

EDGAR WINSTON SPENCER

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Place, date of birth: Monticello, Arkansas, May 27, 1931

PRESENT POSITION: Parmlly Professor of Geology Emeritus, Washington & Lee University

PREVIOUS POSITIONS: Instructor, Hunter College, New York City 1954-57
Department Head, W & L Geology Dept. 1957-95

EDUCATION: Monticello, Arkansas High School, 1949
Washington & Lee Univ., B.S. in Physics, 1953
Columbia University, N.Y.C. PhD degree in Geology, 1957
Major: Structural Geology; Minor: Engineering Geology

DISSERTATION TITLE: Analysis of fracture systems in the Beartooth Mountains, Montana & Wyoming.

PROFESSIONAL MEMBERSHIPS:

Fellow of the Geological Society of America
Fellow of the American Association for Advancement of Science
American Association of Petroleum Geologists
American Geophysical Union
Virginia Academy of Science
National Association of Geology Teachers
American Institute of Professional Geologists
Yellowstone-Bighorn Research Association

PROFESSIONAL CERTIFICATION: Virginia Board of Geology, Certificate #510.
American Institute of Professional Geologists # CPG-02023

HONORS: Sigma Xi
Phi Beta Kappa [Honorary Member]
Omicron Delta Kappa [Honorary Member]
Who's Who in America
American Men of Science
National Science Foundation Science Faculty Fellowship
Outstanding Faculty Award 1990 (Virginia Council of Higher Education)
Award from Natural Bridge Soil & Water Conservation District

RESEARCH & STUDY GRANTS AND LEAVES:

National Science Foundation (1958-63) research grant to study the Precambrian geology of the Madison Mountains in Montana.

National Science Foundation (1965-66) science faculty fellowship to study regional tectonics of the southwestern Pacific in New Zealand and Australia.

American Geological Institute: 1962 Appalachian summer conference.

American Geological Institute: 1970 field conference on the tectonics of the Caribbean Island Arc.

Mellon Grant from Washington & Lee: 1971-72, for study of tectonics in Switzerland and Spain.

Washington & Lee leave grant: 1976-77, for study of Caledonide structures in Norway and continued study at Oxford.

American Chemical Society: 1980-82 research grant to study structure of the James River Gap area.

American Association of Petroleum Geologists: grant to attend an AAPG course on seismic exploration at Houston.

Washington & Lee grant in 1984 to attend conference and field trip on the Appalachian-Caledonide orogen at Glasgow, Scotland, and to study tectonics in Greece..

Washington & Lee Univ. leave grant: 1990-91, to study the structure of the foreland fold and thrust belts in the North American Cordillera.

Washington and Lee Univ. leave 1994-95, to study structure of the French Alps

PROFESSIONAL INSTRUCTION

Director of a Field Seminar entitled "Structural Styles in Foreland Fold and Thrust Belts" for the American Association of Petroleum Geologists. 1987, 1988, 1989, and 1991.

Short Course on geology of the central Appalachians for Cabot Oil & Gas Company.

PUBLICATIONS:

Spencer, E.W., 1958, *Structural trends in the Beartooth Mountains, Montana and Wyoming*. Billings Geol. Soc. 9th Ann. Field Conference Guidebook, p. 16-24.

-----, 1959, *Geologic evolution of the Beartooth Mountains, Montana and Wyoming*, Pt. 2 Fracture Patterns: Geol. Soc. America Bull.,v.70, p. 467-508.

-----, 1962, *BASIC CONCEPTS OF PHYSICAL GEOLOGY*: T. Y. Crowell Co., New York

-----, 1962, *BASIC CONCEPTS OF HISTORICAL GEOLOGY*: T.Y. Crowell Co., N.Y.

-----, 1964, *Natural Bridge and Vicinity*: Va. Minerals, v. 10, no.2, p.1-17.

-----, 1965, *GEOLOGY-A SURVEY OF EARTH SCIENCE*: T.Y.Crowell Co., New York

-----, 1968, *Geology of the Natural Bridge, Sugarloaf Mountain, Buchanan, and Arnold Valley Quadrangles, Virginia*: Va. Div. Mineral Resources, Report of Investigations no. 13, 55p., 4 color maps.

-----, 1969, *INTRODUCTION TO THE STRUCTURE OF THE EARTH*: McGraw-Hill Book Company, New York, 697 p.

-----, *Memorial to Marcellus H. Stow*: Am. Mineralogists, v. 1155, p. 603-607.

-----, 1971, *Structure of the Blue Ridge Front in Central Virginia*: in *Appalachian Structures, Origin, Evolution, and Possible Potential for New Exploration Frontiers*, eds. P. Lessing et. al., W. Va. Univ. and W. Va. Geol. and Economic Survey, p.39-59.

-----,1972, *Second annual Virginia Geological Field Conference Guidebook*: Washington and Lee Geology Department.

-----,1972, *THE DYNAMICS OF THE EARTH*: T.Y. Crowell Co., New York, 650 p.

-----,and S.J. Kozak, 1975, *Precambrian evolution of the Spanish Peaks area, Montana*: *Geological Society of America Bull.* v.86, p. 785-792.

-----,and S.J. Kozak, 1976, *Determination of regional fracture patterns in Precambrian rocks--a comparison of techniques*: in *Proc. 1st Intern. Conference on the New Basement Tectonics*, Utah Geol. Assoc. Pub. #5, p. 409-416.

-----,1977, *INTRODUCTION TO THE STRUCTURE OF THE EARTH*, 2nd edition, McGraw-Hill Book Company, New York, 614 p.

