

Curriculum Vitae of John W. Goodge

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RESEARCH INTERESTS

Continental tectonics, metamorphic petrology, structural geology, isotope geochemistry and thermochronology. Continental growth during convergent-margin and collisional orogenesis. Active research in Transantarctic Mountains of Antarctica, and Archean and Proterozoic terrains in Mojave province of California and Minnesota-Wisconsin.

EDUCATION

University of California, Los Angeles; 1987, Ph.D. in Geology
University of Montana, Missoula; 1983, M.S. in Geology
Carleton College, Northfield, Minnesota; 1980, B.A. (Honors) in Geology

AWARDS

Exceptional Reviewer, Geological Society of America, 2008
Fellow of the Geological Society of America, 2005
Mortar Board Teaching Award, SMU, 1998
Golden Mustang Award for Teaching and Scholarship, SMU, 1997
Outstanding Mention, Geological Society of America Research Grant, 1985
Graduate Fellow, University of California, Los Angeles, 1983-87
Elected to Sigma Xi, Carleton College, 1980
Distinction on Senior Thesis, Carleton College, 1980
Lawrence McKinley Gould Scholarship in Geology, Carleton College, 1978-80

PROFESSIONAL EXPERIENCE

University of Minnesota, Duluth, Department of Geological Sciences; Associate Professor, 2002-2004; Professor, 2004-present
Australian National University, Research School of Earth Sciences, Canberra; School Visitor, 2000
Southern Methodist University, Department of Geological Sciences; Adjunct Assistant Professor and Research Associate, 1987-1994; Assistant Professor, 1994-1998; Associate Professor, 1998-2002
University of California, Los Angeles, Department of Earth and Space Sciences; Research Associate and Teaching Assistant, 1983-1987
U. S. Geological Survey, Menlo Park; Geologist, 1982-83 (summers)
University of Montana, Dept. of Geology; Research Associate and Teaching Assistant, 1981-83
U. S. Geological Survey, Menlo Park; Geologic Field Assistant, 1980-81
Indiana University, Department of Geology; Associate Instructor (summer Field Geology course, northern Rocky Mountains), 1980
Carleton College, Department of Geology; Teaching Assistant, 1978-80

PROFESSIONAL ASSOCIATIONS

American Association for the Advancement of Science; American Geophysical Union; Geochemical Society; Geological Society of America; International Association of Structural/Tectonic Geologists; Sigma Gamma Epsilon (Honor Society of Earth Sciences), Sigma Xi

EDITORIAL EXPERIENCE

Co-editor of *Lithosphere*, 2011-2014
Editorial Board of *Geology*, 1989-91
Exceptional Reviewer, *Geological Society of America Bulletin*, 2008
Journal Reviewer: *American Mineralogist*, *Antarctic Science*, *Earth Materials Research*, *Geochimica et Cosmochimica Acta*, *Geology*, *Geological Society of America Bulletin*, *Journal of the Geological Society (London)*, *The Journal of Geology*, *Lithos*, *Journal of Metamorphic Geology*, *New Zealand Journal of Geology and Geophysics*, *Journal of Petrology*, *Science*, *Journal of Sedimentary Petrology*, *Journal of Structural Geology*, *Tectonics*, *Terra Antarctica*, *Terra Nova*

PROFESSIONAL SERVICE

Chilean National Science and Technology Commission (CONICYT) proposal review panel, 3rd National Team Project competition; Chilean and Antarctic Earth Sciences, November 2009
NSF proposal review panel "Ice Sheet History and Dynamics", for International Polar Year initiative, NSF Office of Polar Programs, September 2006
Steering Committee, U.S. Polar Rock Repository (NSF-funded facility at Ohio State University); 2003-present
Visiting Faculty, Colorado College, Keck Geology Consortium Research Project "Precambrian Geology of central Colorado"; 1996
NSF Antarctic Geology & Geophysics Working Group (advisory panel), NSF Office of Polar Programs; member, 1993-98; Chair, 1996-98
NSF-USGS Antarctic GIS (Geographic Information System) Advisory Panel, NSF Office of Polar Programs and USGS Office of International Programs; 1994
IGCP Project 376 participant: "Pre-Pangea Analysis of Middle Proterozoic and Paleozoic Interaction of Laurentia and Gondwana"; 1994-96
IGCP Project 288 participant: "Gondwanaland Sutures and Foldbelts"; Contributor to "Geodynamic Map of Gondwana", Transantarctic Mountains sector, Antarctica; 1992-94

Proposal Reviewer:

Chilean Bicentennial Program in Science and Technology (CONICYT)
Israel Science Foundation
U.K. Natural Environment Research Council
U.S. National Science Foundation
Division of Earth Sciences (Tectonics, Petrology & Geochemistry, and Geophysics programs), Office of Polar Programs (Antarctic Geology and Geophysics, Antarctic Glaciology, and Arctic Natural Systems programs), Major Research Infrastructure Program, and Division of International Programs

SYMPOSIA CONVENED

Geological Society of America North-Central Section Meeting Symposium "Deep Earth science: Prospects for a deep underground national lab"; convened with D. Peterson (NRRI); Minneapolis, 2005
NSF workshop "REVEAL: REmote Views and Exploration of Antarctic Lithosphere: Tools for mapping the last continental frontier"; member of Organizing Committee, convened with C. A. Finn (USGS) and T. Wilson (Ohio State University); Denver; 2002
LIRA (Lithospheric Investigations of the Ross Sea Area, sponsored by international Scientific Committee on Antarctic Research) international workshop convenor; "Ross Orogen: Crustal Structure and Plate Tectonic Significance"; Southern Methodist University, Dallas; sponsored by Scientific Committee on Antarctic Research, 1994
Geological Society of America Cordilleran Section Meeting Symposium "Petrologic and tectonic evolution of Cordilleran low-temperature, high-pressure metamorphic terranes"; convened with B. Patrick (UC-Santa Barbara); 1992
Geological Society of America Annual Meeting Theme Session "Active margin of Antarctica—Proterozoic to Recent"; convened with D. L. Kimbrough (San Diego State University), B. P. Luyendyk (UC-Santa Barbara), and S. G. Borg (NSF); 1991

GRANTS**Total of major awards (since 1989): \$2,329,205**Current:

PI: National Science Foundation (Office of Polar Programs, Antarctic Geology & Geophysics); “Age and composition of the East Antarctic shield by isotopic analysis of granite and glacial till”; \$455,359.

Past:

PI: National Science Foundation (Major Research Infrastructure Program); “Acquisition of a low-vacuum scanning electron microscope for teaching and research at the University of Minnesota-Duluth”; \$400,934; includes 4 co-PI’s and 3 senior investigators from UMD.

PI: National Science Foundation (Office of Polar Programs, Antarctic Geology & Geophysics); “Collaborative Proposal: Integrated study of East Antarctic ice sheet tills (ISET): Tracers of ice flow and proxies of the ice-covered continental shield”; \$18,837; supplement to collaborative project with Kathy Licht (IUPUI) and Lang Farmer (University of Colorado).

PI: University of Minnesota Grant-in-Aid of Research, Artistry and Scholarship; “Tectonic assembly of the southern Superior Province in northern Minnesota”; \$25,971.

Co-PI: National Science Foundation (Office of Polar Programs, Antarctic Geology & Geophysics); “Collaborative Proposal: Integrated study of East Antarctic ice sheet tills (ISET): Tracers of ice flow and proxies of the ice-covered continental shield”; \$140,077; collaborative project with Kathy Licht (IUPUI) and Lang Farmer (University of Colorado).

Co-PI: University of Minnesota, Technology-Enhanced Learning (TEL) Grant Program; “GEOWALL development at UMD”, \$6,000 (collaborative with N. Wattrus, UMD).

PI: National Science Foundation (Office of Polar Programs, Antarctic Geology & Geophysics); “Glacial proxies of East Antarctic shield basement in Wilkes Land, Antarctica”; \$120,372.

