

## *CURRICULUM VITA*

**W. Fredrick Limp**

**January 2007**

### **CONTACT INFORMATION**

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### **CURRENT POSITION**

Leica Geosystems Chair in Geospatial Imaging  
University Professor  
Departments of Anthropology, Geosciences and Environmental Dynamics Program  
University of Arkansas, Fayetteville

Director  
Center for Advanced Spatial Technologies and National Consortium for Rural Geospatial  
Innovations (RGIS) Mid-South, University of Arkansas, Fayetteville

### **EDUCATION**

Indiana University  
Ph.D. Anthropology, 1983

Indiana University  
M.A. Anthropology, 1977

Indiana University  
B.A. Anthropology, 1973

### **MILITARY SERVICE**

US Air Force Active 1966-1970, Inactive Reserve 1970-1972  
Special Electronic Technician 99125  
TS/Crypro

### **PROFESSIONAL EXPERIENCE**

#### **Administration**

Director, Center for Advanced Spatial Technologies, National Consortium for Rural Geospatial Innovations (RGIS) Mid-South, University of Arkansas. Senior Administrator for multi-college research, teaching and technology transfer program. Supervise professional staff of 30+. Develop proposals, coordinate with University administration, financial, legislative liaison and personnel offices. Design and implement research, professional development, undergraduate and graduate education programs. Administer center annual budget of approximately \$1.5-2.5 M. September 1991 - present.

Interim Director, Arkansas Archeological Survey, University of Arkansas. Senior administrator for 55 person statewide research and public service organization with nine research stations located at seven universities and two state parks reporting to University System's President. Coordinate with cooperating university presidents, chancellors and state agency directors; develop budget in excess of \$1.5 M; coordinate with State Department of Higher Education; develop legislation and work with State Legislature; develop and implement policies; supervise research and support staff. June 1990 - September 1991.

Assistant Director, Arkansas Archeological Survey, University of Arkansas. Coordinate Survey-wide research program; develop and implement Survey research objectives and methodology; develop budgets; coordinate with University administration and state government; direct computer acquisitions and operations. August 1979 - June 1990.

Director, Institute for Quantitative Archeology. J. W. Fulbright College of Arts and Sciences, University of Arkansas, Fayetteville. Administer multidisciplinary institute with participation of departments of Anthropology, Geography, Mathematics, Industrial Engineering, and the Arkansas Archeological Survey. September 1985 - September 1990.

Series Editor, Arkansas Archeological Survey. Editor for five volumes of the *Research Reports*, fifteen volumes of the *Research Series*, four volumes of the *Technical Papers*, and four numbers of the *Arkansas Archeological Survey Survey*. August 1980 - January 1987.

Coordinator, Sponsored Research Programs, Arkansas Archeological Survey. Administer externally funded projects; develop proposals; coordinate with federal, state, municipal, and private sector agencies; supervise staff and review reports. July 1983 - March 1987.

Co-Director, Contract Archeology Program, Center for American Archeology/Northwestern University Archeological Program. Identify, plan, and implement contract research; develop and coordinate on-going programs; manage and evaluate 130-person research and field staff. October 1978 - August 1979.

Coordinator, ORACLE Project, Indiana University. Coordinate, develop, and implement the ORACLE Archeological Computerized Information Retrieval System; supervise programming staff. 1976 - 1978.

Co-Director, Archaeological Salvage Excavations, McKinley Site, central Indiana. Develop research design and supervise field crew. September 1977.

Field Director, National Park Service funded historic site excavations, northern Indiana. Design excavation procedures; supervise field and laboratory crews; coordinate with NPS personnel; analyze artifacts and prepare final reports. June - September 1973.

## **Teaching**

Leica Geosystems Chair in Geospatial Imaging, University of Arkansas, August 2005 - present.

University Professor, Department of Geosciences, University of Arkansas, June 2004 - present.

University Professor, Department of Anthropology, University of Arkansas. July 2002 - present.

Professor, Department of Anthropology, University of Arkansas. July 1994 – June 2002.

Adjunct Professor, Department of Geosciences, University of Arkansas, Aug 1998 - July 2003.

Professor, Environmental Dynamics Program, University of Arkansas, September 1998 – present.

