

BRIAN K. HORTON

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Education

1998 Ph.D., Geosciences, University of Arizona
 1994 M.S., Earth Sciences, Montana State University
 1992 B.S. (with distinction), Geology, University of New Mexico

Professional Experience

2020 - present J. Nalle Gregory Chair in Sedimentary Geology, Department of Geological Sciences and
 Institute for Geophysics, Jackson School of Geosciences, University of Texas at Austin
 2014 - 2020 Alexander Deussen Professor of Energy Resources, University of Texas at Austin
 2016 - 2017 Visiting Professor, Yachay Tech University, School of Geological Sciences, Urcuquí, Ecuador
 2012 - present Professor (Department of Geological Sciences) and
 Research Professor (Institute for Geophysics), University of Texas at Austin
 2006 - 2012 Associate Professor (Department of Geological Sciences) and
 Associate Research Professor (Institute for Geophysics), University of Texas at Austin
 2001 - 2006 Assistant Professor, University of California Los Angeles (tenured, 2006)
 1999 - 2001 Assistant Professor, Louisiana State University
 1998 - 1999 Postdoctoral Research Fellow, University of California Los Angeles
 1994 - 1998 Graduate Research Fellow and Teaching Assistant, University of Arizona
 1996 Exploration Geologist Intern, British Petroleum Exploration, Anchorage, Alaska
 1995 Exploration Geologist Intern, Amoco Production Company, Houston, Texas
 1992 - 1994 Graduate Research Fellow and Teaching Assistant, Montana State University
 1990 - 1992 Laboratory and Field Assistant (Hydrology, Paleomagnetism), University of New Mexico

Honors and Awards

2019 University of Arizona Geosciences Distinguished Alumni Award
 2019 Outstanding Researcher Award, Institute for Geophysics, UT-Austin
 2018 William R. Dickinson Medal (Award for Excellence in Sedimentary Geology by a Mid-Career
 Scientist), SEPM Society for Sedimentary Geology
 2017 Outstanding Educator Award, Jackson School of Geosciences, UT-Austin
 2017 Director's Circle of Excellence Award, Institute for Geophysics, UT-Austin
 2016 - 2017 Faculty Research Assignment (sabbatical research fellowship), UT-Austin
 2013 Outstanding Researcher Award, Institute for Geophysics, UT-Austin
 2013 Director's Circle of Excellence Awards, Institute for Geophysics, UT-Austin
 2012 - 2013 Faculty Research Assignment (sabbatical research fellowship), UT-Austin
 2012 Director's Circle of Excellence Awards, Institute for Geophysics, UT-Austin
 2011 Outstanding Research Award, Jackson School of Geosciences, UT-Austin
 2011 Director's Circle of Excellence Awards, Institute for Geophysics, UT-Austin
 2010 Exceptional Reviewer, *Lithosphere*
 2007 Exceptional Reviewer, *Geological Society of America Bulletin*
 2006 - 2007 Humboldt Research Fellowship, Alexander von Humboldt Foundation, Germany
 2005 Fellow, Geological Society of America
 2004 Young Scientist Award, Donath Medal, Geological Society of America
 2004 Faculty Career Development Award, UCLA
 1998 - 1999 NSF Postdoctoral Research Fellowship
 1998 Outstanding Teaching Assistant, University of Arizona Department of Geosciences

1998	Award for Meritorious Performance in Teaching, University of Arizona Foundation
1993 - 1996	NSF Graduate Research Fellowship
1993	Geological Society of America Outstanding Student Research Award
1992 - 1993	Presidential Graduate Scholarship, Montana State University
1992	NSF Graduate Research Fellowship, Honorable Mention
1992	Albuquerque Petroleum Association Victor Salazar Memorial Scholarship
1992	Estwing Outstanding Geology Student Award, University of New Mexico
1992	Stuart A. Northrop Outstanding Geology Senior Award, University of New Mexico
1991	Sherman A. Wengerd Outstanding Geology Junior Award, University of New Mexico
1990	J. Paul Fitzsimmons Outstanding Geology Sophomore Award, University of New Mexico
1988 - 1992	Excel Scholarship, University of New Mexico

Research Interests

Tectonic signatures in the stratigraphic record

Evolution of contractional orogenic belts and foreland, hinterland, and intermontane basins

Initial mountain building and plateau construction in the Andes, Tibet, and Middle East

Sedimentary geochronology, provenance and routing systems

Influence of tectonics and climate on erosion, sedimentation, and basin evolution

Integration of geochronology, thermochronology, and paleoaltimetry with basin analysis

Physical sedimentology of modern and ancient fluvial and alluvial-fan depositional systems

Research Platforms

- Twitter: www.twitter.com/AndesTectonics

- Researcher ID: www.ResearcherID.com/rid/A-1804-2009

- Research Gate: www.researchgate.net/profile/Brian_Horton2

- Google Scholar: <https://scholar.google.com/citations?user=FcXBsz4AAAAJ&hl=en>

Research Grants

Total: 42 awards: 26 National Science Foundation (NSF), 1 American Chemical Society (Petroleum Research Fund), 2 National Geographic Society, 1 NASA, 1 Alexander von Humboldt Foundation, 1 International Ocean Discovery Program, 1 International Continental Scientific Drilling Program, 9 petroleum industry research grants: \$10,215,267 to PI institution (total to all institutions: \$25,937,968) (1998-present)

[42] NSF Tectonics EAR 1946700. *Collaborative Research: Internal and external drivers of orogenic episodicity in the Ecuadorian Andes.*

PI (UT), with co-PI Jay Chapman (U. Wyoming).

\$232,247 (\$468,923 total) [2020 – 2023]

[41] NSF Tectonics EAR 191854. *Shortening, extension, and drainage reorganization in the Andean fold-thrust belt and broken foreland basin of northern Patagonia, Argentina.*

Sole PI (UT).

\$440,314 [2019 – 2022]

[40] NSF Frontier Research in Earth Sciences (FRES) Program EAR 1925898. *Collaborative Research: Consequences of flat slab subduction on the chemical, structural, and dynamic evolution of continental lithosphere.*

Co-PI (UT), with PI Lara Wagner (Carnegie Institution for Science), co-PI Thorsten Becker (UT), co-PI Christy Till (Arizona State U.).

\$1,265,890 (\$2,698,000 total) [2019 - 2023]

[39] IODP (International Ocean Discovery Program). *Expedition 387 (Amazon Margin)*

Participant (Sedimentologist), with Chief Scientists Paul Baker (Duke U.), Cleverson Silva (Federal U. Fluminense, Brazil)

\$103,082 [2019 - 2021]

[38] NSF Integrated Earth Systems (IES). *Collaborative Research: Trans-Amazon Drilling Project.*

Co-PI (UT), with PI Paul Baker (Duke U.), 4 others.

