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Curriculum vitae
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Professional appointments

Associate Professor	Department of Geosciences, Utah State University	2020-present
Assistant Professor	Department of Geosciences, Utah State University	2014-2020
NSF Postdoctoral Fellow	Department of Geosciences, University of Arizona	2012-2014

Education

PhD	University of Colorado Boulder, Geological Sciences	2012
MSc	University of New Mexico, Earth and Planetary Sciences	2007
BA	Wellesley College, Geology, Political Science	2003

Research

SELECT PUBLICATIONS *last 3 years; *postdoctoral, *graduate, and **undergraduate mentee*

- *Jensen, J.L., **Ault, A.K.**, Geissman, J.W., 2023, Evaluating the compatibility of hematite (U-Th)/He data and hematite-carried secondary magnetizations: an example from the Colorado Front Range, *Geochemistry, Geophysics, Geosystems*, v. 24, e2023GC010993.
- *McDermott, R.G., **Ault, A.K.**, **Wetzel, K., Evans, J.P., Shen, F.-A., 2023, Microscale spatial variations in coseismic temperature rise on hematite fault mirrors, *Journal of Geophysical Research: Solid Earth*, v. 128, e2022JB025069.
- *DiMonte, A.A., **Ault, A.K.**, Hirth, G., Bradbury, K.K., 2022, Hematite accommodated shallow, transient Pleistocene slow slip along the exhumed southern San Andreas fault system, California, USA, *Geology*, v. 50, 1443-1447.
- *Armstrong, E.M., **Ault, A.K.**, Bradbury, K.K., Savage, H.M., Thomson, S.N., Polissar, P., 2022, A multi-proxy approach to robustly capture earthquake temperature rise on the Punchbowl fault, CA, *Geochemistry, Geophysics, Geosystems*, v. 23, e2021GC01029.
- *Odlum, M.L., **Ault, A.K.**, *Channer, M.A., *Calzolari, G., 2022, Seismicity recorded on hematite fault mirrors in the Rio Grande rift, *Geosphere*, v. 18, p. 241-260.
- **Taylor, M.P., **Ault, A.K.**, *Odlum, M.L., Newell, D.L., 2021, Shallow rupture propagation of Pleistocene earthquakes along the Hurricane fault, UT, revealed by hematite (U-Th)/He thermochronometry and textures, *Geophysical Research Letters*, v. 48, e2021GL094379.
- *McDermott, R.G., **Ault, A.K.**, Caine, J.S., 2021, Dating fault damage along the eastern Denali fault zone with hematite (U-Th)/He thermochronometry, *Earth and Planetary Science Letters*, v. 563, p. 116872.
- *Houser, L.M., **Ault, A.K.**, Newell, D.L., Evans, J.P., Shen, F.-A., Van Devener, B.R., 2021, Nanoscale textural and geochemical evolution of silica fault mirrors in the Wasatch fault damage zone, Utah, USA, *Geochemistry, Geophysics, Geosystems*, v. 22.
- *Calzolari, G., **Ault, A.K.**, Hirth, G., 2020, *McDermott, R.G., 2020, Hematite (U-Th)/He thermochronometry detects asperity flash heating during laboratory earthquakes, *Geology*, v. 48, p. 509-513.
- Ault, A.K.**, 2020, Hematite fault rock thermochronometry and textures inform fault zone processes, *invited* article, *Journal of Structural Geology*, v. 133, p. 104002.

ACTIVE GRANT FUNDING, total extramural funding since 2012 = \$3.02 million

2023-2024: NSF EAR-2335077, Collaborative Research: RAPID: Fault rock and spring sampling of the 2023 Kahramanmaras, Turkey, earthquake sequence ruptures, lead PI with Co-PI D. Newell (USU) and S. Akçiz (CSUF), **\$24,045**

2023-2024: SCEC 23081, Southern California Earthquake Center, Bridging nano- and macroscale observations to investigate shallow on-fault deformation of the southern San Andreas fault, Coachella Valley segment, lead PI, Co-PI G. Hirth (Brown), **\$24,359**

2023-2024: USU SPARC, Integrating geologic and geophysical data to inform shallow earthquake processes, lead PI, Co-PI B. Cox (USU, CEE), **\$34,834**

2021-2024: NSF EAR-2039727, Tectonics Program, Collaborative Research: Identifying shallow slow slip using hematite textures and (U-Th)/He thermochronometry of exhumed and experimental faults, lead PI, with Co-PI G. Hirth (Brown Univ.), \$591,131

2017-2023: NSF EAR-1654628, CAREER: Thermochronometric and textural signatures of fault damage zone microseismicity and igniting middle school student interest in earthquake science, sole PI, \$677,468

INVITED OR KEYNOTE TALKS AT CONFERENCES AND INSTITUTES ($n = 12$)

