

**NICHOLAS CHRISTIE-BLICK**

**Abbreviated Curriculum Vitae**

1 August, 2011

Lamont-Doherty Earth Observatory of Columbia University  
P.O. Box 1000, 61 Route 9W, Palisades, New York 10964-8000  
Cell: (845) 709-2320. FAX: (845) 365-8150.

[ncb@ldeo.columbia.edu](mailto:ncb@ldeo.columbia.edu)

<http://www.ldeo.columbia.edu/~ncb>

Date and place of birth: 3 June, 1953; St Albans, UK. U.S./British citizen.

**DEGREES**

**Ph.D.**, University of California, Santa Barbara, 1979 (Geology). Advisor: John C. Crowell.

**B.A.** (Honours), University of Cambridge (King's College), UK, 1974 (Natural Sciences/Geology). [M.A. awarded, 1978.]

**PROFESSIONAL CAREER**

**Professor**, Department of Earth and Environmental Sciences and Lamont-Doherty Earth Observatory of Columbia University<sup>1</sup>, Palisades, New York 10964-8000.  
[**Assistant Professor**, 1983-1987. **Associate Professor**, 1987-1993.  
Promotion to tenure, 1989. **Professor**, 1993 to present. **Associate Chair**, 2002-2004.  
**Chair**, and **Deputy Director**, Lamont-Doherty Earth Observatory, 2004-2006.]

**Senior Research Geologist** (Basin Exploration Division), Exxon Production Research Company<sup>2</sup>, P.O. Box 2189, Houston, Texas 77252-2189, 1981-1983.  
[**Research Geologist**, 1980-1981.]

**Postdoctoral Assistant Research Geologist**, Department of Geological Sciences<sup>3</sup>, University of California, Santa Barbara, California 93106, 1979-1980.

**CURRENT RESEARCH: SEDIMENTARY GEOLOGY AND TECTONICS**

**Sedimentation Processes, Crustal Deformation, and Deep-Time Earth History**

Current research in sedimentary geology/sequence stratigraphy and tectonics is aimed at such varied topics as how sedimentation responds to sea-level change, deformation and other phenomena; mechanisms of crustal extension, with particular reference to the low-angle normal fault paradox; and the geology of the Neoproterozoic Era, an interval of time that is unusual for its climatic extremes and as a threshold in the history of life. Much of the work is collaborative, with emphasis on challenging conventional thinking and resolving outstanding disagreements.

I am lead proponent for an International Continental Scientific Drilling Program (ICDP) initiative, Testing the Extensional Detachment Paradigm: A Borehole Observatory in the Sevier Desert Basin.

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<sup>1</sup> Formerly Department of Geological Sciences (before 1996) and Lamont-Doherty Geological Observatory (before 1993).

<sup>2</sup> Now ExxonMobil Upstream Research Company (since 2000).

<sup>3</sup> Now Department of Earth Science (since 2005).

### **RECENT AWARDS AND HONORS**

**Distinguished Alumnus Award**, Department of Geological Sciences<sup>3</sup>, University of California, Santa Barbara, 2005.

**2003 Outstanding Paper in the Journal of Sedimentary Research**, Stephen F. Pekar, Nicholas Christie-Blick, Kenneth G. Miller, and Michelle A. Kominz, "Quantitative constraints on the origin of stratigraphic architecture at passive continental margins: Oligocene sedimentation in New Jersey, U.S.A." *Journal of Sedimentary Research*, v. 73, p. 227-245. Awarded in 2005.

**Best Teacher Award**, selected by undergraduate students in the Department of Earth and Environmental Sciences of Columbia University, 2010<sup>4</sup>; and by graduate students in 2008 and 1996<sup>5</sup>.