\$132,343 (\$3,112,173 total) [2018 – 2021]

[37] Andes Petroleum Ecuador Ltd. UTA18-000207. *Provenance, geochronology and geological synthesis of the M1 and basal Tena sandstones, Oriente Basin, Ecuador.*

- Subcontractor (UT), with PI Ron Steel (UT).
\$375,445 [2018 – 2020]
- [36] International Continental Scientific Drilling Program (ICDP). *Trans-Amazon Drilling Project*.
Co-PI (UT), with PI Paul Baker (Duke U.), 16 others.
\$1,500,00 total [2017 – 2019]
- [35] NSF Frontiers in Earth System Dynamics (FESD) EAR 1338694. *The dynamics of mountains, landscapes and climate in the distribution and generation of biodiversity of the Amazon/Andean forest*.
PI (UT), with PI Paul Baker (Duke U.), 3 others.
\$112,839 [2017 – 2020]
- [34] NASA Biodiversity Program 15-BIODIV15-0013. *Mapping linkages between geophysical and biological diversity across space and time in the Andes, Amazon, and Chocó of Perú, Ecuador, and Colombia*.
Co-PI (UT), with PI Sherilyn Fritz (U. Nebraska), 6 others.
\$60,170 total [2016 – 2018]
- [33] National Geographic Society Research and Exploration Grants Program 990916. *Continental-scale drainage reversal of the Amazon River*.
Sole PI (UT).
\$20,700 [2016 – 2017]
- [32] NSF Frontiers in Earth System Dynamics (FESD) EAR 1338694. *The dynamics of mountains, landscapes and climate in the distribution and generation of biodiversity of the Amazon/Andean forest*.
PI (UT), with PI Paul Baker (Duke U.), 3 others.
\$203,443 [2015 – 2018]
- [31] ExxonMobil, UTA12-000741. *Deformational and thermal history of the Iranian Zagros fold-thrust belt (thermochronometric analysis of legacy samples)*.
Co-PI (UT), with PI Daniel Stockli (UT).
\$109,821 [2015 – 2016]
- [30] Petro Matad (Ulaanbaatar, Mongolia). *Field work, petrographic studies, and reservoir characterization of blocks IV and V, central Mongolia*.
Subcontractor (UT)
\$22,425 [2015 – 2016]
- [29] National Geographic Society. *The Pampean desert: reconstructing the largest Quaternary sand sea in South America*.
Project Member (UT), with PI: Edgardo Latrubesse (UT).
\$20,000 [2015 – 2016]
- [28] NSF Tectonics EAR 1450976. *Exhumation history of the Indian Lesser Himalaya: Discriminating tectonic models with implications for the Neogene isotopic composition of seawater*.
Co-PI (UT), with PI N. Ryan McKenzie (Yale U.), co-PI Daniel Stockli (UT).
\$361,772 [2015 – 2018]
- [27] NSF Tectonics EAR 1348031. *Rapid Miocene thrust propagation and wholesale basin partitioning along the central and southern Andes, Argentina*.
PI (UT), with co-PI N. Ryan McKenzie (Yale U.).
\$298,480 [2014 – 2017]
- [26] Statoil, subcontract UT 201102398. *Exploring source-to-sink linkages between Laramide basins and the Gulf of Mexico*.
PI (UT), with graduate fellow Meredith Bush (UT).
\$78,327 [2014 – 2015]
- [25] NSF Frontiers in Earth System Dynamics (FESD) EAR 1338694. *The dynamics of mountains, landscapes and climate in the distribution and generation of biodiversity of the Amazon/Andean forest*.
Co-PI (UT), with PI Paul Baker (Duke U.), 3 others.
\$343,689 (\$2,440,000 total) [2013 – 2015]
- [24] NSF Tectonics EAR 1250512. *Thrust belt response to rapid surface uplift of the Altiplano: A field test of Cordilleran cyclicity in southern Bolivia*.
PI (UT), with co-PI Sean Long (U. Nevada Reno).
\$130,499 [2013 – 2016]
- [23] Pacific Rubiales Energy, UT 201301464–001. *Structural and hydrologic evaluation, Andean Cordillera and foreland basin, Colombia*.
Subcontractor (UT), with PI Brad Wolaver (Bureau of Economic Geology, UT).

- \$559,086 [2013 – 2015]
- [22] ExxonMobil, UTA12-000741. *Depositional and deformational history of the Zagros fold-thrust belt and foreland basin.*
PI (UT), with co-PI Daniel Stockli (UT).
\$415,000 (\$845,409 total) [2012 – 2014]
- [21] NSF Sedimentary Geology and Paleobiology EAR 0958704. *Late Cenozoic vertebrate paleontology and paleoenvironments of the Tibetan Plateau (China).*
Subcontractor (UT), with PI Xiaoming Wang (Los Angeles County Museum of Natural History).
\$11,754 [2012 – 2013]
- [20] Ecopetrol (Instituto Colombiano del Petróleo), UTA11-000356. *New perspectives on the tectonic and paleoelevation history of the northern Andes.*
PI (UT), with co-PI Tim Shanahan (UT).
\$180,831 [2011 – 2012]
- [19] NSF Tectonics EAR 1019857. *Evaluating along-strike variations in surface uplift of the Andes: Constraints from molecular paleoaltimetry in the Eastern Cordillera of Colombia.*
PI (UT), with co-PIs Tim Shanahan, Joel Saylor (UT).
\$246,578 [2010 – 2013]
- [18] NSF Continental Dynamics EAR 1009845. *St. Elias Erosion-tectonics Project (STEEP).*
Co-PI (UT), with PI Terry Pavlis (UTEP), co-PI Sean Gulick (UT), 12 others.
\$325,940 (\$1,390,736 total) [2010 – 2013]
- [17] Petro Matad (Ulaanbaatar, Mongolia). *Field work, petrographic studies, and reservoir characterization of blocks IV and V, central Mongolia.*
Subcontractor (UT)
\$47,500 [2010 – 2012]
- [16] NSF Continental Dynamics EAR 0908518. *CAUGHT: Central Andean Uplift and the Geodynamics of High Topography.*
Co-PI (UT), with PI Carmala Garzzone (U. Rochester), 8 others.
\$326,327 (\$2,545,969 total) [2009 – 2013]
- [15] Ecopetrol (Instituto Colombiano del Petróleo), UTA08-711. *Basin evolution and structural history of a regional transect through the Middle Magdalena Valley, Eastern Cordillera, and western Llanos basin of Colombia.*
Sole PI (UT).
\$1,500,000 [2008 – 2010]
- [14] NSF Tectonics EAR 0809425. *Development of extensional systems in regions of hot, thick crust: Insight from Tibet.*
Co-PI (UT), with PI Michael Taylor (U. Kansas), co-PI Paul Kapp (U. Arizona).
\$75,163 (\$317,212 total) [2008 – 2010]
- [13] NSF Continental Dynamics EAR 0708105. *How is rifting exhuming the youngest HP/UHP rocks on Earth?*
Co-PI (UT), with PI Suzanne Baldwin (Syracuse U.), 8 others.
\$334,353 (\$3,659,908 total) [2007 – 2012]
- [12] NSF Tectonics EAR 0710793. *Stratigraphic signatures of orogeny: Assessing the timing of initial Andean crustal shortening.*
Co-PI (UT), with PI Peter DeCelles (U. Arizona), co-PI Barbara Carrapa (U. Wyoming).
\$128,931 (\$343,375 total) [2007 – 2010]
- [11] NSF Instrumentation and Facilities EAR 0732500. *Acquisition of a solid-state 193-nm laser-ablation system.*
Co-PI (UT), with PI William Carlson (UT), 3 others.
\$97,500 [2007 – 2008]
- [10] Alexander von Humboldt Foundation, Humboldt Research Fellowship. *Orographic barriers and climate change in the northern Puna plateau, central Andes, Argentina.*
PI (UT), with host Manfred Strecker (Universität Potsdam, Germany).
\$50,000 [2006 – 2007]
- [9] NSF Tectonics EAR 0510441. *Tectonic and climatic controls on rapid exhumation along the Altiplano-Eastern Cordillera boundary, Bolivia.*
Sole PI (UT).
\$172,667 [2005 – 2008]