Co-PI: National Science Foundation (Office of Polar Programs, Antarctic Geology & Geophysics); “Geophysical Mapping of the East Antarctic Shield Adjacent to the Transantarctic Mountains”; 2003-2005; \$235,760 (collaborative project with Carol Finn, USGS; UMD award \$99,586; also includes logistical support from NSF and collaboration with researchers in Germany and Australia).

PI: National Science Foundation (Office of Polar Programs, Antarctic Geology & Geophysics); “Structure and sedimentology of the Beardmore Group, Antarctica: Latest Neoproterozoic to early Paleozoic tectonic evolution of the East Antarctic margin”; 1998-2001, \$270,000.

PI: National Science Foundation (Office of Polar Programs, Antarctic Geology & Geophysics); “Structure and sedimentology of the Beardmore Group, Antarctica: Latest Neoproterozoic to early Paleozoic tectonic evolution of the East Antarctic margin”; 1998-2001, supplement for \$13,400.

PI: National Science Foundation (Office of Polar Programs, Antarctic Geology & Geophysics); “SHRIMP U-Pb geochronology of Transantarctic Mountains basement”; 2000-2001, \$80,000.

PI: SMU President's Partners Program; Geology lab equipment proposal: Acquisition of a GeoScan Enabler; 1999, \$900.

PI: National Science Foundation (Office of Polar Programs, Antarctic Geology & Geophysics); “Antarctic Working Group for Geology and Geophysics 1996-98” [advisory panel support]; 1996-99, \$24,576.

- PI: National Science Foundation (Office of Polar Programs, Antarctic Geology & Geophysics); “Comparative petrologic, structural and geochronometric study of high-grade metamorphic rocks in the Transantarctic Mountains”; 1993-97; \$141,720.
- PI: National Science Foundation (Earth Sciences, Tectonics); “Pre-Middle Jurassic accretion-related metamorphism in the southern Klamath Mountains, northern California: Phase II”; 1992-96, \$120,000.
- PI: National Science Foundation (Polar Earth Sciences); “Conference Support for 1994 International LIRA Workshop: Ross Orogen—Crustal Structure and Plate Tectonic Significance”; 1994-95, \$17,396.
- Co-PI: National Science Foundation (Earth Sciences, Instrumentation & Facilities); “Upgrade of electron microprobe analytical facility: Acquisition of an EDS system” [50% matching funds from Southern Methodist University]; 1990-93, \$35,554.
- PI: National Science Foundation (Polar Earth Sciences); “Petrogenesis and crustal structure of metamorphic rocks in the central Transantarctic Mountains: an integrated petrologic, structural and geochronologic study”; 1989-92, \$266,648.
- PI: National Science Foundation (Earth Sciences, Tectonics); “Pre-Middle Jurassic accretion-related metamorphism in the south-central Klamath Mountains, northern California”; 1990-91, \$98,775.
- National Science Foundation (Polar Earth Sciences); Travel Award to attend 5th Antarctic Earth Science Symposium, Cambridge; 1987, \$1,300.
- SMU President's Partners Program; Geology lab equipment proposal: Acquisition of a projection microscope; 1996-97, \$2,500.
- SMU University Research Council; Pilot Geologic Study of Precambrian North American Crustal Assembly in the Rocky Mountains of northern Colorado; 1994, \$3,500.
- SMU University Research Council; Participation in International Geological Correlation Project 376 ("Pre-Pangea Laurentian-Gondwanan Connections"), Argentina; 1994, \$3,500.
- SMU Institute for the Study of Earth and Man; Petrologic investigations of metamorphic rocks from accretionary complexes in northern California, and high-grade metamorphic terrains of Antarctica; 1987-88, \$3,800.

BIBLIOGRAPHY

I. Refereed Journal Publications:

- Goodge, J. W.**, and C. A. Finn, Glimpses of East Antarctica: Aeromagnetic view from the central Transantarctic Mountains; *Journal of Geophysical Research, Solid Earth*, in press.
- Goodge, J. W.**, Fanning, C. M., Brecke, D. M., Licht, K. J., and Palmer, E. F., Continuation of the Laurentian Grenville province in western East Antarctica; *Journal of Geology*, in press.
- Myrow, P.M., N.C. Hughes, **J.W. Goodge**, M. Fanning, I.S. Williams, S.-C. Peng, S.K. Tangri, O.N. Barghava, S.K. Parcha, J.A. DiPietro, K.R. Pogue, 2010, Extraordinary transport and mixing of sediment across Himalayan central Gondwanaland during the Cambrian–Ordovician; *Geological Society of America Bulletin, Geological Society of America Bulletin*, v. 122, p. 1660-1670; doi 10.1130/B30123.1.
- Goodge, J.W.**, and C. M. Fanning, 2010, Composition and age of the East Antarctic shield in eastern

Wilkes Land determined by proxy from Oligocene-Pleistocene glaciomarine sediment and Beacon Supergroup sandstones, Antarctica; *Geological Society of America Bulletin*, v. 122, p. 1135-1159; doi 10.1130/B30079.1.

Goodge, J. W., Vervoort, J. D., Fanning, C. M., Brecke, D. M. Farmer, G. L., Williams, I. S., Myrow, P. M., DePaolo, D. J., 2008, A Positive Test of East Antarctica-Laurentia Juxtaposition Within the Rodinia Supercontinent: *Science*, v. 321, p. 235-240.

Goodge, J. W., and Vervoort, J. D., 2006, Origin of Mesoproterozoic A-type granites in Laurentia: Hf isotope evidence: *Earth and Planetary Science Letters*, v. 243, p. 711-731.

Goodge, J. W., Williams, I.S., and Myrow, P., 2004, Provenance of Neoproterozoic and lower Paleozoic siliciclastic rocks of the central Ross Orogen, Antarctica: Detrital record of rift-, passive- and active-margin sedimentation: *Geological Society of America Bulletin*, v. 116, no. 9, p. 1253-1279.

Myrow, P. M., Fischer, W., and **Goodge, J. W.**, 2002, Wave-modified turbidites: combined-flow shoreline and shelf deposits, Cambrian, Antarctica: *Journal of Sedimentary Research*, v. 72, no. 5, p. 641-656.

Myrow, P. M., Pope, M. C., **Goodge, J. W.**, Fischer, W., and Palmer, A. R., 2002, Depositional history of pre-Devonian strata and timing of Ross Orogenic tectonism in the central Transantarctic Mountains, Antarctica: *Geological Society of America Bulletin*, v. 114, no. 9, p. 1070-1088.

Goodge, J. W., Myrow, P., Williams, I. S. and Bowring, S., 2002, Age and provenance of the Beardmore Group, Antarctica: Constraints on Rodinia supercontinent breakup: *Journal of Geology*, v. 110, no. 4, p. 393-406.

Goodge, J. W., Fanning, C. M., and Bennett, V. C., 2001, U-Pb evidence of ~1.7 Ga crustal tectonism during the Nimrod Orogeny in the Transantarctic Mountains, Antarctica: implications for Proterozoic plate reconstructions: *Precambrian Research*, v. 112/3-4, p. 261-288.

Goodge, J. W., and Fanning, C. M., 1999, 2.5 billion years of punctuated Earth history as recorded in a single rock: *Geology*, v. 27, no. 11, p. 1007-1010.

Goodge, J. W., 1997, Latest Neoproterozoic basin inversion of the Beardmore Group, central Transantarctic Mountains, Antarctica: *Tectonics*, v. 16, no. 4, p. 682-701.

Oliver, D. H., and **Goodge, J. W.**, 1996, Leucoxene fish as a micro-kinematic indicator: *Journal of Structural Geology*, v. 18, no. 12, p. 1493-1497.

