DEVON ANNE ORME
Curriculum Vitae

Montana State University
Department of Earth Sciences
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Bozeman, MT 59717-3480

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EDUCATION

Postdoctoral Scholar	Geological and Environmental Sciences	Stanford University	2015-2016
Ph.D.	Geosciences	University of Arizona	2015
	Certificate in College Teaching	University of Arizona	2014
M.S.	Geosciences	University of Arizona	2011
B.S.	Earth and Planetary Science	University of California Santa Cruz	2009

APPOINTMENTS

Assistant Professor	Montana State University	2017-Present
Assistant Professor	University of Nevada, Las Vegas	2017
Postdoctoral Scholar	Stanford University	2015-2016
Graduate Research Associate	University of Arizona	2011-2015
Teaching Assistant	University of Arizona	2009-2014
Teaching Assistant	University of California, Santa Cruz	2006-2009

PEER-REVIEWED PUBLICATIONS (*Student)

(Google Scholar citations = 942, h-index = 16, i10-index = 17, 02/14/2023)

(26) Ronemus, C.B., **Orme, D.A.,** Guenthner, W.R., Cox, S.E., Kussmaul, C.A.L., (2023) Orogens of Big Sky Country: Reconstructing the Deep-Time Tectonothermal History of the Beartooth Mountains, Montana and Wyoming, USA, *Tectonics,* 42(1), doi.org/10.1029/2022TC007541.

(25) Burke, W.B.*, Laskowski, A.K., **Orme, D.A.,** Sundell, K.E., Taylor, M.H., Guo, X., Ding, L., (2021) Record of Crustal Thickening and Synconvergent Extension from the Dajiamang Tso Rift, Southern Tibet, *Geosciences Special Issue on Evolution of Modern and Ancient Orogenic Belts, 11(5), 209;* doi.org/10.3390/geosciences11050209.

(24) Bhattacharya, G., Robinson, D., **Orme, D.A.** (2021) (U-Th)/He thermochronology of the Indus Group, Ladakh, northwest India: Is Neogene cooling a continental-scale thermal event in the India-Asia collision zone? *Lithosphere*, doi.org/10.2113/2021/3321949.

(23) **Orme, D.A.,** Laskowski, A.K., Zilinsky, M.F.*, Chao, W., Guo, X., Cai, F., Ding, L., (2021) Sedimentology and provenance of newly identified Upper Cretaceous trench-basin strata, Dênggar, southern Tibet: Implications for development of the Eurasian margin prior to India-Asia collision, *Basin Research,* 33(12), doi.org/10.1111/bre.12521.

(22) Clinkscales, C., Kapp, P., Thomson, S., Wang, H., Laskowski, A., **Orme, D.A.,** Pullen, A., (2021) Regional Structural Geology and Exhumation History of the Shanxi Rift and Taihangshan, North China, *Tectonics, 4(3),* doi.org/10.1029/2020TC006416.

(21) **Orme, D.A.,** (2020) New timing constraints for the onset of Laramide deformation in southwest Montana challenge our understanding of the development of a thick-skinned structural style during flat-slab subduction, *Tectonics,* 39(12), doi:10.1029/2020TC006193. (Invited Commentary).

(20) Ronemus, C.*, **Orme, D.A.,** Black, S.*, Campbell, S.*, Cook, J.*, (2020) Mesoproterozoic-Early Cretaceous provenance and paleogeographic evolution of the Northern Rocky Mountains: Insights from the detrital zircon record of the Bridger Range, Montana, *Geological Society of America Bulletin*, doi:10.1130/B35628.1

(19) Bhattacharya, G.*, Robinson, D.M., **Orme, D.A**., Najman, Y., Carter, A., (2020) Low-temperature thermochronology of the Indus Basin in central Ladakh, northwest India: Implications of Miocene–Pliocene cooling in the India-Asia collision zone, *Tectonics,* 39(10), https://doi.org/10.1029/2020TC006333.

(18) Quade, J., Leary, R., Dettinger, M.P., **Orme, D.A.,** Krupa, A., DeCelles, P.G., Kano, A., Kato, H., Waldrip, R., Huang, W., and Kapp, P., (2020) Resetting Southern Tibet: The Serious Challenge of Obtaining Primary Records of Paleoaltimetry, *Global and Planetary Change*, 191, doi.org/10.1016/j.gloplacha.2020.103194.

(17) **Orme, D.A.** and Surpless, K.D., (2019) Birth of a Forearc: The Basal Great Valley Group, California, REPLY, *Geology,* doi:10.1130/G47050Y.1.

(16) Laskowski, A.K., **Orme, D.A.,** Cai, F., Ding, L., (2019) The Ancestral Lhasa River: A Late Cretaceous trans-arc river that drained the Proto-Tibetan Plateau, *Geology,* 47(11), 1029-1033, doi:10.1130/G46823.1.

(15) Cai, F., Ding, L., Zhang, Q., **Orme, D.A.,** Wei, H.H., Yao, W., Li, J., Zhang, J., Zaw, T., Sein, K., (2019) Initiation and Evolution of Central Forearc Basin in Myanmar, *Geological Society of America Bulletin,* 132(5-6), 1066-1082, doi:10.1130/B35301.1.