- [8] NSF Tectonics EAR 0337775. *Kinematic linkages among extrusion, fold-thrust shortening, and foreland basin evolution during early continental collision, Zagros Mountains, Iran.*
Co-PI (UCLA), with PI Gary Axen (UCLA).
\$387,621 [2004 – 2007]
- [7] NSF Tectonics EAR 0201937. *Detachment faulting and basin development in a convergent setting: The Cordillera Blanca, Peru.*
Co-PI (UCLA), with PI Brendan McNulty (California State U. Dominguez Hills).
\$94,000 (\$266,769 total) [2002 – 2004]
- [6] NSF Tectonics EAR 0106677. *Investigation of timing and strain magnitude of Late Cretaceous-Tertiary thrusting in central and northern Tibet.*
Co-PI (UCLA), with PI An Yin, co-PI T. Mark Harrison (UCLA).
\$248,466 [2001 – 2004]
- [5] American Chemical Society (Petroleum Research Fund) ACS-PRF 37207-G8. *Linking basin development and growth of continental plateaus: Controls on stratigraphic architecture in western China.*
Sole PI (UCLA).
\$25,000 [2001 – 2003]
- [4] NSF Sedimentary Geology EAR 9908003, EAR 0231543. *Paleogene sedimentary basin development in the Bolivian Altiplano and implications for initial mountain building in the central Andes.*
Sole PI (LSU, UCLA).
\$98,367 [2000 – 2002]
- [3] NSF Tectonics EAR 993222, EAR 0296176. *3-D kinematic evolution of the Charleston-Nebo salient, Sevier fold-thrust belt.*
Co-PI (LSU, UCLA), with PI Peter DeCelles, co-PI Kurt Constenius (U. Arizona).
\$48,291 (\$163,809 total) [1999 – 2003]
- [2] NSF Tectonics EAR 9804680. *Late Cretaceous-Tertiary foreland basin evolution in the Eastern Cordillera of southern Bolivia.*
Subcontractor (LSU), with PI Peter DeCelles (U. Arizona), co-PI Peter Copeland (U. Houston).
\$9,997 [1999 – 2000]
- [1] NSF Postdoctoral Fellowship EAR 9805655. *Structural-stratigraphic evolution of the Fenghuo Shan and implications for crustal thickening and uplift of the Tibetan plateau*
PI, with mentor An Yin (UCLA).
\$72,000 [1998 – 1999]

Professional Affiliations

American Geophysical Union, Geological Society of America (Fellow), Society for Sedimentary Geology (SEPM), International Association of Sedimentologists, American Association of Petroleum Geologists

Professional Activities

- 2019 Editor, *Andean Tectonics*, 24 chapters, 711 p., Elsevier, Amsterdam, ISBN: 978-0-12-816009-1, B.K. Horton and A. Folguera.
- 2018 - 2019 Editorial Board, *Lithosphere*, journal published by Geological Society of America.
- 2018 Field trip co-leader, 11th South American Symposium on Isotope Geology, *Pre-Andean and Andean stratigraphy, sedimentology, and structure: Eastern Cordillera to Subandean Zone, Bolivia.*
- 2018 Judge, 7th Annual Jackson School of Geosciences Student Research Symposium, UT-Austin.
- 2017 Session co-chair, IAS International Meeting of Sedimentology, Sedimentary Basins symposium: *Interactions of Sedimentation and Tectonics.*
- 2015 Session co-chair, AGU fall meeting, Tectonophysics session: *Building the Andes: From Mantle Geodynamics to Surface Processes.*
- 2014 Session co-chair, GSA annual meeting, Topical Session: *The Geodynamics of Flat Slab Subduction and its Influence on Upper Plate Deformation, Magmatism, and Basin Evolution.* Co-convened with Jeff Benowitz and Meghan Miller.
- 2007 - present Member, Teresa Lozano Long Institute of Latin American Studies, UT-Austin.
- 2006 - 2018 Co-Supervisor of Paleomagnetism Laboratory, Jackson School of Geosciences, with Dr. Jack Holt.
- 2014 Editor, *Toward an Improved Understanding of Uplift Mechanisms and the Elevation History of the Tibetan Plateau*, GSA Special Paper, v. 507, J. Nie, B.K. Horton, G.D. Hoke.
- 2009 - 2013 Editor, *Basin Research*, journal published by Wiley.

- 2008 - 2013 Editorial Board, *Lithosphere*, journal published by Geological Society of America.
- 2012 Guest Editor, *Special Issue: Tectonic and Climatic Shaping of the Northern Andes and Southern Caribbean Margin*, Journal of South American Earth Sciences, v. 39, G. Bayona, B.K. Horton, A. Reyes-Harker.
- 2010 Session co-chair, AAPG annual convention, *Regional Interaction of Tectonics and Sedimentation: Examining Relationships Between Deformation and Basin Evolution*.
- 2009 Short Course Instructor, Ecopetrol, Instituto Colombiano del Petróleo, Bucaramanga, Colombia, *Basin Analysis*.
- 2009 Session co-chair, AGU fall meeting, *Cenozoic Mountain Building in Asia and South America: Impact on Surface Processes, Erosion, Climate Change, and Deep Earth Processes*.
- 2008 Short Course Instructor, Universidad Industrial de Santander, Bucaramanga, Colombia, *Basin Analysis*.
- 2007 Session co-chair, AAPG annual convention, *Tectonic Controls on Sedimentation*.
- 2004 - 2006 Member, technical committee, GSA Special Conference, April 2006, Mendoza, Argentina, *Backbone of the Americas from Patagonia to Alaska*.
- 2005 Panel member, NSF Tectonics, Earth Sciences Division.
- 2005 Session co-chair, GSA annual meeting, *Orogenic Plateaus from Top to Bottom*.
- 2002 - 2004 Member/chair, nominations committee for division president, GSA Sedimentary Geology Division.
- 2002 Session co-chair, AGU fall meeting, *Tectonics and Structure of Tibet and China*.
- 2001 Session co-chair, AGU fall meeting, *Andean Tectonics: Subduction, Deformation, and Volcanism*.
- 2001 Judge, Earth & Space Sciences Student Organization Symposium, UCLA.
- 2001 Judge, Outstanding Student Presentation Award, AGU fall meeting.
- 1995 Field trip co-leader, GSA Rocky Mountain section meeting, *Sedimentology and tectonics of the Bannack-McKnight Canyon-Red Butte area, southwest Montana: New perspectives on the Beaverhead Group and Sevier orogenic belt*.
- 2000 - present Reviewer of proposals to National Science Foundation, American Chemical Society, NASA, European Science Foundation, National Geographic Society, Natural Environmental Research Council (UK), German Science Foundation, Netherlands Organization for Scientific Research, Swiss National Science Foundations, Czech Science Foundation, National Fund for Scientific and Technological Research (Chile), and other organizations.
- 2000 - present Reviewer of manuscripts submitted to *Andean Geology*, *Basin Research*, *Earth and Planetary Science Letters*, *Earth-Science Reviews*, *Geological Society of America Bulletin*, *GSA special publications*, *Geological Magazine*, *Geology*, *Geological Society of London special publication*, *Geosphere*, *International Journal of Earth Sciences*, *Journal of Asian Earth Sciences*, *Journal of Geology*, *Journal of Geophysical Research*, *Journal of Sedimentary Research*, *Journal of South American Earth Sciences*, *Lithosphere*, *Marine and Petroleum Geology*, *Nature Geoscience*, *Science*, *Sedimentary Geology*, *Sedimentology*, *Tectonics*, *Tectonophysics*, *Terra Nova*.

