

**Peter G. DeCelles**  
Curriculum Vitae  
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CONTACT INFORMATION

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EDUCATION

1980 B.S. in Geology, University of Notre Dame, Notre Dame, IN  
1984 Ph.D. and M.A. in Geology, Indiana University, Bloomington, IN  
1984-1986 Postdoctoral Scholar, Stanford University, Stanford, CA

PROFESSIONAL EXPERIENCE

2007-08 Cox Professor, Stanford University

2007 (part) Guest Professor, University of Bologna, Bologna, Italy

1998-present Professor, Department of Geosciences,  
University of Arizona, Tucson, AZ

1993-98 Associate Professor, Department of Geosciences,  
University of Arizona, Tucson, AZ

1996 (part) Visiting Professor, University of Rome, Rome, Italy

1990-91 NSF-NATO Fellow, University of Bologna, Bologna, Italy

1992-93 Associate Professor, Department of Geological Sciences,  
University of Rochester, Rochester, NY

1986-92 Assistant Professor, Department of Geological Sciences,  
University of Rochester, Rochester, NY

1986 Visiting Professor, Indiana University Geologic Field Station, Cardwell, MT

1984-85 Postdoctoral Scholar, Stanford University, Department of Geology

1984 Summer Research Geologist, Conoco, Inc., Clastics Research Group, Ponca  
City, Oklahoma

1980-84 Associate Instructor, Indiana University, Department of Geology

1979, 81 Associate Instructor, Indiana University Geologic Field Station, Cardwell, MT

1980 Geologist, U.S. Geological Survey

AWARDS and PROFESSIONAL AFFILIATIONS

Laurence L. Sloss Award (Geological Society of America, 2008), Cox Professorship (Stanford University, 2007), American Geophysical Union, Geological Society of America (Fellow), The Explorers Club (Fellow), Arizona Geological Society

PROFESSIONAL SERVICES AND ACTIVITIES

- 2006-09 Field Trip leader and short-course instructor for ExxonMobil
- 2007 Guest Lecturer, Platinum Jubilee, Indian Institute of Statistics, Kolkata
- 2005 Field Trip leader for Devon Energy in Sevier thrust belt
- 2004 Field Trip leader for ExxonMobil in Sevier thrust belt
- 2003 Field Trip leader for ExxonMobil and Midland Valley in Sevier thrust belt  
Short course on tectonics of sedimentary basins, ExxonMobil
- 2002-2005 Panel member, Continental Dynamics Program, National Science Foundation
- 2001-2007 Editor, *Basin Research*
- 2001-2003 Editor, *Journal of the Nepal Geological Society*
- 1999 Sabbatical project: Thrust Belts and Foreland Basins, Cambridge, with co-author G. Mitra.
- 1998 Co-leader of geological field trip for AAPG National Meeting, Salt Lake City. Trip title: Coupled structure and sedimentation through 100 m.y. of thrust wedge evolution, Sevier thrust belt, northern Utah, western Wyoming and southeastern Idaho.
- 1997 Co-leader of geological field trip for GSA National Meeting, Salt Lake City. Trip title: Hinterland to foreland transect through the Sevier orogen, northeast Nevada to north central Utah: Structural style, metamorphism, and kinematic history of a large contractional orogenic wedge.
- 1997-2000 Editorial Board, *Basin Research*
- 1997 Theme Session Co-Chairman (with P. Hennings, Mobil) at 1997 AAPG National Meeting in Dallas. Session title: Coupled tectonics and sedimentation.
- 1995-2004 Editorial Board, *Geology*.
- 1993-2003 Associate Editor, *Geological Society of America Bulletin*.
- 1995 Leader of geological field trip for AEC and Norcen Energy Resources, Ltd., Calgary. Trip title: Kinematic history and synorogenic sedimentation, Sevier thrust belt, Utah and Wyoming.
- 1993 Leader of geological field trip for Norcen Energy Resources, Ltd., Calgary. Trip title: Paleocene synorogenic alluvial fan deposits of the Beartooth Range, Montana.
- 1992 Special Symposium Co-Chairman (with T. F. Lawton) at 1992 SEPM Theme Meeting on the Western Interior Cretaceous Basin. Symposium title: Recent Advances in Interpretation of Thrust-Generated Clastics.

- GSA Rocky Mountain Section field trip Co-Leader (with W. A. Yonkee and J. P. Evans). Trip title: Tectonics of the northern Wasatch Range.
- 1991 Keynote Speaker, GSA Penrose Conference on Development and Evolution of Foreland Basins, Can Boix, Spain. Title: Structural controls on foreland basins.
- 1986-present Reviewer of numerous proposals submitted to U.S. National Science Foundation, Swiss National Science Foundation, Italian CNR, American Chemical Society, National Geographic, NCERC (Canada)
- 1986-present Reviewer of numerous manuscripts for publication in Science, Nature, Tectonics, Journal of Sedimentary Research, Geological Society of America Bulletin and Memoirs, Geological Magazine, Sedimentology, Geology, Journal of Geology, Journal of Structural Geology, Sedimentary Geology, Basin Research, Paleo-cubed, G-cubed, and various books and special publications.
- 1989 Leader of geological field trip for ARCO Research Lab. Trip title: Middle Cenozoic sequence stratigraphy of the San Emigdio Range, California.
- 1987 Symposium Co-Chairman (with T. F. Lawton) at 1987 Annual of GSA, Phoenix, AZ.
- 1986 Leader of SEPM Pacific Section Field Trip. Trip title: Middle Cenozoic depositional systems of the San Emigdio Range, southern California.
- 1985 Leader of geological field trips for Sohio and Tenneco. Trip title: Cenozoic siliciclastic deposystems and volcanism in the San Emigdio Range, southern California.