**Fellow, Geological Society of America**, 1995.

### **MEMBERSHIPS IN PROFESSIONAL SOCIETIES**

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

### **COURSES TAUGHT**

#### **Columbia University**

<sup>6</sup>Frontiers of Science (4 pts), 2008-2010, and planned for Fall, 2012

Geological Excursion to Death Valley, California (2 pts), 2002-2006, 2008-2009, 2011 and planned for Spring, 2013

Sedimentary Geology (4 pts), 1997, 1999, 2001, 2003, 2005, 2007, 2010, and planned for Fall, 2013

Sedimentary Environments and Facies (3 pts), 1985<sup>7</sup>, 1987<sup>7</sup>, 1990, 1994, 1999, 2002

Sedimentary Basins (3 pts), 1985, 1988, 1992, 1994, 1998, 2000

Introduction to Sedimentary Geology (4 pts), 1984-1986<sup>7</sup>, 1991, 1993, 1995

Introduction to Earth Sciences II (with J.D. Hays; 3-4 pts), 1988, 1989 (twice), 1991

Principles of Stratigraphy (3 pts), 1983

#### **Seminars:**

Stratigraphy: Sedimentation and Tectonics (1 pt), 2011

Structural Geology: Tectonic Evolution of the Norwegian Caledonides (with H.K. Brueckner; 1 pt), 2010

Structural Geology: Basin and Range Extensional Tectonics (2 pts), 2004

Stratigraphy: Geological Interpretation of Seismic Reflection Data (2 pts), 2000

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<sup>4</sup> The inaugural year of this annual award.

<sup>5</sup> Second place in 1995. The award for the 2007-08 academic year was made in January, 2009.

<sup>6</sup> Frontiers of Science integrates modern science into Columbia's famed Core Curriculum, and since its first full year in 2004-05 the course has been a requirement for every Columbia College undergraduate. I am among those sharing the role of chair for the course (since Fall, 2010).

<sup>7</sup> These courses were team-taught with J.E. Sanders during the years indicated.

Stratigraphy: Trends and Events in Terminal Proterozoic Earth History (2 pts), 1996

Stratigraphy: Seismic and Sequence Stratigraphy (2 pts), 1993

Stratigraphy: Interpretation of Seismic Reflection Profiles (2 pts), 1988

Sedimentology: Sheet Sandstones (1 pt), 1986

Structural Geology: Regional Tectonics of Western North America  
(with J. Helwig; 2 pts), 1984

**Field Seminars:**

Basin and Range Extensional Tectonics (1 pt, 12 days), 2005

Cretaceous Sevier Orogen-Foreland Transect of Central Utah (2 pts, 12 days), 2001

Foreland Sedimentation and Tectonics in the Canadian Rocky Mountains  
(2 pts, 12 days), 1998

Tectonics and Sedimentation in Eastern California and Adjacent Nevada  
(2 pts, 12 days), 1995

Sedimentation and Tectonics in the Cretaceous Foreland Basin and Adjacent Orogen,  
Utah, Wyoming and Idaho (2 pts, 12 days), 1992

Modern Carbonate Environments of Southern Florida (1 pt, 3 days), 1989

Tectonics and Sedimentation in Southern California (2 pts, 12 days), 1988

Tectonic and Stratigraphic Evolution of Southern Appalachians (1 pt, 7 days), 1984

**Biosphere 2 Center:**

Guest lectures, 1999, 2000.

**Short Course**

Short course in sequence stratigraphy, Universidad del Pais Vasco, Bilbao, Spain, 1992

**Guest Classes at Other Universities**

University of Canterbury, Christchurch, New Zealand, 2007

Williams College, Massachusetts, 2003

Oxford University, Oxford, UK, 1996

University of Missouri, Columbia, Missouri, 1995

**Exxon Production Research Company**

Fundamentals of structural analysis, 1981-1983

Basin tectonics (field school) – segments on strike-slip and extensional tectonics, 1982-1983

**POSTDOCTORAL RESEARCH SCIENTISTS**

**Stephen F. Pekar.** Postdoctoral Research Scientist, 2000-2003. Calibration of the stratigraphic response to glacioeustatic change using oxygen isotopic data (Oligocene, New Jersey). Present position: Associate Professor, Queens College, City University of New York.

**Linda E. Sohl.** Postdoctoral Research Scientist, 2000-2001. Exploring the limits of life on Earth: Environmental extremes of the Neoproterozoic “super” glacial and interglacial

cycles. Present position: Associate Research Scientist, Center for Climate Systems Research, Goddard Institute for Space Studies, New York.

