

Lon D. Abbott, Ph.D.
Department of Geological Sciences
University of Colorado
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Professional Experience

Teaching Professor of Distinction, Department of Geological Sciences

2020-present University of Colorado Boulder, CO

Teach courses in field geology, scientific writing, earth materials, physical geology, geology of Colorado, field geology of South Australia. Supervise teaching assistants who instruct the introductory geology lab course. Conduct research into the geologic evolution of the Colorado Rockies, Colorado Plateau, and Queensland, Australia.

Associate Chair for Undergraduate Studies, Dept. of Geological Sciences

2010-2013, 2022-2024 University of Colorado Boulder, CO

Assist the chair to coordinate the department's undergraduate teaching activities. Duties included chairing the curriculum committee and student appeals committee and coordinating issues related to undergraduate courses.

Undergraduate Faculty Mentor, Department of Geological Sciences

2019-present University of Colorado Boulder, CO

Serve as a mentor to the 230 undergraduate geology majors. Assist them to explore career options, guide them through the graduate school application process, and help them select classes relevant for achieving their future goals.

Visiting Research Fellow, School of Earth and Environmental Sciences

2014; 2024 Jan-June University of Wollongong Wollongong, NSW, Australia

Collaborated with University of Wollongong faculty to research the incision history of Grand Canyon, Arizona and the tectonic history of eastern Australia as it transitioned from a convergent margin to rift zone to passive margin.

Writing Instructor

Summer 2012, 2019, 2021-2023 UNAVCO Boulder, CO

Taught writing course for UNAVCO Research Experiences in Solid Earth Science for Students (RESESS) summer interns. The program is dedicated to increasing the diversity of students entering the geosciences.

Senior Instructor and Research Associate, Department of Geological Sciences

2007-2020 University of Colorado Boulder, CO

Taught courses in field geology, scientific writing, earth materials, physical geology, geology of Colorado, field geology of South Australia. Supervised teaching assistants who instruct the introductory geology lab course. Conducted research into the geologic evolution of the Colorado Rockies, Colorado Plateau, and Queensland, Australia.

Undergraduate Advisor, Department of Geological Sciences

2007-2016

University of Colorado

Boulder, CO

Served as advisor to 280 undergraduate geology majors and 50 minors.

Faculty Member, Science Department

2006 – 2007

Red Rocks Community College

Lakewood, CO

Taught Physical Geology and Historical Geology courses. Coordinated the geology program, with responsibility for budgets, hiring and supervision of all adjunct instructors, and maintenance of cooperative agreements with high schools and Colorado School of Mines.

Faculty Member, Environmental Studies Program

1997-2006

Prescott College

Prescott, AZ

Taught introductory and upper-level undergraduate courses in physical geology, historical geology, geomorphology, oceanography, environmental geology, field methods, religion and science, and rock climbing and geology. Faculty serve without rank; I held a 5-year contract, the longest granted by the college.

Interim Associate Dean for Academic Affairs

2004-2005

Prescott College

Prescott, AZ

Responsible for all student academic issues including conducting academic workshops, monitoring satisfactory academic progress, investigating grievances, and determining disciplinary actions. Served on various committees, including enrollment management to improve student retention, the academic exceptions committee, and the committee that initiated curricular development and changes.

Faculty, Semester at Sea

Spring 2003

University of Pittsburgh

Pittsburgh, PA

Taught experiential introductory courses in Oceanography and Earth System Science and an upper-division class entitled Environmental Science, Ethics, and Public Policy. Course content tailored to be relevant for ports of call of *S.S. Universe Explorer's* circumnavigation of the globe, with emphasis on interdisciplinary examination of global climate change issue.

Post-Doctoral Research Associate, Earth Science Department

1993-1995

University of California

Santa Cruz, CA

Determined surface uplift rate for Finisterre Mtns., Papua New Guinea. Entailed assembly of stratigraphic and geomorphic data sets, including biostratigraphy, magnetostratigraphy, strontium isotope stratigraphy, physical rock properties, and digital elevation models.