#### SPEAKING ENGAGEMENTS WITHOUT PUBLISHED ABSTRACTS

- 2008 University of Wyoming  
ExxonMobil Senior Technical Personnel Workshop on Fold-Thrust Belts, Calgary
- 2008 Indian Statistical Institute, Kolkata (3 lectures)  
Stanford University (7 lectures)  
University of California, Santa Cruz
- 2007 Department of Geological Sciences, University of Michigan  
Research Institute for Petroleum Exploration and Development, Beijing, China  
Institute for Tibetan Plateau Research, Chinese Academy of Sciences, Beijing  
Department of Geological and Environmental Sciences, University of Bologna  
Department of Geology, University of Milan
- 2006 Arizona Geological Society  
Colorado Scientific Society, Emmons Lecture  
Department of Geological Sciences, University of Kansas
- 2004 Department of Geology & Geophysics, University of Wisconsin  
University of Potsdam, Germany (two lectures)
- 2003 Department of Geological Sciences, Indiana University  
ExxonMobil Exploration Company, Houston  
Department of Geological Sciences, New Mexico State University  
Department of Earth & Planetary Sciences, University of New Mexico
- 2002 Department of Geological Sciences, Arizona State University  
Institute of Geology, Chinese Academy of Sciences, Beijing

- Department of Geological Sciences, University of Kentucky
- 2000 Department of Geology, Dennison University  
Department of Geology, Northern Arizona University  
Department of Geology, Tribhuvan University, Kathmandu Nepal  
Geological Institute, ETH, Zurich  
Department of Geology and Geophysics, University of Wyoming  
Department of Earth & Space Sciences, UCLA
- 1999 Department of Geological Sciences, Indiana University
- 1998 Department of Earth & Environmental Sciences, Stanford University  
Department of Geological Sciences, University of Houston  
Department of Geological Sciences, University of Oregon  
Guest participant in Chevron Overseas Petroleum Thrust Belts short course
- 1997 Department of Geology & Geophysics, University of Oklahoma
- 1996 Department of Earth & Space Sciences, UCLA  
Department of Geology, Northern Arizona University  
Department of Geological Sciences, University of Rome (2)
- 1993 Department of Earth Sciences, New Mexico State University
- 1992 Department of Geology, McMaster University  
Department of Geosciences, University of Arizona
- 1991 Department of Geological Sciences, Northwestern University  
Department of Mineralogical Science, University of Bologna (2)  
Keynote Speaker, GSA Penrose Conference, Can Boix, Spain.
- 1990 Department of Geology & Institute for Meteoritics, University of New Mexico
- 1989 Department of Geological Sciences, Lehigh University  
Department of Geological Sciences, Cornell University  
ARCO Research Lab, Plano
- 1986 Department of Geology, Stanford University
- 1985 Department of Geological Sciences, University of Rochester  
Department of Geological Sciences, Mackey School of Mines  
University of Nevada-Reno  
Department of Geology, Stanford University  
Conoco, Inc., Research Lab, Ponca City

#### GRADUATE THESES SUPERVISED

22. Fan, M., 2009, geochemistry and basin analysis of Laramide Rocky Mountain Basins, Ph.D. Dissertation, University of Arizona.
21. Ojha, T.P., 2009, Magnestratigraphy, topography and geology of the Nepal Himalaya: a GIS and paleomagnetic approach, Ph.D. Dissertation, University of Arizona, 221 pp.
20. McBride, S., 2008, Sediment provenance and tectonic significance of the Cretaceous Pirgua Subgroup, NW Argentina: M. S. thesis, University of Arizona, 52 pp.
19. Saylor, J., 2008, The late Miocene through Modern evolution of the Zhada basin, south-western Tibet: Ph.D. Dissertation, University of Arizona, 306 pp.
18. Fabijanic, J.M., 2006, Synorogenic sediments in the central Lhasa terrane and implications for the tectonic history of the Tibet prior to the Indo-Asian collision: M.S. thesis, University of Arizona, 62 pp.