Goodge, J. W., and Dallmeyer, R. D., 1996, Contrasting Thermal Evolution within the Ross Orogen: Evidence from Mineral $^{40}\text{Ar}/^{39}\text{Ar}$ Ages: *Journal of Geology*, v. 104, p. 435-458.

Goodge, J. W., and Holdaway, M. J., 1995, Rock-buffered fluid evolution of metapelites in the Picuris Range of northern New Mexico: mineralogical and stable isotope evidence: *Journal of Petrology*, v. 36, p. 1229-1250.

Peacock, S. M., and **Goodge, J. W.**, 1995, Eclogite-facies metamorphism preserved in tectonic blocks from a lower crustal shear zone, central Transantarctic Mountains, Antarctica: *Lithos*, v. 36, p. 1-13.

Goodge, J. W., 1995, Pre-Middle Jurassic accretionary metamorphism in the southern Klamath Mountains of northern California, USA: *Journal of Metamorphic Geology*, v. 13, p. 93-110.

- Goodge, J. W.**, Hansen, V. L., Peacock, S. M., Smith, B. K., and Walker, N. W., 1993, Kinematic evolution of the Miller Range shear zone, central Transantarctic Mountains: *Tectonics*, v. 12, p. 1460-1478.
- Hansen, V. L., **Goodge, J. W.**, Keep, M., and Oliver, D. H., 1993, An asymmetric rifting model for the western margin of North America: *Geology*, v. 21, p. 1067-1070.
- Goodge, J. W.**, and Renne, P. R., 1993, Mid-Paleozoic olistoliths in eastern Hayfork terrane melange, Klamath Mountains: Implications for late Paleozoic-early Mesozoic Cordilleran forearc development: *Tectonics*, v. 12, p. 279-289.
- Goodge, J. W.**, Hansen, V. L., Walker, N. W., 1993, Neoproterozoic-Cambrian basement-involved orogenesis within the Antarctic margin of Gondwana: *Geology*, v. 21, p. 37-40.
- Goodge, J. W.**, and Dallmeyer, R. D., 1992, $^{40}\text{Ar}/^{39}\text{Ar}$ mineral age constraints on the Paleozoic tectonothermal evolution of high-grade basement rocks within the Ross orogen, central Transantarctic Mountains: *Journal of Geology*, v. 100, p. 91-106.
- Goodge, J. W.**, Borg, S. G., Bennett, V. C., and Smith, B. K., 1991, Evidence for major pre-Ordovician crustal shortening in West Antarctica: *Earth and Planetary Science Letters*, v. 102, p. 58-70.
- Holdaway, M. J., and **Goodge, J. W.**, 1990, Rock pressure vs. fluid pressure as a controlling influence on mineral stability: An example from New Mexico: *American Mineralogist*, v. 75, p. 1043-1058.
- Goodge, J. W.**, 1990, Tectonic evolution of a coherent Late Triassic subduction complex, Stuart Fork terrane, Klamath Mountains, northern California: *Geological Society of America Bulletin*, v. 102, p. 86-101.
- Goodge, J. W.**, 1989b, Polyphase metamorphic evolution of a Late Triassic subduction complex, Klamath Mountains, northern California: *American Journal of Science*, v. 289, p. 874-943.
- Goodge, J. W.**, 1989a, Evolving early Mesozoic convergent margin deformation, central Klamath Mountains, northern California: *Tectonics*, v. 8, p. 845-864.
- Goodge, J. W.**, and Hansen, V. L., 1983, Petrology and structure of rocks in the southwest portion of the Okanogan dome, north-central Washington: *Northwest Geology*, v. 12, p. 13-24.

II. Book Chapters and Special Volumes:

- Goodge, J. W.**, 2007a, Metamorphism in the Ross Orogen and its bearing on Gondwana margin tectonics: in Cloos, M., Carlson, W. D., Gilbert, M. C., Liou, J. G., and Sorensen, S. S., eds., *Convergent Margin Tectonics and Associated Regions: A tribute to W. G. Ernst*, Geological Society of America Special Paper 419, p. 185-203.
- Goodge, J. W.**, 2007b, Transantarctic Mountains: Geology, in Riffenburgh, B., ed., *Encyclopedia of the Antarctic*, New York, Routledge Press, v. 2, p. 1007-1012.
- Finn, C. A., **Goodge, J. W.**, Damaske, D., Fanning, C. M., 2006, Scouting craton's edge in paleo-Pacific Gondwana, in Fütterer, D. K., Damaske, D., Kleinschmidt, G., Miller, H., Tessensohn, F., eds., *Antarctica — Contributions to Global Earth Sciences*, Proceedings of the 9th International Symposium on Antarctic Earth Sciences, Potsdam, Germany, Springer-Verlag, Berlin-Heidelberg-New York, p. 165-174.
- Goodge, J. W.**, Myrow, P., Phillips, D., Fanning, C.M., and Williams, I.S., 2004, Siliciclastic record of rapid denudation in response to convergent-margin orogenesis, Ross Orogen, Antarctica, in

Bernet, M., and Spiegel, C., eds., *Detrital thermochronology—Provenance analysis, exhumation, and landscape evolution of mountain belts*: Boulder, Colorado, Geological Society of America Special Paper 378, p. 101–122.

Goodge, J. W., 2002, From Rodinia to Gondwana: Supercontinent evolution in the Transantarctic Mountains (invited plenary paper): *in* Gamble, J., and Skinner, D. A., eds., *Antarctica at the Close of a Millenium*, Wellington, Royal Society of New Zealand Bulletin 35, Proceedings of the 8th International Symposium on Antarctic Earth Science, p. 61-74.

Goodge, J. W., and Fanning, C. M., 2002, Precambrian crustal history of the Nimrod Group, central Transantarctic Mountains: *in* Gamble, J., and Skinner, D. A., eds., *Antarctica at the Close of a Millenium*, Wellington, Royal Society of New Zealand Bulletin 35, Proceedings of the 8th International Symposium on Antarctic Earth Science, p. 43-50.

Goodge, J. W., Hansen, V. L., and Peacock, S. M., 1992, Multiple petroectonic events in high-grade metamorphic rocks of the Nimrod Group, central Transantarctic Mountains, Antarctica: *in* Yoshida, Y., Kaminuma, K., and Shiraishi, K., eds., *Recent Progress in Antarctic Earth Science*, Tokyo, Terra Scientific Publishing Company, p. 203-209.

Hacker, B., and **Goodge, J. W.**, 1990, Comparison of early Mesozoic high-pressure rocks in the Klamath Mountains and Sierra Nevada: *in* Harwood, D. S., and Miller, M. M., eds., *Paleozoic and Early Mesozoic Paleogeographic Relations; Sierra Nevada, Klamath Mountains, and Related Terranes*: Boulder, Colorado, Geological Society of America Special Paper 255, p. 277-295.

Hansen, V. L. and **Goodge, J. W.**, 1988, Metamorphism, structural petrology and regional evolution of the Okanogan complex, northeastern Washington: *in* Ernst, W. G., ed., *Metamorphism and Crustal Evolution of the Western United States*, Rubey Volume No. VII, Englewood Cliffs, N. J., Prentice-Hall, Inc., p. 231-270.

Howard, K. A., **Goodge, J. W.**, and John, B. E., 1982, Detached crystalline rocks of the Mohave, Buck and Bill Williams Mountains, western Arizona: *in* Frost, E. G., and Martin, D. L., eds., *Mesozoic-Cenozoic Tectonic Evolution of the Colorado River Region, California, Arizona and Nevada*, San Diego, Cordilleran Publishers, p. 377–392 [nominated in 1988 for U. S. Geological Survey Benchmark Award].

III. Manuscripts in review:

IV. Geologic Maps:

Howard, K. A., Nielson, J. E., Wilshire, H. G., Nakata, J. K., **Goodge, J. W.**, Reneau, S. L., John, B. E. and Hansen, V. L., 1999, Geologic map of the Mojave Mountains area, Mojave County, western Arizona: U. S. Geological Survey Miscellaneous Investigations Series, I-2308, 1:48,000 scale, 2 sheets.