**Martin J. Kennedy.** Postdoctoral Research Associate, collaborative with L.A. Derry at Cornell University, 1994-1996. Research in stable isotope geochemistry of carbonate glacial cycles and radiogenic tracers in terrestrial ecosystems. Present position: Professor, University of Adelaide, Australia.

**Sanjeev Gupta.** Postdoctoral Research Scientist, 1994-1995. Controls on sequence geometry and bounding surfaces in ramp settings. Present position: Professor, Imperial College, London, UK.

**John P. Grotzinger.** Postdoctoral Fellow, 1985-1986. Tectonics and sedimentation of the 1.9 Ga Kilohigok foreland basin, northwest Canadian shield. Member, National Academy of Sciences (since 2002). Present position: Fletcher Jones Professor of Geology, California Institute of Technology, Pasadena.

## **RESEARCH OF GRADUATE STUDENTS**

### **Current Students**

**Rafael Almeida.** Dissertation topic: Mechanisms of unroofing and crustal extension in southern Nevada. Ph.D. expected, 2012.

**Margaret Reitz.** Dissertation topic: Structure of the Calabrian forearc: multi-stage subduction-rollback in a confined oceanic basin (Research Advisors, M.S. Steckler and L. Seeber). Ph.D. expected, 2012.

**Marc A. Vankeuren.** Dissertation topic: Re-evaluation of Miocene-Pliocene detachment faults in southeastern Idaho. Ph.D. expected, 2014.

### **Ph.D.s Completed**

**Andrew S. Madof (Ph.D., 2010).** Dissertation topic: Noneustatic controls on sediment accumulation in the upper Cretaceous of western Colorado and Pliocene to Holocene of offshore Louisiana. Present position: Chevron, Houston, Texas.

**Byrdie Renik (Ph.D., 2009)<sup>8</sup>.** Dissertation topic: Distribution of Neogene extension and strike slip in the Death Valley region, California-Nevada, with implications for palinspastic reconstruction and models of normal faulting. NSF Graduate Research Fellow. Present position: ExxonMobil Upstream Research Company, Houston, Texas.

**Katherine C. Leonard (Ph.D., 2009).** Dissertation topic: Antarctic snow drift processes (Research Advisor, B. Tremblay, McGill University). Present position: Cooperative Institute for Research in Environmental Science (CIRES), University of Colorado, Boulder.

**Ganqing Jiang (Ph.D., 2002).** Dissertation topic: Neoproterozoic sequence and chemostratigraphy. Present position: Associate Professor (with tenure), University of Nevada, Las Vegas.

**Linda E. Sohl (Ph.D., 2000).** Dissertation topic: Paleoclimatology of the Neoproterozoic interglacial to Marinoan glacial succession (~650-575 Ma), central Flinders Ranges, South Australia. Heezen Prize. Present position: Associate Research Scientist, Center for Climate Systems Research, Goddard Institute for Space Studies, New York.

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<sup>8</sup> Ph.D. defended with distinction.

**André A. Bender (Ph.D., 2000).** Dissertation topic: Mechanisms of intracratonic and rift basin formation: Insights from Canning basin, northwest Australia (Co-advisor, G.D. Karner; defended in 1998). Present position: Petrobras Research Center (CENPES), Rio de Janeiro, Brazil.

**Ann E. Holmes (Ph.D., 1996).** Dissertation topic: Paleozoic depositional and structural history of the Canning basin, Western Australia, and constraints on eustatic change. Present position: Assistant Professor (with tenure), University of Tennessee, Chattanooga.

**Neal W. Driscoll (Ph.D., 1992).** Dissertation topic: Tectonic and depositional processes inferred from stratal relationships (Co-advisor, J.K. Weisse). Heezen Prize. Present position: Professor, Scripps Institution of Oceanography, La Jolla, California.