17. Leier, A.L., 2005, The Cretaceous evolution of the Lhasa terrane, southern Tibet: Ph.D. Dissertation, University of Arizona, 234 pp.
16. Martin, A.J., 2005, Tectonics of the southern Annapurna Range, central Nepal Himalaya: Ph.D. Dissertation, University of Arizona, 203 pp.
15. Barbeau, D.L., 2003, Application of growth strata and detrital-zircon geochronology to stratigraphic architecture and kinematic history: Ph.D. Dissertation, University of Arizona, 227 pp.
14. Pearson, O.N., 2002, Structural evolution of the central Nepal fold-thrust belt and regional tectonic and structural significance of the Ramgarh thrust: Ph.D. Dissertation, University of Arizona, 241 pp.
13. Robinson, D.M. 2001, Structural and Nd-isotopic evidence for the tectonic evolution of the Himalayan fold-thrust belt, western Nepal and the northern Tibetan Plateau: Ph.D. Dissertation, University of Arizona, 224 pp.
12. McQuarrie, N., 2001, The making of a high elevation orogenic plateau: the central Andes of Bolivia: Ph.D. Dissertation, University of Arizona, 255 pp.
11. Barbeau, D. L., 2000, A flexural model for the Paradox Basin: implications for the tectonics of the Ancestral Rocky Mountains: M. S. thesis, University of Arizona.
10. Garziona, C. N., 2000, Evolution of Thakkhola graben and Paleoelevation in the Southern Tibetan Plateau, Nepal: Ph.D. Dissertation, University of Arizona, 146 pp.
9. Horton, B. K., 1998, Late Cretaceous to Recent evolution of the foreland basin system and associated fold-thrust belt in the central Andes of Bolivia: Ph.D. Dissertation, University of Arizona, 208 pp.
8. Currie, B. S., 1997, Jurassic-Cretaceous evolution of the central Cordilleran foreland-basin system: Ph.D. Dissertation, University of Arizona, 275 pp.
7. Haldar, J. K., 1997, Evolution of Late Cretaceous-Paleocene nonmarine deposystems in the Thistle wedge-top basin, east central Utah: M. S. thesis, University of Arizona, 65 pp.
6. Currie, B. S., 1993, Sedimentology, stratigraphy and petrology of the Jurassic-Cretaceous Morrison and Cedar Mountain formations and relationships between nonmarine deposition and early Cordilleran foreland basin development, NE Utah-NW Colorado: M.S. thesis, University of Rochester, 91 pp.
5. Cole, R. B., 1993, Middle Tertiary sedimentation and volcanism in southern California along a convergent-to-transform plate boundary: Ph.D. dissertation, University of Rochester, 250 pp.
4. Rhoades, M. L., 1992, Provenance of middle Tertiary sandstones of the San Emigdio and Tehachapi Mountains, southern California; M.S. thesis, University of Rochester, 117 pp.
3. Ridgway, K. D., 1992, Cenozoic tectonics of the Denali fault system, Saint Elias Mountains, Yukon Territory: Synorogenic sedimentation, basin development, and deformation along a transform fault system: Ph.D. dissertation, University of Rochester, 400 pp.
2. Cole, R. B., 1989, Early Miocene volcanism in the southern San Joaquin basin, California: origin and tectonic implications based on facies analysis and trace element geochemistry: M.S. thesis, University of Rochester, 120 pp.
1. Pivnik, D. A., 1988, Compositional and sedimentological trends in Late Cretaceous Little Muddy Creek and Sphinx Conglomerates as signatures of timing and style of thrust-related deformation: M.S. thesis, University of Rochester, 122 pp.

## PUBLICATIONS

### Articles in peer-reviewed publications

107. Saylor, J., DeCelles, P.G., Gehrels, G. E., Murphy, M., Zhang, R., and Kapp, P., 2009, Basin Formation in the High Himalaya by Arc-Parallel Extension and Tectonic Damming: Zhada Basin, Southwestern Tibet, Tectonics, in press.
106. Saylor, J., DeCelles, P.G., Quade, J., 2009, Climate-driven environmental change in the Zhada Basin, southwestern Tibetan Plateau: Geosphere, in press.
105. Martin, A.J., Ganguly, J., and DeCelles, P.G., 2009, Metamorphism of Greater and Lesser Himalayan rocks exposed in the Modi Khola valley, central Nepal: Contributions to Mineralogy and Petrology, DOI 10.1007/s00410-009-0424-3.
104. DeCelles, P.G., Foreland basin systems revisited: distinctions among tectonic settings. Submitted for *Recent Advances in Tectonics of Sedimentary Basins*, edited by Busby, C., and Azor, A., Blackwell, in review.
103. Leier, A., Quade, J., DeCelles, P., and Kapp, P., 2009, Stable isotopic results from paleosol carbonate in South Asia: paleoenvironmental reconstructions and selective alteration: Earth and Planetary Science Letters 279, 242-254.

