

## **Nadine McQuarrie – Curriculum Vitae**

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### **Professional Experience**

2004- Assistant Professor, Princeton University  
2001-2004 Postdoctoral Scholar in Tectonics, California Institute of Technology.  
1997-2001 Research Assistant/ Teaching Assistant, University of Arizona.  
1995-1997 Research Assistant/ Teaching Assistant, Idaho State University

### **Education**

B.A., Geology major (honors), Whitman College, Walla Walla , WA, 1993.  
M.S., Geology (structure/tectonics), Idaho State University, 1997.  
Ph.D., Geosciences (structure/tectonics/geodynamics), University of Arizona, 2001.

### **Awards and Fellowships**

2000, 2001 Peter J. Coney Graduate Fellowship, University of Arizona.  
1997, 1998 Sultzter Earth Science Scholarship, University of Arizona.  
1996 Idaho Space Grant Consortium Fellowship, NASA, Idaho State University.  
1995 EPSCoR Research Assistantship, EPSCoR, Idaho State University.  
1993 Honors in Geology, Whitman College, Walla Walla, WA  
1992 Albert Ripley Leeds prize in Geology, Whitman College, Walla Walla, WA

### **Research Interests**

The geometric, kinematic and erosional evolution of mountain belts. Current research activities focus on linking the geometry and kinematics of mapped structures to thermochronometer cooling ages to look at the interplay between tectonics and erosion on exhumation patterns and morphology of mountain ranges. Active research projects include the kinematic evolution of the Himalayan fold-thrust belt in Bhutan, the 3-D geometry of shortening in the Bolivian orocline, timing and distribution of shortening in the Subandean zone Bolivia and Peru, documenting the evolution of the North America-Farallon-Pacific plate boundary through palinspastically restoring volcanic and geophysical (Earthscope) datasets, evaluating the timing of collision and the amount of subducted continental crust in the arc-continent collision zone of Timor and determining the amount of shortening and sequential development of the central Appalachian fold-thrust belt, Pennsylvania.

### **Professional Affiliations**

American Geophysical Union  
Geological Society of America

### **Professional Services and Activities**

- 2008-present Editorial Board *Geology*
- 2008 Session convener, American Geophysical Union (AGU), San Francisco CA 2008. *"Paleo- and Neotethyan Closure: Geological Consequences and Geodynamic and Paleoclimatological Inferences."*
- 2008 National Science Foundation panel member
- 2006 Session convener, GSA national meeting, Philadelphia, PA 2006. *"Unraveling Tectonics: the power behind balanced cross sections and kinematic reconstructions."*
- 2004 Session convener, GSA national meeting, Denver CO, 2004. *"Thrust Belts and Plateaus: The Anatomy of Convergent Systems."*
- 2002-present Reviewer for *Earth and Planetary Science Letters*, Fondyct (Chilean national funding agency), *Geological Society of America Bulletin*, *Geological Journal International*, *Geology*, *Geosphere*, *Journal of Geophysical Research (Solid Earth and Earth Surface Processes)*, *Journal of Structural Geology*, National Science Foundation, *Tectonics*, *Tectonophysics*

### **Invited Talks**

- 2009 Invited Talk, GSA national meeting, Portland, OR  
*"What induces the collapse of orogens? Is South American next?"*
- 2009 Invited Talk, GSA national meeting, Portland, OR  
*"Signals of continent-continent collision: When did Arabia and Eurasia collide"*
- 2009 Invited Talk, Massachusetts Institute of Technology, Boston MA  
*"Himalayan mass balance: a Bhutan Perspective"*
- 2009 Invited Talk, AGU Joint Assembly, Toronto, Ont., Canada  
*"Surface constraints on the temporal and spatial evolution of the Farallon-Pacific-North America plate boundary"*
- 2009 Invited Talk, Stanford University, Palo Alto CA  
*"Himalayan mass balance: a Bhutan Perspective"*
- 2009 Invited Talk, California Institute of Technology, Pasadena CA  
*"Himalayan mass balance: a Bhutan Perspective"*
- 2009 Invited Talk, University of Maryland, College Park MD  
*"Filling the eastern Himalayan Gap: Structural Architecture and Kinematics of the Himalayan Orogen in Bhutan"*
- 2009 Invited Talk, University of Rochester, Rochester NY  
*"Filling the eastern Himalayan Gap: Structural Architecture and Kinematics of the Himalayan Orogen in Bhutan"*
- 2009 Invited Talk, University of Wyoming, Laramie WY  
*"Filling the eastern Himalayan Gap: Structural Architecture and Kinematics of the Himalayan Orogen in Bhutan"*
- 2008 Invited Talk, University of Southern California, L.A., CA  
*"Filling the eastern Himalayan Gap: Structural Architecture and Kinematics of the Himalayan Orogen in Bhutan"*
- 2008 Invited Talk, University of California Riverside, Riverside, CA

