Curriculum Vitae

William M. (Maury) Harris, Jr., Ph.D.
Associate Professor, Chair
Environmental Studies
University of St. Thomas
3800 Montrose Blvd.
Houston, TX 77006

EDUCATIONAL BACKGROUND

BS	Baylor University (Geology, 1980)
MS	Texas A&M University (Geology, 1982)
PhD	Texas A&M University (Geology, 1987)

PROFESSIONAL BACKGROUND

University of St. Thomas, Associate Professor of Environmental Studies, Tenured, July 1996 to Present, Chair (1992-1996, 2004 - 2008): Grand Canyon Management Plan reviewer for the Interior Department; Ecosystem Subcommittee of the Houston Environmental Foresight Committee; Imagine Houston Committee of the Houston City Planning Department (Project recognized by the Texas Chapter of the American Planning Association in awarding Houston the "Community of the Year" award, letter from the mayor in recognition of participation); President Elect for the National Earth Science Teachers Association, Editor for the National Earth Science Teacher's Association Summer Programs Issue (1989 to 2004); and Editorial Board for NESTA publication "The Earth Scientist". National Science Teachers Association Special Education Advisory Board (2000 – 2001), Reviewer for the Journal of College Science Teaching for the National Science Teachers Association, Initial Concept and Design - Buffalo Bayou Nature Park (Houston, TX) for the Buffalo Bayou Partnership. Education and outreach advisor for the John C. Freeman Weather Museum. Society for the Advancement of Chicanos and Native Americans in science, Life Member, Undergraduate Research Committee (1995 – 1998, 2007-2010, Chair 2008 – Present). Citizens Environmental Coalition – Board Member (2008 – 2011), Co-Founder Japhet Creek Nature Conservancy. Faculty Senate (multiple years and terms), Core Curriculum Review Committee (2011-2012 and 2012 - Assessment Task Force), Institutional Effectiveness – QEP Committee (2012 – Present), Director of Student Research.

St. Stephen's Episcopal High School, Science Teacher and Curriculum Design, October 1998 to May 1999: Developed Montessori high school science curriculum, taught 9th grade environmental science curriculum and developed curriculum package based upon the "multiple pathway approach" to science education previously developed for the American Geological Institute through an NSF grant. Taught special session in January 1999 on "Science Fact and/or Fiction in Film".

University of St. Thomas, Assistant Professor and Chair of Environmental Studies, August 1992 to June 1996: Developed new major and minor in Environmental Studies. Environmental Studies Program: Founder and Department Chair 1992-1996,

Undergraduate Research Committee (Chair, 1995-1996), Self-Study Support Services Committee, Education Department Committee - ad hoc (representing department), teaching environmental studies and geology courses. Faculty Senate. Editor for the National Earth Science Teacher's Association Summer Programs Issue (1989 to present), Editorial Board for NESTA publication "The Earth Scientist".
University of St. Thomas, Assistant Professor Geology/ Environmental Studies, Visiting Assistant Professor, August 1991 to August 1992: Courses Taught - Physical Geology and Historical Geology. Developing BA and BS programs in Environmental Studies. The major utilized existing courses within other departments and new courses within Environmental Studies. Science Building Committee, ad hoc Undergraduate Research Committee, Self-Study Support Services Committee.

Kansas State University, Manhattan Kansas, Assistant Professor, Tenure Track, Department of Geology and Center for Science Education, August 1989 to August 1991: NSF teacher enhancement project. "The Nature of Science and Premises of Evolutionary Theory: Institutes for High School Biology Teachers" and "Enhancing Middle School/Junior High Earth Science Through Field Experiences." Advisor to the Williston Geology Club. Courses taught: Physical Geology, Historical Geology, Earth Science, and Oceanography. Arts and Sciences Stamey Teaching Award 1989 - 1990. Outstanding Educator Award for 1990-1991. College advisor to the Kansas Earth Science Teachers Association and Summer Programs Directory Editor for the National Earth Science Teachers Association. Center for Science Education member, grant writing team, in-service teacher enhancement provider for Kansas, curriculum development for earth science as part of NSF $1.5 million dollar grant for elementary teacher math/science preparation program.