**Marjorie E. Levy (Ph.D., 1991).** Dissertation topic: Late Proterozoic and Early Cambrian sedimentation, sequence stratigraphy, and tectonic evolution of the eastern Great Basin. (P.E. Olsen assumed the role of advisor for 1990-91 academic year.) Present position: Chevron Energy Technology Company, San Ramon, California.

**Kenneth W. Hudnut (Ph.D., 1989).** Dissertation topic: Active tectonics of the Salton Trough, southern California. Present position: U.S. Geological Survey, Pasadena, California.

#### **Past M.Phil. Students**

**David F. Scheuing (M.Phil., 1990).** Research topic: The effect of structure on paleomagnetic data collected in complexly deformed terranes: A case study from the San Jacinto fault zone, southern California. Present position: environmental consulting industry, Saratoga Springs, New York.

**David S. McCormick (M.Phil., 1989).** Research topic: Sedimentology and stratigraphy of the Early Proterozoic Burnside Formation, Kilohigok basin, northwestern Canada (Co-Advisor, J.P. Grotzinger). NSF Graduate Research Fellow. Ph.D., 1992, Massachusetts Institute of Technology (Advisor, J.P. Grotzinger). Present position: Schlumberger-Doll Research, Cambridge, Massachusetts.

#### **Past M.A. Students**

**Attreyee Ghosh (M.A., 2003).** Research topic: Neogene and Pleistocene sequence development at the New Jersey continental margin. Ph.D., 2008, State University of New York, Stony Brook (Advisor, W.E. Holt). Present position: Postdoctoral Research Associate, SUNY Stony Brook.

**Melissa J. Saurborn (M.A., 2000).** Research topic: Unconformity development in tectonically active settings (Co-advisor, G.D. Karner). Present position: ExxonMobil Development Company.

#### **Current Ph.D. Advisory Committees**

**Eleanor Ferguson.** (Advisor, M.S. Steckler). Ph.D. expected, 2015.

**Guleed Ali.** (Advisor, S.R. Hemming). NSF Graduate Research Fellow. Ph.D. expected, 2015.

## Past Ph.D. Advisory and Defense Committees

Reader and/or chair of defense committee for 45 other Ph.D. dissertations, 1985-2011.

**Michelle Spaulding (Ph.D., 2011).** Dissertation topic: Phylogeny and evolution of locomotor modes in *Carnivoramorpha (Mammalia)* (Advisor, J. Flynn). NSF Graduate Research Fellow. Present position: Carnegie Museum of Natural History, Pittsburgh, Pennsylvania.

**Andres Giallombardo (Ph.D., 2009).** Dissertation topic: New Cretaceous mammals from Mongolia and the early diversification of Eutheria (Advisor, J. Flynn). Present position: American Museum of Natural History.

**Sterling J. Nesbitt (Ph.D., 2009)**<sup>8</sup>. Dissertation topic: The early evolution of Archosaurs: Relationships and the origin of major clades (Advisor, P.E. Olsen). NSF Graduate Research Fellow. Present position: University of Washington, Seattle, Washington.

**Christopher D. Walker (Ph.D., 2008).** Dissertation topic: A gravity slide origin for the Mormon Peak detachment: Re-examining the evidence for extreme extension in the Mormon Mountains, southeastern Nevada, U.S.A. (Advisor, M.H. Anders). Present position: BP, Houston, Texas.

**Daniel T. Ksepka (Ph.D., 2007).** Dissertation topic: Phylogeny, histology and functional morphology of fossil penguins (Sphenisciformes) (Advisor, M. Norell). Present position: Research Assistant Professor, North Carolina State University.

**Jun Liu (Ph.D., 2007).** Dissertation topic: New material from North Carolina and phylogeny, taxonomy of *Traversodontidae (Synapsida: Cynodontia)* (Advisor, P.E. Olsen). Present position: Beijing, People's Republic of China.

**Jessica H. Whiteside (Ph.D., 2006).** Dissertation topic: Catastrophic, climatic, and biotic modulation of ecosystem evolution (Advisor, P.E. Olsen). Goldwater Scholar. NSF Graduate Research Fellow. Present position: Assistant Professor, Brown University.