(14) **Orme, D.A.** and Surpless, K.D., (2019) Birth of a Forearc: The Basal Great Valley Group, California, *Geology,* 47(8), 757-761, doi.org/10.1130/G46283.1.

(13) Li, L., Fan, M., Davila, N., Jesmok, G., Mitsunaga, B., Tripati, A., **Orme, D.A.**, (2018) Carbonate stable and clumped isotopic evidence for late Eocene moderate elevation of the east-central Tibetan Plateau and its geodynamic implications, *Geological Society of America Bulletin*, 131(5-6), 831-844.

(12) **Orme, D.A.**, and Graham, S.A., (2018), Four-dimensional model of Cretaceous depositional geometry and sediment flux in the northern Great Valley forearc, California, *in* Ingersoll, R.V., Lawton, T.F., and Graham, S.A., eds., Tectonics, Sedimentary Basins, and Provenance: A Celebration of William R. Dickinson's Career, *Geological Society of America Special Paper 540*, p. 409-424.

(11) **Orme, D.A.,** (2017) Burial and exhumation history of the Xigaze Forearc, Yarlung Suture Zone, Tibet, *Geoscience Frontiers: Himalaya Special Issue,* 10(3), 895-908.

(10) Brown, S.J., Thigpen, J.R., Spotila, J.A., Krugh, W.C., Tranel, L.M., **Orme, D.A**., (2017) Onset timing and slip history of the Teton fault, Wyoming: A multidisciplinary re-evaluation, *Tectonics,* 36(11), 2669-2692.

(9) **Orme, D.A.,** Guenthner, W., Laskowski, A., Reiners, P.W., (2016) Long-term tectonothermal history of Laramide basement from zircon-He age-eU correlations, *Earth and Planetary Science Letters,* 453, 119-130.

(8) **Orme, D.A.** and Laskowski, A.K., (2016) Basin Analysis of the Albian-Santonian Xigaze forearc, south-central Tibet, *Journal of Sedimentary Research,* doi:10.2110/jsr.2016.59.

(7) Carrapa, B., Robert, X., DeCelles, P.G., **Orme, D.A.,** Thomson, S., Schoenbohm, L., (2016) Asymmetrical exhumation of the Mount Everest region: Implications for the tectono-topographic evolution of the Himalaya, *Geology,* 44, 611-614.

(6) Leary, R., **Orme, D.A.**, Laskowski, A.K., DeCelles, P.G., Kapp, P., Carrapa, B., Dettinger, M., (2016) Along- strike diachroneity in the deposition of the Kailas Formation in central southern Tibet: Implications for Indian slab dynamics, *Geosphere,* 12(4), 1-26.

(5) **Orme, D.A.,** Reiners, P.W., Hourigan, J.K., Carrapa, B., (2015) Effects of inherited cores and magmatic overgrowths on zircon (U-Th)/He ages from Greater Himalayan sequence rocks, Mt. Everest region, Tibet, *Geochemistry, Geophysics, Geosystems,* 16(8), 2499-2507.

(4) Huang, W., van Hinsbergen, D.J.J., Maffione, M., **Orme, D.A.,** Dupont-Nivet, G., Guilmette, C., Ding, L., Guo, Z., Kapp, P., (2015) The Lower Cretaceous Xigaze ophiolites formed in the Gangdese forearc: evidence from paleomagnetism, sediment provenance, and stratigraphy, *Earth and Planetary Science Letters,* 415, 142-153.

(3) **Orme, D.A.,** Carrapa, B., and Kapp, P.K., (2015) Sedimentology, Provenance and Geochronology of the western Xigaze Forearc, Southern Tibet, *Basin Research*, 27(4), 287-411.

(2) Carrapa, B., **Orme, D.A.,** Kapp, P., DeCelles, P.G., Cosca, M., Waldrip, R., (2014) Rapid Miocene Burial and Exhumation of the Indus-Yarlung Suture Zone in Tibet, *Geology*, 42(5), 443-446.

(1) Murray, K.E., **Orme, D.A.,** Reiners, P.W., (2014) Effects of U-Th-Rich Grain-Boundary Precipitates on Apatite Helium Dates, *Chemical Geology*, 390, 135-151.

MANUSCRIPTS ACCEPTED, IN REVIEW, IN REVISION (as of 09/20/2022)

Romero, M.C.*, **Orme, D.A**., Surpless, K.D., Ronemus, C.B., Age and provenance relationships between Great Valley forearc basement and basal strata: Implications for the development of the Late Jurassic–Early Cretaceous California margin, *in revision with Journal of Sedimentary Research.*

Ronemus, C.B.* and **Orme, D.A.,** Geologic Map of the Eastern Half of the Melrose 7.5' Quadrangle and the Western half of the Wickiup Creek 7.5' Quadrangle, Southwestern Montana, *in review with Montana Bureau of Mines and Geology.*

MANUSCRIPTS IN PREPARATION (as of 09/20/2022)

Ronemus, C.B.*, and **Orme, D.A.** Spatial and temporal overlap of distinctive structural domains recorded in the Highland Mountains, Montana, U.S.A., *in preparation for submission to Geological Society of America Bulletin Fall 2022.*

PEER-REVIEWED TEACHING PRODUCTS
Laskowski, A.K. and **Orme, D.A**., (2020) Sandy Hollow, Montana Virtual Field Geology Exercise, *Science Education Resource Center at Carleton College (SERC),*
https://serc.carleton.edu/NAGTWorkshops/online_field/activities/237159.html.

