

SHORT VITAE
For
VERNON MAX BROWN
Department of Environmental Sciences
University of Toledo

EDUCATION:

Ph.D. (Geology): University of Missouri at Rolla (Missouri School of Mines), 1983
M.S. (Geology): University of Oklahoma, Norman, 1976
B.S. (Geology): Southwest Missouri State College, Springfield, 1971
B.S. (Biology): Southwest Missouri State College, Springfield, 1964

TIME LINE:

(1960) Birch Tree, MO - High School Graduation
(1960-64) B.S., S.W. MO State: major – Biology, minor – American Literature
(1964-68) U.S. Air Force (operating room specialist, scrub nurse)
(1968-71) B.S., S.W. MO State: major – Geology, public school teaching certificate
(1971-74) M.S., University of Oklahoma – Geology (assistantship, x-ray lab tech)
(1974-76) Teacher – Mountain View Junior High, MO (life science and earth science)
(1976-77) Teacher – Liberty High School, MO (Biology, Chemistry, Nature Study, Physics)
(1977-80) Ph.D., University of Missouri at Rolla – Geology
(1980 to 2008) University of Toledo – Geology (now Environmental Sciences) Department
(2009 to present) Retired, Living in Nixa, MO

AREAS OF TEACHING AND RESEARCH INTEREST:

1. Igneous and metamorphic petrology (especially the mid-continent Precambrian volcanics)
2. Archeological geology of ancient Roman and Egyptian stone quarries
3. Computer Applications in Geology

MILITARY EXPERIENCE:

U.S. Air Force, 1964-68: operating room specialist (grade E4), Tachikawa, Japan and Travis, California, worked in base hospitals and in a MASH unit.

PUBLICATIONS:

Theses

M.S. (1976): Metamorphic History of the Older Granites, Central Rhode Island, 110 p.

Ph.D. (1983): The Precambrian Volcanic Stratigraphy and Petrology of the Des Arc NE 7 1/2 Minute Quadrangle, South-Central St. Francois Mountains, Missouri, 190 p.

Edited Volumes

Brown, V.M., E.B. Kisvarsanyi, and R.D. Hagni, ed., 1989, 'Olympic Dam-type' deposits and geology of middle Proterozoic rocks in the St. Francois Mountains terrane, Missouri: Guidebook Series, v.4, Society of Economic Geologists, 172 p.

Brown, V.M. (field guides ed.), Szabo, J.P., and E.M. Swinford (Stratigraphy Symposium), 1991, Geology of Ohio: The Ohio Journal of Science, v. 91, no. 1, 99 p.

Scholarly Articles

Brown, V.M., and V.L. Smith, 1971, Geology and morphology of Browns' Cave, Douglas Co., Missouri: Ozark Caver, v. 3, p. 1-15.

Blatt, H., and V.M. Brown, 1974, Prophylactic separation of heavy minerals: Journal of Sedimentary Petrology, v. 44, p. 260-261.

Day, H.W., and V.M. Brown, 1980, Evolution of perthite composition and microstructure during progressive metamorphism of hypersolvus granite, Rhode Island, U.S.A.: Contributions to Mineralogy and Petrology, v. 72, p. 353-365.

Day, H.W., V.M. Brown, and K. Abraham, 1980, Precambrian crystallization and Permian metamorphism of hypersolvus granite in the Avalonian terrain of Rhode Island: Geological Society of America Bulletin, v. 91, p. 389-391 (pt. 1) and p. 1669-1741 (pt. 2).

Brown, V.M., 1989 Geological overview of the southern St. Francois Mountains, Missouri, in Brown, V.M., E.B. Kisvarsanyi, and R.D. Hagni, ed., 'Olympic Dam-Type' deposits and geology of middle Proterozoic rocks in the St. Francois Mountains terrane, Missouri: Guidebook Series, v.4, Society of Economic Geologists, p. 93-109.