- 2008 *"Deformation vs. precipitation: Temporal variations in climate and tectonic coupling in the central Andes"*  
Invited Talk, Lamont-Dougherty Earth Observatory, Palisades. NY
- 2007 *"Deformation vs. precipitation: Temporal variations in climate and tectonic coupling in the central Andes"*  
Lew Parker Distinguished Visiting lecturer—Colorado College  
Talk: *"What controls the width of mountains, examples from the Andes"*
- 2007 Invited Talk, University of Michigan, Ann Arbor MI  
*"Deformation vs. Precipitation: what controls the width of mountains"*
- 2007 Invited Talk, Harvard, Cambridge MA  
*"Testing climate-tectonic coupling in the Central Andes"*
- 2006 Invited Talk, Lehigh University, Bethlehem PA  
*"Are Precipitation and Deformation linked in the Central Andes"*
- 2006 Invited Talk, Dartmouth College, Hanover NH  
*"Relationship between deformation and exhumation in the Central Andean plateau"*
- 2005 Invited Talk, Department of Terrestrial Magnetism, Carnegie Institute of Washington, Washington DC  
*"Reconstructing the West: past problems, current solutions and implications for paleoseismic and geodetic rates"*
- 2005 Invited Talk, Lamont-Dougherty Earth Observatory, Palisades. NY  
*"Tectonic reconstruction of southwest North America since 36 MA: Animations, strain maps and implications"*
- 2005 Invited Talk, University of North Carolina, Chapel Hill, NC  
*"Tectonic reconstruction of southwest North America since 36 MA: Animations, strain maps and implications"*
- 2005 Invited Talk, University of Colorado, Boulder, CO  
*"Tectonic reconstruction of southwest North America since 36 MA: Animations strain maps and implications"*
- 2005 Invited Talk, Washington and Lee University, Lexington, VA  
*"How the west was widened"*
- 2004 Invited Talk, Dickinson College, Carlisle PA  
*"How the west was widened"*
- 2004 Invited Talk, Arizona State University, Tempe, AZ  
*"Cenozoic evolution of the Neotethys and implications for the causes of plate motions"*
- 2004 Invited Talk, Brigham Young University, Provo, UT  
*"Sequential strain maps of continental extension: Comparing variations in geologic to geodetic strain rates in the Basin and Range."*
- 2003 Invited Talk, California Institute of Technology, Pasadena, CA  
*"Cenozoic evolution of the Neotethys and implications for the causes of plate motions"*
- 2003 Invited Talk, Princeton University, Princeton, NJ  
*"Cenozoic evolution of the Neotethys and implications for the causes of plate motions"*
- 2003 Invited Talk, Colorado College, Colorado Springs, CO  
*"Death of an Ocean, Creation of an Orogen, the kinematic evolution of the Zagros Mountains, Iran."*
- 2003 Short Course in structural geology, Colorado College, Colorado Springs, CO  
*"Balancing Geologic cross-sections"*
- 2003 Invited Talk, University of California, Los Angeles, Los Angeles, CA

- 2002 *“The incremental demise of the Neotethys Ocean between Arabia and Eurasia: implications for magmatism, timing of collision and evolution of an orogen”*  
Invited Talk, Brigham Young University, Provo, UT  
*“Death of an Ocean, Creation of an Orogen, the kinematic evolution of the Zagros Mountains, Iran.”*
- 2002 Invited Talk, University of California Davis, Davis, CA  
*“Dissecting an Orogen, Interpretations of map patterns and field observations across the Bolivian Andes”*
- 2002 Invited Talk, Princeton University, Princeton, NJ  
*“Backthrusts, Megathrusts and the construction of the Andean Plateau”*
- 2001 Invited Talk, Sergeomin, La Paz, Bolivia  
*“Deformation in the back-arc of the Andean Orogen, Bolivia”*
- 2000 Invited Talk, California Institute of Technology, Pasadena, CA  
*“The making of a high elevation plateau—insights from the Colorado Plateau and the Altiplano”*