Carr, M. D., Christiansen, R. L., Poole, F. G., and **Goodge, J. W.**, 1997, Bedrock geologic map of the El Paso Mountains in the Garlock and El Paso Peaks 7.5' quadrangles, Kern County, California: U.S. Geological Survey Miscellaneous Investigations Map I-2389, 1:24,000 with pamphlet.

Goodge, J. W. (Contributor), 1996, Geodynamic Map of Transantarctic Mountains, Antarctica: *in* Unrug, R. (ed.), Geodynamic Map of Gondwana Supercontinent Assembly, Bureau de Recherches Géologiques et Minières, IGCP Project 288: Gondwanaland Sutures and Foldbelts, 1:10,000,000.

Goodge, J. W., and Hansen, V. L., 1994, Geologic map of the Omak Lake 15' quadrangle, Okanogan County, Washington: U.S. Geological Survey Geologic Quadrangle Map GQ-1726, 1:62,500, with text, figures, and tables in pamphlet.

Goodge, J. W., Hansen, V. L., Peacock, S. M., Smith, B. K., and Walker, N. W., 1993, Geologic and kinematic map of the Nimrod Group, central Transantarctic Mountains, Antarctica: folded insert in *Tectonics*, v. 12, p. 1460-1478.

Howard, K. A., Nielson, J. E., Wilshire, H. G., Nakata, J. K., **Goodge, J. W.**, Reneau, S. L., John, B. E., and Hansen, V. L., 1990, Preliminary geologic map of the Mohave Mountains area, Mohave County, western Arizona: U.S. Geological Survey Open File Report 90-684, 1:48,000, 55 p.

V. Other Contributions:

Goodge, J. W., 2007, Electron probe micro-analyzer (EPMA), Geochemical Instrumentation and Analysis Techniques, Integrating Research and Education, Science Education and Resource Center (SERC) website [URL: http://serc.carleton.edu/dev/research_education/geochemsheets/techniques/EPMA.html]

Goodge, J. W., 2007, Back-scattered electron detector (BSE), Geochemical Instrumentation and Analysis Techniques, Integrating Research and Education, Science Education and Resource Center (SERC) website [URL: http://serc.carleton.edu/dev/research_education/geochemsheets/bse.html]

Goodge, J. W., 2007, Energy-dispersive x-ray analysis system (EDS), Geochemical Instrumentation and Analysis Techniques, Integrating Research and Education, Science Education and Resource Center (SERC) website [URL: http://serc.carleton.edu/dev/research_education/geochemsheets/eds.html]

Goodge, J. W., 2007, Element mapping, Geochemical Instrumentation and Analysis Techniques, Integrating Research and Education, Science Education and Resource Center (SERC) website [URL: http://serc.carleton.edu/dev/research_education/geochemsheets/elementmapping.html]

Henry, D., and **Goodge, J. W.**, 2007, Wavelength-dispersive x-ray spectroscopy (WDS), Geochemical Instrumentation and Analysis Techniques, Integrating Research and Education, Science Education and Resource Center (SERC) website [URL: http://serc.carleton.edu/dev/research_education/geochemsheets/wds.html]

Goodge, J. W., D. M. Brecke, C. M. Fanning, J. D. Vervoort, I. S. Williams, and P. Myrow, 2007, Pieces of Laurentia in East Antarctica: in A. K. Cooper, P. Barrett, H. Stagg, B. Storey, E. Stump, and W. Wise (eds.), Antarctica: A Keystone in a Changing World – Online Proceedings of the 10th ISAES X, USGS Open-File Report 2007-1047, Extended Abstract 055, 4 p.

Goodge, J. W., 2007, Proxies of the East Antarctic shield: Composition and age of ice-covered basement from sedimentary and glacial provenance: in A. K. Cooper, P. Barrett, H. Stagg, B. Storey, E. Stump, and W. Wise (eds.), Antarctica: A Keystone in a Changing World – Online Proceedings of the 10th ISAES X, USGS Open-File Report 2007-1047, Extended Abstract 132, 4 p.

Brecke, D.M., and **J.W. Goodge**, 2007, Provenance of glacially transported material near Nimrod Glacier, East Antarctica: Evidence of the ice-covered East Antarctic shield: in A. K. Cooper, P. Barrett, H. Stagg, B. Storey, E. Stump, and W. Wise (eds.), Antarctica: A Keystone in a Changing World – Online Proceedings of the 10th ISAES X, USGS Open-File Report 2007-1047, Extended Abstract 125, 4 p.

- Anderson, E. D., Finn, C. A., Damaske, D., Abraham, J. D., Goldmann, F., **Goodge, J. W.**, and Braddock, P., 2006, Aeromagnetic and gravity data over the central Transantarctic Mountains (CTAM), Antarctica: A website for the distribution of data and maps: U. S. Geological Survey Open-File Report OF06-1255, 21 p. [URL: <http://pubs.usgs.gov/of/2006/1255/>]
- Goodge, J. W.**, 2003, What's in a mineral? Extending mineralogy with electron microprobe analysis (on-line laboratory resource): NSF and NAGT-sponsored workshop *Teaching Petrology in the 21st Century*, convened at Montana State University, Bozeman, [URL: http://dlesecommunity.carleton.edu/NAGTWorkshops/petrology/teaching_materials.html]
- Goodge, J. W.**, 2003, What's in a mineral? Extending mineralogy with electron microprobe analysis (laboratory): NSF and NAGT-sponsored workshop *Teaching Petrology in the 21st Century*, convened at Montana State University, Bozeman.
- Goodge, J. W.**, 2003, Laboratory Exercises in Earth System Science: prepared for Department of Geological Sciences, UMD, includes 13 earth system science labs.
- Finn, C. A., Anandakrishnan, S., **Goodge, J.**, Panter, K., Siddoway, C., 2003, Potential of airborne geophysical capabilities discussed: EOS, Transactions of the American Geophysical Union (meeting report), v. 84, p. 4.
- Goodge, J. W.**, Exposed basement geology of the Transantarctic Mountains; what we think we know; in Finn, C., Anandakrishnan, S., Goodge, J., Panter, K., Siddoway, C., and Wilson, T., 2002, REVEAL: REMote Views and Exploration of Antarctic Lithosphere Workshop: The future of Antarctic airborne geophysical capabilities, U. S. Geological Survey Open-File Report 03-065, p. 73-74.
- Finn, C., Anandakrishnan, S., **Goodge, J.**, Panter, K., Siddoway, C., and Wilson, T., 2002, REVEAL: REMote Views and Exploration of Antarctic Lithosphere Workshop: The future of Antarctic airborne geophysical capabilities—Workshop Report and executive summary to the National Science Foundation, U. S. Geological Survey Open-File Report 03-065, 129 p.
- Goodge, J. W.**, and Hansen, V. L., with contributions from Teaching Assistants, 1997, Laboratory Exercises in Earth System Science: prepared for Department of Geological Sciences, SMU, includes 11 earth science labs.
- Rowell, A. J., **Goodge, J. W.**, Encarnacion, J., and Paulsen, T., 1997, Group Report: Basement Rocks of the Central Transantarctic Mountains (TAM): Report prepared for the NSF Workshop on the Transantarctic Mountains, Ohio State University, 4 pp.
- Goodge, J. W.**, 1995, LIRA Workshop Report: Ross Orogen: Crustal Assembly and Plate Tectonic Significance: *Terra Antartica*, v. 2, no. 1, p. 71-77.
- Goodge, J. W.**, 1995, Workshop delves into research on Antarctic's Ross Orogen: *Eos*, v. 76, no. 21, p. 212.
- Goodge, J. W.**, Walker, N. W., and Bracchi, K. A., 1994, Geologic investigations in the Lanterman Metamorphic Complex, northern Victoria Land, Antarctica: *Antarctic Journal of the United States*, v. 29, no. 5, p. 26-27.
- Goodge, J. W.**, Hansen, V. L., Walker, N. W., 1991, Geologic relations of the upper Nimrod Glacier area, central Transantarctic Mountains: Evidence for multiple orogenic history: *Antarctic Journal of the United States*, v. 26, p. 4-6.