Brown, V.M., 1989, Roadlog: Volcanics of the southern St. Francois Mountains, Missouri, in Brown, V.M., E.B. Kisvarsanyi, and R.D. Hagni, ed., 'Olympic Dam-Type' deposits and geology of middle Proterozoic rocks in the St. Francois Mountains terrane, Missouri: Guidebook Series, v. 4, Society of Economic Geologists, p. 110-132.

Harrell, J.A., and V.M. Brown, 1989, Oldest geologic map is Turin Papyrus: Geotimes, v.34, n. 3, p. 10-11.

Brown, V.M., and J.A. Harrell, 1991, Megascopic classification of rocks: Journal of Geological Education, v. 39, n. 5, p. 379-387.

Harrell, J.A. and V.M. Brown, 1992, The world's oldest surviving geological map: the 1150 BC Turin papyrus from Egypt: Journal of Geology, v. 100, n. 1, p. 3-18.

Harrell, J.A., and V.M. **Brown**, 1992, The oldest surviving topographical map from ancient Egypt (Turin Papyri 1879, 1899 and 1969): *Journal of the American Research Center in Egypt*, v. 29, p. 81-105.

Harrell, J.A. and V.M. **Brown**, 1994, Chephren's Quarry in the Nubian Desert of Egypt: *Nubica*, v. 3, pt. 1, p. 43-57.

Brown, V.M. and Harrell, J.A., 1995, Topographical and petrological survey of ancient Roman quarries in the Eastern Desert of Egypt; *in* Y. Maniatis, N. Herz and Y Bassiakis (eds), "The Study of Marble and Other Stones Used in Antiquity -ASMOSIA, Athens", Transactions of the 3rd International Symposium of the Association for the Study of Marble and Other Stones in Antiquity: University of Pennsylvania Press, Philadelphia, p. 221-234.

Harrell, J.A., **Brown**, V.M., and Masoud, M.S., 1996, Survey of ancient Egyptian quarries: *Annals of the Geological Survey of Egypt, Centennial volume, Ministry of Industry and Mineral Resources, Egyptian Geological Survey and Mining Authority, Paper no. 72, 31 p.*

Brown, V.M. and J.A. Harrell, 1998, Aswan granite and granodiorite: *Göttinger Miszellen, Beiträge zur Ägyptologischen Diskussion*, no. 164, p. 33-39.

Brown, V.M., 1998, Computers at geology field camp: *Journal of Geoscience Education*, v. 46, n. 2, p. 128-131.

Harrell, J.A. and V.M. **Brown**, 1999, A late-period quarry for naoi in the Eastern Desert, *Egyptian Archaeology*, no. 14, p. 18-20.

Harrell, J.A., V.M. **Brown** and L. Lazzarini, 1999, Two newly discovered Roman quarries in the Eastern Desert of Egypt: *in* M. Schvoered (ed.), "Archeomateriaux, Marbres et Autre Roches - Actes de la Conference Internationale ASMOSIA IV, 9-13 Octobre 1995", Centre de Recherche en Physique Appliquée à L'Archéologie - Presses Universitaires de Bordeaux, Bordeaux, p. 285-292.

Harrell, J.A., V.M. **Brown** and M.S. Masoud, 2000, An Early Dynastic quarry for stone vessels at Gebel Manzal El-Seyl, Eastern Desert, *The Journal of Egyptian Archaeology*, V. 86, p. 33-42.

Walker, J.A., **V.M. Brown**, Lowell, G.R., and M.D. Stallings, 2001, The St. Francois Mountains of Missouri: Window into the Mesoproterozoic, *in* D. Malone, Ed., *Guidebook for Field Trips for the Thirty-Fifth Annual Meeting of the North-Central Section of the Geological Society of America, ISGS Guidebook 33, Department of Natural Resources, Illinois State Geological Survey, 116 p.*

Harrell, J.A. and **V.M. Brown**, 2002, Rock sawing at a Roman diorite quarry in Wadi Umm Shegilat, Egypt: *Transactions of the 5th International symposium of the Association for the Study of Marble and Other Stones in Antiquity, Archetype Publications, Ltd., London, p. 52-57.*

Harrell, J.A., **V.M. Brown** and L. Lazzarini, 2002, Breccia verde antica – source, petrology and uses: L. Lazzarini (ed.), ASMOSIA VI, Interdisciplinary studies on Ancient Stone – Proceedings of the Sixth International Conference of the Association for the Study of Marble and Other Stones in Antiquity, Venice, June 15-18; Aldo Ausilio – Bottega d’Erasmus Editore (Padova), p. 207-218.

