

Walter A. Sullivan

Department of Geology • Colby College • 5800 Mayflower Hill • Waterville, ME 04901
Mobile phone: (307) 760-5109 • E-mail: wasulliv@colby.edu

AREA OF SPECIALIZATION

Structural geology and tectonics with emphasis on the penetrative, plastic deformation of the middle and lower crust

EDUCATION

Ph.D., University of Wyoming, Laramie, Wyo. (August, 2007)

Advisor: Dr. Arthur W. Snoke

Dissertation: L Tectonites

M.S., Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, Va. (June, 2003)

Advisor: Dr. Richard D. Law

Thesis: Geometry, Kinematics and Age of the Northern Half of the White Mountain Shear Zone, Eastern California and Nevada

B.S., Concord University, Athens, W. Va. (May, 2001)

Advisor: Dr. Joseph L. Allen

Distinctions: Graduated *Summa Cum Laude*

Senior thesis: Stratigraphy of Upper Hinton Formation Sandstones in the Bluestone River Gorge, Southern West Virginia

TEACHING POSITIONS HELD

Colby College, Visiting Assistant Professor of Geology, Teaching the following courses:

- Physical Geology (pending spring, 2008)
- Plate Tectonics (pending spring, 2008)
- Structural Geology (fall, 2007)

University of Wyoming, Graduate Teaching Assistant, Taught the following laboratory sections:

- Geology Field Camp (summer, 2005 and 2006)
- Structural Geology (fall, 2004)
- Mineralogy (spring, 2004)
- Physical Geology (fall, 2003 and spring, 2005, 2007)

Virginia Polytechnic Institute and State University (Virginia Tech), Graduate Teaching Assistant, Taught the following laboratory sections:

- Resources Geology (spring, 2002 and 2003)
- Physical Geology (fall, 2001 and 2002)

Concord University Student Support Services, Academic Tutor (fall, 1999–spring, 2001)

RESEARCH EXPERIENCE

University of Wyoming (fall, 2003–summer, 2007), Doctoral dissertation research:

Utilized detailed geologic mapping at scales of 1:6,000–1:12,000; microstructural analyses; petrographic analyses on the light microscope; crystallographic-fabric analyses using a universal stage and electron back-scattering diffraction or “EBSD” on a scanning electron microscope; and strain analyses of deformed cobbles and pebbles to understand the nature and significance of pure or nearly pure linear fabrics (L tectonites) indicating apparent constrictional strain in three diverse structural/tectonic settings.

Virginia Polytechnic Institute and State University (Virginia Tech) (fall, 2001–spring, 2003), Master’s thesis research:

Combined geologic mapping, field observations, microstructural analyses, and quartz *c*-axis-fabric analyses using a universal stage to provide a detailed description of the geometry, kinematics, and age of a steeply dipping transpression zone exposed in the White Mountains, California and Nevada.

Western Carolina University and the University of South Florida (summer, 2000), Research experience for undergraduates (REU):

Participated in detailed geologic mapping, petrographic analyses using the light microscope, collection of geophysical data, and geochemical analyses. Worked with 11 other students and 5 faculty members to interpret these data.

PUBLICATIONS

Refereed journal articles

Sullivan, W.A. and Snoke, A.W., 2007, Comparative anatomy of core-complex development in the northeastern Great Basin, U.S.A.: *Rocky Mountain Geology*, v. 42, p. 1–29.

Sullivan, W.A. and Law, R.D., 2007, Strain path partitioning in the transpressional White Mountain shear zone, California and Nevada: *Journal of Structural Geology*, v. 29, p. 583–598.

Sullivan, W.A., 2006, Structural significance of L tectonites in the eastern-central Laramie Mountains, Wyoming: *Journal of Geology*, v. 114, p. 513–531.

Manuscripts in review or preparation

Sullivan, W.A., in review, Significance of transport-parallel strain variations in part of the Raft River shear zone, Raft River Mountains, Utah, U.S.A.: *Journal of Structural Geology*.

Sullivan, W.A., Structural significance of L tectonites in the western Hayfork terrane, Klamath Mountains, California: in preparation for the *Journal of Structural Geology*.

Sullivan, W.A., and Snoke, A.W., L Tectonites: in preparation for the *Geological Society of America Bulletin*.

Conference abstracts

Sullivan, W.A., Structural significance of L tectonites in part of the western Hayfork terrane, Klamath Mountains, California: *Geological Society of America Abstracts with Programs*, to be presented at the 2007 National Meeting.

Sullivan, W.A., 2006, L tectonites in the eastern-central Laramie Mountains, Wyoming: EOS Transactions AGU, v. 87, no. 52, Abstract no. T53C-1618.

Sullivan, W.A., and Law, R.D., 2003, Geometry kinematics and age of the northern half of the White Mountain shear zone: Extending the range and duration of Late Cretaceous dextral transpression along the western margin of North America: Geological Society of America Abstracts with Programs, v. 34, no. 7, p. 114.

Sullivan, W.A., and Allen, J.L., 2001, Stratigraphy of upper Hinton Formation sandstones in the Bluestone River Gorge, southern West Virginia: Geological Society of America Abstracts with Programs, v. 33, no. 2, p. 77.

Bierly L., **Sullivan, W.**, Tibbits, M., Natoli, J., Csontos R., Meyer, J., Nettik, J., Dean, R., DeArmond, B., Gerseny, M., Lesmerises, M., Pollock, M., Yurkovich, S., Savov, I., Peterson, V., Burr, J., Kruse, S., Schneider, J., Ryan J., 2001, Petrographic and field relations of a portion of the Carroll Knob Mafic/Ultramafic Complex, eastern, Blue Ridge, Macon Co., NC: Geological Society of America Abstracts with Programs, v. 33, no. 2, p. 69.

GRANT PROPOSALS FUNDED

- Geological Society of America Grant in Aid of Research (April, 2005): Geological Society of America
- J. David Love Foundation Grant in Aid of Research (May, 2004): J. David Love Foundation
- Gregg Ranch Foundation Grant in Aid of Research (April, 2004): Gregg Ranch Foundation
- Sigma Xi Grant in Aid of Research (January, 2003): Sigma Xi Scientific Society
- White Mountain Research Station Fellowship (May, 2002): University of California, San Diego
- David R. Wones Geosciences Scholarship (April, 2002): Virginia Tech Department of Geosciences

NSF GRANT PROPOSALS COAUTHORED

“The Structural Significance of L Tectonites in Contrasting Geologic Settings”: Submitted December, 2003 and 2004 to NSF Structure and Tectonics Division, P.I., Dr. Arthur W. Snoke

SERVICE TO THE GEOSCIENCES COMMUNITY

Referee for *Rocky Mountain Geology*

PROFESSIONAL DEVELOPMENT

- Integrated Solid Earth Sciences (ISES) Summer School in Rheology of Earth Materials (August, 2006)
- Virginia Tech Graduate Teaching Assistant Workshop (August, 2001)
- Membership in Professional Societies: Geological Society of America, American Geophysical Union