Kansas State University, Manhattan Kansas, Visiting Assistant Professor, May 1989 to August 1989: NSF Teacher Enhancement Project. "Enhancing Middle/Junior High Earth Science Teachers Through Field Experiences." Working with Dr. Larry G. Enochs I helped to select field localities, taught field methods and geologic laboratory methods, and worked with teachers to develop field experiences for their students.

Texas A&M University, College Station, Texas, Visiting Assistant Professor, May 1987 to December 1988: NSF Earth Science Teacher Project. Instructor and classroom visitations. Co-advisor to the student Geological Society. Taught physical geology, earth resources, and rocks and minerals for non-geology majors.

Texas A&M University, College Station, PhD, Geology, August 1983 to August 1987: Dissertation Title: Organism Interactions and Their Environmental Significance, as Exemplified by the Pliocene-Pleistocene Fauna of the Kettleman Hills and Humboldt Basin, California. The study of organism interactions in the Plio-Pleistocene deposits of the Humboldt Basin and Kettleman Hills areas, California to determine environmental and ecological information concerning changes in organism preferences through changes in the environment: Dr. R. J. Stanton, Chair. Employed by Texas A&M University as a teaching assistant (1984-1986). Awarded the Outstanding Graduate Assistant-Teaching, 1985-1986, by the Association of Former Students. Research Assistant, 1986-1987. Finalist for the Texas Oil & Gas Leadership Award.

Becon Construction Company, Mining and Minerals Group, Christine, Texas, Consulting Geologist, September 1982 to June 1983: Sam Gowan, Supervisor. The job involved the preparation of a 40 year mine plan for the San Miguel Lignite Power Plant and a feasibility of building a second plant. Work included description of well cuttings and log interpretation, description and selection of cored intervals for lignite exploration, overburden characterization, lignite subcrop mapping, construction of cross-sections, elevation surveying, telecommunications and data analysis computer programming. Engineering geologist.

Texas A&M University, College Station, Texas, Graduate Student, Geology Department, August 1980 to December 1982: Dr. Robert J. Stanton, Dr. Wayne M. Arh and Dr. Eric N. Powell, Supervisors. Thesis title: Biostratigraphy of the Upper Cretaceous Austin Group, Travis County, Texas. Teaching Assistant, 1980-1982.

Sun Gas Company, Corpus Christi, Texas, Project Geologist, May 1981 to August 1981. Jack Mortimer, Supervisor. This position involved the study of wells in an older field in South Texas pursuant to lease obligations, Northeast Starr County, Texas. Maps constructed include net sand, net gas sand, net oil sand, net production isopach and structural maps. Analysis of logs and drilling data for potential recompletion and/or abandonment.

Sun Gas Company, Oklahoma City, Oklahoma, Project Geologist, May 1980 to August 1980. Prepared exhibits for hearings before the Oklahoma Corporation Commission concerning exceptions for drilling location spacing and opposition to cost pooling. Evaluation of fields in Kingfisher County (Carbonates) Oklahoma. Log evaluation, drilling report analysis, DST, SIP evaluations.

Baylor University, Waco, Texas, Lab Materials Coordinator, January 1978 to May 1980. Dr. Harold Beaver, Supervisor. Maintain teaching materials and equipment as needed.