Baranoski, M.T., **V.M. Brown**, and D. Watts, 2007, Deep gas well encounters ultramafic kimberlite-like material in the Sauk Sequence of southeastern Ohio, USA, *Geosphere* (Geological Society of America on-line journal), v. 3, p. 177-183.

Harrell, J.A. and **V.M. Brown**, 2008, Discovery of a medieval Islamic industry for steatite cooking vessels in Egypt’s Eastern Desert; in Y.M. Rowan and J.R. Ebeling (eds.), *New Approaches to Old Stones – Recent Studies of Ground Stone Artifacts: Equinox Archaeology Books*, London, p. 41-65.

Kelany, A., J.A. Harrell and **V.M. Brown**, 2010, Dolerite pounders – petrology, sources and use: *Lithic Technology*, v. 35, n. 2, p. 127-148.

Maps

Brown, V.M., 1984, Geology of the Des Arc NE 7 1/2 minute quadrangle, Southeast Missouri: Contribution to Precambrian Geology No. 13, Missouri Department of Natural Resources, Division of Geology and Land Survey, Publ. OFM-84-198-GI.

Brown, V.M., 1988, Geology of the exposed Precambrian rocks of the Des Arc NE quadrangle, Iron and Madison counties: U.S. Geological Survey Miscellaneous Geological Investigations Map, MF-2032 (with text).

Letters

Harrell, J.A., and **Brown**, V.M., 1990, Turin Papyrus is geologic map: *Geotimes*, v. 35, no. 2, p. 6.

Brown, V.M., 1994, The use of mathematics in beginning geology courses and the law of gravity: in "On the Back of an Envelope", a column devoted to encouraging calculation in geology, *The Journal of Geological Education*, v. 42, no. 4, p. 402-404.

Brown, V.M., 1994, The problems of scaling: in "On the Back of an Envelope", a column devoted to encouraging calculation in geology, *The Journal of Geological Education*, v. 42, no. 5, p. 524.

Photographs

In - Keck, Aries, 1998, *Romancing the Stone*, Earth, 1998, Vol. 7, No. 4, p. 22.

In - Murch, Barbara W. and Skinner, Brian J., 1999, *Geology Today*, Fig. B9.1, p. 260

In – The Ohio Journal of Science, 2007, Num. 5 Vol. 107, Cover Photo

In – Comment reconnaître les arbres en hiver? (How to recognize trees in Winter), 2011, Une Cle illustree des principaux arbres et argustes du Quebec, Association forestiere des Cantons de l'Est (several photos from the Winter Buds portion of my website)

Abstracts and Presentations

Brown, V.M. and H.D. Day, 1976, Metamorphic history of the Older Granites, Central Rhode Island: presentation at Annual Meeting of the South-Central Section of the Geological Society of America, Dallas, TX; and abstract in 'Abstracts with Programs', v. 8, no. 1, p. 8.

Day, H.W., K. Abraham and V.M. **Brown**, 1979, Evolution of alkali feldspar perthite during metamorphism of the hypersolvus Scituate granite, Rhode Island: presentation at Annual National Meeting of the Geological Society of America, San Diego, CA; and abstract in 'Abstracts with Programs', v. 11, no. 7, pp. 410-411.