**Susan R. Zimmerman (Ph.D., 2006).** Dissertation topic: Chronology and paleoclimate records of the late Pleistocene Wilson Creek Formation, Mono Lake, California (Advisor: S.R. Hemming). NSF Graduate Research Fellow. Present position: Center for Accelerator Mass Spectrometry, Lawrence Livermore National Laboratory.

**Michael Tischer (Ph.D., 2006).** Dissertation topic: The structure and development of the ocean-continent boundary of the Exmouth Plateau and Cuvier margin, northwest Australia: Implications for extensional strain partitioning (Advisor: G.D. Karner). Present position: ExxonMobil Production Company, Houston, Texas.

**Zvi Karcz (Ph.D., 2005).** Dissertation topic: An observational and experimental study of pressure solution (Advisor, C.H. Scholz). Present position: ExxonMobil Research and Engineering Company, New Jersey.

**Matthew C. Mihlbachler (Ph.D., 2005).** Dissertation topic: Phylogenetic systematics of the *Brontotheriidae (Mammalia, Perissodactyla)* (Advisor: Jin Meng). Present position: Assistant Professor of Anatomy, New York College of Osteopathic Medicine, New York.

**Emma C. Rainforth (Ph.D., 2005).** Dissertation topic: Ichnotaxonomy of the fossil footprints of the Connecticut Valley (early Jurassic, Newark Supergroup, Connecticut and Massachusetts) (Advisor: P.E. Olsen). Present position: Associate Professor, Ramapo College, New Jersey.

**Malka L. Machlus (Ph.D., 2004).** Dissertation topic: Orbital forcing of continental Eocene climate: Detailed stratigraphy and  $^{40}\text{Ar}/^{39}\text{Ar}$  dating of the Green River Formation in Wyoming (Advisor: P.E. Olsen). Present position: Schlumberger-Doll Research, Cambridge, Massachusetts.

**Diego Pol (Ph.D., 2004).** Dissertation topic: Phylogenetic relationships of basal Sauropodomorph dinosaurs (Advisor, M. Norell). Present position: Department of Biomedical Informatics, Ohio State University.

**MaryAnn L. Malinconico (Ph.D., 2002).** Dissertation topic: Lacustrine organic sedimentation, organic metamorphism, and thermal history of selected early Mesozoic rift basins, eastern U.S.A. (Advisor, P.E. Olsen). Present position: Research Associate, Lafayette College, Easton, Pennsylvania.

**Candace O. Major (Ph.D., 2002)**<sup>8</sup>. Dissertation topic: Non-eustatic controls on sea level in semi-enclosed basins (Advisor, W.B.F. Ryan). Present position: National Science Foundation, Washington, D.C.

**Stewart Wills (Ph.D., 2000).** Dissertation topic: Evaluating models of detachment faulting (Advisor, M.H. Anders). NSF Graduate Research Fellow. Present position: Online Editor, *Science*, Washington, D.C.

**Jia Fang (Ph.D., 2000).** Dissertation topic: Styles and distribution of continental extension derived from the rift basins of eastern Papua New Guinea (Advisor, J.C. Mutter). Present position: Teacher (physics), Union County Vocational Technical School, New Jersey.

**Peter M. LeTourneau (Ph.D., 1999).** Dissertation topic: Tectonic co-evolution of the Late Triassic Taylorsville and Richmond rift basins: Results of an integrated stratigraphic, structural and paleomagnetic analysis (Advisor, P.E. Olsen). Present position: President, Mark GeoEnvironmental Sciences, New York.

**Marc A. Carrasco (Ph.D., 1998).** Dissertation topic: Morphological variation in the dentition of kangaroo rats (genus *Dipodomys*) and its use in distinguishing species in the fossil record (Advisor, M.C. McKenna). Present position: Research Associate, Department of Integrative Biology, University of California, Berkeley.

**Jan M. Vermilye (Ph.D., 1996).** Dissertation topic: The growth of natural fracture systems: A fracture mechanics approach (Advisor, C.H. Scholz). Present position: Seismo Tectonic Reservoir Monitoring, Lyons, Colorado.