102. DeCelles, P.G., Ducea, M.N., Kapp, P., and Zandt, G., 2009, Cyclicity in Cordilleran orogenic systems: *Nature Geoscience*, 2, 251-257, DOI: 10.1038/NNGEO469.
101. Fuentes, F., DeCelles, P.G., and Gehrels, G.E., 2009, Jurassic onset of foreland basin deposition in northwestern Montana, USA: Implications for along-strike synchronicity of Cordilleran orogenic activity, *Geology*, 37, 379-382. Highlight in *Geology Research Focus Article* by A. Miall.
100. Carrapa, B., DeCelles, P.G., Reiners, P.W., Gehrels, G.E., and Sudo, M., 2009, Apatite triple dating and white mica  $^{40}\text{Ar}/^{39}\text{Ar}$  thermochronology of syntectonic detritus in the Central Andes: a multi-phase tectonothermal history: *Geology*, 37, 407-410. Highlighted in *Science* research review note by B. Hanson.
99. Saylor, J. E., Quade, J., Dettman, D., DeCelles, P. G., Kapp, P. A., 2009, The late Miocene through present paleoelevation history of southwestern Tibet: *American Journal of Science*, v. 309, 1-42.
98. Ojha, T.P., Butler, R.F., DeCelles, P.G., and Quade, J., 2009, Magnetic polarity stratigraphy of the Neogene foreland basin deposits of Nepal, *Basin Research*, doi: 10.1111/j. 1365-2117.2008.00374.x.
97. Pullen, A., Kapp, P., Gehrels, G.E., DeCelles, P.G., Brown, E., Fabijanic, J.M., and Ding, L., 2008, Gangdese retroarc thrust belt and foreland basin deposits in the Damxung area, southern Tibet: *Journal of Asian Earth Sciences*, v. 33, p. 323-336.
96. Carrapa, B., and DeCelles, P.G., 2008, Eocene exhumation and basin development in the Puna of Northwestern Argentina: *Tectonics*, v. 27, TC1015, doi: 10.1029/2007TC002127.
95. Leier, A.L., DeCelles, P.G., Kapp, P., and Gehrels, G.E., 2007, Lower Cretaceous strata of central Tibet: implications for regional deformation and uplift prior to the Indo-Asian collision: *Journal of Sedimentary Research*, v.77, p. 809-825.
94. Garzanti, E., Vezzoli, G., Ando, S., Lavé, J., Attal, M., France-Lanord, C., and DeCelles, P.G., 2007, Quantifying sand provenance and erosion (Marsyandi River, Nepal Himalaya): *Earth and Planetary Science Letters*, v. 258, p. 500-515.
93. DeCelles, P.G., Carrapa, B., and Gehrels, G.E., 2007, Detrital zircon U-Pb ages provide new provenance and chronostratigraphic information from Eocene synorogenic deposits in northwestern Argentina: *Geology*, v. 35, p. 323-326.
92. He, S., Kapp, P., DeCelles, P.G., Gehrels, G.E., and Heizler, M., 2007, Cretaceous – Tertiary geology of the Gangdese arc in the Linzhou area, southern Tibet: *Tectonophysics*, v. 433, p. 15-37, doi:10.1016/j.tecto.2007.01.005.
91. Martin, A.J., Gehrels, G.E., and DeCelles, P.G., 2007, The tectonic significance of (U,Th)/Pb ages of monazite inclusions in garnet from the Himalaya of central Nepal: *Chemical Geology*, doi: 10.1016/j.chemgeo.2007.05.003.
90. Coogan, J.C., and DeCelles, P.G., 2007, Regional structure and kinematic history of the Sevier fold-and thrust belt, central Utah: Reply: *Geological Society of America Bulletin*, v. 119, no. 5/6 doi: 10.1130/B26176.1.
89. Cavazza, W., DeCelles, P.G., Fellin, M.G., and Paganelli, L., 2007, The Miocene Saint-Florent basin in northern Corsica: stratigraphy, sedimentology, and tectonic implications: *Basin Research*, doi: 10.1111/j.1365-2117.2007.00334.x.
88. Leier, A.L., Kapp, P., Gehrels, G.E., and DeCelles, P.G., 2007, Detrital zircon geochronology of Carboniferous-Cretaceous strata in the Lhasa terrane, southern Tibet: *Basin Research*, v. 19, p. 361-378.
87. DeCelles, P.G., Kapp, P., Ding, L., and Gehrels, G.E., 2007, Cretaceous-mid Tertiary basin development in the central Tibetan Plateau: Changing environments in response to changing climate, tectonic partitioning, and elevation gain: *Geological Society of America Bulletin*, v. 119, p. 654-680, doi: 10.1130/B26074.1.
86. Kapp, P., DeCelles, P.G., Gehrels, G.E., Heizler, M., and Ding, L., 2007, Geological records of the Cretaceous Lhasa-Qiangtang and Indo-Asian collisions in the Nima basin area, central Tibet, *Geological Society of America Bulletin*, v. 119, p. 917-932; doi:10.1130/B26033.1.
85. Kapp, P., DeCelles, P.G., Leier, A.L., Fabijanic, J.M., He, S., Pullen, A., Gehrels, G.E., and Ding, L., 2007, The Gangdese retroarc thrust belt revealed: *GSA Today*, V. 17, number 7, p 4-9.
84. Leier, A., DeCelles, P.G., and Kapp, P., 2007, The Takena Formation of the Lhasa terrane, southern Tibet: the record of a Late Cretaceous retroarc foreland basin: *Geological Society of America Bulletin*, v. 119, p. 31-48.
83. DeCelles, P.G., Kapp, P., Fan, M., Quade, J., Dettman, D., and Ding, L., 2007, High and dry in the central Tibetan Plateau during the Oligocene: *Earth and Planetary Science Letters*, v. 253, p. 389-401.