Invited Lectures

- 2020 The Geology of Colombia Symposium, Servicio Geológico Colombiano Bogota, Colombia
University of Miami, Ohio
- 2019 Université Grenoble Alpes, Grenoble, France
Institute of Tibetan Plateau Research, Chinese Academy of Sciences, Beijing, China
School of Geosciences and Resources, China University of Geosciences, Beijing, China
University of Houston, Department of Earth and Atmospheric Sciences
Workshop on Ecuadorian Geology, Escuela Politécnica Nacional, Quito, Ecuador
Istanbul Technical University, Istanbul, Turkey
Plates Symposium, Institute for Geophysics, University of Texas at Austin
Universidade de São Paulo, São Paulo, Brazil
- 2018 Congreso Geológico Chileno, Universidad de Concepción, Concepción, Chile
Colegio de Geólogos de Bolivia, Cochabamba, Bolivia
Stanford University, Department of Geological Sciences
- 2017 Escuela Politécnica Nacional, Facultad de Geología y Petróleos, Quito, Ecuador
- 2016 Yachay Tech University, School of Geological Sciences, Urcuquí, Ecuador
University of Texas at Austin, Department of Geological Sciences, Tectonics Seminar

- 2015 Servicio Geológico Colombiano, 100 Years of Scientific Production, Bogotá, Colombia
Escuela Politécnica Nacional, Facultad de Geología y Petroleos, Quito, Ecuador
- 2014 Duke University, Nicholas School of the Environment
Yachay Tech University, Urcuquí, Ecuador
University of Houston, Department of Earth and Atmospheric Sciences
Pacific Rubiales Energy, Bogotá, Colombia
- 2013 Hocol Petroleum Company, Bogotá, Colombia
University of Arizona, Department of Geosciences
ExxonMobil Exploration Company, Colombia Operations Team, Houston, Texas
Research School of Arid Environment and Climate Change, Lanzhou University, Lanzhou, China
Escuela Politécnica Nacional, Instituto de Ciencias Biológicas, Quito, Ecuador
- 2012 Duke University, National Evolutionary Synthesis Center
- 2011 University of Texas at Austin, Department of Geological Sciences, Departmental Colloquium
University of Texas at Austin, Department of Geological Sciences, Tectonics Seminar
Petro Matad, Ulaanbaatar, Mongolia
- 2010 University of North Carolina, Department of Geological Sciences
University of Texas at Austin, Institute for Geophysics
- 2009 Ecopetrol, Instituto Colombiano del Petróleo, Bucaramanga, Colombia
- 2008 Universidad Industrial de Santander, Bucaramanga, Colombia
University of Wyoming, Department of Geology and Geophysics
- 2007 Instituto Asociación Colombiana de Geólogos y Geofísicos del Petróleo, Bogotá, Colombia
Hocol Petroleum Company, Bogotá, Colombia
Ecopetrol, Instituto Colombiano del Petróleo, Bucaramanga, Colombia
University of Edinburgh, School of Geosciences, Scotland, UK
Universität Potsdam, Department of Geosciences, Germany
Friedrich Schiller University of Jena, Department of Geosciences, Germany
- 2006 Universidad Mayor de San Andrés, Instituto de Investigaciones Geológicas, La Paz, Bolivia
UCLA, Department of Earth & Space Sciences, Tectonics Seminar
University of Texas at Austin, Department of Geological Sciences
University of Texas at Austin, Institute for Geophysics
- 2005 Stanford University, Department of Geological and Environmental Sciences
University of Oregon, Department of Geological Sciences
Montana State University, Department of Earth Sciences
University of Kansas, Department of Geology
- 2004 UCLA, Department of Earth & Space Sciences, Departmental Colloquium
Oregon State University, Department of Geosciences
- 2003 California Institute of Technology, Division of Geological and Planetary Sciences
University of New Mexico, Department of Earth and Planetary Sciences
California State University Northridge, Department of Geological Sciences
- 2002 Purdue University, Department of Earth and Atmospheric Sciences
Massachusetts Institute of Technology, Department of Earth, Atmospheric, and Planetary Sciences
University of Southern California, Department of Earth Sciences
UCLA, Department of Earth & Space Sciences, Tectonics Seminar
- 2000 UCLA, Department of Earth & Space Sciences, Departmental Colloquium
UCLA, Department of Earth & Space Sciences, Tectonics Seminar
- 1999 Northwestern University, Department of Geological Sciences
University of Houston, Department of Geosciences
- 1998 Rice University, Department of Earth Sciences
Lehigh University, Department of Earth and Environmental Sciences (2)
Case Western Reserve University, Department of Geological Sciences
Louisiana State University, Department of Geology & Geophysics

Outreach Activities

- 2019 - present Member, Diversity, Equity and Inclusion Committee, Jackson School of Geosciences, University of Texas at Austin.
- 2019 Invited speaker, Undergraduate Geological Society, Jackson School of Geosciences, UT-Austin.

- 2019 Judge, European Geophysical Union, General Assembly, Vienna, Austria.
- 2016 - 2017 External reviewer, collaborative Ph.D. degree program between Université Grenoble Alpes, France, and Universidad Nacional de Bogotá, Colombia.
- 2015 - present Collaborative research agreement with Escuela Politécnica Nacional, Facultad de Geología y Petroleos, Quito, Ecuador: “Levantamiento de los Andes y los Cambios en el Origen y la Evolucion Biológica en los Andes y la Amazonia,” including field and laboratory research.
- 2013 - present Collaborative research agreement with Universidad Mayor de San Andrés, (UMSA), La Paz, Bolivia, including field training, collaborative research, and international exchange visits with UMSA professors and advanced geology students.
- 2011 - present Presenter, “Field research and travel safety” lecture (2 hrs) in required graduate course “Supervised Teaching in Geological Sciences” (GEO 298T), ~75 students/yr, UT-Austin.
- 2007 - present Member, Teresa Lozano Long Institute of Latin American Studies, UT-Austin (www.utexas.edu/cola/insts/lilias).
- 2013 Panelist and presenter, “Introduction to Graduate School Culture, Professors’ Expectations, and Working with Advisors” colloquium, UT International Office, Academic English Program (<http://world.utexas.edu/esl/programs/aep>), 8 week summer program for ~80 ESL students.
- 2009 Field-trip leader, GeoFORCE Texas (www.jsu.utexas.edu/geoforce), an outreach program at UT-Austin that encourages underrepresented Latino and African-American students to pursue STEM careers.
- 2009 Instructor, Basin analysis short course, Ecopetrol, Instituto Colombiano del Petróleo, Bucaramanga, Colombia.
- 2008 - 2009 Faculty sponsor and mentor, UT Graduate School Diversity Mentoring Fellowship (www.utexas.edu/ogs/faculty/mentoring.html) to recruit underrepresented students.
- 2008 Instructor, Basin analysis short course, Universidad Industrial de Santander, Bucaramanga, Colombia.
- 2004 - 2006 Mentor and science technical advisor to graduate students integrating science and technology in their screenwriting and directing, Alfred P. Sloan Foundation Fellowship Program (www.sloan.org), UCLA Department of Film and Television.
- 2004 - 2006 Science-fair consultant for Mathematics Engineering Science Achievement (www.mesa.ucop.edu), UCLA Center for Excellence in Engineering and Diversity program for underrepresented groups (minorities, poverty line, single-parent home), Emerson middle school, Los Angeles.
- 2003 - 2004 Speaker and field-trip leader, Center for Excellence in Education (www.cee.org), Role Models and Leaders Project: encourages disadvantaged high-school students to pursue higher education and careers in science and technology.
- 2002 - 2006 Collaborative research agreement with Sergeotecmin (Bolivian geological survey), La Paz, Bolivia.

University Service, UT-Austin and UT Jackson School of Geosciences

- 2019 - present Chair, Graduate Studies Committee, Geosciences program, Office of Graduate Studies.
- 2019 - present Graduate Advisor, Jackson School of Geosciences.
- 2019 - present Diversity, Equity and Inclusion Committee.
- 2018 - present Endowment Review Committee.
- 2018 - present Appointments Committee.
- 2015 - 2018 Awards Committee.
- 2014 - 2017 Endowments Committee.
- 2014 - 2015 Research Scientist Search Committee, Clastic Sedimentology, Bureau of Economic Geology.
- 2013 - 2014 Graduate Admissions and Support Committee.
- 2009 - 2011 Chair, Sedimentology-Stratigraphy Education and Research Group.
- 2009 - 2011 Graduate Admissions and Support Committee.
- 2008 - 2009 Faculty Search Committee, Crust-Mantle-Core position.
- 2007 - 2010 Opportunity Hires Committee.
- 2007 - 2008 Internal Change of Appointment Committee.
- 2006 - 2018 Co-Supervisor of Paleomagnetism Laboratory, with Dr. Jack Holt.

