

Ellen P. Chamberlin

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Appointments

August 2020 – present Assistant Professor, Department of Geology & Environmental Geosciences, Bucknell University
August 2018 – August 2020 Visiting Assistant Professor, Department of Geology & Environmental Geosciences, Bucknell University
August 2016 – March 2018 Assistant Professor, Department of Geosciences, Denison University

Education

Ph.D. Geoscience, The Pennsylvania State University, University Park, PA 2016
B.S. Geology, *Magna Cum Laude*, Allegheny College, Meadville, PA 2011

Publications

Journal Articles

Chamberlin, E.P., and Hajek, E.A., 2019, Using bar preservation to constrain reworking in channel-dominated fluvial stratigraphy, *Geology*, v. 47 (6), p. 531-534.
Trampush, S., Hajek, E.A., Straub, K., **Chamberlin, E.P.**, 2017, "Identifying autogenic scales in fluvial-deltaic stratigraphy: Evaluating the effect of outcrop-quality data on the compensation statistic", *Journal of Geophysical Research—Earth Surface*, v. 122, p. 1-23.
Chamberlin, E.P., Hajek, E.A., and Trampush, S.M., 2016, "Measuring scales of autogenic organization in fluvial stratigraphy: and example from the Cretaceous lower Williams Fork Formation, Colorado, USA", *Autogenic Dynamics and Self-Organization in Sedimentary Systems, SEPM Special Publication*, v. 106, p. 132-144.
Chamberlin, E.P., and Hajek, E.A., 2015, "Interpreting paleo-avulsion dynamics from multistory sand bodies", *Journal of Sedimentary Research*, v. 85, p. 82-94.

Conference Papers (peer-reviewed)

* denotes undergraduate student author

Ingabire-Abayo, N.*, Cabas, A., **Chamberlin, E.P.**, and Montoya, B., 2019, "Assessment of the Variability in Liquefaction-induced Lateral Spreading: Insights from lateral spreading observed in recent seismic events", *Proceedings of the 7th International Symposium of Geotechnical Safety and Risk*, Taiwan.

Journal Articles in Preparation

Chamberlin, E.P., Evaluating controls on scroll bar spacing and morphology: insights from bar-top channel scroll bars in the Lower Mississippi River Valley, USA, *in prep* for submission to *Geomorphology*.

Teaching Experience

Assistant Professor of Geology & Environmental Sciences, Bucknell University 2020-present
Visiting Assistant Professor of Geology, Bucknell University 2018-2020
Classroom teaching: dynamic, field-based liberal arts classroom setting with weekly 4-hour field labs

Introductory: Geol203 Physical & Environmental Geology, Geol204 Evolution of the Earth, Geol117 Environmental Geohazards (upcoming in Spring 2020)

Upper level: Geol316 Geomorphology, Geol319 Undergraduate Research

Off-campus: UNIV226, New Orleans in 12 Movements (interdisciplinary course co-taught with music and global education faculty)

Assistant Professor of Geosciences, Denison University 2016-2018

Classroom teaching: All courses taught in small classroom setting (13-25 students) with active learning and field emphasis, including lectures and labs

Introductory: Geo111 Planet Earth

Upper level: Geo314 Sedimentology and Stratigraphy, Geo240 Earth Resources, Geo380 Senior Seminar (co-taught), Geo365 Independent Study

Teaching Assistant, Penn State University Department of Geosciences 2011-2015

Responsible for teaching lab sections and grading, with some opportunities for classroom lectures

Introductory: Geosc040 The Sea Around Us (Introductory Oceanography)

Upper level: Geo454 Geology of Oil and Gas

Graduate Writing Tutor, Penn State College of Earth and Mineral Sciences 2013-2015

Tutored science writing for undergraduate science majors and non-majors enrolled in science courses, with emphasis on self-editing and sustained writing improvement.

Additional Professional Experience

Contract Science Preferred Editor, American Journal Experts, based in Raleigh, NC 2018-2019

Professional Intern, ExxonMobil Upstream Research Company, Houston, TX 2014

Professional Intern, Shell Oil Company Clastics Research Team, Houston, TX 2012

Grants, Honors and Awards

Student Grants to Chamberlin

ExxonMobil/GSA Graduate Research Grant (Spring 2015; 10 selected of 780 applicants)

AAPG Foundation Grants-in-Aid Recipient (Spring 2012, 2015)

Shell Geoscience Energy Research Facilitation Award (2012-2014)

Chesapeake Energy Scholarship (Spring 2014)

NSF Field School Participant, Bangladesh (Feb-March 2014)

Krynine Travel Award (Fall 2011, Spring 2013, Fall 2013)

GSA Graduate Research Grant (Spring 2012)