82. Szulc, A.G., Najman, Y., Sinclair, H.D., Pringle, M., Bickle, M., Chapman, H., Garzanti, E., Ando, S., Huyghe, P., Mugnier, J-L., Ojha, T., and DeCelles, P., 2006, Tectonic evolution of the Himalaya constrained by detrital  $^{40}\text{Ar}$ - $^{39}\text{Ar}$ , Sm-Nd and petrographic data from the Siwalik foreland basin succession, SW Nepal: *Basin Research*, v. 18, p. 375-392.
81. Yoshida, M., Upreti, B.N., DeCelles, P.G., Gehrels, G.E., and Ojha, T.P., 2006, Basement history and provenance of the Tethys sediments of the Himalaya: an appraisal based on recent geochronologic and tectonic data: *Bulletin of the Tethys Geological Society*, Cairo, v. 1, p. 1-6.
80. Gehrels, G.E., DeCelles, P.G., Ojha, T.P., and Upreti, B.N., 2006, Geologic and U-Pb geochronologic evidence for early Paleozoic tectonism in the Dadeldhura thrust sheet, far-west Nepal Himalaya: *Journal of Asian Earth Sciences*, v. 28, p. 385-408.
79. Robinson, D.M., DeCelles, P.G., and Copeland, P., 2006, Tectonic evolution of the Himalayan thrust belt in western Nepal: implications for channel flow models: *Geological Society of America Bulletin*, v. 118; no. 7/8; p. 865–885; doi: 10.1130/B25911.1, p. 865-885.
78. DeCelles, P.G., and Coogan, J.C., 2006, Regional structure and kinematic history of the Sevier fold-thrust belt, central Utah: Implications for the Cordilleran magmatic arc and foreland basin system, *Geological Society of America Bulletin*, v. 118; no. 7/8; p. 841–864; doi: 10.1130/B25759.1, p. 841-864.
77. Gehrels, G.E., DeCelles, P.G., Ojha, T.P., and Upreti, B.N., 2006, Geologic and U-Th-Pb geochronologic evidence for early Paleozoic tectonism in the Kathmandu thrust sheet, central Nepal Himalaya: *Geological Society of America Bulletin*, v. 118, p. 185-198; doi:10.1130/B25753.1.
76. McQuarrie, N., Horton, B.K., Zandt, G., Beck, S., and DeCelles, P.G., 2005, Lithospheric evolution of the Andean fold–thrust belt, Bolivia, and the origin of the central Andean plateau: *Tectonophysics*, v. 399, p. 15-37.
75. Pearson, O. N., and DeCelles, P. G., 2005, Structural geology and regional tectonic significance of the Ramgarh thrust, Himalayan fold-thrust belt of Nepal: *Tectonics*, Vol. 24, No. 4, TC400810.1029/2003TC001617.
74. Leier, A., DeCelles, P.G., and Pelletier, J., 2005, Mountains, monsoons, and megafans: *Geology*, v. 33, p. 289-292.
73. Martin, A.J., DeCelles, P.G., Gehrels, G.E., Patchett, P.J., and Isachsen, C., 2005, Isotopic and structural constraints on the location of the Main Central thrust in the Annapurna Range, central Nepal Himalaya, *Geological Society of America Bulletin*, v. 117, p. 926–944; doi: 10.1130/B25646.1.
72. Ross, G. M., Patchett, P.J., DeCelles, P.G., Heaman, L., Rosenberg, E., and Giovanni, M., 2005, Evolution of the Cordilleran orogen (southwestern Alberta) inferred from detrital mineral geochronology and Nd isotopes in the foreland: *Geological Society of American Bulletin*, v. 117, p. 746-763, doi 10.1130/B25564.1.
71. DeCelles, P.G., Gehrels, G.E., Najman, Y., Martin, A.J., Carter, A., and Garzanti, E., 2004, Detrital geochronology and geochemistry of Cretaceous–Early Miocene strata of Nepal: Implications for timing and diachroneity of initial Himalayan orogenesis, *Earth and Planetary Science Letters*, v. 227, p. 313-330, doi:10.1016/j.epsl.2004.08.019.
70. Ducea, M., Valencia, V.A., Shoemaker, S., Reiners, P.W., DeCelles, P.G., Maria Fernanda Campa, M.F., Morán-Zenteno, and Ruiz, J., 2004, Rates of sediment recycling beneath the Acapulco trench: Constraints from (U-Th)/He thermochronology: *Journal of Geophysical Research*, v. 109, B09404, doi:10.1029/2004JB003112.
69. Horton, B.K., Constenius, K.N., and DeCelles, P.G., 2004, Tectonic control on coarse-grained foreland-basin sequences: An example from the Cordilleran foreland basin, Utah: *Geology*, v. 32, p. 637-640.
68. DeCelles, P.G., 2004, Late Jurassic to Eocene evolution of the Cordilleran thrust belt and foreland basin system, western USA: *American Journal of Science*, v. 304, p. 105-168.
67. Quade, J., English, N., and DeCelles, P.G., 2003, Silicate versus carbonate weathering in the Himalaya: a comparison of the Arun and Seti River watersheds: *Chemical Geology*, v. 202, p. 275-296.
66. Conder, J., Butler, R.F., DeCelles, P.G., and Constenius, K.N., 2003, Paleomagnetic determination of vertical-axis rotations within the Charleston – Nebo salient, Utah: *Geology*, v. 31, p. 1113-1116.
65. Gehrels, G.E., DeCelles, P.G., Martin, A., Ojha, T.P., Pinhassi, G., and Upreti, B.N., 2003, Initiation of the Himalayan orogen as an early Paleozoic thin-skinned thrust belt: *GSA Today*, v. 13, no. 9, p. 4-9.
64. Robinson, D.M., DeCelles, P.G., Garzzone, C.N., Pearson, O.N., Harrison, T.M., and Catlos, E.J., 2003, Kinematic model for the Main Central thrust in Nepal: *Geology*, v. 31, p. 359-362.
63. Garzzone, C.N., DeCelles, P.G., Hodkinson, D.G., Ojha, T.P., and Upreti, B.N., 2003, East-west extension and Miocene environmental change in the southern Tibetan plateau: Thakkhola graben, central Nepal: *Geological Society of America Bulletin*, v. 115, p. 3-20.