University Service, UT-Austin, Department of Geological Sciences

- 2020 - present Faculty Search Committee, Structural Geology.
- 2020 - present Faculty Evaluation Committee, Associate Professor promotion review.

2019 - 2020	Chair, Faculty Search Committee, Sedimentary Geology.
2019 - 2020	Faculty Evaluation Committee, Associate Professor promotion review.
2018 - 2019	Chair, Faculty Search Committee, Endowed Chair in Sedimentary Geology.
2017 - 2019	Awards Committee.
2017 - 2018	Faculty Search Committee, Endowed Chair in Structural Geology.
2015 - 2018	Chair (Inaugural), Awards Committee.
2014 - 2015	Faculty Comprehensive Periodic (Post-Tenure) Review Evaluation Committee (7 Professors).
2014 - 2015	Faculty Evaluation Committee, Assistant Professor tenure review.
2013 - 2014	Chair, Faculty Evaluation Committee, Research Associate Professor promotion review.
2013 - 2014	Faculty Evaluation Committee, Assistant Professor tenure review.
2012 - 2013	Research Scientist Search Committee, Multicollector ICP-MS facility manager.
2012 - 2013	Faculty Evaluation Committee, Assistant Professor review.
2010 - 2011	Chair, Faculty Search Committee, Structural Geology and Tectonics.
2009 - 2011	Faculty Search Committee, Structure-Tectonics and Geochronology.
2009 - 2010	Research Scientist Search Committee, Multicollector ICP-MS facility manager.
2008 - 2009	Faculty Search Committee, Structure-Tectonics and Geochronology.
2008 - 2009	Ad Hoc Committee, Personnel Action (Structure-Tectonics).

Committees, UT Institute for Geophysics

2020 – present	Mentor, UTIG Mentoring Program for Research Scientists.
2018 – 2019	Chair, Annual Performance Evaluation Committee.
2017 – 2018	Annual Performance Evaluation Committee.
2014 – 2015	Joint Appointments Committee.
2010 – 2011	Research Scientist Search Committee, Plate Deformation.

Courses Taught

2006 - present	Graduate courses, UT-Austin: Sedimentary Basin Analysis; Sediment Provenance (new); Tectonic and Climatic Interactions in Foreland Basins (new); Tectonics and Climate of South America (new); Dynamic Field Stratigraphy: Andes (new: 4 offerings: central Argentina, northern Argentina, Ecuador, Romania); Fundamentals of Paleomagnetism (new).
2006 - present	Undergraduate courses, UT-Austin: Introduction to Field and Stratigraphic Methods; Sedimentary Rocks; Field Geology (summer); Tectonics and Climate of South America (new); Fundamentals of Paleomagnetism (new).
1999 - 2006	Graduate courses, UCLA, LSU: Advanced Physical Sedimentology (new), Basin Analysis, Field Geology for Graduate Students (summer).
1999 - 2006	Undergraduate courses, UCLA, LSU: Advanced Sedimentology (new), Basin Analysis, Advanced Field Geology (summer field camp), Historical and Regional Geology, Sedimentary Petrology.
1999 - 2006	Seminars, UCLA, LSU: Arid Land Sedimentology (new), Field Trip: Geological Transect Across the Central Andes (new), Mountain Building Processes (new), Tectonics and Sedimentation (new), Thrust Belts and Foreland Basins (new).

Field Trip Leader

2020	Introduction to Field and Stratigraphic Methods: central Texas (3 one-day trips, 3 online trips)
2019	Introduction to Field and Stratigraphic Methods: central Texas (3 one-day trips).
2018	Tectonic and Climatic Interactions in Foreland Basins: Utah (1 week), with Ron Steel.
2018	South American Symposium on Isotope Geology: Bolivia (1 week), with Amanda Calle.
2018	Dynamic Field Stratigraphy: Romania (2 weeks), with Cornel Olariu.
2018	Introduction to Field and Stratigraphic Methods: central Texas (6 one-day trips).
2017	Dynamic Field Stratigraphy: Cordilleran foreland basin, Utah, Wyoming (1 week).
2017	Dynamic Field Stratigraphy: Andes: foreland, hinterland, and forearc basins, Ecuador (2 weeks).
2016	Yachay University: Geology of Ecuador: foreland to forearc transect across the Andes (2 weeks).
2016	Sediment Provenance: Cordilleran foreland basin, Utah (1 week), with Edgardo Pujols.
2015	Sedimentary Basin Analysis: San Juan and Mendoza provinces, Argentina (2 weeks).
2015	Introduction to Field and Stratigraphic Methods: central Texas (6 one-day trips).
2014	Tectonic and Climatic Interactions in Foreland Basins: New Mexico-Colorado (1 week).
2014	Dynamic Field Stratigraphy: Andes: Neuquén and Mendoza provinces, Argentina (2 weeks).

2012	Sedimentary Basin Analysis: California, Nevada, Utah (1 week).
2012	Introduction to Field and Stratigraphic Methods: central Texas (6 one-day trips).
2011	Tectonic and Climatic Interactions in Foreland Basins: Utah (1 week).
2011	Introduction to Field and Stratigraphic Methods: central Texas (6 one-day trips).
2010	Introduction to Field and Stratigraphic Methods: central Texas (6 one-day trips).
2008	Introduction to Field and Stratigraphic Methods: central Texas (9 one-day trips).
2006	Advanced Field Geology: Nevada, Utah (5 weeks).
2006	Seminar: Sedimentology: Mojave Desert, California (3 days).
2005	Advanced Field Geology: Nevada, Utah (5 weeks).
2005	Sedimentary Petrology: southern California (4 one-day trips).
2005	Historical and Regional Geology: California, Nevada, Utah (3 days).
2004	Advanced Field Geology: Nevada, Utah (5 weeks).
2004	Basin Analysis: southern California (2 one-day trips).
2004	Sedimentary Petrology: southern California (4 one-day trips).
2004	Advanced Physical Sedimentology: Mojave Desert, California (3 days).
2003	Field Seminar: Geological Transect, Central Andean Plateau: Bolivia (3 weeks).
2003	Advanced Field Geology: Nevada, Utah (5 weeks).
2003	Seminar: Paleotectonics: Thrust belts and foreland basins: Utah (1 week).
2002	Advanced Field Geology: Nevada, Utah (5 weeks).
2002	Field Geology for Graduate Students: California, Nevada, Utah (1 week).
2002	Basin Analysis: southern California (2 one-day trips).
2001	Special Topics: Tectonics and Sedimentation: California (1 week).
2000	Advanced Sedimentology: Baton Rouge, Louisiana region (2 one-day trips).
2000	Special Topics: Arid Land Sedimentology (1 one-day trip).
1999	Basin Analysis: Baton Rouge, Louisiana region (1 one-day trip).