Lecturer, Earth Science Department

1994 University of California Santa Cruz, CA

Taught a graduate-level course in sedimentary basin analysis.

Seismic Processing Intern

1991 Amoco Production Company Denver, CO

Processed marine seismic lines and modeled gravity and magnetic data.

Field Operations Manager

1986-1988 Sorex, Inc. Salt Lake City, UT

Collected and processed aeromagnetic data. Job responsibilities included managing a crew of three to ten at field sites across the United States and in Ghana, West Africa. Managed operations budgets in excess of \$100,000 annually. Authored several of the company's data processing software programs.

Education

Ph.D., Earth Sciences

1993 University of California Santa Cruz, CA

Thesis title: Structural and sedimentologic history of a progressive arc-continent collision: The Finisterre Range, northern Papua New Guinea.

B.Sc., Geophysics/Geology double major

1986 University of Utah Salt Lake City, UT

Graduated *magna cum laude*.

Professional Service

1989-present Guest speaker for numerous community groups
1995-present Peer reviewer of manuscripts for professional journals, including: *Geological Society of America Bulletin*, *Geology*, *AGU Advances*, *Tectonophysics*, *Geosphere*, *Marine Geology*, *Sedimentary Geology*, *Tectonics*, *American Journal of Science*, *Journal of Southeast Asian Earth Science*, *Lithosphere*, *Earth Surface Processes and Landforms*, *Rocky Mountain Geology*, *The Outcrop*, as well as for NSF proposals, books, GSA field trip guides, and for research proposals submitted to Grand Canyon National Park
2017-2020 Member, Geological Society America Professional Development Committee
2020-2024 Desktop Reviewer for UNESCO Global Geopark Site applications
2013, 2019 Desktop Reviewer for UNESCO World Heritage Site applications
2013 Chair-Field Trip Committee, 2013 Geological Society America meeting

2005-2006	Reviewer of standardized test questions to assess K-4 student achievement relative to NRC National Science Education Standard
1998-2002	Faculty Chair, Prescott College
2000	Member, Prescott College Presidential Search Committee
1999	Member, University of California, Santa Cruz Ph.D. Qualifying Exam Committee for candidate Laura Wallace
1998	Chair, Prescott College Academic Dean Search Committee
1998-present	Member of numerous faculty and staff search committees at Prescott College, Red Rocks Community College, and University of Colorado

Awards

2021	Honorable Mention – Outstanding Mentor Award, CU Boulder’s Undergraduate Research Opportunities Program (UROP)
2019	Marinus Smith Award from CU Boulder for advancing the quality of education and the student experience at CU Boulder
2017	Rocky Mountain Association of Geologists’ Geoscience in the Media Award- <i>Geology Underfoot Along Colorado’s Front Range</i>
1992-1993	ARCS Foundation Fellowship
1989-1992	National Science Foundation Graduate Fellowship
1991	Best Paper Award – GEM Conference of the Australasian Institute of Mining and Metallurgy
1991-1992	SEPM Promising Young Geoscientist Award
1989-1993	Soc. Exploration Geophysicists Education Foundation Scholarship
1988-1989	University of California Regents Fellowship
1983-1986	Exxon Undergraduate Scholarship in Geophysics
1983	AMAX Field Geology Scholarship

Graduate Students – Primary Advisor

2022	Jamie Glass – MS. Thesis title: Evidence for pre-rifting events along the Coral sea/Queensland boundary and exploration of tectonic implications for passive margin formation along the Eastern Australian coast.
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Professional Memberships

American Geophysical Union; Geological Society of America

Grants Received

University of Colorado Arts and Sciences Fund for Excellence

2024	University of Colorado	Boulder, CO
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Award for \$1000 for proposal titled: When and How Fast was the Grand Canyon Cut? The money funded detrital zircon analysis of Grand Canyon river terraces to determine if they were deposited by the Colorado River or by Hermit Creek.