### **Supervisory Duties**

#### Graduate Students Supervised

- 2007 Nicole Gotberg, M.A.  
title: “Crustal thickening budget compared to shortening estimates in southern Peru (12-14° S)”
- 2008 Sarah Johnston, M.A.  
title: “Evolution of the Ecuadorian cordillera from integrated structure and thermochronology.”
- 2006- present Tobgay Tobgay, Ph.D. (in progress)  
title: “The structural and tectono-metamorphic history of western Bhutan.”
- 2006- present Sean Long, Ph.D. (in progress)  
title: “Structural architecture and kinematics of the Himalayan orogen in eastern Bhutan.”
- 2008- present Nate Eichelberger Ph.D. (in progress)  
title: “3-D kinematics of the Bolivian Orocline”

#### Postdoctoral Researches Supervised

- 2006-2007 Andrew Leier-- Hess Fellow, Elevation history of the Andean plateau: combining sedimentology, structural geology and oxygen isotopes in paleosols and mammal teeth. (now an assistant Professor at the University of Calgary)

#### Undergraduate Theses

- ST\_05 Richard Lease, “Offset paleochannel indicates 22.5 km Miocene dextral shear on the Bristol-Granite Mountains fault zone: Mojave Desert, Eastern California Shear Zone.”
- ST\_05 Margee Prat, “Reconstructing Basin and Range extension in the mantle lithosphere from 10 Ma to present. “

- JP\_F05 Alison Warren, "The mid-Paleozoic Antler orogeny and possible tectonic settings"
- JP\_F05 Logan West, "The geologic history behind the Cretaceous igneous intrusions of Arkansas"
- JP\_F05 William Levandowski, "Alleghanian deformation in the Susquehanna River Valley, Valley and Ridge Province, Pennsylvania"
- JP\_S06 William Levandowski, "Evolution of the Gold Butte Area, southeastern Nevada Basin and Range"
- JP\_S06 Jamitto Flemming, "Investigation of low-angle normal faults in the Basin and Range: Jumbled Mountain, Southern Nevada"
- JP\_F06 Jesse Chadwick, "Structural inheritance in the Teton Range, Wyoming."
- JP\_S07 Christian Millet, "The use of sequential reconstructed cross sections to investigate deformation in fold-thrust belts: an application to the Andes of southern Peru."
- JP\_S08 Natasha Lavdovsky, "Finite strain in the Valley and Ridge province of the central Appalachians"
- ST\_08 Daphne Tess M. Cecil-Cockwell, "Deformation, sedimentation, and uplift history of the eastern Cordillera of Bolivia"
- JP\_S09 Christopher Hepburn, "The internal deformation and strain of Bhutan."
- JP\_S09 Benjamin Oliver, "Constructing a balanced cross-section through the Susquehanna Valley, Pennsylvania."

### **Research Grants**

CAUGHT Central Andean Uplift: the Geodynamics of High Topography, NSF- Continental Dynamics, July 2009, Princeton portion- \$265,065.

Constraints on regional-scale deformation across the Pennsylvania salient as deduced from geologic cross-sections, Pennsylvania Geologic Survey, 2008, \$24,391 (*collaborative proposal, awarded to Dickinson College*).

Constraints on regional-scale deformation across the Pennsylvania salient as deduced from geologic cross-sections, Pennsylvania Geologic Survey, 2007, \$18,871 (*collaborative proposal, awarded to Dickinson College*).

Structural Architecture and Kinematics of the Himalayan orogen in Bhutan, NSF-Tectonics, June 2007, \$ 369,415.

### **Publications**

Refereed articles (\* indicates graduate student co-author, † indicates undergraduate student)

\*Gotberg, N., **McQuarrie, N.** and Carlotto, V. (in press), Comparison of crustal thickening budget and shortening estimates in southern Peru (12-14°S): Implications for mass balance and rotations in the "Bolivian orocline": Geological Society of America Bulletin.

†Lease, R.O., **McQuarrie, N.**, Oskin, M., Leier, A., 2009, Dextral shear on the Bristol-Granite Mountains Fault zone: Successful geologic prediction from kinematic compatibility of the Eastern California Shear zone: Journal of Geology, v. 117, p. 37-53  
DOI: 10.1086/593320.