NON-PEER REVIEWED PUBLICATIONS
Orme, A.J. and **Orme, D.A.**, (2021) Introduction to Special Issue of Physical Geography in Recognition of Dr. Tony Orme, *Physical Geography,* doi:10.1080/02723646.2021.18908789

Lageson, David R., Laskowski, Andrew K., **Orme, D.A.,** and Hubbard, Mary S., (2019) Tectonic Tour of the Region Surrounding Yellowstone and Grand Teton National Parks (Version 1). Zenodo. http://doi.org/10.5281/zenodo.3163870.

Lageson, David R., Laskowski, Andrew K., **Orme, D.A.,** and Hubbard, Mary S., (2019) Structural Geology and Tectonic History of Western Montana (Version 1). Zenodo. http://doi.org/10.5281/zenodo.3163548.

Laskowski, Andrew K, **Orme, D.A,** Hubbard, Mary, Lageson, David R, and Thomson, Kelly D., (2019) Abstract volume of the 34th Himalaya-Karakorum-Tibet Workshop. http://doi.org/10.5281/zenodo.3238707.

CONFERENCE PROCEEDINGS (*student)

Orme, D.A., Romero, M.,* Manta, R.*, Oleson, E.,* Wakabayashi, J. (2022) Evidence for forearc basin initiation from the Great Valley Forearc, California, Geological Society of America Abstracts with Programs, v. 54, No. 5, doi.org/10.1130/abs/2022AM-382062. Talk.

Ronemus, C.B.*, **Orme, D.A.** (2022) Spatial and temporal overlap of structural styles in the Highland Mountains, Montana, USA: An example of collaboration between the Montana Bureau of Mines and Geology and USGS EDMAP program participants, Geological Society of America Abstracts with Programs, v. 54, No. 5, doi.org/10.1130/abs/2022AM-382983. Talk by C.B. Ronemus.

Stine, N.* and **Orme, D.A.** (2022) Provenance and depositional ages of the Great Valley forearc and relationship to the underlying Coast Range Ophiolite Complex at Del Puerto Canyon, Central California, Geological Society of America Abstracts with Programs, v. 54, No. 5, doi.org/10.1130/abs/2022AM-381146. Poster.

Dixon, S.*, **Orme, D.A.,** Sundell, K., Blum, M. (2022) Using detrital zircon (U-Th)/He thermochronology to determine change in provenance, sediment routing, and depositional history of the Miocene-Pleistocene Bengal Fan, Indian Ocean, Geological Society of America Abstracts with Programs, v. 54, No. 5, doi.org/10.1130/abs/2022AM-380822.

Baird, C.B.*, **Orme, D.A.,** Malkowski, M.A, Laskowski, A.K. (2022) Reinvestigation of the sedimentary processes, depositional environments, and provenance of the Mesoproterozoic Lahood Formation in Jefferson Canyon, Montana, Geological Society of America Abstracts with Programs, v. 54, No. 5, doi.org/10.1130/abs/2022AM-380645.

Sigat, R., Guenthner, W., McDannell, K., Keller, C.B., Zeitler, P., **Orme, D.A.,** Deep-time thermochronology reveals the Great Unconformity Formation and Paleozoic reheating of Precambrian basement rocks in the US upper Midwest, Geological Society of America Abstracts with Programs, v. 54, No. 5, doi.org/10.1130/abs/2022AM-383166)

Orme, D.A., The role of basement in driving forearc basin formation, SEG-AGU joint workshop on convergent margins, July 12-14, 2022, Seattle Washington. **Invited Talk.**

Orme, D.A. and Ronemus, C.* New Insights into the timing of basement-involved deformation in southwest Montana during the development of the North America Cordillera, Geological Society of America Abstracts with Programs, Cordillera and Rocky Mountain Section Meeting, Vol. 54, No. 2, 2022, doi: 10.1130/abs/2022CD-374281. **Invited Talk.**

Orme, D.A. Laskowski, A.K., Zilinsky, M.F.*, Chao, W., Guo, X., Cai, F., Ding, L. Trench versus Forearc: Late Cretaceous trench sediment accumulation and forearc erosion along the southern margin of Tibet as revealed by provenance analysis, Geological Society of America Abstracts with Programs, Vol 53, No. 6, 2021, doi: 10.1130/abs/2021AM-368259. Poster.

Romero, M.C.* and **Orme, D.A.** (2021a) Age relationships between the Coast Range Ophiolite, ophiolitic breccia and overlying strata of the Great Valley forearc, Sacramento Basin, Northern California, Geological Society of America Abstracts with Programs, Vol 53, No. 6, 2021, doi: 10.1130/abs/2021AM-365886. Poster.