Graduate Student Research Theses: name, year, thesis title, degree, institution

- [31] Mackaman-Lofland, C.A., 2020, *Andean deformation and basin evolution during changes in subduction zone geometry (29–33°S)*: Ph.D. dissertation, UT-Austin, 202 p.
- [30] Capaldi, T.N., 2019, *Stratigraphic response to Cordilleran processes along the south central Andean margin*: Ph.D. dissertation, UT-Austin, 173 p.
- [29] Jackson, L.J., 2019, *Detrital provenance of modern rivers and stable isotope paleoaltimetry of Quaternary volcanic glasses in the northern Andes of Ecuador and Peru*: Ph.D. dissertation, UT-Austin, 226 p.
- [28] George, S.W.M., 2019, *Basin evolution, deformation, and magmatism during variable tectonic regimes in the region linking the central and northern Andes*: Ph.D. dissertation, UT-Austin, 158 p.
- [27] Gutierrez, E.G., 2018, *Provenance and geochronological insights into Late Cretaceous-Cenozoic foreland basin development in the Subandean Zone and Oriente Basin of Ecuador*: M.S. thesis, UT-Austin, 134 p.
- [26] Calle, A.Z., 2017, *Andean and pre-Andean basin evolution along the South American convergent margin: Insights from the central Andes of Bolivia: (19.5-22°S)*: Ph.D. dissertation, UT-Austin, 219 p.
- [25] Ramirez, S.G., 2016, *Interactions between sedimentation and deformation in the Kumano forearc basin (Japan) and the Malargue foreland basin (Argentina)*: Ph.D. dissertation, UT-Austin, 251 p.
- [24] Koshnaw, R.I.M., 2016, *Neogene history of exhumation and deposition in the Zagros fold-thrust belt and foreland basin, Kurdistan region of Iraq*: Ph.D. dissertation, UT-Austin, 224 p.
- [23] Bush, M.A., 2016, *Stratigraphic signatures of convergent orogenesis from the plate interior: Studies from Tibet and the southern Rocky Mountains*: Ph.D. dissertation, UT-Austin, 201 p.
- [22] Perez, N.D., 2015, *Cenozoic deformation history of the Andean plateau in southern Peru: Stratigraphic, structural, and geochronologic constraints*: Ph.D. dissertation, UT-Austin, 287 p.
- [21] Anderson, V.J., 2015, *Uplift and exhumation of the Eastern Cordillera of Colombia and its interactions with climate*: Ph.D. dissertation, UT-Austin, 185 p.
- [20] Calle, A.Z., 2013, *Neogene sedimentation and provenance record of the Subandean zone and Chaco foreland basin, southern Bolivia*: M.S. thesis, UT-Austin, 124 p.
- [19] Levina, M., 2013, *Cenozoic sedimentation and exhumation of the foreland basin system in the Precordillera fold-thrust belt (31-32°S), southern central Andes, Argentina*: M.S. thesis, UT-Austin, 100 p.
- [18] Fitch, J.D., 2012, *Cenozoic evolution of a fragmented foreland basin, Altiplano plateau, southern Peru*: M.S. thesis, UT-Austin, 97 p.

- [17] Woodruff, W.H., Jr., 2011, *Late Cenozoic growth and exhumation of the northern Lunggar extensional basin, west-central Tibetan plateau*: M.S. thesis, UT-Austin, 89 p.
- [16] Sanchez, C.J., 2011, *Cenozoic structural evolution of the eastern margin of the Middle Magdalena Valley basin, Colombia: Integration of structural restorations, low-temperature thermochronology, and sandstone petrography*: M.S. thesis, UT-Austin, 114 p.
- [15] Siks, B.C., 2011, *Sedimentary, structural, and provenance record of the Cianzo basin, Puna plateau-Eastern Cordillera boundary, NW Argentina*: M.S. thesis, UT-Austin, 97 p.
- [14] Bande, A., 2010, *Foreland basin evolution and exhumation along the deformation front of the Eastern Cordillera, northern Andes, Colombia*: M.S. thesis, UT-Austin, 106 p.
- [13] Moreno, C.J., 2010, *Paleogene sedimentation patterns and basin evolution during Andean orogenesis, Middle Magdalena Valley basin, Colombia*: M.S. thesis, UT-Austin, 49 p.
- [12] Cardona, P.A., 2009, *Depositional history of the Taranaki Basin, New Zealand: Linking sediment accumulation and subsidence rates to tectonic processes*: M.S. thesis, UT-Austin, 106 p.
- [11] Mackey, G.N., 2009, *Provenance of the south Texas Paleocene-Eocene Wilcox Group, western Gulf of Mexico basin: Insights from sandstone modal compositions and detrital zircon geochronology*: M.S. thesis, UT-Austin, 155 p.
- [10] Perez, N.D., 2009, *Late Miocene sedimentation in the central Andean foreland basin, southern Bolivia: Constraints from magnetostratigraphy*: Undergraduate Honors thesis, UT-Austin, 58 p.
- [9] Giovanni, M.K., 2007, *Tectonic and thermal evolution of the Cordillera Blanca detachment system, Peruvian Andes: Implications for normal faulting in a contractional orogen*: Ph.D. dissertation, UCLA, 236 p.
- [8] Mosolf, J.G., 2007, *The detrital record of rapid Neogene exhumation of the Cordillera Real, Bolivia*: M.S. thesis, UCLA, 65 p.
- [7] Murray, B.P., 2007 *Sedimentology, provenance, and basin development of the synorogenic Peñas and Aranjuez formations, northern Altiplano, Bolivia*: M.S. thesis, UCLA, 68 p.
- [6] Gavillot, Y.G., 2007, *Tectonics of the High Zagros fold-thrust belt, Iran: Constraints on spatial and temporal distribution of thrust activity using (U-Th)/He thermochronometry*: M.S. thesis, UCLA, 53 p.
- [5] Shirvell, C.R., 2006, *Pliocene exhumation along the west Salton detachment system and tectonic evolution of the Fish Creek-Vallecito supradetachment basin, Salton Trough, southern California*: M.S. thesis, UCLA, 133 p.
- [4] Bourke, M.B., 2005, *Sedimentological and paleoenvironmental analysis of middle Eocene strata of the southeastern Kishenehn basin, northwestern Montana*: M.S. thesis, UCLA, 124 p.
- [3] Gillis, R.J., 2005, *Two-phase exhumation of the Cordillera Real, Eastern Cordillera, Bolivia: Inferences from thermochronology and regional structural mapping*: M.S. thesis, UCLA, 150 p.
- [2] Fink, R.J., 2002, *Sedimentology and stratigraphy of the Upper Cretaceous-Paleocene El Molino Formation, Eastern Cordillera and Altiplano, central Andes, Bolivia: Implications for the tectonic development of the central Andes*: M.S. thesis, Louisiana State University, 116 p.
- [1] Hampton, B.A., 2002, *Early-middle Tertiary deposition in the Corque syncline, Altiplano plateau, Bolivia*: M.S. thesis, Louisiana State University, 124 p.

Graduate Student Research Supervision: degree, completion date, research field area, current position

6 current graduate students (UT): 4 Ph.D., 2 M.S.

Banks, Claudia, Ph.D., expected 2025, Brazil, Ecuador

Gutierrez, Juan, Ph.D., expected 2025, Colombia

Malone, Joshua, Ph.D., expected 2025, Argentina, Chile

Butler, Kristina, Ph.D., expected 2022, Argentina

Nix, Matthew, M.S., expected 2021, British Columbia, Canada

Hirtz, Jaime, M.S., expected 2021, Montana; Alberta, Canada

31 graduate students supervised: 11 Ph.D., 20 M.S.

Mackaman-Lofland, Chelsea, Ph.D., 2020, now NSF Earth Sciences Postdoctoral Fellow, University of Connecticut

Capaldi, Tomas, Ph.D., 2019, now Assistant Professor at University of Nevada Las Vegas

Jackson, Lily, Ph.D., 2019, now at Equinor (Statoil), Austin, Texas

George, Sarah, Ph.D., 2019, now postdoc at University of Arizona LaserChron Center

Gutierrez, Evelin Gabriela, M.S. 2018, Ecuador, now Ph.D. student at University of Texas at Austin

Calle, Amanda, Ph.D. 2017, Bolivia, now at Bureau of Economic Geology, Austin, Austin, Texas

Ramirez, Sebastian, Ph.D. 2016 (co-supervised), now at Shell Oil Company, Houston, Texas

Koshnaw (Mohammed), Renas, Ph.D. 2016, now postdoc at University of Göttingen, Germany

