

Curriculum Vitae

STUART B. MURCHISON

Program in Geospatial Information Sciences
School of Economic, Political and Policy Sciences
University of Texas at Dallas
800 W. Campbell Road, GR 31 Richardson, Texas 75080-3021
Phone: (972) 883-6726; Fax: (972) 883-6297
smurchison@utdallas.edu
Homepage: <http://www.utdallas.edu/~smurchison>

Education

Ph.D. in Geography (1989) - University of Utah

Specialty areas: Quaternary Geology, Cartography, Remote Sensing, Soil Science, Quantitative Techniques, and Hydrology.

Dissertation: *"Fluctuation History of Great Salt Lake, Utah, During the Last 13,000 Years"*

Major Advisor: Dr. Don Currey

M.A. in Interdisciplinary Studies (1983) - University of Texas at Dallas

Specialty areas: Geosciences, Evolutionary Ecology, and Pleistocene Hominid Migrations.

Thesis: *"The Paleogeography of Pleistocene Man into the Americas; A Holistic View"*

Major Advisor: Dr. Victor Worsfold

B.A. in Geography (1981) - University of Texas at Dallas

Specialty areas: Coastal Geomorphology, Cartography, Astronomy, and Statistics

Experience

8/07 to Present Clinical Associate Professor of Geospatial Sciences & Geography, School of Economic, Political, and Policy Sciences, University of Texas at Dallas

3/01 to 8/07 Assistant Director Public Works & Transportation (Infrastructure Management GIS/Survey), City of Dallas, Dallas, Texas 75201

3/96 to Present President of G^3 Geography Geology Geodesy, Flower Mound, TX 75022

5/96 to 3/01: Manager of Geographic Information Systems, Dallas Central Appraisal District, Dallas, TX

11/90 to 5/96: Manager of Geographic Information and Remote Sensing Systems, Carter & Burgess, Inc., Fort Worth, TX

06/89 to 08/90: Consulting Staff Geologist, Sergeant, Hauskins & Beckwith, Salt Lake City, UT

09/89 to 03/90: Visiting Professor, University of Utah, Salt Lake City, UT

07/87 to 06/89: Consulting Staff Geologist, Dames and Moore, Inc. (Earthstore), Salt Lake City, UT

Research Interests

My research interests are utilizing geographic information systems to address spatial questions over multidisciplinary endeavors, such as earthly and universal phenomena. I am also interested in understanding of surficial material using remotely sensed data, interpreting Quaternary geology, geomorphology and rendering archeological sites into virtual reality.

Professional Training & Certifications

Project Management Institute, SMU – School of Engineering, 2004: Managing Information Technology Projects
Certified GIS Professional (GISP) – GIS Certification Institute, #00015436, Recertification 2010
Certified Photogrammetrist (C.P.) – American Society of Photogrammetry and Remote Sensing, #R858, 2005
Certified Community Floodplain Manager (FEMA) – 1991
Open Meetings Act Certification, Attorney General of Texas, 2006
Texas Public Information Act Certification, Attorney General of Texas, 2006
GIS program Management – URISA Certified Workshop - 2009
Multiple ESRI Training Certificates – Arc/Info Avenue Programming, ARC/SDE Administration, Arc/Info AML
Programming, Introduction to Spatial Analyst, ArcGIS Server Technology
Transfer (1995-2006)
ERDAS Training Certificates – ERDAS Databundle Certificate, ERDAS Imagine Spatial Modeler
Certificate (1993-1999)
Intergraph Training Certificates – Microstation CAD Certificate, MGE SX Certificate (1992-1995)
Microsoft Training Certificates – Microsoft Windows NT Server Certificate, Microsoft SQL Training Certificate
(1997)
American Society of Photogrammetry and Remote Sensing - Member
Geospatial Information and Technology Association - Officer
South Central Arc Users Group - Member
Metroplex Arc Users Group - Member

Awards and Honors

Academic All-American 1987-1988, Gamma Theta Upsilon, Geographic Honor Society Chapter President 1988