62. DeCelles, P. G., and Horton, B. K., 2003, Implications of early-middle Tertiary foreland basin development for the history of Andean crustal shortening in Bolivia: *Geological Society of America Bulletin*, v. 115, p. 58-77.
61. DeCelles, P.G., Robinson, D.M., and Zandt, G., 2002, Implications of shortening in the Himalayan fold-thrust belt for uplift of the Tibetan Plateau, *Tectonics*, v. 21, no. 6, 1062, doi:10.1029/2001TC001322.
60. Robinson, D.M., DeCelles, P.G., Patchett, P.J. and Garzione, C.N., 2001, The kinematic history of the Nepalese Himalaya interpreted from Nd isotopes: *Earth and Planetary Science Letters*, v. 192, p. 507-521.
59. McQuarrie, N., and DeCelles, P. G., 2001, Geometry and structural evolution of the Central Andean backthrust belt, Bolivia: *Tectonics*, v. 20, p. 669-692.
58. DeCelles, P. G., Robinson, D. M., Quade, J., Ojha, T.P., Garzione, C.N., Copeland, P., and Upreti, B. N., 2001, Stratigraphy, structure, and tectonic evolution of the Himalayan fold-thrust belt in western Nepal: *Tectonics*, v. 20, p. 487-509.
57. Horton, B. K., and DeCelles, P. G., 2001, Modern and ancient fluvial megafans in the foreland basin system of the central Andes, southern Bolivia: implications for drainage network evolution in fold-thrust belts: *Basin Research*, v. 13, p. 43-64.
56. DeCelles, P. G., and DeCelles, P. C., 2001, Rates of shortening, propagation, underthrusting, and flexural wave migration in continental orogenic systems: *Geology*, v. 29, p. 135-138.
55. Garzione, C. N., Quade, J., DeCelles P. G., and English, N. B., 2000, Predicting paleoelevation of Tibet and the Nepal Himalaya from  $d^{18}O$  vs. altitude gradients in meteoric water across the Nepal Himalaya: *Earth and Planetary Science Letters*, v. 183, p. 215-230.
54. Garzione, C. N., Dettman, D. L., Quade, J., DeCelles, P. G., and Butler, R. F., 2000, High times on the Tibetan Plateau: paleoelevation of the Thakkhola graben, Nepal: *Geology*, v. 28, p. 339-342.
53. English, N. B., Quade, J., DeCelles, P. G., and Garzione, C. N., 2000, Geologic control of Sr and major element chemistry in Himalayan rivers, Nepal: *Geochimica et Cosmochimica Acta*, v. 64, p. 2549-2566.
52. DeCelles, P. G., Gehrels, G. E., Quade, J., LaReau, B., and Spurlin, M., 2000, Tectonic implications of U-Pb detrital zircon ages from the Himalayan orogenic belt, Nepal: *Science*, v. 288, p. 497-499.
51. Ojha, T. P., Butler, R. F., Quade, J., DeCelles, P. G., Richards, D., and Upreti, B. N., 2000, Magnetic polarity stratigraphy of the Neogene Siwalik Group at Khutia Khola, Farwestern Nepal: *Geological Society of America Bulletin*, v. 112, p. 424-434.
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33. Rhoades, M.L.\*, and DeCelles, P.G., 1995, The provenance of middle Tertiary sandstones of the San Emidio Range and Tehachapi Range, southern California: AAPG, SEPM, SEG Pacific Section Meeting, abstracts with program.
32. Cavazza, W.\*, and DeCelles, P. G., 1995, Ductile extensional deformation and Miocene supra-detachment sedimentation in the Saint Florent basin (northern Corsica, France): 1995 Annual Meeting - IGCP Project No. 369, Mamaia (Romania), Abstracts and Program Volume, p. 25.
31. DeCelles, P.G.\*, Mitra, G., and Lawton, T.F., 1993, The Canyon Range culmination, central Utah Sevier thrust belt: longterm control on synorogenic sedimentation in Cordilleran foreland basin: Geological Society of America Abstracts with Programs, 25.
30. Cole, R.B.\*, and DeCelles, P.G., 1993, Control by ridge-trench interactions on mid-Tertiary basin development and volcanism, western California: Geological Society of America Abstracts with Programs, 25, in press.
29. DeCelles, P.G.\*, Pile, H.T., and Currie, B.S., 1992, Regional stratigraphic analysis of Jurassic-Cretaceous nonmarine rocks, central Western Interior Basin: SEPM Theme Meeting on Western Interior Basin, Ft. Collins, CO, 22.
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27. DeCelles, P.G.\*, and Burden, E.T., 1992, A field test of theoretical models of overfilled foreland basins, central Wyoming: American Association of Petroleum Geologists Bulletin, 77,
26. Ridgway, K.D.\*, DeCelles, P.G., and Cole, R.B., 1992, Influence of Laramide thrusting on Paleogene alluvial-fan conglomerates, Bighorn Range, Wyoming: SEPM Theme Meeting on Western Interior Basin, Ft. Collins, CO, 56.
25. Cole, R.B.\*, and DeCelles, P.G., 1991, Sedimentology and petrography as indicators of variable depositional processes within a progradational pyroclastic sequence, southern San Joaquin basin, California: Geological Society of America, Abstracts with Programs, 23, 14.
24. Ridgway, K.D.\*, Cole, R.B., and DeCelles, P.G., 1991, Unroofing history, alluvial-fan facies and deformation of Paleogene synorogenic conglomerates, Bighorn Range, Wyoming: Geological Society of America, Abstracts with Programs, 23, A131.
23. Ridgway, K.D.\*, and DeCelles, P.G., 1991, Tectonic controls on depositional systems in nonmarine strike-slip basins: Denali fault system, Yukon Territory: Geological Society of America, Abstracts with Programs, 23, A92.
22. Ridgway, K.D., and DeCelles, P.G., 1991, Stream-dominated alluvial-fan and lacustrine depositional systems in Cenozoic strike-slip basins, Denali fault system, Yukon Territory, Canada: Geological Society of America, Abstracts with Programs, 23, A462.
21. Cavazza, W.\*, and DeCelles, P.G., 1991, Geometric reconstruction of Miocene submarine canyons in eastern Calabria (southern Italy): International Association of Sedimentologists, Bergen, Norway.
20. DeCelles, P.G.\*, 1990, Comparison of a major syntaxial foreland-basin fluvial system in the Cretaceous Cloverly Formation of central Wyoming with fluvial systems in the Andean foreland basin of Peru and Bolivia: Geological Society of America, Rocky Mountain Section, Abstracts with Programs, 22, A7-A8.

