

Dylan A. Vasey

Ph.D. Candidate

Department of Earth and Planetary Sciences

University of California, Davis

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Education

University of California, Davis – Ph.D., Earth and Planetary Sciences, expected 2023, advanced to candidacy 2019, advisor: Eric Cowgill

University of California, Davis – M.S., Geology, 2018

Amherst College – B.A., *summa cum laude* with Distinction, Black Studies/History, 2014

Peer-Reviewed Manuscripts

Stahl, T. A., Cowgill, E., Boichenko, G., **Vasey, D. A.**, and Godoladze, T., 2022, Recent surface rupturing earthquakes along the south flank of the Greater Caucasus near Tbilisi, Georgia. *Bulletin of the Seismological Society of America*, v. 112, no. 4, 2170–2188, doi:10.1785/0120210267

Trexler, C. C., Cowgill, E., Niemi, N. A., **Vasey, D. A.**, and Godoladze, T., 2022, Tectonostratigraphy and major structures of the Georgian Greater Caucasus: Implications for structural architecture, along-strike continuity, and orogen evolution. *Geosphere*, v. 18, no. 1, 211–240, doi:10.1130/GES02385.1

Vasey, D.A., Cowgill, E., and Cooper, K.M., 2021, A preliminary framework for magmatism in modern continental back-arc basins and its application to the Triassic-Jurassic tectonic evolution of the Caucasus: *Geochemistry, Geophysics, Geosystems*, v. 22, e2020GC009490, doi:10.1029/2020GC009490.

Vasey, D.A., Cowgill, E., Roeske, S.M., Niemi, N.A., Godoladze, T., Skhirtladze, I., and Gogoladze, S., 2020, Evolution of the Greater Caucasus basement and formation of the Main Caucasus Thrust, Georgia: *Tectonics*, v. 39, no. 3, e2019TC005828, doi:10.1029/2019TC005828.

Professional Experience

2016-Present **Teaching Assistant, University of California, Davis**, Davis, CA

(Courses Taught: GEL 36 – Solar System, GEL 50 – Physical Geology Lecture, GEL 50L – Physical Geology Lab, GEL 60 – Earth Materials, GEL 101L – Structural Geology Lab, GEL 103 – Field Geology, GEL 105 – Igneous Rocks, GEL 106 – Metamorphic Rocks GEL 110 – Summer Field Geology)

2020 **Associate Instructor (Instructor of Record), University of California, Davis**, Davis, CA (GEL 17 – Earthquakes and Other Natural Hazards)

2016 **Associate Instructor (Teaching Assistant), Indiana University Geologic Field Station**, Cardwell, MT (G429 – Field Geology in the Rocky Mountains)

2015-2016 **Prior Learning Assessment Advisor, Germanna Community College**, Fredericksburg, VA

2015 **Field Assistant, MIT Department of Earth, Atmospheric, and Planetary Sciences**, Twisp, WA

2014-2015 **English Teaching Assistant (Instructor of Record), Faculté Polydisciplinaire de Ouarzazate**, Ouarzazate, Morocco
(Courses Taught: Debate, English/French Translation, English for Tourism, British and American Educational Systems, Educational Technology, Teaching Writing and Grammar)

Theses Supervised (Undergraduate)

Garcia, L., 2022, Detrital zircon provenance pushes back-arc basin suture to the frontal thrust of the North Georgia Fault System in the Greater Caucasus.

Honors and Awards

2022 Warren Hamilton Field Trip Award (GSA)
2019 Geological Society of America Structural Geology and Tectonics Division Field Trip Grant
2019 UC Davis Graduate Student Association Travel Award
2018 UC Davis Graduate Student Travel Award
2016-2018 John Mason Clarke 1877 Fellowship (Amherst College)
2016 National Science Foundation Graduate Research Fellowship Honorable Mention
2016 Inducted in Sigma Xi
2014 Fulbright Fellowship (English Teaching Assistant – Morocco)
2014 Edward Jones Prize (Amherst College)
2014 John Petropulos Prize in Historical Scholarship (Amherst College)
2014 Elected to Phi Beta Kappa
2013 Marshall Scholarship Finalist
2012 Charles W. Cole Scholarship (Amherst College)

Research Grants

2021 NSF EAR-Tectonics 2050623 (Participant)
2017-2021 UC Davis Durrell Fund Grant
2020 American Research Institute of the South Caucasus Research Grant
2017, 2020 Sigma Xi Grants-in-Aid of Research
2017, 2020 Geological Society of America Graduate Research Grant

