

Marian E. Buzon, PhD, P.G.
Curriculum Vitae
Associate Professor, Geology Program
University of West Georgia
mbuzon@westga.edu
(678)-839-4058

❖ **EDUCATION**

PhD. Geology, University of Idaho, 2016

Dissertation: Talc characterization: a provenance project

Advisor: Mickey Gunter

Committee: Peter Larson, Owen Neill, and Thomas Williams

B.S. Geology (Cum Laude), State University of New York at New Paltz; 2012

Advisor: Alexander Bartholomew

Research Mentor: Frederick Vollmer

Minors: Law and Politics, Chemistry

❖ **EMPLOYMENT**

University of West Georgia, 2016-Present

Geology Program Coordinator Fall 2021-Spring 2023

Associate Professor 2021-Present

Assistant Professor 2016-2021

❖ **TEACHING EXPERIENCE**

University of West Georgia, Assistant/Associate Professor, Geology, 2016-present

Mineralogy and Crystallography with Laboratory: Fall semesters 2016-present

Physical Geology Laboratory and Lecture: Fall 2016-present

Environmental Geology: Fall 2023 (Discipline Specific Writing)

Regional Applications of Field Geology

“Western Field Trip: Colorado and Utah” with Randa Harris: Summer 2023

“The Rio Grande Rift” with Dr. Cody Mason: Summer 2019

“Topaz and Trilobites” with Dr. Bradley Deline: Summer 2018

Geology of the National Parks (online): Summer 2022

Medical Geology: Spring 2021

First Year Seminar- How Geology Shapes Society: Fall 2019, Fall 2020

Geology Seminar: Spring 2018, (on schedule for Spring 2024)

University of Idaho, Graduate Teaching Assistant, Fall 2012-Spring 2016

Mineralogy Lecture: Spring 2016

Metamorphic and Igneous Petrology Laboratory: Fall 2013, Fall 2014

Mineralogy Laboratory: Spring 2013, Spring 2014

Physical Geology Laboratory: Fall 2012

SUNY New Paltz, Tutor and Teaching Assistant

Tutor *Physical Geology and Mineralogy:* Spring 2011- Fall 2011

Lab Teaching Assistant Mineralogy, Historical Geology: Fall 2010-Fall 2011

❖ **UNDERGRADUATE STUDENT RESEARCH MENTORSHIP at UWG**

Jake Richards and Justice Swilley, *Literature review and data collection near Plant Bowen near Euharlee, Georgia*, Spring 2022

Mark Maddox, *Chlorite Optical Properties*, Spring 2021

Justice Swilley, *Literature Review: A case study of the Nile: determining the relationship between sacrality and geochemistry of rivers*, Fall 2020 (NSF and UWG Supported Program: Louis Stokes Alliance for Minority Participation)

Caleb Mccollum, *Determining optical and compositional homogeneity of tourmalines from the Hogg Mine deposit in LaGrange, Georgia*, Spring 2020-Fall 2020

Samuel Kirkham, *Characterizing textures and compositions of metamorphosed ultramafic pods in Carrollton, Georgia*, Spring 2019-Spring 2020

Emmilyn Wade, *Petrography of "Wonderstones" of Vernon Hills, Utah*, Fall 2018

Robert Reid, *Characterizing textures and compositions of metamorphosed ultramafic pods in Carrollton, Georgia*, Spring 2018-Spring 2019

Cody Fauth, *Using ICP-OES to determine if bulk XRF and ICP-OES are comparable methods for analyzing talc*, Fall 2017

❖ **RESEARCH INTERESTS**

- Characterizing talc ores and associated minerals based on morphologies and compositions (including, but not limited to, mineralogy; trace, minor, and major elements; and stable isotope ratios)
- The physical, regulatory, and economic relationships between humans and their surrounding geologic environment
- The formation histories of economic talc deposits

❖ **RESEARCH INSTRUMENTATION and ANALYTICAL APPLICATIONS**

Functional knowledge

Electron probe microanalysis
Polarized light microscopy
Powder x-ray diffraction
Scanning electron microscopy

Familiarity

X-ray fluorescence spectrometry
Transmission electron microscopy
Mass spectrometry techniques (O and H isotope ratios, GC-MS, LC-MS)
Inductively Coupled Plasma-Optical Emission Spectrometry