Bush, Meredith, Ph.D. 2016, now math and science teacher, Seattle, Washington
 Perez, Nicholas, Ph.D. 2015, now Assistant Professor, Texas A&M University
 Anderson, Veronica, Ph.D. 2015, now at Hess Corporation, Houston, Texas
 (Levina) Jones, Mariya, M.S. 2013, now at Student Academic Center, UC Davis, California
 Calle, Amanda, M.S. 2013, Ph.D. 2017, now at Bureau of Economic Geology, Austin, Austin, Texas
 Fitch, Justin, M.S. 2012, now at Targeted GeoVision LLC, Houston, Texas
 Woodruff, William, Jr., M.S. 2011, now at Hunt Oil Company, Dallas, Texas
 Sanchez, Javier, M.S. 2011, UT. Ph.D. 2015, University of Houston, now at Ecopetrol, Colombia
 Siks, Benjamin, M.S. 2011, now at Hilcorp Energy Company, Anchorage, Alaska
 Bande, Alejandro, M.S. 2010, Ph.D. 2017, Universität Potsdam, Germany, now at Tecpetrol, Buenos Aires, Argentina
 Moreno, Christopher, M.S. 2010, now cloud computing consultant, Portland, Oregon
 Cardona, Paola, M.S. 2009 (co-supervised), now at Ecopetrol, Colombia
 Mackey, Glen, M.S. 2009 (co-supervised), now Ph.D. student at University of Utah
 Perez, Nicholas, B.S. 2009, Ph.D. 2015, now Assistant Professor, Texas A&M University
 Gavillot, Yann, M.S. 2007, UCLA (co-supervised). Ph.D. 2014, Oregon State University, now Research Associate, Oregon State University
 Mosolf, Jesse, M.S. 2007, UCLA. Ph.D. 2013, UC Santa Barbara, now Associate Professor, Montana Bureau of Mines & Geology, Montana Tech
 Murray, Bryan, M.S. 2007, UCLA. Ph.D. 2014, UC Santa Barbara, now Assistant Professor, California Polytechnic State University, Pomona
 Giovanni, Melissa, Ph.D. 2007, UCLA, now Instructor, College of Southern Nevada, Las Vegas, Nevada
 (Shirvell) Belgarde, Catherine, M.S. 2006, UCLA (co-supervised), now Geoscience Manager at BHP Billiton Petroleum, Houston, Texas
 Bourke, Matthew, M.S. 2005, UCLA, now Geoscience Supervisor at ExxonMobil, Melbourne, Australia
 Gillis, Robert, M.S. 2005, UCLA, now at Alaska Division of Geological and Geophysical Surveys
 Fink, Richard, M.S. 2002, LSU, now Senior Operations Geology Advisor at ExxonMobil, Houston, Texas
 Hampton, Brian, M.S. 2002, LSU. Ph.D. 2006, Purdue University, now Associate Professor, New Mexico State University

Graduate Student Research Committee Service: committee member

15 current advisory committees (UT): 12 Ph.D., 3 M.S.

Kelly Olsen, Ph.D. 2016-present; Eunsil Jung, Ph.D. 2016-present; Cullen Kortyna, Ph.D. 2016-present; Sebastian Ramiro, Ph.D. 2016-present; Zachary Foster-Baril, Ph.D. 2017-present; Keith Minor, Ph.D. 2017-present; Benjamin Rendall, Ph.D. 2017-present; Sarah Davis, Ph.D. 2017-present; Daniel Ruiz, Ph.D. 2018-present; Eliana Acevedo, Ph.D. 2019-present, Universidad de Buenos Aires, Argentina (co-chair); Rawan Alasad, Ph.D. 2019-present; James Gearon, M.S. 2019-present; Sarp Karakaya, Ph.D. 2019-present; Fernando Rey, M.S. 2019-present; Leland Spangler, M.S. 2019-present.

41 completed advisory committees: 26 Ph.D., 15 M.S.

Logan West, Ph.D. 2020; Kelly Thomson, Ph.D. 2020; Benjamin Gérard, Ph.D. 2019, Université Grenoble Alpes, France (external reviewer & chair); Margo Odlum, Ph.D. 2019; Doug Barber, Ph.D. 2018; Alejandro Piraquive, Ph.D. 2017, Universidad Nacional de Colombia and Université Grenoble Alpes, France (external reviewer); Edgardo Pujols, Ph.D. 2017; Kelly Thomson, M.S. 2016; Cody Colleps, M.S. 2016; Qiqi Wang, M.S. 2016; James Lyons, Ph.D. 2016; Maureen Walton, Ph.D. 2016; Yanadet Sripanich, Ph.D. 2013-present (examining member); Daniel Eakin, Ph.D. 2014; Tricia Alvarez, Ph.D. 2014; Lauren English, Ph.D. 2012-present (examining member); Julio Leva-Lopez, Ph.D. 2014; Jason Stephens, Ph.D. 2014; Paul Betka, Ph.D. 2013; W. Ryan Lester, Ph.D. 2013; Allison Ned, M.S. 2013; Kyungwon Chang, Ph.D. 2013 (examining member); Robert Reece, Ph.D. 2012; John Hooker, Ph.D. 2012; Henry Campos, M.S. 2011; Guy Fitz, M.S. 2011; Renas Mohammed, M.S. 2011; Lindsay Lowe Worthington, Ph.D. 2010; Aysen Ozkan, Ph.D. 2010; C. Ryan Elmore, M.S. 2009; Juan Iñigo, M.S. 2009; Jennifer Aschoff, Ph.D. 2008; Eleine Vence, M.S. 2008; Migdalys Salazar, M.S. 2008, Enrique Rosero, Ph.D. 2009 (examining member), Paolo Ballato, Ph.D. 2009, Universität Potsdam, Germany (external reviewer); Sara DiFiori, M.S., UCLA, 2006; Bruce Piscitello, M.A., UCLA Geography, 2006; Mary Kairouz, M.S., UCLA, 2005; Daniel Eastmond, M.S., UCLA, 2004; Bernard Guest, Ph.D., UCLA, 2004; Matthew Spurlin, M.S., UCLA, 2002.

Undergraduate Student Research Service: degree, year

41 undergraduate students mentored

Regina Padilla, B.S. Geology; Geosystems Engineering & Hydrogeology, 2022; Bailey Glenewinkel, B.S. Geology, 2022; Leigh Mercer, B.S. Environmental Sciences: Geology, 2021; Anthony Edgington, B.S. Geology; Geosystems Engineering & Hydrogeology, 2021; Jamie Hirtz, B.S. Geology, 2019; Scarlett Hsia, B.S. Geology, 2018; Christian Baker, B.S. Geology, 2016; Jasmin Alfaro, B.S. Geology, 2016; Saloni Tandon, B.S. Geology, 2015; Zehao Xue, B.S. Geology, 2015; Andrew Reisdorf, B.S. Geology, 2015; Douglas Phillips, B.S. Geology, 2015; Markus Behnke, B.S. Geology, 2015; Dylan Hampshire, B.S. Geology, 2014; Christina Andry, B.S. Geology, 2015; Missy Null, B.S. Environmental Science, 2015; Regina Manion, B.S. Geology, 2015; Austin Moore, B.S. Geology, 2015; Alejandra Eljuri, B.S. Geology, 2014; Mary K. Bales, B.S. Geology, 2013; Kelly Hansard, B.S. Geosystems Engineering, 2012; Taylor Culpepper, B.S. Environmental Science, 2012; Adam Bowerman, B.S. Geology, 2012; Frank Morgan, B.S. Geology, 2011; Joseph Zimowski, B.S. Geology, 2010; Jennifer Knowles, B.S. Geology, 2010; Guy Fitz, Independent Study, Fall 2009; Bryan Ott, Independent Study, Fall 2009; Keith Nelson, B.S. Geology, 2009; Jose David Tovar, B.S. Geology, 2009; Nicholas Perez, B.S. Geology, 2009; Nataleigh Vann, B.S. Geology, 2009; Andrew Nicholson, B.S. Geology, 2008; Neil Ryan McKenzie, B.S. Paleobiology, UCLA, 2006; David Gingrich, B.S. Geology, UCLA, 2005; Holly Caprio, B.S. Geological Engineering, UCLA, 2004; Christian Pulido, Undeclared, UCLA, 2003; Matthew Bourke, B.A. Geology, Wesleyan University, 2001; Patrick Guillot, B.S. Mechanical Engineering, LSU, 2001; Jason Burns, B.A. Geology, Wesleyan University, 2001; Bobby Kato, B.A. Pre-Law, LSU, 2001.

