malcom X House on Detroit's east side, April 2, 2023



Preservation students Summer Wright, Katherine St. Amand, and Ian Tomashik examine the Gladys Mitchell Sweet House on Cairney Street, Detroit on April 2, 2023



Digital scan of the Malcolm X House on Keystone Street in Detroit, April 29, 2023 (EMU HPP and VeryGood Virtual).

Research Spotlight

Balloon/Eclipse Project

Dr. Tom Kovacs is part of a team taking advantage of the two timely solar eclipses (Oct. 2023 and Apr. 2024) to study atmospheric changes during an eclipse, funded, in part, by a grant award from NASA. Professors and student members of EMU APEX (Atmospheric Physics EXploration) traveled to Los Lunas, New Mexico, from October 11 - October 15 to launch a high-altitude weather balloon during the October 14 annular eclipse as part of NASA's Nationwide Eclipse Ballooning Project (NEBP). The students, from the Departments of Geography and Geology and Physics and Astronomy, worked on the balloon payload for the previous 6 months in preparation for this event. The goal of the mission was to test several flight sub-systems, including a venting system that allows the team to float the balloon at any altitude and observe changes in the atmosphere as the balloon floats over the moon's shadow. A second balloon launch will occur during the April 8, 2024 total solar eclipse. Members of EMU APEX who participated in the trip were Miles Mercier, Rosie Friend, Hannah Popofski, Hamzah Al Thani, Axel Cartin-Paez, Olivia Tebo, Jacob Morgan, Isaac Thompson, and Nika Beridze.

While in Los Lunas, APEX members showcased their project during an event with approximately 500 students at Los Lunas Middle School and participated in an outreach event open to the broader community at the Los Lunas Public Library. The students distributed over 600 sets of eclipse glasses and taught the students and community about solar eclipses. They also showed off various aspects of their science payload while explaining the engineering design and operation of each system and the data they hoped to get during their upcoming missions. The APEX launch on October 14 resulted in measurements of temperature, pressure, and wind speed as a function of altitude, and field test results from the different flight sub-systems.



*EMU APEX during pre-launch at the balloon launch site.
From left: Rosie Friend, Nika Beridze, Jacob Morgan,
HannahPopofski, Isaac Thompson, and Hamzah Al Thani.*



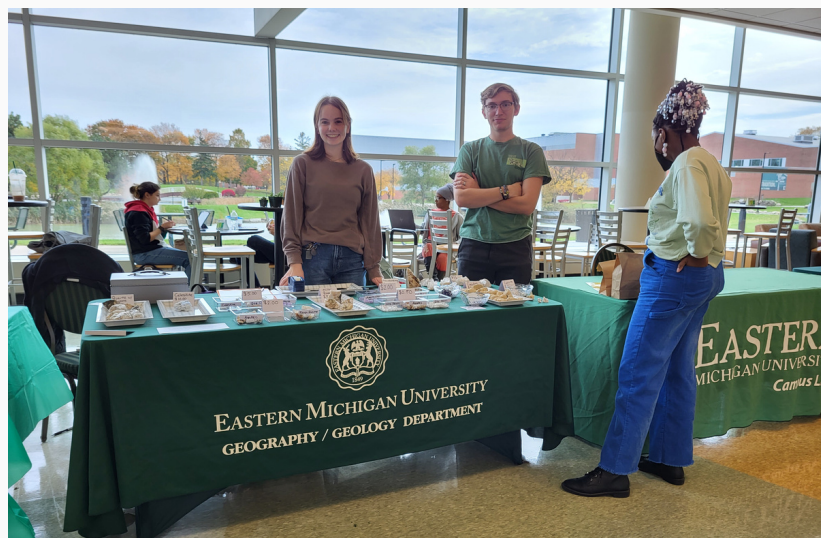
*EMU APEX at the ground station setting up
the tracking satellite antenna for
downloading data about 40 miles to the east
of the launch site. View is toward the
balloon with the dish pointing at the
weather balloon. From left: Miles Mercier,
Axel Cartin-Paez.*

EMU GeoClub News

The EMU American Institute of Professional Geologists (AIPG) student chapter, a.k.a. GeoClub, conducted several events last academic year. First, several members of our chapter staffed a booth and did public outreach at the Michigan Gem and Mineral Society Show in Jackson, Michigan on March 17-19th. We used this opportunity to educate the general public about geology and offered some samples we had collected on past trips in exchange for donations. We met many great people from all walks of life who all shared one thing: a love for rocks. The GeoClub raised enough money from this event to help fund a summer camping trip.

A few GeoClub members volunteered to help Dr. Gellasch teach the Geology Merit Badge to almost 40 Scouts at the EMU Merit Badge Day on April 1st. Scouts learned the basics of geology, the importance of minerals and rocks to society, and visited the rock garden in the basement of Mark Jefferson to learn more about Michigan rocks. Finally, plans are in the works to use the money raised throughout the year to plan an extended camping trip to the Upper Peninsula or geode hunting trip to western United States.