19. DeCelles, P.G.\* and Gray, M.B., 1990, Use of synorogenic conglomerates to retrodeform thrust-faulted uplifts: 13th International Sedimentological Congress, International Association of Sedimentologists, Nottingham, 125-126.
18. DeCelles, P.G., Gray, M.B.\*, Ridgway, K.D., Pequera, N., Cole, R.B., Srivastava, P., and Pivnik, D.A., 1990, Constraints on kinematics of foreland uplift from structural and conglomerate provenance data, Beartooth Range, Montana and Wyoming: Geological Society of America, Rocky Mountain Section, Abstracts with Programs, 22, A8.
17. Ridgway, K.D.\*, and DeCelles, P.G., 1990, Convergent and divergent strike-slip basins along the Denali fault system, St. Elias Mountains, Yukon Territory, Canada: Geological Society of America, Abstracts with Programs, 22, A228.
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15. Graham, S.A.\*, DeCelles, P.G., Carroll, A.R., and Goodman, E.D., 1990, Middle Tertiary contractile deformation, uplift, extension, and rotation in the San Emigdio Range, southern California: American Association Petroleum Geologists Bulletin, 74, 665.
14. Sharma, M.\*, Cole, R.B., DeCelles, P.G., and Basu, A.R., 1990, Basalt-dacite volcanism by MORB-continent crust interaction: Sr-Nd isotopic and trace elemental evidence, Tecuya volcanics, southern California: American Geophysical Union Midyear Meeting Abstracts, 71, 665.
13. DeCelles, P.G.\*, Cole, R.B., Gray, M.B., Pequera, N., Ridgway, K.D., Pivnik, D., and Srivastava, P., 1989, Paleocene-Eocene synorogenic sedimentation, northwestern Wyoming, U.S.A.: International Association of Sedimentologists, International Fluvial Congress, Barcelona, 117.
12. Ridgway, K.D.\*, Cameron, A., Sweet, A.R., and DeCelles, P.G., 1989, Evolution of a strike-slip basin as defined by sedimentology, palynology and organic petrology, St. Elias Mountains, Yukon Territory, Canada: Geological Society of America, Abstracts with Programs, 21, A50.
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10. Sharma, M., Basu, A.R.\*, and DeCelles, P.G., 1989, Nd-Sr isotopes and trace element geochemistry of Amazonian fluvial sands from Bolivia and Peru: implications for magma contamination in the Central Volcanic Zone (CVZ) and tectonics of the Andes: Geological Society of America, Abstracts with Programs, 21, A190.
9. Meyers, J.H.\*, Schwartz, R.K., and DeCelles, P.G., 1989, Influence of pre-Laramide tectonic partitioning of the Wyoming foreland basin on Early Cretaceous sedimentation, Geological Society of America, Abstracts with Programs, 20, 117.
8. DeCelles, P.G.\*, 1988, Eustatic vs. tectonic controls on middle Cenozoic sedimentation in the San Joaquin basin, California: Geological Society of America, Abstracts with Programs, 20, A379-A380.
7. Schwartz, R.K.\*, and DeCelles, P.G., 1987, Temporally linked thrusting, intraforeland uplift and progradational coarsening in the nascent (pre-Turonian) foreland of southwest Montana: Geological Society of America, Abstracts with Programs, 19, 836.
6. DeCelles, P.G.\*, and Schmidt, C.J., 1987, Synorogenic sedimentation and timing of foreland thrusting, southwest Montana: Geological Society of America, Abstracts with Programs, 19, 638.
5. Suttner, L.J.\*, DeCelles, P.G., and Berkhouse, G.A., 1985, Tectonic controls on Early Cretaceous sedimentation in the foreland basin of western Montana: International Association of Sedimentologists, International Symposium on Foreland Basins, Fribourg, 120.
4. DeCelles, P.G.\*, 1984, Non-marine sedimentation in a tectonically partitioned foreland basin: the Kootenai Formation, southwestern Montana: Geological Society of America, Abstracts with Programs, 16.
3. DeCelles, P.G.\*, and Gutschick, R.C., 1983, Mississippian wood-grained chert in western United States and its significance: Geological Society of America, Abstracts with Programs, 15, 555.
2. Schwartz, R.K.\*, DeCelles, P.G., and Suttner, L.J., 1983, Tectonic control on Early Cretaceous foreland basin evolution and sedimentation in southwestern Montana: Geological Society of America, Abstracts with Programs, 15, 682.
1. DeCelles, P.G.\*, 1982, Sediment dispersal in the lower Kootenai Formation (Lower Cretaceous), southwestern Montana: Geological Society of America, Abstracts with Programs, 14, 309.

RESEARCH GRANTS

- 2009-2010 One year extension of Investigation of syncollisional extension and basin development in the high Himalaya: National Science Foundation.
- 2007-2008 A New Geological Map of Nepal: National Geographic Society.
- 2007-2010 Convergent Orogenic Systems Analysis: ExxonMobil.
- 2007-2010 Collaborative Research: Stratigraphic signatures of orogeny, assessing the timing of initial Andean crustal shortening: National Science Foundation.
- 2005-2008 Global Assessment of Fold-Thrust Belts and Foreland Basins: ExxonMobil.
- 2005-2007 Collaborative Research: Investigation of syncollisional extension and basin development in the high Himalaya: National Science Foundation.
- 2003-2006 Cretaceous-Earliest Tertiary Basin Development, Deformation, and Magmatism in Southern Tibet: Implications for Pre-Indo-Asian Collision Lithospheric Structure: National Science Foundation.
- 2003-2004 Geostructure Partnership, ExxonMobil.
- 2002-2004 A test of the out-of-sequence model for the Main Central thrust, western Nepal: National Science Foundation.
- 2002-2004 Dissertation support and fellowship for David Barbeau, ExxonMobil URC.
- 2002-2003 Geostructure Partnership, ExxonMobil.
- 2001-2003 Early Paleozoic tectonism in the Himalaya: National Science Foundation.
- 2001-2002 Geostructure Partnership, ExxonMobil.
- 1999-2001 3-D kinematic evolution of the Charleston-Nebo salient, Sevier fold-thrust belt: National Science Foundation.
- 1999-2001 Nd isotopic study of foreland basin sediments and source terranes of the Himalayan fold-thrust belt: Implications for regional tectonic history: National Science Foundation.
- 1998-2000 Late Cretaceous-Tertiary foreland basin evolution in the Eastern Cordillera of southern Bolivia: National Science Foundation.
- 1999-2000 Geostructure Partnership, British Petroleum.  
Geostructure Partnership, Conoco.
- 1998-1999 Geostructure Partnership, British Petroleum.  
Geostructure Partnership, Conoco.
- 1998 British Petroleum, for support of Ph.D. student Brian Horton's research in the Andes.
- 1998-2000 The  $^{87}\text{Sr}/^{86}\text{Sr}$  record of Himalayan paleorivers during the Neogene: patterns and causes: National Science Foundation
- 1996-1998 Kinematic history of a retroarc fold-thrust orogen: the Sevier orogenic belt, Utah and Wyoming: National Science Foundation.