Romero, M.C.*, **Orme, D.A.,** Mcaleer, Ryan J., Jubb, Aaron M. (2021b) Quantifying radiation damage using Cathodulminescence, photoluminescence and raman spectroscopy on zircons from the Coast Range Ophiolite and Sierra Nevada Basement: Implications for the thermal history of basement rocks and the overlying Great Valley Forearc Basin, Northern California, Geological Society of America Abstracts with Programs, Vol 53, No. 6, 2021, doi: 10.1130/abs/2021AM-369398. Poster.

Kragh, N.*, **Orme, D.A.,** Myers, M., Determining the Lithology and geologic map units of Mount Everts, Yellowstone National Park, WY, Geological Society of America Abstracts with Programs, Vol 53, No. 6, 2021, doi: 10.1130/abs/2021AM-370392. Talk.

Oleson, E.* and **Orme, D.A.,** Relationship between the formation and evolution of the Coast Range Ophiolite and Great Valley Forearc, Northern and Central California, Geological Society of America Abstracts with Programs, Vol 53, No. 6, 2021, doi: 10.1130/abs/2021AM-367001. Poster.

Dittrich, S.* and **Orme, D.A.,** Provenance and depositional age analysis of the basal Great Valley forearc in northern California using detrital and igneous zircon U-Pb geochronology, Geological Society of America Abstracts with Programs, Vol 53, No. 6, 2021, doi: 10.1130/abs/2021AM-367406. Poster.

Manta, R.* and **Orme, D.A.,** Depositional age and provenance of the Great Valley forearc basin examined through U-Pb geochronology, Wilbur Hot Springs and Lynch Canyon, Northern California, Geological Society of America Abstracts with Programs, Vol 53, No. 6, 2021, doi: 10.1130/abs/2021AM-367441. Poster.

Romero, M.C.* and **Orme, D.A.,** Depositional Age, Provenance, and Basin Development of the Basal Great Valley forearc basin, Northern California, GSA Connects Online, October 2020. Poster.

Orme, D.A. and Surpless, K.D., The Birth of the Great Valley Forearc Basin, California, Geological Society of America, Phoenix, AZ, September 2019. *Talk.*

Laskowski, A.K., **Orme, D.A.,** Cai, F., Ding, L., Detrital zircon provenance analysis of Rongmawa Formation strata along the India-Asia suture in southern Tibet suggest that the Lhasa River is an antecendent trans-arc river that transported sediment from the central Lhasa Terrane to the Subduction Zone in Late Cretaceous time, Geological Society of America, Phoenix, AZ, September 2019. *Talk by A.K. Laskowski.*

Ronemus, C.B.*, **Orme, D.A.,** Campbell, S.*, Black, S.*, Cook, J., Provenance and paleogeography of Neoproterozoic-Mesozoic strata, Bridger Range, Montana, USA, Geological Society of America, Phoenix, AZ, September 2019. *Talk by C.B. Ronemus*.*

Orme, D.A., Laskowski, A.K., Cai, F., Ding, L., The Raka Conglomerate: A wedge-top record at the onset of India-Asia collision, southern Tibet, Himalaya-Karakoram-Tibet Workshop, June 2019. *Talk.*

Orme, D.A., Laskowski, A.K., Cai, F., Ding, L., Discovery of two new sedimentary successions along the India- Asia collision zone, Tibet, Geological Society of America, Indianapolis, IN, October 2018. *Talk.*

Orme, D.A., Massar, S.*, Yaeger, M.*, Late Cretaceous-Early Cenozoic sediment dispersal patterns in southwest Montana, Geological Society of America, Indianapolis, IN, October 2018. *Poster.*

Orme, D.A., Blum, M., Rogers, K., Gleason, J., Najman, Y., Exhumation and erosional history of the Tibetan-Himalayan orogen through U-Pb and (U-Th)/He double dating of Bengal Fan sediments, Thermo2018, Quedlinburg, Germany 2018. *Poster.*

Orme, D.A., and Graham, S.A., A four-dimensional model of Cretaceous depositional geometry and sediment flux in the northern Great Valley forearc, California, Geological Society of America, Seattle, WA, October 2017. *Talk.*

Orme, D.A., Guenthner, W.R., Laskowski, A.K., Reiners, P.W., Zircon (U-Th)/He age-eU correlations reveal long- term thermal history of Laurentian basement, Structural Geology and Tectonics Forum 2016, Sonoma, CA, August 2016. *Talk.*

Orme, D.A., Using detrital geochronologic and thermochronologic "Double-Dating" to constrain depositional age, provenance and exhumation signals in ancient forearc basins", American Geophysical Union, Fall Meeting 2014, Abstract #EP12B-02. *Talk.*

Orme, D.A., Carrapa, B., DeCelles, P.G., Evolution of sedimentary basins along the Indus-Yarlung Suture Zone, southern Tibet: Implications for the timing of the initial stages of the India-Asia Collision, GSA Annual Meeting, Vancouver, October 2014, *Invited Talk.*

Orme, D.A., Carrapa, B., Laskowski, A., Early Cretaceous depositional environments, provenance, and subsidence history of the basal Xigaze Forearc basin, southern, Tibet, GSA Annual Meeting, Vancouver, October 2014. *Talk.*

Orme, D.A. and Carrapa, B., Rapid Miocene exhumation of the Indus-Yarlung Suture Zone, Tibet: Evidence from the Xigaze Forearc and Kailas Formation, 14th International Conference on Thermochronology, France, September 2014. *Poster.*

Orme, D.A., Carrapa, B., Reiners, P.W., Hourigan, P.K., Multi-thermochronologic dating of leucogranites from the south Tibetan detachment system at Rongbuk Valley, Mt. Everest, Tibet, GeoDaze 2014, University of Arizona, *Best Tectonics/Geochemistry Talk***,** Tucson, AZ, April 2014**.** *Talk*.