PROFESSIONAL SOCIETY MEMBERSHIPS

Sigma Xi, 1984 to Present
Sigma Gamma Epsilon, 1982 to Present
Geological Society of America, 1986 to 2004
Science Teachers Association of Texas, 1986-1989, 1991-1993
National Science Teachers Association, 1989-2004
National Association of Geology Teachers, 1990-1993
National Earth Science Teachers Association, 1989-2004
(Appointed Board Member, Computer Committee, Editorial Board for *The Earth Scientist*)
National Association for Research in Science Teaching, 1990-1993
American Institute of Biological Sciences, 1991-1993
Ecological Society of America, 1991-1993
Texas Earth Science Teachers Association, 1986-1989, 1991-1993
Texas Association of Environmental Educators, 1991-1993
Association for Educational Curriculum and Instruction, 1994-1997
Society for the Advancement of Chicanos and Native Americans in Science, 2001 to Present

PUBLICATIONS

Krustchinsky, Rick and William Harris, 2001, Super Science Saturday, Science and Children, National Science Teachers Association.

Harris, W. M., Jr., 2000, Computer Mapping and the Earth Sciences, The Earth Scientist, V. 17, N. 3, pp. 3-6.

Scharmann, L. C. and Harris, W. M., Jr., 1992, Teaching Evolution: Understanding and Applying the Nature of Science: Journal of Research in Science Teaching, V. 29, N. 4, pp. 375-388.

Harris, W. M., Jr., 1987, Organism Interactions and Their Environmental Significance, as Exemplified by the Pliocene-Pleistocene Fauna of the Kettleman Hills and Humboldt Basin, California: Unpublished PhD Dissertation, Texas A&M University, College Station, Texas, p. 264.

Harris, W. M., Jr., 1982, Biostratigraphy of the Upper Cretaceous Austin Group, Travis County, Texas: Unpublished Masters Thesis, Texas A&M University, College Station, Texas, p. 100.

Harris, W. M., Jr., 1980, Shell Differences and Environmental Interpretation: A Comparison Between *Exogyra texana* and *Exogyra ponderosa*: Unpublished Bachelors Thesis, Baylor University, 118 p.

PRESENTED PAPER

Harris, Jr., W. M. and Faletta, J.P., Teaching Redistricting During a Census Rollout, 2012 Education User Conference, Conference Proceedings, Presented paper, 2012.

Faletta, J. P. and Harris, Jr., W. M., 2012, Whistling Past Dixie? Redistricting, Ideology, and the 2012 Two Party System in the South, The Citadel Symposium on Southern Politics, March 1, 2012.

Harris, Jr., W. M., GIS in the University: Computer Science, Cartography/Geography or Useful Tool?, 2011 Education User Conference, Conference Proceedings, Presented paper, 2011.

Harris, Jr., W. M., GIS as a Theme or "Glue" in a Department, 2010 Education User Conference, Conference Proceedings, Presented paper, 2010.

Harris, Jr., W. M. and Krustchinski, Richard E., A Model for Infusing GIS in the K-12 Curriculum, 2008 Education User Conference, Conference Proceedings, Presented paper, 2008.

Harris, Jr., W. M. and Scott Barnes, Using GIS as a Bridge, 2005 Education User Conference, Conference Proceedings, Presented Paper, 2005

Harris, Jr., W. M., Cross-Curricular Course in the Application of GIS, 2004 Education User Conference, Conference Proceedings, Presented Paper, 2004.

NATIONAL EARTH SCIENCE TEACHER ASSOCIATION PUBLICATIONS

Harris, W. M., Jr., 1990, Summer Programs Directory: *The Earth Scientist*.
Harris, W. M., Jr., 1991, Summer Programs Directory: *The Earth Scientist*
Harris, W. M., Jr., 1993, Summer Programs Directory: *The Earth Scientist*
Harris, W. M., Jr., 1994, Summer Programs Directory: *The Earth Scientist*
Harris, W. M., Jr., 1995, Summer Programs Directory: *The Earth Scientist*
Harris, W. M., Jr., 1996, Summer Programs Directory: *The Earth Scientist*
Harris, W. M., Jr., 1997, Summer Programs Directory: *The Earth Scientist*
Harris, W. M., Jr., 1998, Summer Programs Directory: *The Earth Scientist*
Harris, W. M., Jr., 1999, Summer Programs Directory: *The Earth Scientist*
Harris, W. M., Jr., 2000, Summer Programs Directory: *The Earth Scientist*
Harris, W. M., Jr., 2001, Summer Programs Directory: *The Earth Scientist*
Harris, W. M., Jr., 2002, Summer Programs Directory: *The Earth Scientist*

PRESENTATIONS

Harris, W. M., Jr., 1996, The Compressed Track: Teaching Science in a Short Form; Geol. Soc. of America, Abstracts with Programs, V. 28, A-413, Annual Meeting, Denver, CO.