Publications

Refereed Articles

- 2010 “Uses of GIS for Homeland Security and Emergency Management for Higher Education Institutions”,
Homeland Security and Institutional Research, *New Directions for Institutional Research*. Vol. 146, Edited
by Nicolas Valcik. John Wiley and Sons, Inc.: Hoboken, NJ, ISBN: 978-04709-03148.
- 2010 “Assessment Model for Municipal Benchmarking Attributes”, (with Nicolas A. Valcik, Teodoro J.
Benavides, Todd Jordan, Angela Olszewski) , in review
- 1989 “Utah chub (*Gila atraria*) from the latest Pleistocene Gilbert shoreline, west of Corrine, Utah.”
Great Basin Naturalist 49, p. 131-133.

Refereed Conference Articles

- 1998 “Planning and Implementing a Cadastral GIS: Dallas Central Appraisal District.” 1998 ESRI User
Conference, Environmental Systems Research Institute, Inc. San Diego, CA., July 27-31, 1998. 5p.
- 1995 “Meeting Banking CRA Requirements Using Geographic Information Systems.” (with May, Jr., J.B.)
Urban & Regional Information Systems Association '95 Conference Proceedings, San Antonio,
Texas, July 14-16, 1995. 6p.
- 1994 “Impervious Cover Extraction Using Remote Sensing/GIS.” (with Hunt, J.M. and S.C. Veal) Water
Policy and Management: Solving the Problems, Proceedings of the 21st Annual Conference,
American Society of Civil Engineers May, 1994, p. 127-131.
- 1991 “Investigating Fault Rupture Hazards: An example from the Wasatch fault zone, Utah.” (with Robison,
R.M., J.R. Keaton, T. Burr, D.R. Currey) Lifeline Earthquake Engineering, (Ed. Michael A. Cassaro)
American Society of Civil Engineers, Monograph No. 4, August 1991, pp. 601-610.

- 1988 "The highest Holocene stage of Great Salt Lake." (with Currey, D.R., M.S. Berry, G.E. Douglass, J.A. Merola, and M.K. Ridd), Geological Society of America Abstracts with Programs, Volume 20, Number 6, p. 411.
- 1988 "Very late Pleistocene red beds in the Bonneville Basin, Utah and Nevada." (with Currey, D.R., M.S. Berry, and S.A. Green), Geological Society of America Abstracts with Programs, Volume 20, Number 6, p. 411.

Published Technical Reports

- 2000 "Late Pleistocene and Holocene Shoreline Stratigraphy on Antelope Island." (with William E. Mulvey) in Geology of Antelope Island, edited by: King, J., Utah Geological Survey Miscellaneous Publication 00-1, p. 77-83.
- 1989 "Fluctuation history of Great Salt Lake, Utah during the last 13,000 years." NASA Contract NAS5-28753, Final Report, Part II, Limnogeotectonics Laboratory Technical Report 89-2, July 25, 1989. 137p.

Invited Performances or Presentations

- 2009 "Facilities Management Using GPS at UT Dallas", Geospatial Information & Technology Association, North Central Texas Regional Luncheon, EMGI Brookhaven College.
- 2009 "Geospatial Program at UTD" City of Dallas GIS Users Group, City of Dallas.
- 2008 "Some of the Current Challenges", Enhancing Public Service with Locational Awareness, Research and New Venture Showcase, UTD Davidson Auditorium.
- 2007 "Getting Certified in GIS", Geospatial Information & Technology Association, North Central Texas Regional Luncheon, EMGI Brookhaven College.
- 2005 "Utilizing Geographic Information Systems for Homeland Security Infrastructure Assessment" City of Dallas, Homeland Security Executive Committee, Office of Emergency Management.
- 2003 "Saving Time, Lives with Integrated Data." Government West. Los Gatos, California. May/June, 2003, p. 10-11.
- 2003 "GIS in the West: A Roundtable Discussion." Government West. Los Gatos, California. Sept/Oct, 2003, p. 18-24.

Grant Activity

University of Texas at Dallas, Office of Business Affairs, Campus Infrastructure Maintenance, \$10,000 for 10 months. 2011.