Goodge, J. W., Hansen, V. L., Peacock, S. M., and Smith, B. K., 1990, Metamorphic rocks in the Geologists and Miller Ranges, Nimrod Glacier area, central Transantarctic Mountains: *Antarctic Journal of the United States*, v. 25, p. 35-36.

Borg, S. G., **Goodge, J. W.**, Bennett, V. C., DePaolo, D. J., and Smith, B. K., 1987, Geochemistry of granites and metamorphic rocks: central Transantarctic Mountains: *Antarctic Journal of the United States*, v. 22, p. 21-23.

Borg, S. G., **Goodge, J. W.**, DePaolo, D. J., and Mattinson, J. M., 1986, Field studies of granites and metamorphic rocks: central Transantarctic Mountains, Antarctica: *Antarctic Journal of the United States*, v. 21, p. 43-45.

VI. Abstracts of presented papers:

Goodge, J. W., Fanning, C. M., Brecke, D. M., Licht, K. J., and Palmer, E. F., Continuation of the Laurentian Grenville Province in western East Antarctica: Geological Society of America, annual meeting, Portland, October 2009.

Hudak, G. J., Miller, J. D. Jr, Peterson, D. M., **Goodge, J.**, Wattrus, N., Severson, M. J., And Larson, P., The Precambrian Research Center at the University of Minnesota Duluth: teaching the next generation of economically-oriented field geologists: Geological Society of America, annual meeting, Portland, October 2009.

Goodge, J. W., and C. M. Fanning; Discovery of Grenville-age and older Proterozoic crustal rocks along the palaeo-Pacific margin of East Antarctica: Implications for the ice-covered East Antarctic shield and geologic ties to western Laurentia; *invited paper* at the 2009 international Fermor meeting “Rodinia; Supercontinents, Superplumes and Scotland”, sponsored by the Geological Society of London; Edinburgh, Scotland, September 2009.

Goodge, J. W., et al., 2007, Pieces of Laurentia in East Antarctica: American Geophysical Union meeting, San Francisco, California.

Goodge, J. W., 2007, Detrital zircon record of crustal assembly and orogenic evolution along the paleo-Pacific margin of Antarctica [invited paper]; Ores & Orogenesis Symposium, Arizona Geological Society, September 24-30, 2007, Tucson, Arizona.

Mogk, D., Clark, C. E., Dutrow, B., **Goodge, J.**, Henry, D., Ketcham, R., Mueller, P., Swapp, S., Vervoort, J., and Wirth, K., 2007, Web resources for teaching geochemical instrumentation and analysis; Geological Society of America Annual Meeting (28–31 October 2007).

Myrow, P. M., Hughes, N., **Goodge, J.**, Fanning, C. M., and Williams, I., 2007, Scale and significance of transport of sediment in East Gondwanaland during the Cambrian; Geological Society of America Annual Meeting (28–31 October 2007).

Goodge, J. W., et al., 2007, Pieces of Laurentia in East Antarctica: *10th International Symposium on Antarctic Earth Sciences*, Santa Barbara, California.

Goodge, J. W., 2007, Proxies of the East Antarctic shield: Composition and age of ice-covered basement from sedimentary and glacial provenance: *10th International Symposium on Antarctic Earth Sciences*, Santa Barbara, California.

Brecke, D. M. (UMD M.S. student), and **J. W. Goodge**, 2007, Provenance of glacially transported material near Nimrod Glacier, East Antarctica: Evidence of the ice-covered East Antarctic shield, *10th International Symposium on Antarctic Earth Sciences*, Santa Barbara, California.

- Goodge, J. W.**, Fanning, C. M., Brosch, K. M. (*UMD undergrad*), and Curelli, D. K. (*UMD undergrad*), 2006, Composition and age of East Antarctic shield in Wilkes Land determined by proxy samples of Oligocene-Holocene glaciomarine sediment: Geological Society of America Annual Meeting, Philadelphia, 2006, Invited for Theme Session T138: "Using Detrital Zircon Geochronology to Answer Geologic Questions We Formerly Could Not Ask".
- Goodge, J. W.**, and Vervoort, J. D., 2005, Crustal origin of ~1.4 Ga Laurentian A-type granites from Hf isotope compositions, *Geological Society of America Abstracts with Programs*, v. 37, no. 7, presented in Theme Session 132: *Accretionary Orogens in Space and Time*.
- Goodge, J. W.**, and Vervoort, J. D., 2005, Hf isotope compositions of Laurentian anorogenic granites: 15th Goldschmidt Conference (The Geochemical Society), Moscow, Idaho.
- Goodge, J.**, Finn, C., Damaske, D., Abraham, J., Moeller, H.-D., Anderson, E., Roland, N., Goldmann, F., Braddock, P., and Rieser, M. (*UMD grad student*), 2004, Aeromagnetic and gravity data reveal crustal structure and tectonic history of the central Transantarctic Mountains region, *Eos, Transactions of the American Geophysical Union*, v. 85, no. 47, T11A-1237.
- Goodge, J.**, Finn, C., Damaske, D., Abraham, J., Moeller, H.-D., Anderson, E., Roland, N., Goldmann, F., Braddock, P., and Rieser, M. (*UMD grad student*), 2004, Crustal structure of Ross Orogen revealed by aeromagnetism and gravity, *Geological Society of America Abstracts with Programs*, v. 36, no. 5, p. 495.
- Goodge, J.**, 2003, Plate-margin reactivation of ancient cratonic shields: *Geological Society of America Abstracts with Programs*, v. 35, no. 6, p. 557.
- Finn, C., **Goodge, J.**, Damaske, D., and Roland, N., 2003, Aeromagnetic and gravity survey of shield basement along the central Ross margin of East Antarctica: 9th International Symposium on Antarctic Earth Sciences, Potsdam, Germany.
- Goodge, J.**, Myrow, P., Williams, I.S., Phillips, D., and Fanning, C.M., 2003, Rift- to active-margin sedimentation in Neoproterozoic and lower Paleozoic siliciclastic rocks of the central Ross Orogen, Antarctica: Detrital record of provenance and orogenic denudation rates: 9th International Symposium on Antarctic Earth Sciences, Potsdam, Germany.
- Goodge, J. W.**, Williams, I.S., Phillips, D., Myrow, P., and Fanning, C.M., 2002, Siliciclastic record of rapid denudation in response to convergent-margin orogenesis, Ross Orogen, Antarctica: *Geological Society of America Abstracts with Programs*, v. 34, no. 6, p. 484.
- Goodge, J. W.**, 2002, Nature of the East Antarctic shield in the Transantarctic Mountains: Invited keynote paper, NSF-sponsored workshop "REVEAL: REmote Views and Exploration of Antarctic Lithosphere: Tools for mapping the last continental frontier", Denver.
- Goodge, J. W.**, 2002, Neoproterozoic to early Paleozoic record of Rodinia breakup and Gondwana-margin convergence in East Antarctica [invited paper]: *in* Preiss, V. P., *Geoscience 2002: Expanding Horizons*; 16th Australian Geological Convention, Adelaide; no. 67, p. 120.
- Goodge, J. W.**, 2002, Nature of the East Antarctic shield along the Pacific margin of Antarctica [invited paper]: *in* Preiss, V. P., *Geoscience 2002: Expanding Horizons*; 16th Australian Geological Convention, Adelaide; no. 67, p. 229.
- Williams, I., **Goodge, J.**, Myrow, P., Burke, K., and Kraus, J., 2002, Large scale sediment dispersal associated with the Late Neoproterozoic assembly of Gondwana: *in* Preiss, V. P., *Geoscience 2002: Expanding Horizons*; 16th Australian Geological Convention, Adelaide; no. 67, p. 238.