GeoAllies

2022-2023	Texas Tech University	College Station, TX
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Award for \$1500 to Dr. Jennifer Stempien and Abbott to connect students participating in the Collaborative Inquiry-based Research Community (CIRC) with Northglenn High School students through CIRC presentations at Northglenn High and joint field trips

University of Colorado Outreach and Engagement Micro Grant

2019-2020 University of Colorado Boulder, CO

Award for \$1000 to Abbott and Jennifer Stempien to connect students participating in the Collaborative Inquiry-based Research Community (CIRC) with Northglenn High School students through CIRC presentations at Northglenn High and joint field trips

Rocky Mountain Biological Laboratory (RMBL) Research Awards

2016-2019 University of Colorado Boulder, CO

Lead PI for two grants totaling \$5810 to conduct a thermochronology and geomorphology project at RMBL that produced five undergraduate honors theses and engaged a total of twelve undergraduate researchers

Chancellor's Award for Excellence in STEM Education

2016-2018 University of Colorado Boulder, CO

Lead PI for two grants totaling \$16,750 to create a collaborative undergraduate geoscience research community within the Department of Geological Sciences.

ASSETT Award

2014 University of Colorado Boulder, CO

\$2800 award to Abbott and Greg Tucker for proposal entitled "Computer Animation of River Terrace Formation."

Center for Theology and Natural Science - Course Award

2002 Prescott College Prescott, AZ

\$10,000 grant to support development of course in Religion and Science at Prescott College.

National Science Foundation

1991, 1993 University of California Santa Cruz, CA

Primary author for two grant proposals to support research that determined the rate of surface uplift for the Finisterre Mountains of Papua New Guinea.

Geological Society of America and British Petroleum

1988-1991 University of California Santa Cruz, CA

Received multiple research grants in support of my dissertation field research.

Additional Research Activities

- 2017-present Using optically stimulated luminescence (OSL) to date fluvial terraces in Grand Canyon. Collaborating with USGS researcher Shannon Mahan and University of Wollongong Professor Tim Cohen.
- 2016-present Applying (U-Th)/He geochronology to constrain exhumation history of the Colorado Rocky Mountains. Advised undergraduate researchers Coleman Hiatt and Noah McCorkel for their undergraduate honors theses at CU and RESESS program student Fatima Niazy in these studies in collaboration with CU Associate Professor Rebecca Flowers.
- 2013-2016 Collaborated with Don Duggan-Haas of Museum of the Earth and Cornell University to develop Virtual Field Experiences (VFE) and refine a template for VFEs that K-12 teachers can use to create VFEs for their students.
- 2012-2014 Collaborated with Brooks Ellwood at Louisiana State University on high resolution stratigraphic correlation between Florissant Formation outcrops at Florissant Fossil Beds National Monument.
- 2005-2007 Partner in the Arizona leg of the EarthScope project. Participated in the siting of USArray broadband seismometers. In collaboration with Arizona State University's Matt Fouch, conducting seismic receiver function analysis of USArray data to determine crustal composition and thickness of the southern Colorado Plateau.
- 1998 Member - Global Positioning System crustal motion study in the Papua New Guinea collision zone. Managed three-person crew at data collection sites.
- 1994 Member of Alvin submersible diving program studying fluid flow exiting the Costa Rica accretionary prism. Participated in two dives that located and examined chemosynthetic biological communities.
- 1992 Member of seismic, side-scan sonar, and potential field data collection research cruise in the Solomon Sea.

Peer-Reviewed Publications

- Abbott, L.D., R.M. Flowers, J. Metcalf, and F. Niazy, 2022. Post-Laramide, Eocene epeirogeny in central Colorado – The result of a mantle drip? *Geosphere*, v. 18, p. 1223-1246, <https://doi.org/10.1130/GES02434>.
- Abbott, L.D., C.C. Lundstrom, and C. Traub, 2016. Rates of river incision and scarp retreat in eastern and central Grand Canyon over the past half million years: Evidence for passage of a transient knickzone: REPLY, *Geosphere*, v. 11, p. 638-659, doi:10.1130/GES00978.1.
- Abbott, L.D., C.C. Lundstrom, and C. Traub, 2015. Rates of river incision and scarp retreat in eastern and central Grand Canyon over the past half million years: Evidence for passage of a transient knickzone, *Geosphere*, v. 12, doi:10.1130/GES01292.1.