Brown, V.M., R.D. Hagni and D.J. Barr, 1980, The utilization of computer- enhanced Landsat imagery in geologic mapping in the south-central portion of the St. Francois Mountain Precambrian complex, southeast Missouri: presentation at 93rd Annual National Meeting of the Geological Society of America, Atlanta, GA; and abstract in 'Abstracts with Programs', v. 12, no. 7, p. 394.

Brown, V.M., and R.D. Hagni, 1981, Stratigraphy and chemical trends in Precambrian volcanic rocks of the southern St. Francois Mountains, Missouri: presentation at 94th Annual National Meeting of the Geological Society of America, Cincinnati, OH (an invited paper for the Carl Tolman Symposium on the Geology and Mineral Resources of the Precambrian St. Francois Terrane, Southeastern Missouri); and abstract in 'Abstracts with Programs', v. 13, no. 7, p. 418-419.

Brown, V.M., 1984, Chemical signatures of hydrothermally altered Precambrian ash-flow tuffs, St. Francois Mountains, Missouri: presentation at 97th Annual National Meeting of the Geological Society of America, Reno, NV; and abstract in 'Abstracts with Programs', v. 16, no. 6, p. 457.

Brown, V.M., and M. Kumar, 1986, Geochemistry and evolution of a Precambrian midcontinent high level silicic magma chamber, St. Francois Mountains, Missouri: presentation at the Annual National Spring Meeting of the American Geophysical Union, Baltimore, MD; and abstract in EOS, v. 67, no. 16, p. 400.

Dean, S.L., B.R. Kulander, P. Lessing and V.M. **Brown**, 1987, Deformation style in the Adams Run Anticlinorium and Broadtop Synclinorium, Hardy County, West Virginia: presentation at the 18th annual Appalachian Petroleum Geology Symposium, Morgantown, WV; and abstract in West Virginia Geological and Economic Survey, Circular no. C-40, p. 15.

Brown, V.M. and J.A. Harrell, 1988, The oldest surviving geological map--the 1150 BC Turin Papyrus from Egypt: presentation at 100th Annual National Meeting of the Geological Society of America, Denver, CO; and abstract in 'Abstracts with Programs', v. 20, no. 7, p. A153.

Smith, S. and V.M. **Brown**, 1988, The Rainbow beryllium deposit, Spor Mountain, Utah--evidence for a structural and porosity controlled origin: presentation at 100th Annual National Meeting of the Geological Society of America, Denver, CO; and abstract in 'Abstracts with Programs', v. 20, no. 7, p.A334.

Adams, E.R., and **Brown**, V.M., 1989, Petrology of the granites and granitic dikes in the southeastern St. Francois Mountains, Missouri: Presentation at 23rd Annual Meeting of the North-Central Section of the Geological Society of America, Notre Dame, IN; and abstract in 'Abstracts with Programs', v. 21, no. 4, p.

Brown, V.M., and J.A. Harrell, 1990, Megascopic classification of rocks: Presentation at 24th Annual meeting of the North-Central Section, Geological society of America, Macomb, Ill; and abstract in 'Abstracts with Programs', v. 22, no. 5, p.4.

Walsh, V.P., and V.M. **Brown**, 1990, Pearce element ratio analysis of intermediate volcanics, St. Francois Mountains, Missouri: presentation at Annual National Meeting of the Geological Society of America, Dallas, Tx; and abstract in 'Abstracts with Programs', v. 22, no. 7, p. A168.

Brown, V.M., and Harrell, J.A., 1991, An ancient Egyptian anorthosite gneiss quarry in the Nubian Desert: petrology and archeology: Presentation at Annual National Meeting of the Geological Society America, San Diego, Ca; and abstract in 'Abstracts with Programs', v. 23, no. 5, p. A253 (selected by GSA for a special press release and an article in the meeting Newsletter, "Down to Earth").

Harrell, J.A., and V.M. **Brown**, 1992, Petrological survey of ancient Roman quarries in the Eastern Desert of Egypt: presentation at 104th Annual National Meeting of the Geological society of America, Cincinnati, OH; abstract in 'Abstracts with Programs', v. 24, no. 7, p.A26-A27 (selected by GSA for a special press release and an article in the meeting newsletter, "Down to Earth").