Conference Abstracts

Castro, A.E., Yao, J., Wolfe, O.M., George, F.R., and **Vasey, D.A.**, Cryptic early “Barrovian” metamorphism in the trailing edge of Ganderia: Evidence from aluminosilicate reaction textures, garnet trace element zoning, and phase equilibria modeling, Presented at 2022 Goldschmidt Conference, Honolulu, HI, 10-15 Jul.
Vasey, D.A., Naliboff, J.B., and Cowgill, E., Continental rift inversion: Modeling the transition between intracontinental and plate boundary collisional orogenesis, Presented at 2022 Structure and Deformation at Plate Boundaries Synthesis Workshop, GeoPRISMS, Honolulu, HI, 16-18 Mar.
Vasey, D.A., Naliboff, J.B., and Cowgill, E., Modeling the effects of initial continental rift structure on the symmetry and vergence of collisional orogens formed by rift inversion, Abstract 901290 presented at 2021 Fall Meeting, AGU, Virtual, 13-17 Dec.

- Cowgill, E., **Vasey, D.A.**, and Niemi, N.A., Plate coupling vs. strength in controlling orogenic structure, Abstract 165-4 presented at 2021 Annual Meeting, GSA, Portland, OR, 10-13 Oct.
- Vasey, D.A.**, Cowgill, E., and Cooper, K.M., Geochemistry of modern continental back-arc basins and Triassic-Jurassic collision-induced back-arc spreading in the Caucasus, Abstract 74-12 presented at 2020 Annual Meeting, GSA, Virtual, 26-30 Oct.
- Niemi, N.A., Cowgill, E., and **Vasey, D.A.**, The Greater Caucasus Mountains: A complete transect from active subduction to continental collision in a single orogenic system, Abstract 240-8 presented at 2020 Annual Meeting, GSA, Virtual, 26-30 Oct.
- Vasey, D.A.**, Cowgill, E., and Niemi, N.A., 2019, The geology of cryptic sutures: An example from the Western Greater Caucasus, Abstract 141-11 presented at 2019 Annual Meeting, GSA, Phoenix, AZ, 22-25 Sep.
- Niemi, N.A., Cowgill, E., Tye, A., **Vasey, D.A.**, Midttun, N.C., Karsli, O., Babayan, H., Babayev, G., Gevorgyan, M., Godoladze, T., and Safarov, R., 2019, A low-temperature thermochronometric perspective on the subduction-to-collision transition in the Caucasus region, Abstract 168-4 presented at 2019 Annual Meeting, GSA, Phoenix, AZ, 22-25 Sep.
- Cowgill, E., Niemi, N.A., **Vasey, D.A.**, Young, E.K., and Trexler, C.C., 2018, The geologic record of slab break-off in continental collisions, Abstract 93-7 presented at 2018 Annual Meeting, GSA, Indianapolis, IN, 4-7 Nov.
- Vasey, D.A.**, Cowgill, E., Niemi, N.A., Godoladze, T., Javakhishvili, Z., Boichenko, G., and Skhirtladze, I., 2018, A microstructural and thermochronometric view of the early stages of continental collision from the Greater Caucasus in the Republic of Georgia, Abstract EGU2018-13030 presented at 2018 General Assembly, EGU, Vienna, Austria, 8-13 Apr.
- Cowgill, E., Niemi, N., Forte, A., Trexler, C., Tye, A., **Vasey, D.**, Young, E., Midttun, N., Boichenko, G., Javakhishvili, Z., and Godoladze, T., 2018, Formation of the Greater Caucasus by two-stage closure of a relict ocean basin and the transition from soft to hard Arabia-Eurasia collision, Abstract EGU2018-13324 presented at 2018 General Assembly, EGU, Vienna, Austria, 8-13 Apr.
- Vasey, D.A.**, Cowgill, E., Niemi, N.A., Godoladze, T., Javakhishvili, Z., Skhirtladze, I., and Boichenko, G., 2017, Did the basement-involved Main Caucasus Thrust form during Cenozoic Arabia-Eurasia collision?, Abstract T51H-06 presented at 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 Dec.

Service

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| 2021-2022 | UC Davis Department of Earth and Planetary Sciences Seminar Committee |
| 2017-2021 | UC Davis Graduate Student Association Representative |