- Abbott, L.D., E.A. Silver, R.S. Anderson, R. Smith, J. Ingle, D.W. Haig, S. Kling, E. Small, J. Galewsky, and W. Sliter, 1997. Measurement of tectonic surface uplift rate in a young collisional mountain belt. *Nature*, v. 385, p. 501-507.
- Abbott, L.D., 1995. Neogene tectonic reconstruction of the Adelbert-Finisterre-New Britain collision, northern Papua New Guinea. *J. of Southeast Asian Earth Sciences*, v. 11, p.33-51.
- Abbott, L.D., E.A. Silver, and J. Galewsky, 1994. Structural evolution of a modern arc-continent collision in northern Papua New Guinea. *Tectonics*, v. 13, p. 1007-1036.
- Abbott, L.D., E.A. Silver, P.R. Thompson, M. Filewicz, C. Schneider, and Abdoerrius, 1994. Stratigraphic constraints on the development and timing of arc-continent collision in northern Papua New Guinea. *Journal of Sedimentary Research*, v. B64, p. 169-183.
- Abbott, L.D. and E.A. Silver, 1991. Geology of the southern Finisterre Range: A case history of modern arc-continent collision. In: Rogerson, R. (Ed.), Proc. of the PNG Geology, Exploration and Mining Conference, Rabaul, p. 1-7.
- Hovius, N., C.P. Stark, M.A. Tutton, and L.D. Abbott, 1998. Landslide-driven drainage network evolution in a pre-steady-state mountain belt: Finisterre Mountains, Papua New Guinea. *Geology*, v. 26, p. 1071-1074.
- Johnson, B. W., B. A. Wing, and L. Abbott, 2022. Hydrothermal ore deposits record the oxygen isotope composition of meteoric paleo-waters in the San Juan Volcanic Field, Colorado, USA. *Geophysical Research Letters*, v. 49, e2022GL098159.
<https://doi.org/10.1029/2022GL098159>
- Kainz, S. J., L.D. Abbott, R.M. Flowers, A. Olsson, S. Fernandez, and J.M. Metcalf, 2024 (in press). Cenozoic Exhumation Across the High Plains of Southeastern Colorado From (U-Th)/He Thermochronology. *Lithosphere*, v. 2023,
https://doi.org/10.2113/2023/lithosphere_2023_310
- McAdoo, B.G., D.L. Orange, E.A. Silver, K. McIntosh, L. Abbott, J. Galewsky, L. Kahn, and M. Protti, 1996. Seafloor structural observations, Costa Rica accretionary prism. *Geophysical Research Letters*, v. 23, p. 883-886.
- Silver, E.A., L.D. Abbott, et al., 1991. Collision propagation in Papua New Guinea and the Solomon Sea. *Tectonics*, v.10, 863-874

Volumes Edited

- Abbott, L.D. and G.S. Hancock, (eds.), 2013. *Classic concepts and new directions: Exploring 125 years of GSA Discoveries in the Rocky Mountain region*. GSA Field Guide 33. Geological Society America. Boulder, CO, 388 p.

Textbooks

- Abbott, L., 2018. *Geology 1030 Lab Manual*. ISBN 978-1-5339-0454-6. MacMillan Learning. Plymouth, MI.

Abbott, L., 2010. *Introduction to Geology*. Web textbook for GEOL130 course; Great River Technology. Dubuque, IA.

Books for a Popular Audience

Abbott, L. and T. Cook, 2012. *Geology Underfoot Along Colorado's Front Range*. Mountain Press. Missoula, MT, 338 p.

Abbott, L. and T. Cook, 2007. *Geology Underfoot in Northern Arizona*. Mountain Press. Missoula, MT, 336 p.