Brown, V.M. and J.A. Harrell, 1993, Topographical and petrological survey of ancient Roman quarries in the Eastern Desert of Egypt: presentation at Biannual International Meeting of the Association for the Study of Marbles and Other Stones in Antiquity, Athens, Greece; abstract in 'Abstracts', p. 10.

Harrell, J.A. and V.M. **Brown**, 1995, Discovery of the source of tuff and tuffaceous limestone used for Early Dynastic vessels - the Gebel Manzal el-Seyl quarry in the Eastern Desert: presentation at the Annual Meeting of the American Research Center in Egypt, Atlanta, GA; Abstract in Program and Abstracts, p. 39.

Harrell, J.A., V.M. **Brown** and L. Lazzarini, 1995, Wadi Maghrabiya and Wadi Umm Huyut - newly discovered Roman ornamental-stone quarries in the Eastern Desert of Egypt: presentation

at 4th international conference of the Association for the Study of Marble and Other Stones in Antiquity, Bordeaux, France: abstract in 'Programme et Resumes', p. 163.

Brown, V.M., 1995, Computers at Field Camp: Presentation at the 107th annual Meeting of the Geological Society of America, New Orleans, La; and abstract in Abstracts with Programs, v. 27, no. 6, p. 144.

Brown, V.M., and J.A. Harrell, 1995, Archaeological Geology of the Gebel Manzal El-Seyl Quarry, Eastern Desert, Egypt: Presentation at the 107th Annual Meeting of the Geological Society of America, New Orleans, La; and abstract in Abstracts with Programs, v. 27, no. 6, p. 416. (selected by GSA for a special press release and an article in the meeting newsletter).

Harrell, J.A. and V.M. **Brown**, 1996, Three newly discovered Roman quarries in the Eastern Desert of Egypt: presentation at Annual Meeting of the American Research Center in Egypt, St. Louis, MO; abstract in 'Program and Abstracts', p. 42-43.

Harrell, J.A. and V.M. **Brown**, 1996, Roman quarrying and rock sawing in Wadi Umm Shegilat, Eastern Desert, Egypt: presentation at Annual Meeting of the Geological Society of America, Denver, CO; and abstract in Abstracts with Programs, v. 28, no. 7, p. A-88. (selected by GSA for a special press release).

Brown, V.M., 1996, Hydrologic and episodic sedimentation field exercises, black Hills, SD; Presentation at Annual Meeting of the Geological Society of America, Denver, CO; and abstract in Abstracts with Programs, v. 28, no. 7, p. A-329.

Brown, V.M., 1997, Using mapping mistakes as a teaching tool at field camp; Presentation at Annual Meeting of the Geological Society of America, Salt Lake City, UT; and abstract in Abstracts with Programs, v. 29, no. 6, p. A-453.

Harrell, J.A. and V.M. **Brown**, 1997, Petrology of the ancient Egyptian "GRANITE" quarries at Aswan, Egypt; Presentation at Annual Meeting of the Geological Society of America, Salt Lake City, UT; and abstract in Abstracts with Programs, v. 29, no. 6, p. A-145.

Oros, D., Sokoloski, W. and V.M. **Brown**, 1998, Geological effects of the Crow Peak intrusion on Paleozoic sediments, Northern Black Hills, SD; Presentation at 32nd Annual Meeting of the North-Central Section of the Geological Society of America, Columbus, OH; and abstract in Abstracts with Programs, v. 30, n. 2, p. 65.

Harrell, J.A. and V.M. **Brown**, 1998, Rock sawing at a Roman Diorite Quarry, Wadi Umm Shegilat, Egypt; Fifth International Conference of the Association for the Study of Marble and Other Stones in Antiquity (ASMOSIA): Abstract in Abstracts Volume.