Orme, D.A., Carrapa, B., DeCelles, Evolution of sedimentary basins along the Indus-Yarlung Suture Zone, southern Tibet: Insight from sedimentology and geo-thermochronology, GSA Penrose: Linkages and Feedbacks in Orogenic Processes—A conference honoring the career of Robert D. Hatcher Jr., Asheville, NC, April 2014. *Talk*.

Orme, D.A., Carrapa, B., Kapp, P.K., Gehrels, G., Reiners, P.W., Basin Evolution of the Cretaceous-Early Eocene Xigaze Forearc, southern Tibet, American Geophysical Union, Fall Meeting 2013, Abstract #T11A-2417. *Poster. Outstanding Student Paper Award.*

Orme, D.A., Carrapa, B., Abbey, A., Kapp, P.K., Ding, L., Basin Evolution and Exhumation of the Xigaze Forearc, Southern Tibet: Insight from Sedimentology, Stratigraphy and Geo-Thermochronology, American Geophysical Union, Fall Meeting 2012, Abstract #T51E-2641. *Poster. Outstanding Student Paper Award.*

Orme, D.A., and Carrapa, B., Basin Evolution and Exhumation of the Xigaze Forearc, southern Tibet: Insight from field stratigraphy and thermochronology. Geological Society of America Penrose Conference: Deformation, Fluid Flow, and Mass Transfer in the of Convergent Margins, Italy, March 2012. *Poster.*

Orme, D.A. and Reiners, P.W., Effects of External Parent Nuclides on Apatite Helium Dates: Sources and Solutions. 12th International Conference on Thermochronology, Scotland, August 2010. *Best Student Poster Presentation Award. Poster.*

THESES AND DISSERTATIONS

2015 Ph.D. Geosciences, University of Arizona
Advising Committee: Barbara Carrapa, Peter G. DeCelles, Paul Kapp, Peter W. Reiners and George Gehrels
Dissertation: Basin evolution and exhumation of the Xigaze Forearc and Indus-Yarlung Suture zone, Tibet

2011 M.S. Geosciences, University of Arizona
Advising Committee: Peter W. Reiners, George Gehrels and Jay Quade
Thesis: Effects of External Parent Nuclides on Apatite Helium Dates

2009 B.S. Earth and Planetary Science, University of California Santa Cruz
Advisor: Jeremy K. Hourigan
Thesis: Eocene to late Miocene exhumation of the Southern Coast Ranges, California: Insight from apatite and zircon low-temperature thermochronometry

GRANTS, HONORS AND AWARDS
Montana State University ($1,751,742 awarded since arrival to MSU in 2017)

- Collaborative Research: Reconstructing the missing record of late Proterozoic tectonism along the western margin of Laurentia using deep-time thermochronology
  Organization: National Science Foundation, EAR Tectonics Division
  PI: Devon A. Orme
  MSU Award total: $150,388
  Duration 2022-2025

- CAREER: Deciphering the mechanisms of forearc basin formation by engaging undergraduate and middle school students in field and analytical geoscience research
  Organization: National Science Foundation, EAR
  PI: Devon A. Orme
  MSU Award Total: $651,726
  Duration: 2020-2025

- Impact of the Plio-Pleistocene Transition on Provenance and Sediment Routing from the Himalaya to the Deep-Sea Bengal Fan
  Organization: National Science Foundation, Marine Geology
  PI: Devon A. Orme
  MSU Award Total: $217,336
  Duration: 2020-2023

- Upgrade of Scanning Electron Microscopy Facilities at Montana State University: Supporting Research on the Lithosphere, Cryosphere, and Critical Zone
  Organization: National Science Foundation, EAR
  PIs: David W. Mogk, Colin A. Shaw, Devon A. Orme, Madison Myers, Kevin Hammonds
  MSU Award Total: $488,500
  Duration: 2021-2022

- Geologic map of Melrose and Wickiup Creek 7.5' quadrangles, Highland Mountains, southwest Montana: Refining the structure between Proterozoic and Paleozoic stratigraphy exposed at Camp Creek
  Organization: United States Geological Survey
  PI: Devon A. Orme
  MSU Award Total: $17,427
  Duration: 2020-2021

- Catapulting MSU into an era of micrometer-scale and nanoparticle elemental analysis
  Organization: MJ Murdock Charitable Trust
  PIs: Gerlach, R., Bothner, B., Laskowski, A.K., Lauchnor, E., Orme, D.A., Warnat, S.
  MSU Award total: $197,500
  Duration: One-time payment, 2020