**John P. McGinnis (Ph.D., 1995).** Dissertation topic: Stratigraphic discontinuities and their implication for continental margin evolution (Advisors, G.D. Karner and D.E. Hayes). Present position: Senior Vice President, Exploration and Development, Seneca Resources Corporation, Houston, Texas.

**Victor J. DiVenere (Ph.D., 1994).** Dissertation topic: Paleomagnetic results from Marie Byrd Land, West Antarctica: Tectonic implications for West Antarctica and the Atlantic-Pacific circuit (Advisor, D.V. Kent). Present position: Associate Professor, Long Island University-C.W. Post campus, New York.

**John R. Hopper (Ph.D., 1994).** Dissertation topic: Studies of the evolution of continental rifts (Advisor, W.R. Buck). Present position: Senior Research Geophysicist, Geological Survey of Denmark and Greenland (GEUS), Copenhagen, Denmark.

**Ulisses T. Mello (Ph.D., 1994).** Dissertation topic: Thermal and mechanical history of sediments in extensional basins (Advisors, G.D. Karner and R.N. Anderson). Present position: IBM, New York.

- Carlos Pirmez (Ph.D., 1994).** Dissertation topic: Growth of a submarine meandering channel-levee system on Amazon fan (Advisor, W.B.F. Ryan). Present position: Shell International Exploration and Production, Inc., Houston, Texas.
- Weibin Wang (Ph.D., 1994).** Dissertation topic: Experimental and theoretical studies of rock friction and wear (Advisor, C.H. Scholz). Deceased, September 11, 2001.
- Sarah J. Fowell (Ph.D., 1994).** Dissertation topic: Palynology of Triassic/Jurassic boundary sections from the Newark Supergroup of eastern North America: Implications for catastrophic extinction scenarios (Advisor, P.E. Olsen). Present position: Associate Professor, University of Alaska, Fairbanks.
- David J. Reynolds (Ph.D., 1993).** Dissertation topic: Sedimentary basin evolution: tectonic and climatic interaction (Advisors, M.S. Steckler and P.E. Olsen). Present position: ExxonMobil Exploration Company, Houston, Texas.
- Cecilia M.G. McHugh (Ph.D., 1993).** Dissertation topic: Submarine canyon and deep-sea fan systems of passive and active continental margins (Advisor, W.B.F. Ryan). Present position: Professor, Queens College, City University of New York.
- Mark A. Chandler (Ph.D., 1991).** Dissertation topic: The Early Jurassic climate: General Circulation Model simulations and the paleoclimate record (Advisor, D.H. Rind). Present position: Associate Research Scientist, Goddard Institute for Space Studies (NASA), New York.
- Jin Meng (Ph.D., 1991).** Dissertation topic: Craniodental morphologies and systematics of *Didymoconidae* (*Insectivora*, *Mammalia*) (Advisor, M.C. McKenna). Present position: Curator, American Museum of Natural History, New York.
- Karen Schmitt (Ph.D., 1991).** Dissertation topic: Sandstone intrusions of the Andean fold-thrust belt (51-54°S): Implications for the paleohydrogeologic evolution of the southernmost Andes (Advisor, I.W.D. Dalziel). NSF Graduate Research Fellow. Present position: Vice Provost for Research, and Dean, Schools of Management and Career Education, University of Alaska Southeast, Juneau.
- Roy W. Schlische (Ph.D., 1990).** Dissertation topic: Aspects of the structural and stratigraphic development of early Mesozoic rift basins of eastern North America (Advisor, P.E. Olsen). Present position: Professor, Rutgers University, New Jersey.
- Angela M. Barone (Ph.D., 1989).** Dissertation topic: Morphotectonic evolution of subsea volcanoes near the boundary of separating plates: examples from rifting and spreading stages (Advisor, W.B.F. Ryan). Present position: unknown (residing in Italy).
- Patrick L. Williams (Ph.D., 1989).** Dissertation topic: Aspects of earthquake geology and seismotectonics of the southern San Andreas and related faults, southern California (Advisor, L.R. Sykes). Present position: Lawrence Berkeley Laboratory, California.
- John D. Miller (Ph.D., 1988).** Dissertation topic: Paleomagnetism applied to tectonic problems in the Appalachians of North America (Advisor, D.V. Kent). Present position: Amoco, Houston, Texas.
- Kenneth S. Coles (Ph.D., 1988).** Dissertation topic: Stratigraphy and structure of the Pinecone sequence, Roberts Mountains allochthon, Nevada, and aspects of mid-Paleozoic sedimentation and tectonics in the Cordilleran geosyncline (Advisor, R. Schweickert). Present position: Associate Professor, Indiana University of Pennsylvania, Indiana, Pennsylvania.