Abbott, L., 2006. *Weekend Climbs in Arizona*. The Mountaineers. Seattle, WA, 288 p.

Abbott, L. and T. Cook, 2004. *Hiking the Grand Canyon's Geology*. The Mountaineers Books. Seattle, WA, 301 p.

Articles for a Popular Audience

Abbott, L.D., and T. Cook, 2024. Mount Kailas: Center of the universe. *GSA Today*, v. 34, p. 12–16, <https://doi.org/10.1130/GSATG118GH.1>

Abbott, L.D., and D.R. Tormey, 2024. Los Angeles: A megacity of 12 million people living over the world's richest oil field: *GSA Today*, v. 34, p. 18–21, <https://doi.org/10.1130/GSATG116GH.1>

Abbott, L.D., and T. Cook, 2024. The Drakensberg Mountains: Southern Africa's Barrier of Spears. *GSA Today*, v. 34, p. 20–24, <https://doi.org/10.1130/GSATG114GH.1>

Abbott, L.D. and T. Cook, 2024. Mount Monadnock: A Geologic Type Locality. *GSA Today*, v. 34, no. 1, p. 28-30, <https://doi.org/10.1130/GSATG113GH.1>

Abbott, L.D. and T. Cook, 2023. Pittsburgh's Geoheritage: A Legacy of Late Paleozoic and Pleistocene Glacial Events. *GSA Today*, v. 33, no. 9, p. 18-20.

Abbott, L. and T. Cook, 2022. Mountains, Minerals, and Magma Along North America's Largest Rift. *GeoExPro Magazine*, v. 19, no. 3, p. 15-18.

Abbott, L. and T. Cook, 2022. Exploring the Heartland of the Incan Empire. *GeoExPro Magazine*, v. 19, no. 1, p. 15-18.

Abbott, L. and T. Cook, 2021. Namibia: Ancient Rocks in the World's Oldest Desert. *GeoExPro Magazine*, v. 18, no. 5, p. 26-29.

Abbott, L. and T. Cook, 2021. Dalmatia: Where Karst Meets Coast. *GeoExPro Magazine*, v. 18, no. 3, p. 48-51.

Abbott, L. and T. Cook, 2020. Sailing Through a Subduction Zone. *GeoExPro Magazine*, v. 17, no. 6, p. 26-29.

- Abbott, L. and T. Cook, 2020. Oman's Musandam Peninsula: Geopolitical and Geodynamic Nexus. *GeoExPro Magazine*, v. 17, no. 1, p. 51-54.
- Abbott, L. and T. Cook, 2019. The Master Sculptor: The Dead Sea Transform. *GeoExPro Magazine*, v. 16, no. 5, p. 60-63.
- Abbott, L. and T. Cook, 2019. Morocco's Atlas Range: Exotic Mountains in an Exotic Land. *GeoExPro Magazine*, v. 16, no. 3, p. 31-33.
- Abbott, L. and T. Cook, 2019. Lhasa, Tibet: Journey to the Roof of the World. *EARTH Magazine*, v. 64, no. 1/2, p. 56-64.
- Abbott, L. and T. Cook, 2018. Victoria Falls: The Smoke That Thunders. *GeoExPro Magazine*, v. 15, no. 5, p. 52-55.
- Abbott, L. and T. Cook, 2018. From Sea to Sky in British Columbia. *EARTH Magazine*, vol. 63, no. 8, p. 82-88.
- Abbott, L. and T. Cook, 2018. Rocky Mountain High: Aspen, Colorado. *GeoExPro Magazine*, v. 15, no. 5, p. 42-45.
- Abbott, L. and T. Cook, 2018. Northern Oman: Stunning Canyons, Towering Dunes, and the World's Largest Ophiolite. *EARTH Magazine*, v. 63, no. 5, p. 38-46.
- Abbott, L., 2018. Pairing Geoheritage and Economic Development: China's Guizhou Province Offers a Modern Model. *EARTH Magazine*, v. 63, no. 4, p. 32-39.
- Abbott, L. and T. Cook, 2017. Austria's Salzkammergut: World Heritage Preserved in Salt. *EARTH Magazine*, v. 62, no. 8, p. 38-44.
- Abbott, L. and T. Cook, 2017. Tracking African Animals and Deranged Drainages Across the Kalahari. *EARTH Magazine*, v. 62, no. 6, p. 40-47.
- Abbott, L. and T. Cook, 2017. The Dead Sea Rift: Salty Soaks and Ancient Earthquakes in a Storied Land. *EARTH Magazine*, v. 62, no.1/2, p. 90-96.
- Abbott, L., 2016. The Flatirons: The Story Behind Boulder's Iconic Backdrop. *Boulder Magazine*, Winter/Spring 2016-2017, p. 56-59.
- Abbott, L. and T. Cook, 2016. Exploring an Icon of Patagonia: Chile's Torres del Paine National Park. *EARTH Magazine*, v. 61, no.11/12, p. 38-44.
- Abbott, L. and T. Cook, 2013. Havasu Canyon: Land of Blue-Green Water. *EARTH Magazine*, v. 58, no.3, p. 47-52.