Harris, W. M., Jr., 1995, Earth Science Teacher Preparation Programs: Status and Attitudes; Geol. Soc. of America, Abstracts with Programs, V. 27, Annual Meeting, New Orleans, LA.

Harris, W. M., Jr., and Scharmann, Lawrence C., 1991, Teaching Evolution: Concerns and Instructional Approaches; Geol. Soc. of America, Abstracts with Programs, V. 23, Annual Meeting, San Diego, CA.

Harris, W. M., Jr., 1991, Factors Effecting Introductory Physical Geology Student's Ability to Complete Structural Geology Block Diagrams; Geol. Soc. of America, Combined Rocky Mountain/South-Central Section Meeting, Albuquerque, NM, April 20-23.

Harris, W. M., Jr., 1991, Teaching Science at a Distance, A Faculty Development Seminar: Sponsored by the Distance Learning Program, Division of Continuing Education, Kansas State University, Feb. 28, Manhattan, KS.

Harris, W. M., Jr., 1991, Science Fact, Science Theory, and Evolution; Iowa Committee of Correspondence, March Symposium, Invited Presentation and Paper.

Scharmann, Lawrence C., Harris, W. M., Jr., 1991, Teaching Evolution: Understanding, Concerns, and Instructional Approaches; Southwest Association for the Education of Science Teachers, Annual Meeting, Colorado Springs, CO, Jan. 9-12.

Scharmann, Lawrence C., Harris, W. M., Jr., 1991. Teaching Evolution: Understanding,

Concerns and Instructional Approaches; Natl. Assoc. for Res. in Sci. Teach., 1991 Annual Meeting, The Abbey, Fontana, WI.

Harris, W. M., Jr., 1990, Middle School/Junior High School Earth Science Teacher Enhancement in Geology: A Comparison Between Teaching Field Methods and "The Big Trip" Approaches; Geol. Soc. of America, Abstracts with Programs, V. 22, N. 7, Annual Meeting, Dallas, TX.

Scharmann, Lawrence C., Shroyer, Gail, and Harris, W. M., Jr., 1990. Teaching About Evolution: Legal, Philosophical, and Instructional Perspectives (Invited Panel Discussion); Natl. Science Teachers Assoc., Regional Meeting, Kansas City, MO.

Harris, W. M., Jr., Enochs, Larry G., and West, Ronald R., 1990, Graphical Geological Data Base for Earth Science Teachers; Natl. Science Teachers Assoc., National Meeting, Atlanta, GA.

Harris, W. M., Jr., Enochs, Larry G., and West, Ronald R., 1990, Map Kansas, A Graphical Geological Database for Kansas; Geol., Soc. of America, South-Central Section Meeting, Stillwater, OK.

Enochs, Larry G., Harris, W. M., Jr., and West, Ronald R., 1990. Enhancing Middle/ Junior High School Science Through Field Experience; Natl. Sci. Teachers Assoc., National Meeting, Atlanta, GA.

Enochs, Larry G., Harris, W. M., Jr., and West, Ronald R., 1990. Preparing Earth Science Teachers in the Use of Field Trips in the Instruction of Their Earth Science Classes; Geol. Soc. of America, South-Central Section Meeting, Stillwater, OK.

Harris, W. M., Jr., Enochs, Larry G., and West, Ronald R., 1989. Graphic Geologic Database for Kansas: Geol. Soc. of America, Annual Meeting, Abstracts with Programs, p. A109, St. Louis, MO.