University of Texas at Dallas, Office of Business Affairs, Campus Infrastructure Maintenance, \$15,888 for 12 months. 2009.

Texas Regional Collaborative for Excellence in Science and Mathematics Teaching, University of Texas at Austin/TEA/Department of Education, Science and Mathematics Education, \$115,500 for fourteen months. 2008.

Teaching Experience

Clinical Associate Professor, University of Texas at Dallas 2007-Present

Classes taught - GIS Management and Implementation - GISC 6383
Introduction to Remote Sensing – GEOS/GISC 6325
The Global Environment – GEOS/GEOG 2302
Fundamentals of Geographic Information Systems – GISC 6381
Applied Geographic Information Systems – GISC 6382
Geographic Information Systems Workshop – GISC 6387

Responsible for Obtaining the USGIF Accreditation for the Geospatial Intelligence Certification, 2009

Lecturer, University of Texas at Dallas, Dept. of Political Economy and Geology 1997-2005

Courses Taught: Introduction to GIS, Advanced GIS, Management and Implementation of GIS

Occasional Professor, Texas Christian University, Dept. of Geology 1994-1995

Courses Taught: Introduction to GIS

Teaching Fellowship, University of Utah, Dept. of Geography 1986-1989

Courses Taught: Physical Geography, Computer Mapping, Quantitative Techniques, Hydrology

Graduate Students Supervised

Masters

Robert McLain, **MS**, 2010, *Ground-Based Mobile LiDAR to Determine Areas of Exposed Railroad Tie Ends.*

Kingsley Obinna, **MS**, 2010, *Application of GIS for Coastal Biological Resource Management in the Event of an Oil Spill. A Case Study of Port Isabel, Texas.*

Craig Bremer, **MS**, 2010, *Geospatial Methods for Identifying Jaguar (Panthera Inca) Habitat in Texas.*

Terry Garrett, **MS**, 2010, *An Analytical Process to the Viability of GPS Units on Parolees.*

Jeffery G Bishop, **MS**, 2010, *A Consumer's Analysis of Cellular reception by Signal Strength.*

Derek Mink, **MS**, 2010, *Petroleum Depth-Rights Management Catalog.*

Joe McCoy, **MS**, 2010, *Spatial Distribution of Agricultural & Natural Resources Hopkins County TX.*

Larry Krieger, **MS**, 2009, *Water Turbidity Analysis Using Shoreline Measurements and Landsat 5 TM.*

Janthima Srisombat, **MS**, 2009, *Proposing Market Strategies for Commercial Waste Service at the City of Garland.*

Vineeth Viswanathan, **MS**, 2009, *Route Optimization for Hazardous Materials Transportation.*

Charles Houston, **MS**, 2009. *Temporal Analysis of Flood Prone Areas in Dallas County.*

Vasavi Vaka, **MS**, 2009. *GIS Solution for Solid Waste Management.*

Allan Adair, **MS**, 2008. *Optimal Route Selection Based on Analysis of Multiple Criteria Using PostGIS and pgRouting.*

Rage Yerva Veera, **MS**, 2008. *Role of Network Analyst in an Emergency Response.*

Jason Conover, **MS**, 2008. *Using the Enhanced Fujita Scale and GIS to Model Damage of a Tornadoic Event in Dallas, Texas.*

Doctoral Committee Member (Not Supervisor)

Michelle Wurtz, **PhD**, 2011, *Recording a Vanishing History: Three Dimensional Scanning of Petroglyphs at Writing-On-Stone Provincial Park, Alberta Canada.*

Professional Service and Activities

Member, Master's Committee, Program in Geospatial Sciences, UTD

Member, GIS Program Director faculty search Committee

Board Member-at-large, Geospatial Information & Technology Association, Texas North Central Chapter

Chairman of the GIS Advisory Committee, Brookhaven College

Member of the GIS Executive Committee, North Central Council of Governments

Member of the Digital Orthophotography Committee, North Central Council of Governments

Member of the GIS Advisory Committee, Tarrant County College