- Abbott, L. and T. Cook, 2012. USArray: Geologists' Earth Telescope. *EARTH Magazine*, v. 57, no.11, p. 28-35.
- Abbott, L. and T. Cook, 2012. Touring Geologic Time in Colorado Springs. *EARTH Magazine*, v. 57, no. 10, p. 52-57.
- Abbott, L. and T. Cook, 2012. Northeastern Australia's Atherton Tablelands. *EARTH Magazine*, v. 57, no. 6, p. 52-59.
- Abbott, L. and T. Cook, 2006. Bigfoot arrives in Arizona, *Arizona Geology*, v. 36, p. 1-4.
- Abbott, L., 2005. Using travertine deposits to determine the age of Grand Canyon, *Nature Notes*, Grand Canyon Assoc., v. 21, p. 6,8.
- Abbott, L., 1999. Don't Take It For Granite: The Geology of Climbing Holds. *In*: Sherman, D. (Ed.), *Annual Editions Geology*, Dushkin/McGraw-Hill, Guilford, CT, p. 129-133.
- Abbott, L., 1997. Don't Take it for Granite. *Rock and Ice*, v. 81. Sept.-Oct., 1997, p. 34-43.
- Cook, T. and L. Abbott, 2018. Roof of the Rockies: Trail Ridge Road. *EARTH Magazine*, v. 63, no. 9/10, p. 80-89.
- Cook, T. and L. Abbott, 2018. The Pyramids of Giza: Wonders of an Ancient World. *EARTH Magazine*, v. 63, no. 9/10, p. 60-66.
- Cook, T. and L. Abbott, 2018. Las Vegas: The Scenery Beyond the Slots. *EARTH Magazine*, v. 63, no. 1/2, p. 80-86.
- Cook, T. and L. Abbott, 2017. Cones and Craters in Flagstaff, Arizona. *EARTH Magazine*, v. 62, no. 10, p. 38-44.
- Cook, T. and L. Abbott, 2017. Sky-High Adventure on Bolivia's Altiplano. *EARTH Magazine*, v. 62, no. 9, p. 40-46.
- Cook, T. and L. Abbott, 2017. A Tale of Two Rivers: Grand Junction, Colorado. *EARTH Magazine*, v. 62, no. 7, p. 42-48.
- Cook, T. and L. Abbott, 2017. Easter Island's Enduring Enigmas. *EARTH Magazine*, v. 62, no. 3/4, p. 88-94.
- Cook, T. and L. Abbott, 2017. Barbados Beckons. *GEOExPro Magazine*, v. 14, no. 1, p.48-51
- Cook, T. and L. Abbott, 2016. Limestone and Legends in Northern Vietnam. *EARTH Magazine*, v. 61, no. 9/10, p. 58-64.
- Cook, T. and L. Abbott, 2016. Zermatt: Europe Meets Africa in Switzerland's Iconic Alps. *EARTH Magazine*, v. 61, no. 7/8, p. 84-90.