- Himalaya-Karakoram-Tibet Workshop at Montana State University
  Organization: National Science Foundation, EAR Tectonics Division
  PIs: Laskowski, A.K., Orme, D.A., Lageson, D.R., Hubbard, M.S.
  MSU Award total: $24,525
  Duration 2019-2020

- DAAD Fellowship
  Organization: Deutscher Akademischer Austauschdienst (German Academic Exchange Service)
  Award total: $4,340
  Duration: 2019

- Geological Society of America Bulletin Exceptional Reviewer, 2018

- American Geophysical Union, Editors' Citation for Excellence in Refereeing for Tectonics, 2020

University of Arizona
- American Association for Petroleum Geologists (AAPG) Student Research Grant, 2014
- GeoDaze Symposium, University of Arizona, Best Overall Talk, 2015
- Department of Geosciences, University of Arizona, Service Award, 2015
- Society for Sedimentary Geology (SEPM) Student Research Grant, 2014
- American Geophysical Union Outstanding Student Paper Award, 2013, 2012
- Geological Society of America Student Research Grant, 2012
- Association for Women Geoscientists, Takken Student Research Travel Award 2012
- Arizona Geological Society, Student Poster Award 2012
- Geosciences Galileo Circle Scholar, University of Arizona, 2010, 2012, 2013
- Peter J. Coney Field Award, Department of Geosciences, University of Arizona, 2011
- ConocoPhillips Scholarship, Department of Geosciences, University of Arizona, 2011
- 12th International Conference on Thermochronology, Best Student Poster, 2010
- GeoDaze Symposium, University of Arizona, Tectonics/Geochemistry Session Best Talk, 2010, 2014
- Graduate Student and Professional Council (GPSC), Travel Grant, University of Arizona 2010

University of California, Santa Cruz
- National Association of Geoscience Teachers (NAGT) Field Scholarship, 2008
- Kathryn D. Sullivan Scholarship, 2008
- Weber-Hold Field Camp scholarship, 2008
- Holly Day Barnett Memorial Award, 2007

TEACHING
Montana State University
- GEO 309: Sedimentation and Stratigraphy
- GEO 429R: Summer Field Geology
- GEO 443/543: Sedimentary Petrology
- GEO 530: Tectonics of Sedimentary Basins
- GEO 471/571: Geochronology and Thermochronology
- ERTH 102: Geology and Geography of Death Valley National Park
- ERTH 491/102: Geology and History of Glacier National Park

University of Nevada, Las Vegas
- Principles of Stratigraphy and Sedimentation

University of Arizona
- Graduate Teaching Associate (2011- 2014): Sedimentology and Stratigraphy, Historical Geology, Geologic Perspective, Summer Field School
- BASIS High School, Tucson Arizona, Summer Session Earth Science Teacher (2013)
- Graduate Teaching Assistant (2009-2011): Geologic Perspective and Summer Field School
- Department of Geosciences Science Academy Day, Activity Leader (Grades 6-12th), 2009-2012
- Department of Geosciences, SAGUARO Program, Advisor for undergraduate research, 2010-2011

University of California, Santa Cruz
- Teaching Assistant: Summer Field Camp, Oceanography, California Geology, 2006-2009
- California Teaching Internship (6th Grade Earth Sciences, Mission Hill Prep, Santa Cruz, CA), 2007

INVITED TALKS (since 2017)
- Purdue University, Department of Earth, Atmospheric, and Planetary Sciences, Fall 2017
- University of Utah, Department of Geology and Geophysics Distinguished Lecture Series, Spring 2018
- Utah State University, Department of Geology Distinguished Lecture Series, Fall 2018
- Montana Bureau of Mines and Geology/Montana Tech, Seminar Series, Fall 2018
- Institute of Tibetan Plateau Research, Chinese Academy of Sciences, June, 2018
- University of Montana, Department of Geology, Seminar Speaker, April 2019
- Virginia Tech, Department of Geosciences, Seminar Series, October 2019
- Idaho State University, Department of Geosciences, Seminar Series, November 2019
- South Dakota School of Mines and Technology, Seminar Series, February 2020
- Indiana University, Department of Earth and Atmospheric Sciences, Seminar Series, February 2021
- Museum of the Rockies, Presenting Prehistory lecture series, February 2022
- University of Idaho, Department of Earth and Spatial Sciences, Seminar Series, February 2022
- Geological Society of America Cordillera-Rocky Mountain Sectional Meeting, March 2022
- Society of Exploration Geophysicists-American Geophysical Union Convergent Margin Workshop, July 2022
- University of Illinois Urbana-Champaign, Department of Geology Seminar Series, January 2023

FIELD EXPERIENCE
- **Western United States (Utah, Wyoming, Nevada, Montana):** Sedimentologic/structural instruction, sedimentologic research and sample collection.
- **Southern Tibet (China):** Sedimentologic, stratigraphic, sequence stratigraphic, and structural analyses and sample collection.
- **Northeast China:** Sedimentologic and structural analysis and sample collection.
- **California Coast Ranges and central Valley:** Sedimentologic analysis, geochronologic and thermochronologic sample collection.
- **Eastern California:** Sedimentologic, structural and glacial instruction.
- **Patagonia (Argentina):** Sedimentologic, stratigraphic, and structural analyses.