- Colin O'Neil, EMU AIPG Student Chapter President, 2022-2023



*GeoClub rock sale fundraiser
at the Student Center*

Students and Alumni

GIS Alumni News

Trupti Lokhande, a GIS master's student who graduated from EMU in 2022, has been playing a hands-on role in coordinating GIS projects, collaborating with diverse teams such as Municipal, Surveying, Land Acquisition, Ecology, and Renewables at Metro Consulting Associates. Her work uses socio-economic data in southeast Michigan and the City of Highland Park, a city that was used to illustrate a research publication she collaborated with GIS faculty Dr. Yichun Xie during her time at EMU GIS program. Their research was recently published in the journal *Applied Geography* with the title “Spatial spillover effects of urban decline in Southeast Michigan.” Trupti shared with the EMU GIS community that she is grateful for the opportunity to be involved in faculty research projects while earning her master's degree, which has become a cornerstone of her success at the workplace. When Trupti is not mapping the world, you will find her exploring it through hiking, biking, and kayaking.



2022-23 Alumni News

- Cynthia Gefvert (1997) - Retired after 19 years at South Florida Water Management District, and is currently living in Albuquerque, NM and volunteers at Petroglyph National Monument and the Roadrunner Food Bank.
- James Rafko - Secondary Education Earth Science (2012) - is the Assistant Principal at Saline High School
- Wayne Braden - (2016) Secondary Education Earth Science - is currently teaching Earth and Space Science to inner city students at the 9th grade level at Advanced Technology Academy

Faculty Publications & Presentations

- **Blatchford, H.J.**, Whitney, D.L., Teyssier, C., Gordon, S.M., Dektar, E., Kylander-Clark, A.R.C., 2022, Detailed P-T-t-d Exhumation History Recorded by Shear Zone-Hosted Titanite, Rutile, and Quartz from the Western Gneiss Region, Norway: Abstract V53A-06 presented at 2022 Fall Meeting, AGU, Chicago, IL, 12-16 Dec.
- **Blatchford, H.J.**, Small, G.S., Newville, C.N., Teyssier, C., Whitney, D.L., Michels, Z.D., Gordon, S.M., Kylander-Clark, A.R.C., (in revision), Assessing the influence of deformation on Pb diffusion in titanite: Petrochronological and microstructural investigation of a sheared pegmatite from the Roan Window, Norway: *Earth and Planetary Science Letters*
- Jin, X., Whitney, D.L., Zhang, Y.X., **Blatchford, H.J.**, Zhang, K.J., Tsujimori, T., Xiao, Y.Y., Liu, H.Y., and von der Handt, A., (in revision), Isochemical metamorphism genesis of the newly discovered Baqing jadeitite, eastern-central Tibet, China: Evidence from its metamorphic evolution: *Journal of Metamorphic Geology*
- Bosi, F., Biagioni, C., Pezzotta, F., Skobgy, H., Hålenius, U., Cempírek, J., Hawthorne, F.C., Lussier, A.J., Abdu, Y.A., Day, M.C., Fayek, M., **Clark, C.M.**, Grice, J.D., Henry, D. (2022). Uvite, $\text{CaMg}_3(\text{Al}_5\text{Mg})(\text{Si}_6\text{O}_{18})(\text{BO}_3)_3(\text{OH})_3(\text{OH})$, a new, but long-anticipated mineral species of the tourmaline supergroup from San Piero in Campo (Elba Island, Italy). *Mineralogical Magazine*, 1-30. doi:10.1180/mgm.2022.54
- **Cook, M.R.**, Bright, C.F., Carter, P.L., and Modlin, E.A., 2022. Dead Labor: Fetishizing chattel slavery at contemporary Southern plantation tourism sites. *ACME: An International Journal for Critical Geographies* 21 (5): 520–539. <https://acme-journal.org/index.php/acme/article/view/2057>
- **Cook, M.R.** 2023. Exercise 9.4: Thinking and Writing Geographically with Photos of Spaces and Places. In *Teaching Human Geography: Theories and Practice in Thinking Geographically*, E.H. Fouberg and J.S. Smith, eds., 196–201. London: Edward Elgar Publishing.
- **Cook, M.R.** 2022. Teaching Geographies of Memory: A call for college curriculum inclusion. Annual Meeting of the Southeastern Division of the AAG, Atlanta, Georgia. November 2022.
- **Gellasch, C.A.**, Foster, K., Bergren, M., and Brown, K.M., 2022. Source Tracking of Elevated Chloride Concentrations During Both Winter and Summer Months in a Heavily Urbanized Creek, Ann Arbor, MI. GSA Connects Annual Meeting 2022, Denver, CO <https://gsa.confex.com/gsa/2022AM/meetingapp.cgi/Paper/379017>
- **LoDuca, S.T.**, Meacher, M., Pepper, M., Brett, K., and Isotalo, P.A., 2023, *Earltonella fredricksi* n. gen n. sp. and *Thalassocystis striata* (Chlorophyta, Bryopsidales) from the Silurian (Llandoveryan) of the Timiskaming outlier, Ontario, Canada; *Journal of Paleontology*, v. 97, p. 515-532.
- **Oswald, J.** and Harris, S. (June 2023). “11.1 Desertification” for the second edition of Sivanpillai, Ramesh, (ed.) *Biological and Environmental Hazards, Risks, and Disasters (Second Edition)*. Saint Louis: Elsevier. *Biological and Environmental Hazards, Risks, and Disasters - 2nd Edition* (elsevier.com).