Harrell, J.A., and V.M. **Brown**, 1999, Discovery of a late period naos quarry in Rod El-Gamra, Egypt, presentation at Annual Meeting of the American Research Center in Egypt, Chicago, IL; abstract in 'Program and Abstracts', p. 37-38.

Harrell, J.A. and V.M. **Brown**, 2000, Discovery of a steatite baram industry of the medieval Islamic period in Egypt's Eastern Desert: Annual Meeting of the American Research Center in Egypt, Berkeley, CA; abstract in 'Program and Abstracts', p. 39-40.

Harrell, J.A., V.M. **Brown** and L. Lazarrini, 2000, Breccia Verde Antica: Source, Petrology and Uses, VI international conference of the Association for the Study of Marble and Other Stones in Antiquity, Venice, Italy; abstract in "Program and Abstracts"

Brown, V.M. and J.A. Harrell, J.A., 2000, Hexecontalithos: A volcanoclastic metaconglomerate from ancient Egypt; Presentation at Annual Meeting of the Geological Society of America, Reno, Nevada; and abstract in Abstracts with Programs, v. 32, no. 7, p. A-275.

Ianev, R.S., J.A. Harrell, and **V.M. Brown**, 2001, Origin of opal cement in Pennsylvanian Minnelusa Sandstone; Presentation at 35th Annual Meeting, North-Central Section, The Geological Society of America, Bloomington-Normal, Illinois; and abstract in Abstracts with Programs, v. 33, no. 4, p. A-17.

Baranoski, M.T., S.L. Dean, and **V.M. Brown**, 2001, Precambrian structure and stratigraphy across central Ohio, a different view of the basement complex; Presentation at 35th Annual Meeting, North-Central Section, The Geological Society of America, Bloomington-Normal, Illinois; and abstract in Abstracts with Programs, v. 33, no. 4, p. A-20.

Baranoski, Mark T., Anderson, Jenny; Dean, Stuart L.; **Brown, Vernon M.**: 2002, Redefining the late Mesoproterozoic Greenville Front in Ohio and implications of crustal evolution in the Midcontinent USA; Presentation at 36th Annual Meeting, North-Central Section, The Geological Society of America, Lexington, Kentucky; and abstract in Abstracts with Programs, v. 34, no. 2, p. A-16.

Kneller, Erik A. and **V.M. Brown**; 2002, The red, high-silica, rhyolitic lavas of the Precambrian St. Francois Mountains, southeast Missouri: Presentation at 36th Annual Meeting, North-Central Section, The Geological Society of America, Lexington, Kentucky; and abstract in Abstracts with Programs, v. 34, no. 2, p. A-24.

Mason, G, Watts, Doyle R., Bean, D., Baranoski, M., and **Brown, V.**, 2004, The Ohio Dillon Falls Subsurface structure: impact crater or tectonic feature?, The 2004 American Association of Petroleum Geologists Eastern Section Meeting, Columbus, Ohio, Abstract in Abstracts with Programs.

Brown, V.M., 2005, Evidence for extensional tectonics and its relationship to the origin of the Precambrian St. Francois Mountains, southeast Missouri: Presentation at 2005 Annual Meeting, Geological Society of America, Salt Lake City, Utah, Abstract in Abstracts with Programs, v. 37, no. 7, p. 506

Other Publications

Brown, V.M., and J.A. Harrell, 1985-99 (revised annually), Manual for the University of Toledo Geology Summer Field Camp, Black Hills, South Dakota: Univ. of Toledo, Dept. of Geology; textbook for Geology 365/665, 4 vol's, 463 p. total.

Brown, V.M., and J.A. Harrell, 1991, BASIC & GW-BASIC -- A Teaching Syllabus and Quick Reference Guide: University of Toledo, Department of Geology; Textbook for Geology 614; 143 p.

Brown, V.M., and J.A. Harrell, 1992, QBasic, GW-BASIC and BASICA -- A Teaching Syllabus and Reference Guide: University of Toledo, Department of Geology publication; Textbook for Geology 614; 265 p.