❖ PUBLICATIONS

- Buzon, M.E., Larson, P.E., and Gunter, M.E. 2020. Understanding environments of talc deposit formation through stable O and H isotope analyses of talc ores. *Periodico di Mineralogia Submitted December 2019, Review received March 2020, did not resubmit.*
- Paliwal, V., Huett, K., Buzon, M. & Corley, J. (2021). Integrating Mathematics in Science Instruction: Perceptions of In-service Middle School Science Teachers. In E. Langran & L. Archambault (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 1447-1457). Online, United States: Association for the Advancement of Computing in Education (AACE).
- Gunter, M.E., Buzon, M.E., McNamee, B.D, 2018. Current issues with purported “asbestos” content of talc: Asbestos nomenclature and examples in metamorphic carbonate and ultramafic talc ores. *Transactions of the Society for Mining, Metallurgy and Exploration* 344: 15-24.
- Buzon, M.E., and Gunter, M.E. 2017, Current issues with purported asbestos content of talc: Hydrothermal-hosted talc deposits of southwest Montana. *Transactions of the Society for Mining, Metallurgy and Exploration* 342: 62-71.

❖ ABSTRACTS

*for presenter ;UWG student presenter in **bold**

- *Huett, K., Paliwal, V., Buzon, M., Simon, M.E., & Corley, J. (2021, November 2-6). Understanding teachers’ perspectives related to the feasibility and need for CT-integrated middle grades earth science. Presentation delivered at the Association for Educational Communications and Technology (AECT) International Convention, Online and in Chicago, Illinois. (presentation of a paper)
- ***Kirkham, Samuel** and Buzon, Marian E. 2020. Characterizing metamorphosed ultramafics in Carrollton, GA. Abstract # 344931. Geological Society of America Northeast-Southeast Joint Regional Meeting, Reston, VA. Meeting canceled due to Covid-19.
- Buzon, Marian E., and ***Reid, Robert**. 2018. A Characterization of metamorphosed ultramafic lenses in Carrollton, Georgia. *Geological Society of America Abstracts with Programs*, vol. 50, no. 6, Abstract #322709. Geological Society of America National Meeting, Indianapolis, IN.
- *Buzon, M.E., Gunter, M.E, and Larson, P.B.. 2017. Stable O and H isotope applications for sourcing commercial talc and understanding environments of talc formation. Abstract #305927. Geological Society of America National Meeting in Seattle, WA.
- *Buzon, M.E., Gunter, M.E., 2017. Using stable O and H isotopes to constrain conditions of talc formation in southwest Montana and other economically significant locations. *2017 ASTM Johnson Conference*, ASTM, Johnson Conference, Burlington, VT.

- *Gunter, M.E., Buzon, M.E., McNamee, B.D.. 2016. Current issues with purported “asbestos” content of talc: Part 1, Introduction and examples in metamorphic and ultramafic hosted talc ores. Society for Mining, Metallurgy & Exploration, Annual conference in Phoenix, AZ.
- *Buzon, M.E., and Gunter, M.E. 2016. Current issues with purported “asbestos” content of talc: Part 2, Hydrothermal-hosted talc deposits of southwest Montana, Society for Mining, Metallurgy & Exploration, Annual conference in Phoenix, AZ.
- *Buzon, M.E., and Gunter, M.E., 2014. Geosourcing talc and talc ores: academic and industrial applications. *Abstracts with Programs*, v. 46, n. 6, p. 319. Geological Society of America National Meeting, Charlotte, NC.
- *Buzon, M.E., and Gunter M.E., 2014. “Asbestos-related” issues surrounding the former vermiculite mine near Libby, Montana: a case study in geology, media, ethics, regulations, public policy, health and legal issues. *Geological Society of America Abstracts with Programs*, v. 46, n. 6, p. 670, Geological Society of America National Meeting, Charlotte, NC.
- *Buzon, M.E., McNamee, B.D., and Gunter, M.E., 2014. Talc forensics: Determining the source of talc particles or talc mineral mixtures by integrating multiple analytical methods. *ASTM Johnson Conference on Asbestos, Almost Asbestos, and Asbestos Progeny: New Challenges*, ASTM, Johnson Conference, Burlington, VT.
- Buzon, M.E. 2014. Encountering geoscience issues in the popular press. Teaching GeoEthics across the geoscience curriculum, SERC Workshop in Pray, MT.
- *Buzon, M.E., McNamee, B.D., Steven, C.J., and Gunter, M.E., 2013. Fingerprinting talc, talc ore and talc products by composition and mineral assemblage. *Geological Society of America Abstracts with Programs*, v. 45, n., 7, p. 796. Geological Society of America National Meeting in Denver, CO.
- *Taylor, J.M., *Buzon, M.E., and Vollmer, F.W., 2012. Analysis of fold interference patterns and fabric elements in the Noxon Road outcrop, Dutchess County, New York, and their significance for the deformation history of the Giddings Brook Slice of the Taconic Allochthon. *Geological Society of America Abstracts with Programs*, v. 44, n., 2., p.96. Geological Society of America NE Regional Meeting, CT.
- *Buzon, M.E., Vollmer, F.W., and Walsh, J., 2011. Unraveling the deformation history of the Noxon Road outcrop in Dutchess County, New York and implications for the relative roles of compressional and gravity tectonics in the emplacement of the Giddings Brook Slice, Taconic Orogen. *Geological Society of America Abstracts with Programs*, v. 43, n. 5, p. 100, Geological Society of America National Meeting, Minneapolis, MN.