2023: Cooperative Institute for Dynamic Earth Research, UC Berkeley, Montana State Earth Sciences Student Colloquium; **2021:** Southern California Earthquake Center Annual Meeting; **2018:** Gordon Research Conference on Rock Deformation, NH; Structural Geology & Tectonics Forum, AZ; **2017:** GSA Annual Meeting, WA; Goldschmidt, Paris; Geological Assoc. of Canada-Mineralogical Assoc. of Canada; **2015:** Structural Geology & Tectonics Division 35th Anniversary Symposium, GSA Annual Meeting, MD; AGU Fall Meeting; **2014:** Structural Geology & Tectonics Forum, CO; Goldschmidt, CA

INVITED DEPARTMENTAL SEMINARS ($n = 32$ in last 9 years listed below; 8 public seminars not listed)

2023: UC Berkeley; **2022:** CSU Northridge, Indiana, UCSB, N. Illinois, Idaho State; **2021:** USGS Earthquake Center, Brown, CSU Fullerton, UC Santa Cruz, Univ. Minnesota, UC Davis, Univ. Washington; **2020:** Colorado College, UT Austin, San Jose State, Univ. Utah; **2019:** Univ. Southern California, Brigham Young Univ., New Mexico Tech; **2018:** UArizona, Cornell, Wyoming; **2017:** Univ. Wisconsin, Weber State Univ.; **2016:** Wyoming, Univ. Illinois at Champaign-Urbana; **2014:** Idaho State, Utah Valley Univ., Wellesley College, UC Berkeley

POSTDOCTORAL MENTOR ($n = 3$)

Jenna Kaempfer, Jan 2022-present; Margo Odlum, May 2019-2021, **NSF Postdoctoral Fellow**; Gabriele Calzolari, 2017-2019

GRADUATE ADVISOR ($n = 8$)

Alexandra DiMonte, PhD, 2022-present; Jordan Jensen, PhD, 2021-present, Presidential Doctoral Research Fellow; Emma Armstrong, PhD, 2021-present, **NSF Graduate Research Fellow**; Alexandra DiMonte, MSc, 2019-2022; Emma Armstrong, MSc, 2019-2021; Robert McDermott, PhD, 2014-2020, Presidential Doctoral Research Fellow; Leah Houser, MSc, 2017-2019; Michael Channer, MSc, 2014-2017

THESIS SUPERVISORY COMMITTEES – PhD (6), MSc (14)

UNDERGRADUATE RESEARCH ASSISTANTS ($n = 6$)

Jacob Cooley, (2023-present); Sarah Robertson (2022-present); Ryker Tracy (2020-2021); Madison Taylor (2018-2020; 2019 Peak Research Fellow); Kelsey Wetzel (2017-2018); Christopher Ammon (2016); Jordan Jensen (2015-2016; COS Scholar of the Year; **NSF GRF 2018** and Honorable Mention 2016); Ashley Provow (2015)

Honors and awards

2018	Early Career Award, International Standing Committee on Thermochronology
2018	USU College of Science Researcher of the Year
2017	NSF CAREER Award
2012-2014	NSF Postdoctoral Fellowship
2005-2010	NSF Graduate Research Fellowship

Community engagement and synergistic activities

- (1) **Developing middle school STEM identities and earthquake education** Creator and leader of field, laboratory, and classroom education activities with 5th and 6th grade students from Promontory School of Expeditionary Learning (Perry, UT). Spring 2016, Fall 2016, 2017, 2018, 2019, 2021.
- (2) **Mentoring of underrepresented groups** Supervisor and lab host of undergraduates in the Native American Student Mentoring Program from USU Blanding, May 2016 and May 2017.
- (3) **Public engagement in science** Invited public speaker for **2019: USU Sunrise Session**, Salt Lake City, UT; *Sunday Under the Trees*, USU Summer Citizens Program (also 2016); USU Center for Women and Gender; **2018:** USU, Emeriti Faculty Foundation; Geologists of Jackson Hole, WY; USU Board of Trustees Research Foundation; **2017:** Utah Geological Association.
- (4) **Service to geoscience community** Associate Editor of *Tectonics* (July 2021-present); Convener and multiple sessions at **AGU** (4), **GSA** (4). Peer review of ~12-15 manuscripts/year for journals; NSF Tectonics, Geophysics, Geoinformatics program reviewer; served on 5 NSF panels.
- (5) **Committee service** GSA SGT Outstanding Paper Award (2021-2023); GSA Cordillera-Rocky Mountain section meeting co-chair (2022); Thermo 2021 Organizing Committee for biennial Thermochronology Conference (2019-2021); GSA Rocky Mountain Section Executive Board Member-at-Large (2018-present); USU MCF Faculty Advisory Board (2015-present); Chair of two USU faculty search committees (2019-2020; 2022-present).