Postdoctoral Research Supervision: postdoctoral research/dates/institution, current position

9 postdoctoral researchers mentored

Sickmann, Zachary, 2018 - 2019, provenance, river transport, coastal processes, geochronology.
now Richard T. Buffler Postdoctoral Fellow, University of Texas Institute for Geophysics (UTIG).

Calle, Amanda, provenance, basin analysis, sedimentology, geochronology, 2018-2019.
now Postdoctoral Fellow at Bureau of Economic Geology, Austin, Austin, Texas.

McKenzie, N. Ryan, 2012 - 2014, paleobiology, basin analysis, geochronology.
now Assistant Professor, University of Hong Kong.

Cassel, Elizabeth, 2011 - 2013, paleoaltimetry, basin analysis, geochronology.
now Assistant Professor, University of Idaho.

Saylor, Joel, 2008 - 2012, basin analysis, geo/thermochronology, paleoaltimetry.
now Assistant Professor, University of British Columbia, Canada.

Parra, Mauricio, 2009 - 2010, geo/thermochronology, basin analysis.
now Research Scientist, Institute of Energy and Environment, University of São Paulo, Brazil.

Nie, Junsheng, 2008 - 2010, paleomagnetism, climate change, geochronology.
now Assistant Professor, Lanzhou University, Lanzhou, China.

Zhou, Jiangyu, 2003, UCLA, sedimentology, basin analysis.
now Professor, China University of Geosciences, Wuhan, China.

Dupont-Nivet, Guillaume, 2002 - 2003, UCLA, paleomagnetism, basin analysis.
now Senior Research Scientist, Université de Rennes, France.

Peer-Reviewed Publications (underlined = graduate student; * = postdoctoral scholar)

126 articles published: 24 first author (7 sole author); 45 second author; 57 other.

(includes 67 first-authored articles by student (55) and postdoc (12) advisees).

Researcher ID = A-1804-2009

Web of Science Researcher ID = P-5772-2019

Google Scholar h-index = 54 (first author h-index = 23). Total citations = 8630. (January 2021)

ISI Web of Science h-index = 43 (first author h-index = 21).

- [126] Sánchez, N., Pacheco, J., Guzman-Vega, M.A., Mora, A., and **Horton, B.**, 2021, Timing of hydrocarbon entrapment in the eastern foothills of the Eastern Cordillera of Colombia: Interpretation, v. 9, p. T145-T159, doi:10.1190/int-2020-0058.1.
- [125] Koshnaw, R.I., Stockli, D.F., **Horton, B.K.**, Teixell, A., Barber, D.E., and Kendall, J.J., 2020, Late Miocene deformation kinematics along the NW Zagros fold-thrust belt, Kurdistan region of Iraq: Constraints from apatite (U-Th)/He thermochronometry and balanced cross sections: Tectonics, doi:10.1029/2019TC005865.

- [124] Mora, A., *Tesón, E., Martínez, J., *Parra, M., Lasso, Á., **Horton, B.K.**, Ketcham, R.A., Velásquez, A., and Arias-Martínez, J.P., 2020, The eastern foothills of Colombia, *in* Gómez, J., and Mateus-Zabala, D., eds., *The Geology of Colombia: Servicio Geológico Colombiano*, Publicaciones Geológicas Especiales, v. 37, p. 123-142, Bogotá, Colombia, doi:10.32685/pub.esp.37.2019.05.
- [123] Mora, A., *Villagómez, D., *Parra, M., Caballero, V.M., Spikings, R., **Horton, B.K.**, Mora-Bohórquez, J.A., Ketcham, R.A., and Arias-Martínez, J.P., 2020, Late Cretaceous to Cenozoic uplift of the northern Andes: Paleogeographic implications, *in* Gómez, J., and Mateus-Zabala, D., eds., *The Geology of Colombia: Servicio Geológico Colombiano*, Publicaciones Geológicas Especiales, v. 37, p. 89-121, Bogotá, Colombia, doi:10.32685/pub.esp.37.2019.04.
- [122] Ren, X., Nie, J., Saylor, J.E., Wang, X., Liu, F., and **Horton, B.K.**, 2020, Temperature control on silicate weathering intensity and evolution of the Neogene East Asian summer monsoon: *Geophysical Research Letters*, v. 47, e2020GL088808, doi:10.1029/2020GL088808.
- [121] Koshnaw, R.I., **Horton, B.K.**, Stockli, D.F., Barber, D.E., and Tamar-Agha, M.Y., 2020, Sediment routing in the Zagros foreland basin: Drainage reorganization and a shift from axial to transverse sediment dispersal in the Kurdistan region of Iraq: *Basin Research*, v. 32, p. 688-715, doi:10.1111/bre.12391.
- [120] Moreno, F., Garziane, C.N., George, S.W.M., **Horton, B.K.**, Williams, L., Jackson, L.J., Carlotto, V., Richter, F., and Bandeian, A., 2020, Coupled Andean growth and foreland basin evolution, Campanian–Cenozoic Bagua Basin, northern Peru: *Tectonics*, v. 39, e2019TC005967, doi:10.1029/2019TC005967.
- [119] Capaldi, T.N., **Horton, B.K.**, *McKenzie, N.R., Mackaman-Lofland, C., Stockli, D.F., Ortiz, G., and Alvarado, P., 2020, Neogene retroarc foreland basin evolution, sediment provenance, and magmatism in response to flat slab subduction, western Argentina: *Tectonics*, v. 39, e2019TC005958, doi:10.1029/2019TC005958.
- [118] Pujols, E., Stockli, D.F., Constenius, K.N., and **Horton, B.K.**, 2020, Thermochronological and geochronological constraints on Late Cretaceous unroofing and proximal sedimentation in the Sevier orogenic belt, Utah: *Tectonics*, v. 39, e2019TC005794, doi:10.1029/2019TC005794.
- [117] **Horton, B.K.**, *Parra, M., and Mora, A., 2020, Construction of the Eastern Cordillera of Colombia: Insights from the sedimentary record, *in* Gómez, J., and Mateus-Zabala, D., eds., *The Geology of Colombia: Servicio Geológico Colombiano*, Publicaciones Geológicas Especiales, v. 37, p. 67-88, Bogotá, Colombia, doi:10.32685/pub.esp.37.2019.03.
- [116] Mackaman-Lofland, C., **Horton, B.K.**, Fuentes, F., Constenius, K.N., Ketcham, R.A., Capaldi, T.N., Stockli, D.F., Ammirati, J.B., Alvarado, P., and Orozco, P., 2020, Andean mountain building and foreland basin evolution during thin- and thick-skinned Neogene deformation (32–33°S): *Tectonics*, v. 39, e2019TC005838, doi:10.1029/2019TC005838.
- [115] Bande, A., Boll, A., Fuentes, F., **Horton, B.K.**, and Stockli, D.F., 2020, Thermochronological constraints on the exhumation of the Malargüe fold-thrust belt, southern Central Andes, *in* Kietzmann, D., and Folguera, A., eds., *Opening and Closure of the Neuquén Basin in the Southern Andes*: Springer Earth System Sciences, p. 371-396, doi:10.1007/978-3-030-29680-3_15.
- [114] Fuentes, F., and **Horton, B.K.**, 2020, The Andean foreland evolution of the Neuquén Basin: A discussion, *in* Kietzmann, D., and Folguera, A., eds., *Opening and Closure of the Neuquén Basin in the Southern Andes*: Springer Earth System Sciences, p. 341-370, doi:10.1007/978-3-030-29680-3_14.
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