- Goodge, J. W.**, Fanning, C. M., Williams, I. S., and Myrow, P. M., 2001, Zircon age links between Proterozoic Laurentia and East Antarctica: comparison of ~1.7 and ~1.4 Ga signatures: *Geological Society of America Abstracts with Programs*, v. 33, no. 6, p. A-207.
- Myrow, P. M., Fischer, W., and **Goodge, J.W.**, 2001, Wave-modified turbidites: record of combined flows in Cambrian deposits of Starshot Formation, Antarctica: *Geological Society of America Abstracts with Programs*, v. 33, no. 6, p. A-163.
- Goodge, J. W.**, and Fanning, C. M., 2001, Revised Precambrian crustal history of the Nimrod Group, central Transantarctic Mountains, Antarctica: EUG XI, European Union of Geosciences, Strasbourg, p. 376.
- Miranda, E. A., and **Goodge, J. W.**, 2000, Interaction of deformation and magmatism in the Idaho Springs-Ralston shear zone, Colorado: *Geological Society of America Abstracts with Programs*, v. 32, no. 7, p. 453.
- Goodge, J. W.**, Myrow, P. M., and Williams, I. S., 2000, Age and provenance of the Beardmore Group, Antarctica: Constraints on Rodinia supercontinent breakup: *Geological Society of America Abstracts with Programs*, v. 32, no. 7, p. 9.
- Pope, M. C., Myrow, P. M., Fischer, W., and **Goodge, J.W.**, 2000, Early Cambrian tectonically-induced drowning of the Shackleton carbonate platform, Transantarctic Mountains, Antarctica: *Geological Society of America Abstracts with Programs*, v. 32, no. 7, p. 225.
- Deering, S. K., and **Goodge, J. W.**, 1999, Structural history of the Beardmore Group: Central Transantarctic Mountains, Antarctica: *Geological Society of America Abstracts with Programs*, v. 31, no. 7, p. 118.
- Goodge, J. W.**, 1999, From Rodinia to Gondwana: Invited Plenary Address to 8th International Symposium of Antarctic Earth Sciences, Wellington, New Zealand, p. 5-6.
- Goodge, J. W.**, and Fanning, C. M., 1999, 2.5 Billion Years of Punctuated Earth History as Recorded in a Single Rock from the Nimrod Group, Central Transantarctic Mountains: 8th International Symposium of Antarctic Earth Sciences, Wellington, New Zealand, p.120.
- Goodge, J. W.**, Paulsen, T., Deering, S. K., Encarnación, J., and Watkeys, M., 1999, Progressive(?) Deformation of Supracrustal Rocks in the Ross Orogen, Central Transantarctic Mountains: In Skinner, D.N.B., ed., *Proceedings of 8th International Symposium on Antarctic Earth Sciences*: Wellington, New Zealand, p. 121.
- Myrow, P., and **Goodge, J. W.**, 1999, Reinterpretation of Depositional and Tectonic Setting of Neoproterozoic Strata, Transantarctic Mountains: In Skinner, D.N.B., ed., *Proceedings of 8th International Symposium on Antarctic Earth Sciences*: Wellington, New Zealand, p. 222.
- Goodge, J. W.** and Deering, S. K., 1997, Radial fractures around mineral inclusions in garnet and epidote: Evidence of decompression during mid-crustal orogenesis: *Eos, Trans. Amer. Geophys. Union*, v. 78, no. 46, p. F787.
- Goodge, J. W.**, 1997, Neoproterozoic to early Paleozoic tectonics in the Beardmore Glacier area of the Ross Orogen: Transantarctic Mountains Workshop, Ohio State University, Columbus.
- Goodge, J. W.** and Siddoway, C. S., 1997, Mineral reactions and petrogenetic implications of Fe-Mn-andalusite, northern Wet Mountains, Colorado: *Geological Society of America Abstracts with Programs*, v. 29, p. 11.

- Kohl, J. A., **Goodge, J. W.**, and Hansen, V. L., 1997, Kinematic evolution and crustal conditions of the Idaho Springs-Ralston Shear Zone, Colorado: *Geological Society of America Abstracts with Programs*, v. 29, p. 18.
- Goodge, J. W.** and Walker, N. W., 1996, Basin-inversion model for latest Neoproterozoic deformation of the Beardmore Group, central Transantarctic Mountains, Antarctica: *Geological Society of America Abstracts with Programs*, v. 28, no. 7, p. 61.
- Goodge, J. W.**, Walker, N. W., and Dallmeyer, R. D., 1995, Thermal and kinematic history of the Ross orogen, Antarctica: *Geological Society of America Abstracts with Programs*, v. 27, no. 6, p. 126.
- Goodge, J. W.**, and Dallmeyer, R. D., 1995, Contrasting basement kinematics and cooling histories within the Ross orogen, Antarctica: *7th International Symposium on Antarctic Earth Sciences*, Siena, Italy.
- Goodge, J. W.**, Bracchi, K. A., and Walker, N. W., 1994, Evidence of oblique displacement during Ross orogenesis in northern Victoria Land, Antarctica: *Geological Society of America Abstracts with Programs*, v. 26, no. 7, p. 49.
- Walker, N. W., and **Goodge, J. W.**, 1994, Tectonic significance of 650-1100 Ma detrital zircons from the Neoproterozoic Goldie Formation, Beardmore Group, central Transantarctic Mountains, Antarctica: *Geological Society of America Abstracts with Programs*, v. 26, no. 7, p. 49.
- Hansen, V. L., Keep, M., Oliver, D. H., and **Goodge, J. W.**, 1993, Asymmetric rifting of the western margin of North America: *Geological Society of America Abstracts with Programs*, v. 25, p. 171.
- Goodge, J. W.**, and Peacock, S. M., 1993, P-T-t history of high-pressure tectonites in the Transantarctic Mountains: Evidence of oblique collisional events: *Geological Society of America Abstracts with Programs*, v. 25, p. 425.
- Goodge, J. W.**, Hansen, V. L., and Walker, N. W., 1993, Tectonics of Precambrian basement along the Pacific margin of Antarctica and relation to western North America: *Geological Society of America Abstracts with Programs*, v. 25, p. 11-12.
- Goodge, J. W.**, 1992, Cogenetic Permo-Triassic melange and blueschist terranes of the central Cordillera, California and Oregon: *Geological Society of America Abstracts with Programs*, v. 24, p. 27.
- Goodge, J. W.**, and Renne, P. R., 1991, Mid-Paleozoic petrotectonic signature of accretionary belts in the southern Klamath Mountains, California: *Geological Society of America Abstracts with Programs*, v. 23, p. 480.
- Hansen, V. L., and **Goodge, J. W.**, 1991, High strain rates in the Miller Range shear zone, Transantarctic Mountains: Evidence of deep-crustal plate boundary deformation: *Geological Society of America Abstracts with Programs*, v. 23, p. 304.
- Walker, N. W., and **Goodge, J. W.**, 1991, Significance of Late Archean - Early Proterozoic U-Pb ages of individual Nimrod Group detrital zircons and Cambrian plutonism in the Miller Range, Transantarctic Mountains: *Geological Society of America Abstracts with Programs*, v. 23, p. 306.
- Goodge, J. W.**, Hansen, V. L., and Peacock, S. M., 1991, Petrotectonic history of high-grade metamorphic rocks in the central Transantarctic Mountains, Antarctica, and implications for Proterozoic crustal evolution: *6th International Symposium on Antarctic Earth Sciences*, Saitama, Japan, p. 172.
- Goodge, J. W.**, 1991, Precambrian crustal evolution of the East Antarctic craton in the Transantarctic Mountains: *Eos, Trans. Amer. Geophys. Union*, v. 72, p. 298.

