SOPHIE MARTINE SILVER

University of Pennsylvania Department of Earth and Environmental Science
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EDUCATION

University of Pennsylvania Philadelphia, PA
Ph.D. Earth Science Sept 2020 – Present
- GPA: 4.0

Temple University Philadelphia, PA
B.S. Geology Aug 2015 – May 2019
- GPA: 3.31
- Relevant Coursework:
  Elementary Classical Physics I-II, Calculus I-III, Structural Geology, Coastal Processes and Geomorphology, Remote Sensing and GIS, Process Geomorphology, Planetary Geology, Soils and Paleosols

RESEARCH EXPERIENCE

University of Pennsylvania
Primary advisor: Douglas Jerolmack
Current Research: Fracture network topology, particle shape evolution, Titan surface processes

Temple University
Primary advisor: Dr. Alexandra Krull Davatzes
A Comparison of Spherule Diameter Measurement Methods Summer 2019 – Spring 2020
- Analysis of Paraburdoo Spherule Layer (PSL) spherule diameter using micro Computed Tomography (microCT)
- Developing stereological estimates of diameter using thin section point count data
- Comparing microCT measurements to thin section point count and CAMSIZER data

Chemical Analysis of Impact Boundary Sediments Summer 2017 – Spring 2020
Advisors: Dr. Alexandra Krull Davatzes and Katrina Souders

PRESENTATIONS

AGU Annual Conference
Silver, S., Souders, K., & Davatzes, A. (2019) *A Comparison of Spherule Diameter Measurement Techniques*. Presented at AGU 2019 Annual Meeting, San Francisco, CA

FIELD COURSES

Indiana University Bloomington G429 Field Course — Summer 2018
Cardwell, MT; 6 Weeks
- Geologic mapping of sedimentary and metamorphic units
- Stratigraphic correlation utilizing field observation and subsurface data
- Use of Terrestrial Scanning LiDAR to analyze fault offset and sedimentation rate

Temple University Field Methods Course — Summer 2017
Ambler, PA; 2 Weeks
- Soil coring and analysis, stream profile creation, Jacob's staff topography measurements

SKILLS

Field Skills
- Geologic mapping of sedimentary and metamorphic deposits
- Stratigraphic correlation
- Soil coring and analysis
- Generating topographic slope profiles
- Stereonets

Lab Skills
- Thin section preparation and analysis
- X-Ray Diffraction (XRD)
- X-Ray Fluorescence (XRF)
- Scanning Electron Microscope (SEM)
- Laser Raman
- JMARS
- Python
- Crater counting
- Terrestrial Scanning LiDAR
- Chemical separation of heavy minerals via HCl bath

TEACHING & SERVICE

Geology 125 – Earth and Life Through Time, *Teaching Assistant* — Spring 2021
GeoPath Math Mentor/Tutor — Fall 2018
Volunteer for High Schoolers' GEAR UP Geology Demonstration — Spring 2017 & Spring 2019

HONORS & AWARDS

EES Benjamin Franklin Fellowship — Fall 2020 – Present
Indiana University Bloomington Anadarko Scholarship, *$1,500* — Summer 2018
Temple University Dean's List — Fall 2016 & Spring 2019
Temple University Dean's Scholarship, *$15,000* — Fall 2015 – Spring 2016

PROFESSIONAL AFFILIATIONS & HONOR SOCIETIES

Graduate Women in Science (GWIS), *Member* — Fall 2020 – Present
American Geophysical Union, *Member* — Fall 2019 – Present
Sigma Gamma Epsilon Theta Rho Chapter, *President* — Summer 2018 – Spring 2019
Temple University Geological Society, *Member* — Fall 2017 – Spring 2019