Faculty Publications cont.

- **Oswald, J.** and Harris, S. (October 2022). “Dryland Degradation (Desertification) and Sustainability” in Pathways to Research: Sustainability. EBSCO.
- **Portenga, E.W.**, Ullman, D.J., Corbett, L.B., Bierman, P.R., Caffee, M., 2023. Early Holocene ice retreat from Isle Royale in the Laurentian Great Lakes constrained with ¹⁰Be exposure-age dating. Geochronology (accepted pre-print).
- Shepherd, B.S., **Portenga, E.W.**, Ceperley, E.G., Ullman, D.J., 2023. Limited application of Schmidt Hammer exposure-age dating in the Great Lakes region. 2023 North-Central Geological Society of America Section Meeting: Grand Rapids, Michigan, USA.
- Wu, T.-Y., **Yang, X.**, Raghunathan, V., & Hu, M. (2023). Parental Perceptions and Perceived Environmental Influences on Active Transport to School in U.S. Inner-City Neighborhoods: Through the Lens of Health Equity. Journal of Healthy Eating and Active Living, 3(1), 46–58. <https://doi.org/10.51250/jheal.v3i1.57>
- Caboral-Stevens, M., Rainville, A.-J., Ford, O., **Yang, X.**, Donnelly, J., Bessire, R., Jackson-Dyer, T., Sonnega, J., Wu, T.-Y. (2022). Challenges and Successes in Health Communication Messaging With Asian Americans. Health Promotion Practice, 23(1_suppl):149S-152S. doi:10.1177/15248399221115449
- Conference Session Chairs:
- Holder, R. and **Blatchford, H.J.**, 2023. Reading the Record of Tectonic Processes through Diverse Investigations of Igneous and Metamorphic Rocks, 2023 North-Central Geological Society of America Section Meeting: Grand Rapids, Michigan, USA.
- Riemersma, P. and **Gellasch, C.A.**, 2023. Recent Advances in Hydrogeology, 2023 North-Central Geological Society of America Section Meeting: Grand Rapids, Michigan, USA.

2022-2023 Geography & Geology Department Honors

UNDERGRADUATE ACADEMIC HONORS (GPA 3.5 - 4.0)

Amey	Ashley	UG academic honors
Bergren	Morgan	UG academic honors
Czupinski	Kolbe	UG academic honors
Ehinger	Maximilian	UG academic honors
Hensley	Brian	UG academic honors
McCleary	Holly	UG academic honors
Mullen	Kevin	UG academic honors
Naess	Marco Alejandro	UG academic honors
ONeill	Colin	UG academic honors
Penque	Madison	UG academic honors
Wilkerson	Alexis	UG academic honors
Zajas	Abby	UG academic honors

GRADUATE ACADEMIC HONORS (GPA 3.7 - 4.0)

Ayers	Abigail	GR academic honors
Byers	Philip	GR academic honors
Cook	Katherine	GR academic honors
Delahoyde	Katherine	GR academic honors
Denby	Samantha	GR academic honors
Fraleigh	Christopher	GR academic honors
Fuerstnau	Christopher	GR academic honors
Khattab	Karam	GR academic honors
Masserant	Troy	GR academic honors
Murphy	Rebecca	GR academic honors
Sabo	Timothy	GR academic honors
Sisty	Jamie	GR academic honors
St Amand	Katherine	GR academic honors
Wicklander	Audrey	GR academic honors

ESSC PROGRAM AWARDS

Bricker	Heather	Outstanding Geology of Earth Science Undergraduate
Grant	Josh	Outstanding Geology Major
Thompson	Jenna	Outstanding Geology Major
Orman	Sydney	Most Improved Geology or Earth Science Student

URP PROGRAM AWARDS

Amey	Ashley	Outstanding Urban & Regional Planning Student
Wilkerson	Alexis	Outstanding Urban & Regional Planning Student

GIS PROGRAM AWARDS

Hensley	Brian	Outstanding Geospatial Information Science & Technology Major
Khattab	Karam	Outstanding Geographic Information Systems Graduate Student

UNDERGRADUATE RESEARCH SYMPOSIUM

Allen	Rose
Bricker	Heather
Burns Jr.	Joshua
Ehinger	Maxamillian
Martin	Shaniqwa
McCormick	Sean
O'Neill	Colin
Orman	Sydney
Shepherd	Brianna
Skora	Samantha
St. Onge	Emily
Thompson	Jenna
Wisner	Annie

GRADUATE RESEARCH SYMPOSIUM

Adeyemi	Adedayo
Celleja	Christine

ESSC FIELD SCHOLARSHIP AWARDEES

Butske	Carrie
O'Neill	Colin
Orman	Sydney
Quinn	Alexander



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