Brown, C.E., and E.W.Spencer, 1981, *Geologic Map, James River Face Wilderness, Virginia*: U.S. Geological Survey Misc. Field Studies, Map MP-1337-A.

-----,1983, *PHYSICAL GEOLOGY, ADDISON WESLEY PUBLISHERS*, Reading Mass.
Instructors Manual for Physical Geology: Addison -Wesley Publishers, Reading Mass.

-----, 1985, *Guidebook to the Natural Bridge and Natural Bridge Caverns, Virginia*: PMS publishers.

-----, 1989, D. Bell, and S.J. Kozak, *Valley and Ridge and Blue Ridge Traverse, Central Virginia*: 28th International Geological Congress Field Trip Guidebook T157, 69 p.

_____, 1990, *Introductory Geology with Field Emphasis*: Journal of Geological Education, v. 38, No. 3, p. 246-249.

_____, Christopher Bowring, and J. D. Bell, 1989, *Pillow Lavas in the Catoclin Formation of Central Virginia*: Virginia Division of Mineral Resources Publication 88.

_____, 1992, *Field Guide, Virginia Field Conference –The Blue Ridge Flank—Glasgow to Buchanan*.

-----, 1993, *GEOLOGIC MAPS*: Macmillan Publishers, New York.

-----, 1993, Structure of a Ramp Fragment in the Pulaski Fault, Central western VA, (abstract): Geological Society of America, Northeastern and Southeastern Section meeting.

_____, 1994, *Structure of the Blue Ridge at the James River Gap*, in Fieldguides to Southern Appalachian Structure, Stratigraphy, and Engineering Geology, Art Schultz and Bill Henika. ed. , Southeastern Section Geological Society of America.

_____, 1995, *Intersection of the Blue Ridge Fault with Ductile Deformation Zones in the Blue Ridge Basement*: Southeastern Geology, v. 35, No. 3, p. 123-139.

Wilkes, G. P., E. W. Spencer, and N. H. Evans, 1997, *An overview of the geology of Rockbridge County, Virginia*: 75th Annual Meeting Virginia Academy of Science, Virginia Tech, Blacksburg, Virginia.

Evans, N. H., David Harbor, and E. W. Spencer, 1998, *Geology of Eastern Rockbridge County, 28th Annual Virginia Geologic Field Conference*, October 17, 1998, Virginia Division of Mineral Resources.

_____, 2000, *Geologic Map of the Buena Vista Quadrangle, Virginia*: Virginia Division of Mineral Resources.

_____, 2000, *Geologic Map of the Glasgow Quadrangle, Virginia*: Virginia Division of Mineral Resources.

_____, 2000 *GEOLOGIC MAPS—PREPARATION AND INTERPRETATION*, 2nd edition, Prentice Hall Publishers. Accompanied by Instructor's Manual for Geologic Maps—Preparation and Interpretation.

_____, 2003, *EARTH SCIENCE—UNDERSTANDING ENVIRONMENTAL SYSTEMS*, McGraw-Hill Book Company.

Wilkes, G. P., E. W. Spencer, and N. H. Evans, in press, *Geologic Map of Rockbridge County, Virginia*: Virginia Division of Mineral Resources. A written report will accompany the map.

Wilkes, G. P., E. W. Spencer, N. H. Evans, and Mark Carter, in preparation, *Geologic Map of the 1:100,000 Geologic Map of the Buena Vista 2 degree Quadrangle*, Virginia Division of Mineral Resources. Drafts of the western half of the map are available.

-----, in preparation, 2006, *Geologic Maps of the Arnold Valley, Buchanan, and Natural Bridge Quadrangles*, revision of earlier maps. Virginia Division of Mineral Resources. Open File Reports.

PUBLIC SERVICE ACTIVITIES:

Director of a land use planning study conducted in 1974-75 under a grant from the Virginia Humanities and Public Policy grant. The program was entitled PUBLIC FORUM 75.

Charter member and board member of the Rockbridge Area Conservation Council. President 1977-78 and 1994-1999, Executive Committee 1976 to present.

Charter member and board member of the Virginia Chapter of the American Institute of Professional Geologists. Served on the executive committee for a number of years.

Consultant to a number of local governments on environmental problems (eg. water supply, karst topography, and nuclear waste disposal).

Chair of Virginia Division of Mineral Resources Advisory Committee on Maps 1993-95

WASHINGTON & LEE COMMITTEES

Presidents Advisory Committee

Executive Committee

Courses and Degrees Committee

Calendar Committee

Curriculum Committee

Alumni Committee

Library Committee

Admission Committee

Ad Hoc Committees on Long Range Planning for Science Facilities, Self Study, and Faculty Evaluation.

Ad Hoc committee on Faculty Evaluation

INSTRUCTOR IN W & L ALUMNI COLLEGES

Frontiers of Science

1989

Conversation with America

1992

Alumni College Abroad

Alaska

1990, 2002

Alumni College Abroad

Norway & Sweden

1997

Alumni College Abroad

Switzerland

1995

Alumni College Abroad

Grand Canyon

1991, 1992, 1996, 2004

Alumni College Abroad

New Zealand

1996, 2001

Alumni College Abroad

Nepal

1999

Alumni College Abroad

New Zealand & Australia

2004

Alumni College Abroad

Patagonia

2005

COURSES TAUGHT AT W & L

Introductory physical geology with field emphasis

Oceanography

Meteorology

Structural Geology

Geophysics

Field Methods

Seminars & Regional Field Courses

Environmental Geology seminars

Greek Natural Philosophy

Geology of the Pyrenees

Regional Geology of the Appalachians, the Southwest, the West Coast

Regional Geology of the Southwestern United States