- 1995-1997 Erosional unroofing of the Nepal Himalayas over the past 12 m.y.:  $^{87}\text{Sr}/^{86}\text{Sr}$  and sedimentary petrological indicators from Siwalik foreland deposits: National Science Foundation.
- 1995 Miocene-Pliocene erosional unroofing of the Himalayan thrust belt, Nepal: University of Arizona Foundation.
- 1994 Cooperative research between the University of Arizona Geosciences Department and CogniSeis Development, Inc.: GeoSec software grant.
- 1993-1996 Tectonic controls on distal, thrust-derived sediment, Bighorn basin, Wyoming: National Science Foundation.
- 1993-1995 Reconstruction of thrust-wedge taper in the Wyoming-Utah Sevier thrust belt: National Science Foundation.
- 1992-1994 Incremental retrodeformation of NE Utah thrust belt using late Cretaceous-Paleocene synorogenic conglomerates: National Science Foundation.
- 1991-1993 Regional sequence-stratigraphic and geochronologic analysis of Cordilleran foreland basin, Wyoming and Idaho: National Science Foundation.
- 1990-1992 Middle Cenozoic syntectonic sedimentation along the Denali fault, Yukon Territory, Canada: American Chemical Society, Petroleum Research Fund.
- 1990-1991 Tectonic implications of Neogene submarine-slope clastics, southern Italy: National Science Foundation-NATO Fellowship.
- 1989 Acquisition of automated X-ray diffractometer: National Science Foundation.
- 1989-1991 Facies and provenance modeling of thrust-derived synorogenic conglomerates: National Science Foundation.
- 1988-1990 Regional tectonic-stratigraphic analysis of Late Jurassic-Early Cretaceous Cordilleran foreland basin: National Science Foundation.
- 1987-1989 Petrologic controls and tectonic setting of a middle Tertiary fan-delta sequence, southern California: American Chemical Society, Petroleum Research Fund.

#### COURSES TAUGHT

Undergraduate: Sedimentology & Stratigraphy, Introductory Geology, Summer Field Geology

Graduate: Advanced Physical Sedimentology, Thrust Belts & Foreland Basins, Basin Analysis, Sedimentary Petrology, Sequence Stratigraphy, various seminars

#### RESEARCH INTERESTS

Regional structural evolution of orogenic belts and sedimentary basins.

Tectonics and sedimentation in thrust-faulted and strike-slip settings.

Petrology and provenance (conventional and geochemical) of clastic sediments and sedimentary rocks.

Physical sedimentology and depositional systems in fluvial, alluvial, and marine settings.

#### GRADUATE STUDENTS AND POST-DOCS

Pivnik, D. A., 1988, M.S., now with Apache.

Ridgway, K. D., 1992, Ph.D., now tenured Associate Professor, Purdue University.

Cole, R. B., 1993, Ph.D., now tenured Associate Professor, Allegheny College.

Rhoades, M. L., 1992, M.S., now Instructor, Empire State College.

Haldar, J. K., 1997, M. S., now in software industry.

Coogan, J.C., 1994-95, Postdoctoral scholar, now Endowed Associate Professor, Western State College, Gunnison Colorado.

Currie, B. S., 1997, Ph.D., now tenured Associate Professor, Miami University.

Horton, B. K., Ph.D., 1998, now tenured Associate Professor, University of Texas, Austin.

Constenius, K.N., 1999-2001, Postdoctoral scholar, now private consultant in petroleum industry.

Garziona, C. N., 2000, Ph.D., now tenured Associate Professor, University of Rochester.

Barbeau, D. L., 2000, M. S., 2004 Ph.D., now Assistant Professor, University of South Carolina.

McQuarrie, N., 2001, Ph.D., now Assistant Professor, Princeton University.

D. M. Robinson, 2001, Ph.D., now Assistant Professor, University of Alabama.

O.N. Pearson, 2002, Ph.D., now geologist with USGS, Denver.

Aaron J. Martin, 2005, Ph.D., now Assistant Professor, University of Maryland.

Andrew Leier, 2005, Ph.D., now Assistant Professor, University of Calgary.

Facundo Fuentes, 2005, M.S., now studying for Ph.D., University of Arizona.

J. Matthew Fabijanic, 2005, M.S., now exploration geologist with ExxonMobil Corporation.

Joel Saylor, 2008, Ph.D., now Postdoctoral Fellow, University of Texas-Austin.