- Cook, T. and L. Abbott, 2016. Turkey's Storied Turquoise Coast. *EARTH Magazine*, v. 61, no. 5/6, p. 82-88.
- Cook, T. and L. Abbott, 2016. The King's Highway: The Crossroads of Ancient Jordan. *EARTH Magazine*, v. 61, no. 3/4, p. 42-50.
- Cook, T. and L. Abbott, 2016. Peninsular Greece: A Gorgeous State of Collapse. *EARTH Magazine*, v. 61, no. 1/2, p. 60-66.
- Cook, T. and L. Abbott, 2015. Cyprus: Island of Oceanic Crust. *EARTH Magazine*, v. 60, no. 11/12, p. 58-65.
- Cook, T. and L. Abbott, 2015. Australia's Whitsunday Islands: Sun, Sand, and Silicic Volcanism. *EARTH Magazine*, v. 60, no. 9/10, p. 50-61.
- Cook, T. and L. Abbott, 2015. Geoheritage: Preserving Earth's Legacy. *EARTH Magazine*, v. 60, no. 7/8, p. 50-57.
- Cook, T. and L. Abbott, 2015. Glaciers and Grapes in South Australia. *EARTH Magazine*, v. 60, no. 5/6, p. 88-96.
- Cook, T. and L. Abbott, 2014. Winter Sun and Tectonic Tales in Tucson. *EARTH Magazine*, v. 59, no. 10, p. 54-60.
- Cook, T. and L. Abbott, 2014. Aussie Outback Adventure. *EARTH Magazine*, v. 59, no. 9, p. 48-55.
- Cook, T. and L. Abbott, 2013. Nebraska's Geoheritage Gems. *EARTH Magazine*, v. 58, no. 10, p. 42-47.
- Cook, T. and L. Abbott, 2012. Santorini: Dangerous Volcano, Postcard-Perfect Jewel of the Aegean. *EARTH Magazine*, vol. 57, no. 5, p. 42-49.
- Cook, T. and L. Abbott, 2012. Benchmarks: The New Madrid Earthquakes Strike the Heartland. *EARTH Magazine*, vol. 56, no. 12, p. 68-73.
- Cook, T. and L. Abbott, 2012. Barbados: Ascending the Sea-Level Staircase. *EARTH Magazine*, vol. 56, no. 12, p. 54-59.
- Cook, T. and L. Abbott, 2011. Twin Coral Reefs Separated in Time in Western Australia. *EARTH Magazine*, vol. 56, no. 8, p. 50-54.
- Cook, T. and L. Abbott, 2011. Florissant Fossil Beds: An Eocene Time Capsule. *EARTH Magazine*, vol. 56, no. 7, p. 48-51.

Blogs for a Popular Audience

Abbott, L., Using Milankovitch Cycles to create high-resolution astrochronologies. *EGU GeoLog*, posted November 20, 2020. <https://blogs.egu.eu/geolog/2020/11/20/using-milankovitch-cycles-to-create-high-resolution-astrochronologies/>

Abbott, Lon., Rocky Mountains. *Colorado Encyclopedia*, first posted in March 2020. <https://coloradoencyclopedia.org/article/rocky-mountains>.

Abbott, L., and Cook, T., Colorado By Nature: Skiing the Colorado Mineral Belt. *5280 Magazine*, posted February 10, 2017. <http://www.5280.com/2017/02/colorado-by-nature-skiing-the-colorado-mineral-belt/>

Abbott, L., and Cook, T., Colorado By Nature: Paint Mines Interpretive Park. *5280 Magazine*, posted January 3, 2017. <http://www.5280.com/digital/2017/01/colorado-nature-paint-mines-interpretive-park>

Abbott, L., and Cook, T., Colorado By Nature: West Bijou Site. *5280 Magazine*, posted November 28, 2016. <http://www.5280.com/digital/2016/11/colorado-nature-west-bijou-site>