Harris, W. M., Jr., 1999, Organism Interactions Across a Bathymetric Gradient; A Study of the Fossils from the Plio-Pleistocene Sediments in the Humboldt Basin, California; Soc. Econ. Paleontol. and Mineral., Mid-Year Meeting, Columbus, OH.

Harris, W. M., Jr., 1987, The Taphonomic Effect of Pagurid Crustacea (Decapoda) on Gastropod Shells; Soc. of Econ. Paleontol. and Mineral., Annual Mid-Year Meeting, Abstracts with Programs, V. 4, p. 34.

Harris, W. M., Jr., 1987, Microscopic Analysis of Gastropod, Annelid, and Clionid Sponge Borings in Shells of Modern and Fossil Bivalves; Geol. Soc. of America, Abstracts with Programs, V. 19, N. 3, p. 169.

Harris, W. M., Jr., 1986, Project Streamwatch 1986; Teachers Manual, Texas A&M University, College Station, TX, 37p.

Harris, W. M., Jr., 1983, Biostragraphy of the Upper Cretaceous Austin Group, Travis County, Texas; Geol. Soc. of America, Abstracts with Programs, V. 16, p. 41.

LABORATORY MANUALS

Harris, W. M., Jr., 1993, Laboratory Manual for Introduction to Environmental Science, University of St. Thomas, 152 p.

Harris, W. M., Jr., 1994, Laboratory Manual for Environmental Science I, University of St. Thomas, 148 p.

Harris, W. M., Jr., 1995, Laboratory Manual for Environmental Science II, University of St. Thomas, 165 p.

Harris, W. M., Jr., 2005, 2009, Laboratory Manual for Science of the Human Environment, University of St. Thomas, 148 p.

Harris, W. M., Jr., 2005, Laboratory Manual for Science of the Earth Environment, University of St. Thomas, 165 p.

GUIDEBOOKS

Harris, W. M., Jr., 1984, Collectors Dozen: Fall Field Guide, Paleontology Club, Texas A&M University, 14 p.

Harris, W. M., Jr., 1980, A Day in the Cretaceous, Baylor University Geological Society, Baylor University, 15 p.

Harris, W. M., Jr., et. al., 1979, Geomorphic Evolution of the Lampassas Cut Plain, second edition (Editor), Baylor Geological Society, Baylor University, 28 p.

Harris, W. M., Jr., et al., 1978, Streams of Central Texas, contributor, Baylor University Geological Society, Baylor University, 18 p.

THEATRICAL PERFORMANCES

Lighting design for the University of St Thomas' production of **Snoopy**. Fall 2011.

Lighting and Sound Designer, University of St. Thomas, Drama Department, 1995-2007.

Selected Performances:

The role of the Miller in the University of St. Thomas' Children's Theater production of **Rumplestiltskin**. Fall 1994

The role of Lane in the University of St. Thomas's production of Oscar Wilde's **The Importance of Being Earnest.** Spring 1995

Sound design for the University of St. Thomas's production of **59 Pink Thunderbird.** Spring 1995

Sound design and Master of Magic for the University of St. Thomas' production of **Expecting Houdini.** Fall 1995.

Sound and effects design for the University of St. Thomas' production of **The Diary of Anne Frank.** Spring 1996.

Sound design for the University of St. Thomas' production of **The School for Wives.** Fall 1996.

GRADUATE COURSES

Geology: Sedimentology, Sedimentary Petrology; Clastic Core Sequence Interpretation; Carbonate Rocks, Carbonate Sediments I; Biogeology; Paleoecology; Micropaleontology; Regional Geology in Place Name; Isotope Geochemistry; Advanced Engineering Geology; Geology in Engineering Construction.

Problems/Special Topics: NSF Copano May research database computer program development; criteria for the recognition of benthic macrophyte dominated communities in the fossil record; microscopic analysis of gastropod, annelid, and clionid borings in the shells of modern and fossil bivalves.