**McQuarrie, N.**, Ehlers, T.A., \*Barnes, J., Meade, B., 2008, Temporal variation in climate and tectonic coupling in the central Andes: Geology, v. 36, p. 999-1002, doi: 10.1130/G25124A.1

- \*Sigloch, K., **McQuarrie, N.**, and Nolet, G., 2008, Two-stage subduction history under North America inferred from multiple-frequency tomography: *Nature Geosciences*, v. 1 doi:10.1038/ngeo231.
- McQuarrie, N.**, Robinson, D., \*Long, S., \*Tobgay, T., Grujic, D., Gehrels, G., Ducea, M., 2008, Preliminary stratigraphic and structural architecture of Bhutan: Implications for the along strike architecture of the Himalayan system: *Earth and Planetary Science Letters*, v, 272, p. 105-117, doi: 10.1016/j.epsl.2008.04.030.
- McQuarrie, N.**, \*Barnes, J., Ehlers, T.A., 2008, Geometric, kinematic and erosional history of the central Andean Plateau (15-17°S), northern Bolivia: *Tectonics*, v. 27, TC3007, doi:10.1029/2006TC002054.
- \*Barnes, J.B., Ehlers, T.A., **McQuarrie, N.**, O'Sullivan, P.B., Tawackoli, S., 2008, Thermochronometer record of central Andean plateau growth, Bolivia (19.5°S): *Tectonics*, v. 27, TC3003, doi:10.1029/2007TC002174.
- \*Barnes, J.B., Ehlers, T.A., **McQuarrie, N.**, O'Sullivan, P.B., Pelletier, J.D., 2006, Eocene to recent variations in erosion across the central Andean fold-thrust belt, northern Bolivia: implications for plateau evolution: *Earth and Planetary Science Letters*, v. 248, p. 118-133.
- McQuarrie, N.** and Wernicke, B.P., 2005, An Animated Tectonic Reconstruction of Southwestern North America since 36 MA: *Geosphere*, v. 1, p 147-172. doi: 10.1130/GES00016.1
- McQuarrie, N.**, Horton, B.K., Zandt, G., Beck, S., and DeCelles, P.G., 2005, The lithospheric evolution of the central Andean Plateau: *Tectonophysics*, v. 399, p. 15-37.
- McQuarrie, N.**, 2004, Crustal-scale geometry of Zagros fold-thrust belt, Iran: *Journal of Structural Geology*, v. 26, p. 519-535.
- McQuarrie, N.**, Stock, J.M., Verdel, C., and Wernicke, B.P., 2003, Cenozoic evolution of the Neotethys and implications for the causes of plate motions: *Geophysical Research Letters*, v. 30, p. 2036, doi:10.1029/2003GL017992.
- McQuarrie, N.**, 2002, Initial plate geometry, shortening variations, and evolution of the Bolivian orocline: *Geology*, v. 30, p. 867-870.
- McQuarrie, N.**, 2002, The kinematic history of the central Andean fold-thrust belt, Bolivia: implications for building a high plateau: *Geological Society of America Bulletin*, v. 114, p. 950-963.
- McQuarrie, N.** and Davis, G.H., 2002, Crossing the several scales of strain-accomplishing mechanisms: the central Andean fold-thrust belt: *Journal of Structural Geology*, v. 24, p 1587-1602.
- Rodgers, D.W., Ore, H.T., Bobo, R., **McQuarrie, N.**, and Zentner, N., 2002, Extension and subsidence of the eastern Snake River Plain, in Bonnicksen, B., McCurry, M.O., and White, C., *The Geology of the Snake River Plain: Idaho Geological Survey Special Publication*.
- McQuarrie, N.** and DeCelles, P.G., 2001, Geometry and Structural Evolution of the Central Andean Backthrust Belt, Bolivia: *Tectonics*, v. 20 p. 669-692.
- McQuarrie, N.** and Chase C.G., 2000, Raising the Colorado Plateau: *Geology*, v. 28, p. 91-94.
- McQuarrie, N.** and Rodgers, D.W., 1998, Subsidence of a volcanic basin by flexure and lower crustal flow -- the eastern Snake River Plain, Idaho: *Tectonics*, v. 17, p. 203-220.
- In Review
- McQuarrie, N.** and Oskin, M., (in review), Palinspastic restoration of NAVDat and implications for the origin of magmatism in southwestern North America: *Journal of Geophysical Research*.