Abbott, L., and Cook, T., Colorado By Nature: North and South Table Mountains. *5280 Magazine*, posted October 31, 2016. <http://www.5280.com/digital/2016/10/colorado-nature-north-and-south-table-mountains>

Abbott, L., and Cook, T., Colorado By Nature: How the Royal Gorge was Formed. *5280 Magazine*, posted September 26, 2016. <http://www.5280.com/digital/2016/09/colorado-nature-how-royal-gorge-was-formed>

Abbott, L., and Cook, T., Colorado By Nature: The Longs Peak Diamond. *5280 Magazine*, July 25, 2016. <http://www.5280.com/digital/2016/07/colorado-nature-longs-peak-diamond>

Abbott, L., and Cook, T., Colorado By Nature: The Story of Mesa Verde. *5280 Magazine*, June 24, 2016. <http://www.5280.com/digital/2016/06/colorado-nature-story-mesa-verde>

Selected Presentations, Abstracts, and Interviews

Abbott, L.D., Glass, J.A., Flowers, R.M., Metcalf, J.R., Cohen, T., and Codilean, A.T., Quantitative assessment of the exhumation history of Eastern Australia's Great Escarpment at the Atherton Tablelands, Queensland and the Dorrigo Plateau, New South Wales using apatite and zircon (U-Th)/He thermochronology, Australian and New Zealand Geomorphology Group 20th biennial conference, Gisborne, N.Z., 12-16 February, 2024.

Abbott, L.D., Flowers, R.M., and Metcalf, J.R., What mechanism created the Miocene-aged Gothic exhumation dome in Colorado's Elk Mountains?, Geological Society America Rocky Mountain section meeting, Fort Collins, CO, May 2023.

Abbott, L.D., Flowers, R.M., Metcalf, J.R., Hiatt, C., Kelleher, R., Camm, H., Ramba, M., McCorkel, N., and Riccio, E., Diachronous exhumation in the Colorado Rockies – A

- product of serial lithospheric drips?, Geological Society America annual meeting, Denver, CO, October 2022.
- Abbott, L.D., Flowers, R.M., Metcalf, J.R., Hiett, C., Kelleher, R., Camm, H., Ramba, M., McCorkel, N., and Riccio, E., The Gothic Dome – Kilometer-scale Miocene exhumation in Colorado's Elk and West Elk mountains, American Geophysical Union annual meeting, New Orleans, LA, December 2021.
- Abbott, L.D. and Cook, T.L., Inviting the public to the party: Celebrating and promoting geoheritage. Invited presentation at Geological Society America annual meeting, Phoenix, AZ, September 2019.
- Abbott, L.D., Flowers, R.M., Falkowski, S., Metcalf, J.R., and Niazy, F., Low-temperature thermochronometric results from Colorado's South Park and Arkansas Hills areas: Constrains on Laramide pluton emplacement depth, thickness of the Western Interior Seaway sedimentary section, and the timing of a post-Laramide unroofing event. Geological Society America annual meeting, Phoenix, AZ, September 2019.
- Abbott, L.D., Flowers, R.M., Metcalf, J.R., Hiett, C., McCorkel, N., Schanock, E., and Gonzalez, N., Investigating a bull's-eye of Late Miocene exhumation in Colorado's Elk and West Elk mountains using (U-Th)/He thermochronology, Indianapolis, IN, Nov. 2018.
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- Abbott, L.D. A thumbnail sketch of eastern Australia's tectonic and geomorphic history: What is known and what still is a puzzle. Univ. Colorado Dept. Geological Sciences Colloquium, September 10, 2014.
- Abbott, L.D. The geology of Estes Park rock climbing, Estes Park (Colorado) Museum, October 9, 2014.

- Abbott, L.D. Evidence for transient knickpoint propagation through Grand Canyon, Arizona at about 500 ka. Univ. Wollongong GeoQuest Seminar, April 4, 2014.
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