Oceanography: Analysis of Benthic Communities; Marine Biostratigraphy I

Statistics: Statistics in Research I, Statistics in Research II

Biology: Scanning Electron Microscopy

Education: College Teaching

ADDITIONAL TRAINING

Seismic Sequence Stratigraphy Short Course, P. R. Vail and J. B. Sangre, Instructors, Spring 1987.

Advanced Statistical Analyses Systems Users Short Course, Offered by the Texas A&M University Computing Services Center, Summer 1984.

SAS Users Short Course, Offered by the Texas A&M University Computing Services Center, Summer 1984.

Welex Open-Hole Logging Course, Corpus Christi, Texas, Summer 1981.

ADDITIONAL CAPABILITIES

Geographic Information Systems
- ArcView
- MapView

Scanning Electron Microscope
- Jeol 25-II Scanning Electron Microscope
- Jeol 35 Scanning Electron Microscope with WDS and EDS X-ray capabilities
- Transmitting electron microscopy (basic operation)

Isotopic Analysis
- Finnegan Mat Ratioing Mass Spectrometer

Computers
- Apple computers from the Apple IIe through the Intel-based line
- IBM and IBM compatibles
- Mainframes running WYLBUR, OBS WYLBUR and BM operating environments

GRANTS

Tandy Grant, "Water Quality, Acid Rain, Rocks & Fossils," with Rick Krutschinsky for use with Helms Elementary School, HISD. $6,000.00 (approx).

Eisenhower Grant, "Project Water/Environment" with Rick Krustchinsky, $41,453. 44, 1994.

Eisenhower Grant, "Project Environment" with Rick Krustchinsky, $33,618.39, 1993.

NSF Funded Grant, "The Nature of Science and Premises of Evolutionary Theory: Institutes for High School Biology Teachers" with Lawrence C. Scharmann, $90,000. 1990.

NSF Funded Grant, "Enhancing Middle/Junior High School Earth Science Teaching Through Field Experiences" with Larry G. Enochs and Ronald R. West, $225,000. 1989.

Work with NSF funded Earth Science Teachers enhancement training at Texas A&M University through grants to Dr. Melvin Schroeder. 1984-1987. Visitation Specialist 1987-1988.

DISSERTATION RESEARCH INFORMATION

Research Focus: Paleontologists interpret the environments of the past from samples from rocks which may represent the deposition of thousands to hundreds of thousands of years of deposition in a variety of environments. Organism interactions, as evidenced by the effects of one organism on the shell of another, tell us of organisms which lived as contemporaries in one environment. As such, they give use detailed

information on environments as they fluctuate through time over an area. The study of interactions and interaction pairs through time provides trends which trace the changes in environments over the area.

Materials Studies: 5000+ shells and shell fragments from the Pliocene and Pleistocene of the Humboldt Basin and Kettleman Hills areas, California; 150+ shells from the Recent of the Texas Coast.

Data Generated: The study of these shells yielded 13 volumes of data containing over 530,000 bytes of information and over 17,000 lines of computer code. The total data field contains well over one million bytes of information.

Methods: The methods used in this study were generated from the research on the Recent shell material from the Texas Coast. Analytic techniques using ternary diagrams and time-composition analyses were developed from recent material.

RESEARCH INTERESTS

Environmental Education
Sedimentology
Stratigraphy
Marine Deposystems
Paleontology
Computers and Education
Earth Science Education
Geographic Information Systems
GIS Education

COURSES TAUGHT

Coastal Ecology
Physical Geology
Historical Geology
Environmental Science I
Environmental Science II
Environmental Geology
Science of the Human Environment
Science of the Earth Environment
Environmental Investigations
Coastal Ecology
Ecology for Environmental Management
Earth Science: At the Nexus of Cities and Land Use
Oceanic and Atmospheric Science
Oceanography
Meteorology
Introduction to Environmental Geographic Information Systems
Advanced Geographic Information Systems
Special Topics in GIS: Project-Based GIS