- \*Long, S.P., **McQuarrie, N.**, \*Tobgay, T., \*Rose, C.V., Gehrels, G., and Grujic, D. (in review) Tectonostratigraphy of the Lesser Himalaya of Bhutan: Implications for the Stratigraphic Architecture of the Northern Indian Margin: Geological Society of America Bulletin.
- \*Long, S.P. and **McQuarrie, N.**, (in review) Placing limits on channel flow: insights from the Bhutan Himalaya: Earth and Planetary Science Letters.
- Sak, P.B., **McQuarrie, N.**, †Oliver, B.P., (in review) The sequential development of the central Appalachian fold-thrust belt, Pennsylvania: Insights from a balanced geologic cross section: Journal of Structural Geology.

#### In Preparation

- \*Tobgay, T., **McQuarrie, N.**, \*Long, S.P., Ducea, M., and Gehrels, G., (to be submitted September, 2009) Isotopic and chronologic fingerprints of strata; the signature of variable sources, Paro Formation, Bhutan Himalaya: Earth and Planetary Science Letters.
- \*Long, S.P., **McQuarrie, N.**, \*Tobgay, T., and Grujic, D. (to be submitted September 2009) Geometry and crustal shortening of the Himalayan fold-thrust belt in Bhutan: Geological Society of America Bulletin.
- \*Johnston, S., and McQuarrie, N., (to be submitted fall of 2009) Evolution of the Ecuadorian Cordillera from integrated structure and thermochronology: Tectonophysics.
- Leier, A.L., McQuarrie, N., Garzzone, C., Eiler, J., Cosca, M., (to be submitted fall of 2009) Reconstructing the Oligocene-Miocene paleoelevation history of the Altiplano: Geology.
- Leier, A.L., McQuarrie, N., Horton, B.K., and Gehrels, G.E. (to be submitted fall of 2009) Upper Oligocene conglomerate units in the Altiplano, Central Andes: the record of deformation and deposition along the margin of a hinterland basin: Journal of Sedimentary Research.

#### Maps

- Sak, P.B., **McQuarrie, N.**, and †Lavdovsky, N., 2008, Preliminary bedrock geologic map of the middle portion of the Susquehanna River valley, Dauphin Juniata, Northumberland, Perry and Snyder Counties, Pennsylvania: Pennsylvania Geological Survey, 4<sup>th</sup> ser., 1p., Portable Document Format (PDF).
- Rodgers, D.W., Long, S.P., **McQuarrie, N.**, Hersley, C.F., and Burgel, W.D, 2006, Geologic Map of the Inkom Quadrangle, Bannock County, Idaho: Idaho Geological Survey Technical Report 06-2, scale 1:24,000, (two sheets).

#### Abstracts

- \*Eichelberger N., and **McQuarrie, N.**, 2009, Evaluating orogen parallel transport of the upper crust within the Central Andean Orocline: Geological Society of America Abstracts with Programs, v. 41.
- \*Long, S.P. and **McQuarrie, N.**, 2009, Placing limits on channel flow: Is central Bhutan STD-free? Geological Society of America Abstracts with Programs, v. 41.
- McQuarrie, N.**, 2009, Signals of continent-continent collision: When did Arabia and Eurasia collide? Geological Society of America Abstracts with Programs, v. 41, (invited).
- McQuarrie, N.** and Oskin, M., 2009, What induces the collapse of orogens? Is South American next? Geological Society of America Abstracts with Programs, v. 41, (invited).
- Sak, P.B., **McQuarrie, N.**, and †Oliver, B.P., 2009, Sequential development of the central Appalachian fold-thrust belt, Pennsylvania: Insights from a balanced geologic cross section: Geological Society of America Abstracts with Programs, v. 41.
- Dixon, I.T.E., Leier, A., McCartney, T., **McQuarrie, N.**, and \*Long, S.P., 2009, Exploring the relationship between upper crustal deformation, sedimentation, and surface uplift in the Altiplano of the Central Andes, Bolivia: Geological Society of America Abstracts with Programs, v. 41.