❖ **MANUSCRIPTS IN PREPARATION**

Reid, R., Buzon, M.E., and Kirkham, S. A characterization of meta-ultramafic rocks in Carrollton, GA.

❖ **FUNDING and AWARDS**

2023

Undisclosed Private Consulting Agreement

Non-domestic source of cosmetic talc

Talc product consulting, and litigation support for a corporation.

2021

Undisclosed Private Litigation Support Consulting Agreement

Domestic and non-domestic sources of cosmetic talc

One-year agreement for services paid to the University of West Georgia- distributed through Office of Research and Sponsored Projects as research funds.

Hours logged in Spring and Summer 2021, paid to University in Fall 2021

Funds to University: \$2,558.50

National Science Foundation, Computer Science For All, Category: Small

Research-Practitioner Partnership, “Working with Teachers to Design and Test CT-integrated Middle Grades Earth Science through a Small RPP Project” (NSF 2122787), J. Corley, K.*

Huett, M. Buzon, and V. Paliwal

Involvement: Co-PI, conducting teacher interviews, designing earth science module, designing teacher training workshop plan

Not Funded, Ratings: 3 Good, 1 Fair

Funds Requested: \$277,587

2019

National Science Foundation, STEM+ Computing K-12 Education, “Science Pedagogy

Enhanced with CT Reinforced through Exploration (SPECTRE)” (NSF 1934051), L. Rose, K.

Huett, J. Corley, V. Paliwal, J. Talbot, D. Stuart, M. Simon, N. Ramsay-Jordan, A. Stanescu, S. Basu-Dutt, M. Buzon, F. Khan and S. Mruthinti

Not funded, 3 Good Ratings, 1 Fair Rating

Funds Requested: \$1,456,611

2017

University of West Georgia, Faculty Research Grant, Distinguishing commercial talc samples based on morphology

Awarded:\$1500

2015

University of Idaho, Geological Sciences, Outstanding Graduate Student

2014

University of Idaho, Geological Sciences, A.H. Featherstone Scholarship

University of Idaho, Dr. Indu Dayal Meshri Geological Sciences Scholarship

2012-2016

University of Idaho Graduate Assistantship

2012

SUNY New Paltz, Outstanding Graduate, Geology

SUNY New Paltz, Milton “Sparky” Garrison Scholarship

2011

SUNY NP, Richard J. Ordway Memorial Scholarship

2009

SUNY New Paltz, SUNY Athletic Conference All Academic/ Commissioner's List



INSTITUTIONAL SERVICE

UWG Geology Program

Program Coordinator: Fall 2021-Spring 2023

Geosciences Scholarship Coordinator: Spring 2022-present

Academic Advisement: Fall 2018-present

Faculty Search Committee: Fall 2018-Spring 2019

Geoscience Club Trips

Graves Mountain, Spring 2018

Tellus Museum, Spring 2017

UWG Department of Natural Sciences

Ad hoc Recruiting Committee (Fall 2021-present)