NSF Graduate Research Fellowship - Honorable Mention (Fall 2011)

Marathon Alumni Centennial Graduate Fellowship (Fall 2011)

Outstanding Student Research - Allegheny College Geology Department (Spring 2011)

Allegheny College Trustee Scholarship (Fall 2007 - Spring 2011)

Service to the Profession

Honorary Member Award Committee, Society for Sedimentary Geology (SEPM) 2017-2020

Active peer reviewer, including articles for *Geology*, *Geosphere*, *Frontiers in Geoscience*, *Journal of Sedimentary Research*, *Island Arc*, *Marine and Petroleum Geology*, *The Depositional Record*, and grants submitted to the *National Science Foundation*

Invited seminar talks: Temple University, Kent State University, University of Akron, Allegheny College, West Virginia University

Outreach

- Chesapeake Conservancy Collaborative Partner 2019-present
Assist in stream restoration efforts in the Susquehanna River watershed of the Chesapeake Bay, including coordinating volunteer events with Bucknell University students.
- Founder of the Penn State Student Chapter of the Association for Women Geoscientists 2012-2016
Positions held: President (2012-2014), Vice President (2014-2015), Treasurer (2015-2016)
Funding: Obtained \$1500 annual grant from Shell Oil Company (beginning 2014)

Computer Skills

Matlab, including image processing and statistics toolbox
Basic R programming
RiScan Pro, Faro SCENE (LIDAR processing software)
Adobe Creative Suite (Illustrator, Photoshop, InDesign)
ArcGIS

Selected Abstracts and Presentations

* denotes undergraduate student author

^ denotes graduate student author co-supervised by Chamberlin

23. **Chamberlin, E.P.**, and Martz, A.*, 2020, Evaluating the relationship between channel and scroll bar properties in meandering rivers with migrating chute channels: 2020 Annual Meeting, American Geophysical Union. *Poster*.
22. Ingabire Abayo, N.^, **Chamberlin, E.P.**, Cabas, A., and Montoya, B., 2020, Examining the Influence of Fluvial Geomorphical Variables on Existing Empirical Models of Earthquake-Induced Liquefaction and Lateral Spreading: 2020 Annual Meeting, American Geophysical Union. *Poster*.
21. Alpheus, S., Hajek, E.A., **Chamberlin, E.P.**, Greenburg, E., Baisden, T., van Toorenenburg, K., and Donselaar, M.E., 2019, Comparing basin-scale avulsion dynamics in three ancient fluvial systems to understand how floodplain sedimentation influences avulsion patterns: 2019 Annual Meeting, American Geophysical Union. *Poster*.
20. Zaklicki, M.*, Fillion, E.*, **Chamberlin, E.**, and Trop, J., 2019, Fluvial sedimentology and architecture of the Catskill and Huntley Mountain Formations, North-central Pennsylvania, USA: 2019 Annual GSA, Phoenix, AZ. *Poster*.
19. **Chamberlin, E.P.**, 2019, Evaluating controls on scroll bar spacing and curvature: evidence from superimposed channel scales within the Lower Mississippi River Valley, USA: 2019 Annual GSA, Phoenix, AZ. *Poster*.
18. **Chamberlin, E.P.**, 2018, Lateral Migration and Evolution of Bar-top Chutes in the Lower Mississippi River, USA: Linking Chute Channel Scroll Bar Deposition to Bar Migration History: 2018 Annual Meeting, American Geophysical Union. *Poster*.
17. **Chamberlin, E.P.**, Spranger, A.M.*, and Hajek, E.A., 2017, Fine sediment storage in ancient deposits: an example from the Blackhawk-Castlegate Formation boundary (Cretaceous, Utah, USA): 2017 Annual GSA, Seattle, WA, GSA Abstracts with Programs, v. 49. *Talk*.
16. Fitzgerald, B.*, Rodriguez, S.*, and **Chamberlin, E.P.**, 2017, Evidence for complex floodplain morphodynamics in the stratigraphic record: characterizing floodplain channels in the Wasatch Formation (Paleocene-Eocene, Colorado, USA): 2017 Annual GSA, Seattle, WA, GSA Abstracts with Programs, v. 49. *Poster*.
15. **Chamberlin, E.P.**, and Hajek, E.A., 2017, Deconvolving reworking and grain-size controls on abrupt changes in fluvial deposit connectivity: an example from the Cretaceous Blackhawk to