- McQuarrie, N.** and Oskin, M., 2009, Surface constraints on the temporal and spatial evolution of the Farallon-Pacific-North America plate boundary: *Eos Trans., American Geophysical Union*, 90(22), joint Assembly. Suppl., Abstract T11A-03 (invited).
- McQuarrie, N.** and Oskin, M., 2008, Palinspastic restoration of NAVDat and its implications for the origins of magmatism in western North America: *Eos Trans., American Geophysical Union*, 89(53), Fall Meet. Suppl., Abstract U54A-03.
- \*Long, S.P., **McQuarrie, N.**, \*Tobgay, T., Gehrels, G., and Grujic, D., 2008, Tectonostratigraphy of the Lesser Himalaya of Bhutan: Deducing the Paleostratigraphy of the Northern Indian Margin: *Eos Trans., American Geophysical Union*, 89(53), Fall Meet. Suppl., Abstract T31E-07.
- \*Tobgay, T., **McQuarrie, N.**, Hollister, L., \*Long, S., and Gehrels, G., 2008, The Paro Formation provenance and its tectonometamorphic history, Bhutan Himalaya: *Eos Trans., American Geophysical Union*, 89(53), Fall Meet. Suppl., Abstract T33C-2066.
- Leier, A., **McQuarrie, N.**, †Cecil-Cockwell, D.T., 2008, Thrust Faulting, Exhumation and formation scale fluvial Architecture with the hinterland of the Central Andean Fold-Thrust belt, Canadian Society of Petroleum Geologists Convention, Calgary, Abstract#059, p.551.
- \*Long, S.P., **McQuarrie, N.**, \*Tobgay, T., and Gehrels, G., 2007, Preliminary Stratigraphy and Structure of the Lesser Himalayan Portion of the Himalayan Fold-Thrust Belt, Eastern Bhutan: *Eos Trans., American Geophysical Union*, 88(52), Fall Meet. Suppl., Abstract T23D-1649
- McQuarrie, N.**, Ehlers, T.A., Barnes, J.B., 2007, Deformation, precipitation and the width of the Central Andean Plateau, Bolivia: *GSA Abstracts with Programs Vol. 39, No. 7.*
- Leier, A., \*Johnston, S., **McQuarrie, N.**, 2007, Using oxygen isotope values of modern water and ancient carbonate to reconstruct the paleoelevation history of the Inter-Andean Valley, Ecuador: *GSA Abstracts with Programs Vol. 39, No. 7.*
- McQuarrie, N.**, Barnes, J.B., Ehlers, T.A., 2006, Geometric, kinematic and erosional history of the Central Andean Plateau, Bolivia: *American Geophysical Union Fall Meeting, December, 2006, EOS, v.87.*
- Leier, A., \*Long, S.P., **McQuarrie, N.**, 2006, Oligo-Miocene deposition along the eastern margin of the Altiplano plateau, Salla, Bolivia: *American Geophysical Union Fall Meeting, December, 2006, EOS, v.87.*
- McQuarrie, N.**, 2006, The science behind making movies: Elucidating the viability of kinematic reconstructions: *GSA Abstracts with Programs Vol. 38, No. 7.*
- McQuarrie, N.** 2006, Revisiting shortening estimates along the Bolivia Orocline: implications for thermal heating, erosion and crustal flow on the development of a high elevation plateau: Backbone of the Americas, *GSA abstracts with programs Vol. 38, No. 2.*
- Barnes, J.B., Ehlers, T.A., **McQuarrie, N.**, 2006, Eocene to recent exhumation patterns correlated with deformation across 200 km of the central Andean fold-thrust belt, northern Bolivia: *Backbone of the Americas, GSA abstracts with programs Vol. 38, No. 2.*
- \*Gotberg, N., **McQuarrie, N.**, Tintaya, D., 2006, Variations in both structural style and stratigraphy in the eastern fold and thrust belt of the Peruvian Andes across the northern boundary of the Andean Plateau: *Backbone of the Americas, GSA abstracts with programs Vol. 38, No. 2.*
- McQuarrie, N.**, Barnes, J., Ehlers, T.A., 2005, The relationship between deformation and exhumation in the central Andean plateau: *GSA Abstracts with Programs Vol. 37, No. 7.*
- Barnes, J., Ehlers, T.A., **McQuarrie, N.**, O' Sullivan, P.B., 2005, Erosion, Climate and the early growth of the central Andean plateau, northern Bolivia: insights from low-temperature ThermoChronology: *GSA Abstracts with Programs Vol. 37, No. 7.*
- McQuarrie, N.**, Wernicke, B., 2005, Geologic evolution of the ECSZ, past problems, current solutions and implications for paleoseismic and geodetic rates: Penrose Conference, Geological Society of America, Mammoth Ca.
- †Lease, R.O., **McQuarrie, N.**, 2005, Constraining Miocene dextral shear along the Bristol-Granite Mountains fault zone with an offset paleochannel (Mojave Desert, Eastern California shear zone): Penrose Conference, Geological Society of America, Mammoth Ca.
- Wernicke, B.P., Davis, J., **McQuarrie, N.**, Neimi, N.A., 2005, Tectonic setting of intraplate right-lateral shear in the Western Great Basin: Penrose Conference, Geological Society of America, Mammoth Ca.
- McQuarrie, N.**, 2004, Sequential Kinematic Restoration as a Tool for Deciphering Evolving Plate Boundaries: the Western North America-Pacific Plate Boundary System: *American Geophysical*