Harrell, J.A. and V.M. **Brown**, 1991, The Oldest surviving map from ancient Egypt: the 1150 BC Turin Papyrus (from unpublished article of same title): in *The Artisans of Ancient Egypt and their Tools*: Museum of Anthropology, California State University, Fullerton, p. 15-22.

Harrell, J.A. and V.M. **Brown**, 1992, A Revised listing of rock types from ancient Egyptian quarries: Disseminated to all Egyptologists by the Department of Egyptian Antiquities, The British Museum, London, 6 p.

TEACHING RESPONSIBILITIES (over 29 years) – UNIVERSITY OF TOLEDO:

1. Physical Geology and Physical Geology Lab
2. Megascopic Petrology
3. Structural Geology
4. Igneous and Metamorphic Petrology
5. Optical Mineralogy
6. Economic Geology and Ore Petrography
7. Senior Geology Seminar
8. Field Geology – Black Hills and Wyoming
9. Advanced Igneous and Metamorphic Petrology
10. Phase Equilibria of Geological Systems
11. Computer Programming – Microsoft Visual Basic

SENIOR HONORS THESES DIRECTED:

Sokoloski, W.P., 1997, Metamorphic effects on Paleozoic sediments from the Crow Peak intrusion, Northern Black Hills, SD – Department of Geology, University of Toledo.

Oros, D.J., 1997, Geological effects on the Crow Peak intrusion on Paleozoic sediments, Northern Black Hills, SD – Department of Geology, University

M.S. THESES DIRECTED:

Resnik, A.J., 1984, Petrological analysis of the Butler Hill - Breadtray Granite Pluton, St. Francois Mountains, Southeast Missouri: 169 p.

Madigan, T.J., 1987, Volcanic stratigraphy and petrology of Arnett and Marlow Mountains Area, Southern St. Francois Mountains, Missouri: 132 p. Spangler, T.J., 1987, Volcanic stratigraphy and petrology of the Rock Pile Mountain Wilderness Area, St. Francois Mountains, Missouri: 217 p.

Smith, S.L., 1990, The geochemistry of the Rainbow Beryllium Mine, Spor Mountain, Juab County, Utah: 110 p.

Tussing, M., 1990, The igneous petrology and stratigraphy of the eastern half of Black Mountain, Rock Pile Mountain Quadrangle, St. Francois Mountains, Missouri: 75 p.

Walsh, V.P., 1990, Petrological evolution of the trachyandesite - trachydacite - trachyte rock lineage, southern St. Francois Mountains, Missouri: 140 p.

Adams, E.R., 1992, The Igneous petrology and stratigraphy of the Cedar and Matthews Mountain Area, Southern St. Francois Mountains, Missouri: 119 p.

Schwieder, D., 1993, Characterization and discrimination of the Precambrian Igneous rocks of the St. Francois Mountains, Missouri: 224 p.

Smith, P.M., 1993, The Volcanic stratigraphy and petrology of the Burns and Cottner Mountain Areas, Southern St. Francois Mountains, Madison County, Missouri: 91 p.

Sedlack, K.M., 1994, The igneous Petrology and Stratigraphy of the Southeast St. Francois Mountains, Madison County, Missouri: 72 p.

Light, E., 1996, Petrology and Geochemistry of the black rhyolite lava, Southern St. Francois Mountains, Missouri: 131 p.

Wang, W., 1999, Water Budget, a computer program with applications to surface hydrology: 86 p. Co-adviser

Ianey, R.S., 2001, Origin of opal and chert cements in the Pennsylvanian Minnelusa formation, Northern Black Hills, South Dakota. Co-advisor

Sokoloski, Peter, 2005, Sedimentology and ichnology of Late Cambrian to Early Ordovician Skolithos Sandstone in the Deadwood Formation, northern Black Hills, South Dakota, and southeastern Bear Lodge Mountains, Wyoming Co-advisor

OTHER AREAS OF INTEREST:

Field Botany – web site: www.florabymax.net
Bird Watching