**Audrey A. Massa (Ph.D., 1988).** Dissertation topic: The origin of sandy shore-parallel ridges and the formation of modern spits: examples from the western end of Fire Island, New York (Advisor, J.E. Sanders). Present position: Department of Homeland Security, New Jersey.

**Suzanne B. O'Connell (Ph.D., 1986).** Dissertation topic: Anatomy of modern submarine depositional and distributary systems (Advisor, W.B.F. Ryan). Present position: Associate Professor, Wesleyan University, Connecticut.

**Michelle A. Kominz (Ph.D., 1986).** Dissertation topic: Geophysical modeling studies (Advisor, W.C. Pitman, III). Present position: Professor, Western Michigan University.

**William J. Devlin (Ph.D., 1986).** Dissertation topic: Geologic and isotopic studies related to latest Proterozoic–early Cambrian rifting and initiation of a passive continental margin, southern British Columbia, Canada, and north-eastern Washington, U.S.A. (Advisor, G.C. Bond). Present position: ExxonMobil Production Company, Houston, Texas.

**Craig Nicholson (Ph.D., 1985).** Dissertation topic: Crustal structure and fault kinematics from the analysis of microearthquake data (Advisor, L.R. Sykes). Present position: Marine Science Institute, University of California, Santa Barbara.

**Julian Thorne (Ph.D., 1985).** Dissertation topic: Studies in stratology: the physics of stratigraphy (Advisor, A.B. Watts). Present position: Chevron Energy Technology Company, San Ramon, California.

**John A. Farre (Ph.D., 1985).** Dissertation topic: The importance of mass wasting processes on the continental slope (Advisor, W.B.F. Ryan). Present position: ExxonMobil Exploration Company, Nigeria.

#### **Past Masters Advisory Committees**

**Naomi Lubick (M.A., 2000).** Research topic: Post-glacial knickpoint retreat on streams in the Finger Lakes region of New York (Advisor, K.A. Kastens; Earth and Environmental Science Journalism Program). Present position: Associate Editor, *Environmental Science and Technology*, Washington, D.C.

Member of advisory committees for miscellaneous other students.

#### **External Advisor**

**Safiya M. Hassan (Ph.D., 2011).** Dissertation topic: Sequence stratigraphy and sedimentology of the lower Miocene Moghra Formation in the Qattara depression, northwestern Egypt (Advisors, A.N. El Barkooky, University of Cairo, Egypt, and G.I.A. El-Gawad, Beni-Suef University, Egypt).

#### **External Examiner**

**Mark D. Smith (Ph.D., 2009).** Dissertation topic: Stratigraphic and geochemical evolution of the Old Fort Point Formation, southern Canadian Cordillera: The deep-marine perspective of Ediacaran post-glacial environmental change (Advisor, R.W.C. Arnott, University of Ottawa). Present position: ExxonMobil.

**Paul R. Gammon (Ph.D., 1997).** Dissertation topic: Sequence stratigraphy of the Mangaopari basin, southeastern North Island, New Zealand (Advisor, R.M. Carter, James Cook University, Townsville, Queensland, Australia). Present position: Geological Survey of Canada, Ottawa.

**David T. Miller (Ph.D., 1994).** Dissertation topic: A Delamerian fold-thrust belt: The Stuart shelf to the Murray basin province; geological, geophysical and structural evidence

(Advisor, A.E. Grady, Flinders University, Adelaide, South Australia). Present position: unknown.