SERVICE, OUTREACH AND PROFESSIONAL DEVELOPMENT
Montana State University
- MSU Honors College Hike and Read Speaker (Fall 2021, Fall 2022)
- MSU STEAM Day, Activity workshop leader (Spring 2022)
- Earth Sciences, Curriculum Committee member (2022-present)
- MSU Honors College, Honors Presents (November 2021)
- Earth Sciences, Graduate Program Committee member (2020-2022)
- Center for Faculty Excellence NSF CAREER grant panelist (February 2021)
- MSU Backcountry Squatters Club academic advisor (2019-present)
- GIS Search Committee member (2017-2018)
- Earth Sciences, Geology Curriculum committee (2017-Present)
- Lead, Traphagen Hall basement renovation (2018-2021)
- Faculty Senate, alternate (2018-present)
- MSU Backcountry Squatters Club presenter (2018)
- Undergraduate Research Rendezvous judge (Fall 2017)
- MSU Honors College, Freshman Research Symposium Speaker (Fall 2017, Fall 2018, Fall 2019, Fall 2020, Fall 2021)
- Earth Sciences, Inaugural Charles Bradley Field Trip Leader (Spring 2018)

University of Arizona
- Organizer, Department of Geosciences End of the Year Picnic, 2015
- Panel Member, Office of Instructional Assessment, Academic Interviews, 2015
- Guest Speaker, Department of Geosciences, Graduate student seminar and Orogenic Systems, 2015
- Guest Speaker, Department of Geosciences, Undergraduate SESS Club, February 2013, April 2014
- Associate Graduate Council for the College of Science, Geosciences Representative, 2010-2014, President, 2011-2012; Vice President 2010-2011
- Department of Geosciences, Leader, Field Geology Session, Teacher Symposium, September 2012
- Department of Geosciences, 38th Annual GeoDaze Symposium, Field Trip Coordinator, April 2010 Co-chair, 39th Annual GeoDaze Symposium, 2010-2011; Slideshow speaker 2013-2014
- Department of Geosciences Science Academy Day, Activity Leader (Grades 6-12th), 2009-2012
- Department of Geosciences, SAGUARO Program, Advisor for undergraduate research, 2010-2011
- Department of Geosciences, Sigma-Gamma-Epsilon (SGE) President, 2009-2011
- Department of Geosciences, Incoming Graduate Student Retreat, Organizer/Trip Leader, 2010
- Graduate Associate, University of Arizona Fission Track Laboratory, 2011-Present
- Graduate Assistant, University of Arizona Radiogenic Helium Dating Laboratory, 2009-2011

Tucson, Arizona Community
- Geology Guest Speaker:
  Hollinger Elementary, March 2015
  Tucson Country Day School, April 2013, 2014
  Palo Freire Elementary, February 2013
  Lawrence Intermediate School, February 2013
  BASIS High School, January 2013
- Science Fair Judge, St. Michaels Day School, February 2013, 2014, 2015

Los Angeles, California Community
- Louisville High School: Commencement Speaker, 2016; Career Day Speaker, 2016

Member
Geological Society of America (GSA)
American Geophysical Union (AGU) Society
Society for Sedimentary Geology (SEPM)
American Association for Petroleum Geologists (AAPG)
Association for Women Geoscientists (AWG)
National Association of Geoscience Teachers (NAGT)

Professional Service
- GSA Cordillera Sectional Meeting 2023, Session Chair (2023)
- Museum of the Rockies, Presenting Prehistory, Speaker (2022)
- Museum of the Rockies, Fossil Hike at Fairy Lake, co-leader, (2022)
- GSA Cordillera-Rocky Mountain Sectional Meeting Session Chair (Spring 2022)
- GSA Connects 2021 Session Chair (Fall 2021)
- Museum of the Rockies Research Affiliate (2020-Present)
- SEPM International Sedimentary Geosciences Congress 2024 Planning Committee (2018-present)
- AAPG IMAGE Siliciclastic Theme Organizer (2020-2021)
- 34th Himalaya-Karakorum-Tibet Workshop, Bozeman, MT, Co-Organizer (June, 2019)
- GSA Annual Meeting Women in Geology Career Pathways Mentor (Fall 2017)

Editor positions
Associate Editor, Journal of Sedimentary Research (JSR), 2021-present

Journal Reviewer
American Journal of Science, Basin Research; Earth and Planetary Science Letters; International Geology Review; Geology; Geosphere; Geological Society of America Bulletin; Geophysical Research Letters; Geology Society of America Special Volumes; Gondwana Research; Geochemistry, Geophysics, Geosystems; Journal of Geophysical Research; Lithosphere; Oxford University Press Books, Journal of Sedimentary Research; Nature Scientific Reports; Tectonics.