UWG College of Arts, Culture, and Scientific Inquiry

Faculty Advisory Committee: member Fall 2023-present

Diversity, Equity (and Inclusion, added to name in 2021) Committee: Co-Chair Fall 2022-Spring 2023; member Fall 2020-Spring 2022

UWG University-wide

Institutional Planning Committee: (proxy) Spring 2019

Faculty Senate Geosciences Representative: (proxy) Spring 2019

University System of Georgia

Geological Sciences and Geography Regents' Advisory Committee (UWG Geology rep): Fall 2021-Spring 2023

University of Idaho

Geological Sciences Faculty Search Committee, 2015

SUNY New Paltz

Geology Club Co-President, Fall 2010-Spring 2012

❖ **INVITED PRESENTATIONS**

Characterizing ores and understanding the "talcs" of Carrollton, GA, Appalachian State University, Department of Geological and Environmental Sciences, Boone, NC, February 2019

Atlanta Geological Society, taught review course on mineralogy, petrology and analytical methods for the State Board Licensure exams in Geology, September 2019

Atlanta Geological Society, taught review course on mineralogy, petrology and analytical methods for the State Board Licensure exams in Geology, April 2018

“Characterization of commercial talc: Why, how, and what did we learn?”, University of North Carolina, Asheville, Department of Environmental Studies, March 2017

Atlanta Geological Society, taught review course on mineralogy, petrology and analytical methods for the State Board Licensure exams in Geology, June 2017

❖ **COMMUNITY OUTREACH**

Joint Southeastern & Northeastern Geological Society of America, *T. 24 Undergraduate and Graduate Geoscience Student Showcase (Posters and Lightning Round Talks)*, Co-chair with Dr. James MacDonald, and Dr. Mary Abercrombie, March 2023 (Reston, Virginia)

Joint North-Central & Southeastern Geological Society of America, *T. 30 Undergraduate Oral Presentations*, Co-chair with Dr. Brittani McNamee, April 2022 (Cincinnati, Ohio)

Union Elementary STEM night, Planned and orchestrated activities, January 2019

❖ **PROFESSIONAL FIELD TRIPS participant**

Association of Environmental and Engineering Geologists, *NOA Working Group*, A geological field trip of naturally occurring asbestos sites, including several talc deposits, in western North Carolina, September 20-21, 2019

Tellus Museum Mineral Symposium, *Hydrothermal Mineralization to Red Oak Quarry, Red Oak, and New Riverside Ochre Barite mine in Cartersville, GA*, March 2017

Rocky Mountain/Cordilleran Geological Society of America 2014 Meeting, *The World-class Talc Deposits of Southwestern Montana*, May 2016

University of Idaho, *Research sample collecting trip and mine tours of Gianna, Paola, and Rodoretto talc mines in northern Italy*, October 2014

University of Idaho, *Research sample collecting trip, talc mines in Death Valley, CA*, May 2013

University of Idaho, *Research sample collecting trip, talc mines of Southwest Montana*, October 2012

SUNY New Paltz, Spring 2012, *Geology of Yellowstone Region**

SUNY New Paltz, Spring 2011, *Geology of the Grand Canyon**

SUNY New Paltz, Spring 2010, *Geology of Death Valley**

*10-day field trip organized by Dr. Martin Rutstein, Dr. Alexander Bartholomew, and Dr. Frederick Vollmer

❖ **WORKSHOPS and COURSES participant**

Early Career Geoscience Faculty Workshop, Science Education Resource Center (SERC), July 2017

SERC Teaching GeoEthics Across the Geoscience Curriculum Workshop, June 2014

❖ **PROFESSIONAL AFFILIATIONS and LICENSURE**

Registered Professional Geologist: Georgia no. PG002348 (2020-present)

Mineralogical Society of America: member 2012-present

Geological Society of America: member 2011-present

Sigma Gamma Epsilon, National Honor Society of the Earth Sciences: Co-founder of Theta Beta Chapter at SUNY New Paltz, 2012

Pi Sigma Alpha, Political Science Honor Society: inducted 2012

❖ **JOURNAL CONTRIBUTIONS**

Southeastern Geology- Associate Editor: June 2021-present

-Assist with workflow of submitted manuscripts and communicate with subscribers

Southeastern Geology: Reviewer, September 2021; July 2018; January 2017