**David S. McCormick (Ph.D., 1992).** Dissertation topic: Evolution of an Early Proterozoic alluvially-dominated foreland basin, Burnside Formation, Kilohigok Basin, N.W.T., Canada (Advisor, J.P. Grotzinger, Massachusetts Institute of Technology). Present position: Schlumberger-Doll Research, Cambridge, Massachusetts.

**Pietro A. DiBona (Ph.D., 1989).** Dissertation topic: Geologic history and sequence stratigraphy of the Late Proterozoic Wonoka Formation, northern Flinders Ranges, South Australia (Advisor, C.C. von der Borch, Flinders University, Adelaide, South Australia). Present position: petroleum industry, Houston, Texas.

### ***UNDERGRADUATE MENTORING***

**Marissa Tremblay (B.A., 2012; summer intern, 2009, Barnard College).** Project topic: Late Miocene tilting of the Resting Spring Range, California. Co-mentors: S.R. Hemming and B. Renik (2009). Goldwater Scholar, 2011.

**Emily Hernandez Goldstein (B.A., 2011).** Senior thesis topic: Depositional setting and detrital zircon analysis of the Jardine metasedimentary sequence from the South Snowy block in Yellowstone National Park. Following graduation: hiking the Appalachian Trail.

**Peri Sasnett (B.A., 2011; summer intern, 2009).** Senior thesis topic: Surface exposure dating of phreatic eruptions at Ubehebe Crater, Death Valley, California. Co-mentors: B.M. Goehring and J.M. Schaefer. Following graduation: Fulbright Scholar, University of Canterbury, Christchurch, New Zealand.

**Lila Neiswanger (summer intern, 2009).** Project topic: Provenance of Miocene breccia-bearing beds in southern Nevada, with implications for the magnitude of crustal extension in the Lake Mead transect. Co-mentors: B. Renik, S.R. Hemming and M.Y. Cai.

**Ilana Somasunderam (B.A., 2009; summer intern, 2008).** Senior thesis topic: Early Miocene sedimentation, paleoecology and strontium isotope geochronology. Co-mentors: S.L. Goldstein and S.F. Pekar (Queens College, City University of New York). Present position: Teach for America, San Francisco, California.

**Samuel Schon (B.A., 2006).** Senior thesis topic: Re-evaluation of extensional fault geometry and kinematics at Azure Ridge in the South Virgin Mountains, Nevada. Present position: Ph.D. program, Brown University (Advisor, J. Head).

**Yekaterina (Kate) Gluzberg (Rabi Scholar, 2003).** Project topic: Rainfall patterns, growth and “drought” in the suburbs of New York City. Co-mentors: B. Lyon (EI-IRI, meteorology) and U. Lall (SEAS-DEEE, hydrology). Present position: Manhattan Outreach Coordinator, Partnerships for Parks, City of New York Parks and Recreation.

**Jessyca Keeler (formerly Harris; summer intern, 1994, St Lawrence University, Canton, New York).** Project topic: Late Cenozoic seismic stratigraphy of the U.S. mid-Atlantic continental margin. Present position: Owner, Align Partnerships, Portland, Maine.

**Rebecca Hayden Kennedy (formerly Hayden; A.B., cum laude, 1987, Barnard College).** Senior thesis topic: Neoproterozoic stratigraphy in the northern Sheeprock Mountains, Utah. Present position: Watershed Specialist, Lehigh County Conservation District, Pennsylvania.

**Co-Director of Undergraduate Studies**, Department of Earth and Environmental Sciences, Columbia University, 2007-2011.

**Chair, Rabi Scholars Program (Columbia University)**, 2002-2011. The purpose of the program is to foster undergraduate science in Columbia College by attracting and providing research opportunities to the most able students. The program includes about 35-40 scholars at any one time, representing first through senior years, and drawn from across the sciences and mathematics.

### ***PUBLISHED ARTICLES***<sup>9</sup>

- Blick, N.H., 1979, Stratigraphic, structural and paleogeographic interpretation of upper Proterozoic glaciogenic rocks in the Sevier orogenic belt, northwestern Utah: Ph.D. dissertation, Santa Barbara, University of California, 633 p.
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