- Union Fall Meeting, December, 2004, EOS, v.85.
- Barnes, J., Ehlers, T.A., **McQuarrie, N.**, 2004, New Constraints on the Erosion History of the Andean Plateau Inferred From Detrital Thermochronology Across the Northern Bolivian Thrust Belt: American Geophysical Union Fall Meeting, December, 2004, EOS, v.85.
- McQuarrie, N.**, 2004, Reconstructing the Basin and Range Province: the evolution of an extensional orogen in time and space: Geological Society of America Abstracts with Programs, v. 36, n 6.
- McQuarrie, N.**, Lavier, L., 2003, Brittle to Viscous Transition: Modeling the Evolution of the Andean Plateau: EOS, v. 84 (invited).
- McQuarrie, N.**, Wernicke, B.P., 2003, Sequential Strain Maps of Continental Extension: Comparing Variations in Geologic to Geodetic Strain Rates in the Basin and Range: EOS, v.84
- McQuarrie, N.**, Lavier, L., 2003, Modeling the evolution of Cordilleran Plateaus, Geological Society of America Abstracts with Programs, v. 35, n 6.
- McQuarrie, N.**, Stock, J.M., Verdel, C., and Wernicke, B.P., 2002, Tracking the Demise of the Neotethys Ocean Between Arabia and Eurasia: EOS, v. 83.
- McQuarrie, N.**, 2002, Crustal scale geometry of the Zagros fold-thrust belt: Basement or no Basement? Geological Society of America Abstracts with Programs, v. 34, n 6.
- McQuarrie, N.**, 2002, The structural evolution of the Central Andean fold-thrust belt, Bolivia: 5<sup>th</sup> International Symposium on Andean Geodynamics, Toulouse, France, 2002.
- McQuarrie, N.**, Horton, B.K., Zandt, G., Beck, S., and DeCelles, P.G., 2001, Lithospheric Evolution of the Central Andean Fold-Thrust Belt: Making a High Elevation Plateau: EOS, v. 82. p. 1160.
- Niemi, N.A., **McQuarrie, N.**, Friedrich, A.M., Wernicke, B.P., and Sengor, A.M.C., 2001, A large, subduction generated syntaxis in the Gondwanides of southern Gondwana-land? Geological Society of America Abstracts with Programs, v. 33, n 6.
- McQuarrie, N.** and DeCelles, P.G., 2000, Backthrust, Megathrusts and the Construction of the Andean Plateau: EOS, v. 81 p. 1118.
- McQuarrie, N.** and Chase, C.G., 2000, The connection between the Colorado Plateau and the Rocky Mountain Region: crustal thickening via intra-crustal flow: Geological Society of America Abstracts with Programs, v. 32, No.7.
- McQuarrie, N.**, 1999, Balanced cross-sections across the Altiplano: implications for amounts of shortening in the Bolivian Andes: EOS, v. 80, p. 1058
- McQuarrie, N.**, 1999, Raising the Colorado Plateau by lower crustal flow: Geological Society of America Abstracts with Programs, v. 31, p. A-24.
- Rodgers, D.W., Ore, H.T., Bobo, R., Hodges, M.K.V., **McQuarrie, N.**, and Zentner, N., 1999, Late Cenozoic deformation of the eastern Snake River Plain: Geological Society of America Abstracts with Programs, v. 31, p. A-53.
- Link P.K., Rodgers, D.W., Riesterer, J.W., Crane, T.J., **McQuarrie, N.**, and Stanford, L.R., 1999, Geologic mapping under EDMAP near Pocatello, Idaho: Geological Society of America Abstracts with Programs, v. 31, p. A-21.
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