Funding Organizations Reviewer
National Science Foundation Earth Sciences Directorate, National Science Foundation GRFP, American Chemical Society Petroleum Research Fund, Deutsche Forschungsgemeinschaft (DFG)

Industry Short Courses
Midland Valley Move Software (March 2018)
Exxon Mobil Field School, Sequence Stratigraphy, Guadalupe Mountains (March 2013)
Exxon Mobil course on Geology and Geophysics Applied in Industry (April 2009)
ConocoPhillips course on Structural Interpretation Fundamentals (March 2010)

ACTIVE COLLABORATORS (Past 2 years):
Michael Blum (University of Kansas), Fulong Cai (Institute of Tibetan Plateau Research), Majie Fan (University of Texas at Arlington), Stephen Cox (Columbia University), James Gleason (University of Michigan), William R. Guenthner (University of Illinois at Urbana Champaign), Andrew K. Laskowski (Montana State University), Lin Li (University of Texas at Arlington), Ding Lin (Institute of Tibetan Plateau Research), Kendra Murray (Idaho State University), Yani Najman (University of Lancaster), David Pearson (Idaho State University), Peter W. Reiners (University of Arizona), Delores Robinson (University of Alabama), Kurt Sundell (Idaho State University), Kathleen D. Surpless (Trinity University).

STUDENT ADVISEE
Primary Advisor

Mariah C. Romero	Ph.D student	Montana State University	Ph.D. 2022
Chance B. Ronemus	M.S. student	Montana State University	M.S. 2021
Christopher Baird	M.S. student	Montana State University	Expected 2022
Spencer Dixon	M.S. student	Montana State University	Expected 2023
Natalee Weis	M.S. student	Montana State University	Expected 2024

Committee Member:

E. Aislin Reynolds	Ph.D. student	Montana State University	Expected 2023
Timothy Campbell	Ph.D student	Montana State University	Expected 2023
Behnaz Hossini	Ph.D. student	Montana State University	Expected 2023
Mia Wafer	M.S. Student	Montana State University	Expected 2023
Katherine Tucker	M.S. Student	Montana State University	Expected 2023
Seth Mangini	Ph.D. Student	Montana State University	Expected 2023
Annie Shoemaker	Ph.D. Student	Montana State University	Expected 2025
Bryce Neal	M.S student	Montana State University	M.S. 2022
Christopher Schiller	Ph.D student	Montana State University	Ph.D. 2020
William Burke	M.S. student	Montana State University	M.S. 2021
Caden Howlett	M.S. student	Montana State University	M.S. 2020
William Freimuth	M.S. student	Montana State University	M.S. 2020
Gourab Bhattacharya	Ph.D student	University of Alabama	Ph.D. 2019
Xiangmei Li	MS. Student	Montana State University	M.S. 2019

Undergraduate Students Supervised:

Montana State University

1. Sarah Massar	B.S. 2018	Provenance of Bozeman Group, southwest Montana
2. Matthew Yaeger	B.S. 2018	Provenance of Sphinx Conglomerate and Fort Union Formation, southwest Montana
3. Chance Ronemus	B.S. 2019	Provenance and depositional environments of Paleozoic-Mesozoic stratigraphy exposed in the Bridger Range, Bozeman, MT
4. Christopher Kussmaul	B.S. 2019	Petrology of Archean gneisses from the Beartooth Mountains, MT
5. John Murphy	B.S. 2019	Provenance of Cretaceous trench-slope strata, southern Tibet
6. Shawn Reddington	B.S. 2020	The relationship between ophiolites and forearc basins
7. Misia Zilinsky	B.S. 2020	Petrography of trench-basin strata, Dênggar, southern Tibet
8. Sophie Black	B.S. 2022	Provenance of Paleozoic Tyler and Heath Formations, Rocky Happy Core, central Montana
9. Saré Campbell	B.S. 2022	Provenance and depositional environments of the Big Snowy Group exposed in the Bridger Range, Bozeman, MT
10. John Cook	Expected B.S. 2023	Provenance and depositional environments of the LaHood Conglomerate and Flathead Sandstone exposed in the Bridger Range, Bozeman, MT
11. Tobias Babcock	Expected B.S. 2023	NSF CAREER, Phase 1: Relationship between the Great Valley forearc and its ophiolitic basement Focus: thermochronology
12. Jaden Blackburn	B.S. 2022	NSF CAREER, Phase 1: Relationship between the Great Valley forearc and its ophiolitic basement Focus: biostratigraphy
13. Samantha Dittrich	B.S. 2022	NSF CAREER, Phase 1: Relationship between the Great Valley forearc and its ophiolitic basement Focus: geochronology
14. Grace Gilbreth	Bozeman High School; now at MSU	NSF CAREER, Phase 1: Relationship between the Great Valley forearc and its ophiolitic basement Focus: geochronology
15. Robert Manta	B.S. 2022	NSF CAREER, Phase 1: Relationship between the Great Valley forearc and its ophiolitic basement Focus: geochronology

16. Nicole Stine	Expected B.S. 2023	NSF CAREER, Phase 1: Relationship between the Great Valley forearc and its ophiolitic basement Focus: geochronology
17. Ethan Oleson	B.S. 2022	NSF CAREER, Phase 1: Relationship between the Great Valley forearc and its ophiolitic basement Focus: thermochronology and paleomagnetism

University of Arizona:

1. Courtney King, B.S. 2011
2. Mariah C. Romero, B.S. 2015 (primary supervisor Barbara Carrapa)
3. Simon Stickroth, B.S., 2013 (primary supervisor Barbara Carrapa)
4. Patrick Boyd, B.S. 2014 (primary supervisor Peter W. Reiners)