- Goodge, J. W.**, and Dallmeyer, R. D., 1990, Early Paleozoic uplift of high-grade metamorphic rocks in the central Transantarctic Mountains: $^{40}\text{Ar}/^{39}\text{Ar}$ evidence: *Geological Society of America Abstracts with Programs*, v. 22, no. 7, p. 144.
- Goodge, J. W.**, Hansen, V. L., Peacock, S. M., and Smith, B. K., 1990, Deep-crustal ductile deformation within the central Transantarctic Mountains: *Eos, Trans. Amer. Geophys. Union*, v. 71, p. 643.
- Goodge, J. W.**, Borg, S. G., Smith, B. K., and Bennett, V. C., 1989, Structural, thermobarometric, and isotopic evidence of pre-Ordovician crustal shortening in the central Transantarctic Mountains: *Eos, Trans. Amer. Geophys. Union*, v. 70, p. 1362.
- Goodge, J. W.**, and Holdaway, M. J., 1989, Isotopic evidence of inhibited fluid flow in quartzite and pelitic schist, Picuris Range, New Mexico: *Geological Society of America Abstracts with Programs*, v. 21, no. 5, p. 85.
- Goodge, J. W.**, and Hacker, B. R., 1989, Margin-parallel variation in lower Mesozoic North American Cordilleran subduction complexes: *Geological Society of America Abstracts with Programs*, v. 21, no. 5, p. 85.
- Holdaway, M. J., Geving, R. L., **Goodge, J. W.**, Dickerson, R. P., and Dutrow, B. L., 1987, The case for retrograde chlorite in staurolite-garnet-two-mica schist: *Geological Society of America Abstracts with Programs*, v. 19, p. 705.
- Goodge, J. W.**, and Borg, S. G., 1987, Metamorphism and crustal structure in the Miller Range, Central Transantarctic Mountains: *5th International Symposium on Antarctic Earth Sciences*, Cambridge, England, p. 53.
- Goodge, J. W.**, 1987, Polyphase metamorphism of early Mesozoic oceanic rocks in the central Klamath Mountains, California: *Geological Society of America Abstracts with Programs*, v. 19, no. 6, p. 382.
- Goodge, J. W.**, 1986, Relations of the Stuart Fork and North Fork terranes in the central Klamath Mountains, northern California: *Geological Society of America Abstracts with Programs*, v. 18, p. 109.
- Goodge, J. W.**, 1985, Widespread blueschist assemblages in the Stuart Fork terrane, central Klamath Mountains, northern California: *Geological Society of America Abstracts with Programs*, v. 17, p. 357.
- Goodge, J. W.**, 1983, Reorientation of folds by progressive mylonitization, Okanogan dome, north-central Washington: *Geological Society of America Abstracts with Programs*, v. 15, p. 323.
- Goodge, J. W.**, 1980, Migmatites from the Vermilion Granitic Complex, northern Minnesota: in Meyers, P. E. (ed.), *26th Annual Institute on Lake Superior Geology*, p. 13–14.

VII. Theses:

- Goodge, J. W.**, 1987, Polyphase metamorphic evolution of the Stuart Fork terrane, a late Triassic subduction complex in the Klamath Mountains, northern California: unpubl. Ph.D. dissertation, University of California, Los Angeles, 228 p.
- Goodge, J. W.**, 1983, Fold reorientation and quartz microfabric in Okanogan dome mylonite zone, Washington: Kinematic and tectonic implications: unpubl. M.S. thesis, University of Montana, Missoula, 65 p.
- Goodge, J. W.**, 1980, Migmatites from the Vermilion Granitic Complex, Minnesota: unpubl. B.A. thesis, Carleton College, Northfield, Minnesota, 110 p.

VIII. Student-authored papers:

- Brecke, D. M.** (UMD M.S. student), and J. W. Goodge, 2007, Provenance of glacially transported material near Nimrod Glacier, East Antarctica: Evidence of the ice-covered East Antarctic shield, *10th International Symposium on Antarctic Earth Sciences*, Santa Barbara, California.
- Goodge, J. W., Fanning, C. M., **Brosch, K. M.** (UMD undergrad), and **Curelli, D. K.** (UMD undergrad), 2006, Composition and age of East Antarctic shield in Wilkes Land determined by proxy samples of Oligocene-Holocene glaciomarine sediment: Geological Society of America Annual Meeting, Philadelphia, 2006, Invited for Theme Session T138: "Using Detrital Zircon Geochronology to Answer Geologic Questions We Formerly Could Not Ask".
- Miranda, E. A.**, and Goodge, J. W., 2000, Interaction of deformation and magmatism in the Idaho Springs-Ralston shear zone, Colorado: *Geological Society of America Abstracts with Programs*, v. 32, no. 7, p. 453.
- Deering, S. K.**, and Goodge, J. W., 1999, Structural history of the Beardmore Group: Central Transantarctic Mountains, Antarctica: *Geological Society of America Abstracts with Programs*, v. 31, no. 7, p. 118.
- Kohl, J. A.**, Goodge, J. W., and Hansen, V. L., 1997, Kinematic evolution and crustal conditions of the Idaho Springs-Ralston Shear Zone, Colorado: *Geological Society of America Abstracts with Programs*, v. 29, p. 18. [Jennifer Kohl received a Best Student Paper Award for her oral presentation]
- Oliver, D. H.**, and Goodge, J. W., 1996, Leucoxene fish as a micro-kinematic indicator: *Journal of Structural Geology*, v. 18, no. 12, p. 1493-1497.

SYMPOSIA AND WORKSHOPS ATTENDED

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|------|--|
| 2009 | Geological Society of London Fernor conference "Rodinia; Supercontinents, Superplumes and Scotland"; Edinburgh, Scotland, September 2009; invited paper given. |
| 2007 | Ores and Orogenesis Symposium, Arizona Geological Society, Tuscon, Arizona; invited Keynote paper presented |
| 2007 | 10 th International Symposium on Antarctic Earth Sciences, Santa Barbara, California; 3 papers presented |
| 2006 | NSF-sponsored workshop "Transantarctic Mountains: New Opportunities for Multi-disciplinary Research", Ohio State University, September 2006, invited discipline group leader |
| 2005 | 15 th Goldschmidt Conference (The Geochemical Society), Moscow, Idaho; paper presented |
| 2004 | 50 th Institute on Lake Superior Geology, Duluth |
| 2003 | 9 th International Symposium on Antarctic Earth Sciences, Potsdam, Germany; 2 papers presented |

- 2003 NAGT-NSF workshop "Teaching Petrology in the 21st Century"; Montana State University, Bozeman, teaching module presented.
- 2002 NSF workshop "REVEAL: RERemote Views and Exploration of Antarctic Lithosphere: Tools for mapping the last continental frontier" (co-convenor); Denver.
- 2002 16th Australian Geological Convention, Adelaide; 2 invited papers presented.
- 1999 8th International Symposium on Antarctic Earth Sciences, Wellington, New Zealand; 4 papers presented, including invited Plenary Address, *From Rodinia to Gondwana*
- 1995 7th International Symposium on Antarctic Earth Sciences, Siena, Italy; paper presented
- 1994 Antarctic GIS Workshop; U. S. Geological Survey, Reston, Virginia; presentation given
- 1993 Workshop on the Assembly of Gondwana; University of North Carolina, Chapel Hill; paper presented
- 1992 Geological Society of America Penrose Conference "Precambrian tectonics and the dawn of the Phanerozoic", Death Valley, California; presentation given
- 1991 Geological Society of America Short Course "Thermochronology: Applications to Tectonics, Petrology and Stratigraphy"
- 1991 6th International Symposium on Antarctic Earth Sciences, Saitama, Japan; paper presented
- 1990 Geological Society of America Penrose Conference "Tectonic evolution of transpressional margins", Bellingham, Washington; poster presented
- 1990 Geological Society of America Short Course "Metamorphic Pressure-Temperature-Time Paths"
- 1989 Workshop on the Antarctic International Lithosphere Project (ANTALITH), National Academy of Sciences, Washington, D.C.
- 1988 Geological Society of America Penrose Conference "Paleozoic-early Mesozoic paleogeographic relations between the Klamath Mountains, northern Sierra and North America", Redding, California; presentation given
- 1987 5th International Symposium on Antarctic Earth Sciences, Cambridge, U.K.; paper presented
- 1984 Geological Society of America Penrose Conference "Structural style and deformation fabrics of accretionary complexes", Eureka, California