- Castlegate Formation transition, Utah, USA: 11th International Conference for Fluvial Sedimentology, Alberta, Canada. *Talk*.
14. **Chamberlin, E.P.**, and Hajek, E.A., 2016, Estimating the relative sand-to-mud ratios of paleo-sediment supply: an example from the mud-dominated Blackhawk to sand-dominated Castlegate Formation transition, Upper Cretaceous, Utah, USA: 2016 Annual GSA, Denver, CO, GSA Abstracts with Programs, v. 48. *Talk*.
 13. **Chamberlin, E.P.**, and Hajek, E.A., 2015, Evaluating process origins of sand-dominated fluvial stratigraphy: 2015 Annual Meeting, American Geophysical Union. *Invited Talk*.
 12. **Chamberlin, E.P.**, and Hajek, E.A., 2015, Evaluating controls on abrupt vertical changes in the sandiness of fluvial stratigraphy: examples from Upper Cretaceous fluvial deposits in Utah and Colorado, USA, 2015 Annual GSA, Baltimore, MD, GSA Abstracts with Programs, v. 47, no. 7. *Talk*.
 11. Lesko, A.*, **Chamberlin, E.P.**, Hajek, E.A., and Schwartz, T.M., 2015, Provenance and facies changes across the Upper Cretaceous Blackhawk-Castlegate sequence boundary (southern Wasatch Plateau, Salina Canyon, Utah, USA), 2015 Annual GSA, Baltimore, MD, GSA Abstracts with Programs, v. 47, no. 7. *Poster*.
 10. **Chamberlin, E.P.**, and Hajek, E.A., 2014, Evaluating the influence of floodplain filling styles on channel belt stacking and basin-scale fluvial architecture: American Geophysical Union, Fall Meeting 2014. *Talk*.
 9. Hajek, E.A., and **Chamberlin, E.P.**, 2014, Reconstructing ancient river dynamics from the stratigraphic record: can lessons from the past inform our future? [abs]: 2014 Annual Meeting, American Geophysical Union, AGU Abstracts with Programs. *Talk*.
 8. Baisden, T., Hajek, E.A., and **Chamberlin, E.P.**, 2014, Evaluating Floodplain Controls on Paleo-channel Avulsion and Migration: Wasatch Formation (Paleocene/Eocene, Piceance Basin, CO, USA) [abs]: 2014 Annual Meeting, American Geophysical Union, AGU Abstracts with Programs. *Poster*.
 7. **Chamberlin, E.P.**, and Hajek, E.A., 2014, Channel-belt and basin-scale evidence for random paleo-avulsion patterns in the Williams Fork Formation [abs]: SEPM Autogenics Research Conference, Grand Junction, Colorado, USA. *Talk*.
 6. **Chamberlin, E.P.**, and Hajek, E.A., 2013, Process interpretations of multistorey sand bodies: evaluating field evidence and estimating preservation potential [abs]: 10th International Conference for Fluvial Sedimentology, Leeds, UK. *Talk*.
 5. **Chamberlin, E.P.**, and Hajek, E.A., 2013, Evaluating process interpretations of multistorey fluvial sand bodies [abs]: 2013 Annual AAPG, Pittsburgh, PA, AAPG Abstracts with Programs. *Poster*.
 4. **Chamberlin, E.P.**, and Schwartz, Robert K., 2011, Facies and Provenance Analysis of Eocene Deposits in the Radersburg-Toston Region: understanding the role of Cenozoic tectonics on changing intermontane basin geometry in southwestern Montana [abs]: 2011 Annual GSA, Minneapolis, MN, GSA Abstracts with Programs, v. 43, no. 5. *Talk*.
 3. **Chamberlin, E.P.**, Michalak, Samuel A., and Schwartz, Robert K., 2010, Radersburg-Toston Intermontane Basin of Southwest Montana: Facies and Drainage Patterns Define Structurally Partitioned Paleogene Sub-basin and Sevier-uplift Source Areas [abs]: 2010 Annual GSA, Denver, CO, GSA Abstracts with Programs, v. 42, no. 5. *Poster*.
 2. Michalak, Samuel A., **Chamberlin, E.P.**, and Schwartz, Robert K., 2010, Townsend Intermontane Basin in the Helena Thrust Salient of Southwest Montana: Mountainous Early Cenozoic Landscape and Trunk-Fluvial Dispersal Similar to the Modern Missouri River [abs]: 2010 Annual GSA, Denver, CO, GSA Abstracts with Programs, v. 42, no. 5. *Poster*.
 1. Schwartz, R.K., Schwartz, T.M., and **Chamberlin, E.P.**, 2009, New Evidence for an Early Paleogene Trunk-fluvial System in the Helena Thrust-belt Salient of Southwestern

Montana- Through-going Transport Between Post-Laramide Intermontane Basins
[abs]: 2009 Annual GSA, Portland, OR, GSA Abstracts with Programs, v. 41, no. 7.
Poster.