INVITED TALKS

- 2006 North Dakota State University, Fargo, Department of Geological Sciences
University of Minnesota, Twin Cities, Department of Geology & Geophysics
University of Minnesota, Duluth, Department of Geological Sciences
- 2004 Indiana University-Purdue, Indianapolis
St. Thomas University, St. Paul, MN, Dept. of Geology
Syracuse University, Syracuse, NY, Dept. of Geological Sciences
Mesabi Range Geological Society
- 2003 University of Kansas, Dept. of Geology
University of Minnesota, Duluth, Dept. of Geological Sciences
- 2001 Da Vinci Science Collegium, Dallas
- 2000 Australian National University, Research School of Earth Sciences, Canberra
Macquarie University, Dept. of Geology, Sydney, Australia
- 1999 Dallas Museum of Natural History
- 1998 McMurdo Base, Antarctica, Public science lecture
Australian National University, Research School of Earth Sciences, Canberra
- 1996 Southern Methodist University, Godbey Lecture Series
Colorado College, Dept. of Geology
- 1994 University of Texas at Arlington, Dept. of Geology
- 1993 Mobil Research & Development Corp., Dallas
Southern Methodist University Chapter of Sigma Xi
University of Texas at Dallas, Geosciences Program
University of North Carolina, Chapel Hill, Dept. of Geology
- 1992 University of Missouri, Dept. of Geological Sciences
Washington University, St. Louis, Dept. of Earth & Planetary Sciences
- 1990 Ohio State University, Dept. of Geology and Byrd Polar Research Center
University of Texas at Dallas, Geosciences Program
- 1989 University of New Mexico, Dept. of Earth & Planetary Sciences
University of Georgia, Dept. of Geology

- 1987 Southern Methodist University, Dept. of Geological Sciences
 Dallas-Ft. Worth Area Hard Rock Club
 California Institute of Technology, Div. of Geological and Planetary Science

UNIVERSITY AND COMMUNITY SERVICE

UMD:

- Director of Graduate Studies, 2010-13
- Faulty Advisor, UMD Geology Club and SGE Chapter
- Faculty Coordinator, Analytical Facilities Lab, SCSE
- University (system), Search Committee for Director of new Science and Technology Interdisciplinary Research Institute, 2007-08
- University (system), Provost's Task Force on Science and Technology Interdisciplinary Research Institute, 2006-07
- College Board Validity Study, 2005
- Educational Policy Committee, 2004
- Single-Semester Leave Committee, 2004
- University Honors Program (instructor and advisor), 2003-2006
- Faculty Advisor in CSE, 2002-present

SMU:

- University Research Council, 2001-2004
- Education Search Committee (Science and Math Teacher Preparation), 2000-2001
- University Educational Programs Committee, 1999-2001
- Goldwater Scholarship committee, 1998-2002
- Faculty Mentoring Program, 1996-2002
- Coordinator, Undergraduate Program in Geological Sciences, 1995-2001
- Director, Dallas Regional Science and Engineering Fair, 1995-2000
- Dedman College Undergraduate Council, SMU, 1995-98
- Faculty Director, Electron Microprobe Laboratory, 1994-2002
- Science Judge, U.S. DOE High School Science Bowl, Texas State Finals, 1994-95
- Research Computing Steering Committee, 1994-95

Science talks at many elementary and secondary schools, and community organizations.

CONTRIBUTIONS TO DEPARTMENTAL FACILITIES AND SUPPORT

UMD:

- Development of new Research Instrumentation Lab, funds provided by the Swenson College of Science and Engineering, 2010
- Development of new scanning electron microscopy (SEM) lab (~\$400,000 in equipment purchased with funds from NSF, with additional support and staffing from CSE), 2007
- Development of new Departmental microscopy lab (~\$175,000, with alumni donations and matching funds from UMD and CSE), 2006
- Coordinated renovations of teaching labs in Chem 206, 207 and 210, 2004-05
- Content & maintenance of Department web site, 2003-present
- Department Research Space Committee, 2003-present

SMU:

- Acquired GeoScan Enabler (device for digital scanning of petrographic thin sections); ~\$900 with grant from SMU President's Partners Program, 1999
- Acquired WDS automation upgrade for electron microprobe lab; ~\$63,000, matching support from SMU and NSF, 1996
- Acquired projection microscope for thin section study in instruction; ~\$6,000, with grant from SMU President's Partners Program and matching funds from Dedman College, 1996
- Coordinated planning and implementation of departmental Ethernet network, 1996
- Coordinated development of departmental instructional Computer Lab, 1994
- Acquired EDS upgrade for electron microprobe lab; ~\$75,000, matching support from SMU and NSF, 1992

TEACHINGUMD:

Geol 1040	Freshman Seminar: Natural Disasters & Civilization
Geol 1052	Freshman Seminar: Natural Disasters & Civilization (Honors)
Geol 1058	Freshman Seminar: Global Environment (Honors)
Geol 1110	Geology & Earth Systems
Geol 2120	Earth's Dynamic Interior
Geol 2300	Basic Mineralogy and Petrology
Geol 2312	Petrology
Geol 5500	Tectonics
Geol 5310	Advanced Petrology
Geol 8100	Graduate Seminar: Metamorphism of Basalts
Geol 8100	Graduate Seminar: Archean Earth

SMU:

GEOL 1301	Introduction to Physical Geology (retired course)
GEOL 1301	Earth Systems
GEOL 3451	Earth Materials I (mineralogy, crystallography, optical mineralogy)
GEOL 3452	Earth Materials II (petrology, field methods and mapping)
GEOL 3242	Geology Field Studies
GEOL 4321	Internship in Geology (professional experience for undergraduates)
CF 3317	Global Perspectives on Environmental Issues
Seminar	Supercontinent tectonics and the development of Gondwanaland
Seminar	Cordilleran tectonic evolution (with V. Hansen)
Seminar	Metamorphism and mountain belts
Seminar	Crust-mantle interactions
GEOL 7257	Graduate Field Studies

GRADUATE ADVISINGUMD:

Amy Radakovich (M.S. candidate, thesis advisor)
 Tanya Dreyer (Ph.D. candidate, thesis advisor)
 Jennifer Goldner (M.S. candidate; thesis advisor)
 Christopher White (M.S. 2010; candidate; thesis co-advisor)
 Shelby Frost (M.S. 2010; thesis advisor)
 Devon Brecke (M.S. 2007; thesis advisor)
 Glenn Phillips (Ph.D. candidate, University of Melbourne, Australia); external examining committee 2006
 Roger Bannister (M.S. 2006)
 Seth Kruckenberg (Ph.D. candidate, University of Minnesota, Twin Cities)
 Michael Rieser (M.S. 2005; thesis advisor)
 David Maidment (Ph.D. candidate, Australian National University); external examining committee 2005
 Paul Albers (M.S. 2006)
 Nick Lang (Ph.D. 2006)
 Kelly McDaniel (M.S. 2005)
 Greg Joslin (M.S. 2004)
 Joy Turnbull (M.S. candidate)
 Carrie Heiling (M.S. candidate)
 Chris Jackson (Ph.D. candidate, University of Natal, South Africa); external examining committee 2002

SMU:

Duncan Young (Ph.D. 2003)
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