Associate Professor, Department of Anthropology, University of Arkansas. July 1987 - July 1994.

Assistant Professor, Department of Anthropology, University of Arkansas. 1979 - 1987.

Associate Instructor, Department of Anthropology, Indiana University. Fall - Spring 1976.

Assistant Director, Indiana University Archaeological Field School. June - August 1975, May - June 1974.

### **Short courses taught**

Geographic information systems in archaeology, Sydney University 1996.

Global positioning systems, Sydney University 1996.

Geographic Information Systems Training Program, Rutgers University, Cook College Remote Sensing Center. 1990.

PROSPECT Course, Cultural Resources Identification and Assessment. Professional Development, University of Alabama, Huntsville. 1987 – 1996.

PROSPECT Course, Cultural Resources Identification and Assessment. US Army Corps of Engineers Santa Fe. 1999-2006

Geographic Information Systems Training Program, Colorado State University, Remote Sensing and Geographic Information Systems Program, College of Forestry and Natural Resources. 1990 - 1993.

Geographic Information Systems Training Program, Space Remote Sensing Center, Stennis Space Center, 1986 - 1989.

Exploratory Data Analysis Techniques, National Park Service (Denver) and USDA Soil Conservation Service (Fort Worth), 1989.

Geospatial applications for community planning and management. Destination Labs (Celebration, FL) 2001.

Developing an enterprise information system. One day short course. GeoSASK 2001, Regina Saskatchewan, Canada. October 2001.

Geospatial Applications for natural resource management Destination Labs (EPCOT Center FL) 2001.

Developing an enterprise information system. One day short course. Ohio Geospatial Technology Conference. Columbus Ohio. March 24, 2003.

### **Courses Taught**

- Introductory Archeology/Bioanthropology
- Archeological Field Methods
- Archeological Research Design
- Cultural Resource Management
- Computer Data Bank Management in Archeology
- Predictive Modeling in Archeology

Economic Anthropology  
Economic Applications in Archeology  
Principles and Applications of Geographic Information Systems  
Exploratory Data Analysis Techniques  
Geographic Information Systems in the Natural Sciences  
GIS in the Social Sciences  
GIS in the Natural Sciences  
Raster Geomatics  
Vector Geomatics  
Information technologies in Anthropology, Archaeology and Geography  
Advanced Vector Systems  
Introduction to GI Science  
Archaeological Method and Theory

### **OTHER PROFESSIONAL POSITIONS**

#### **1983**

Member, Archeological Work Group, Pan American Institute of History and Geography, Organization of American States.

Consultant, Southwestern Region, US Department of Agriculture, US Forest Service. (Predictive modeling and data base management).

#### **1984**

Advisor, Fayetteville School System, 1984 (School redistricting methodologies).

Nominee, Executive Board, American Society for Conservation Archeology.

Member, Archeological Work Group, Pan American Institute of History and Geography, Organization of American States.

#### **1985**

Nominee, Vice President, American Society for Conservation Archeology.

#### **1986**

Member, Archeological Work Group, Pan American Institute of History and Geography, Organization of American States.

Research Archeologist, Construction Engineering and Research Laboratories, US Army Corps of Engineers. (Geographic information systems design and implementation).

#### **1987**

Consultant, Design Workshops, Landscape Architects. GIS applications.

Member, Archeological Work Group, Pan American Institute of History and Geography, Organization of American States.

#### **1988**

Member, Program Committee, Society for American Archeology national meetings.

Consultant NASA, (Integration of GIS and remote sensing technologies).

**1989**

Consultant, Lockheed Engineering Services Inc. (GIS software development).

**1990**

Executive Board, National Coalition for Applied Preservation Technologies.

Associate Director, National Center for Resource Innovation - Southwest.

Executive Board, Arkansas GIS Users Forum.

**1991**

Executive Board, University Consortium for Preservation Science Technology.

Executive Board, North American Geographic Resources Analysis Support System Users Forum.

**1992**

Advisor, National Park Service, Interagency Resources Division, Washington.

Member, Advisory Board, Arkansas Department of Natural and Cultural Heritage.

Member, Task Force on Curation, Society for American Archaeology.

Executive Board, Arkansas GIS Users Forum.

Executive Board, University Consortium for Preservation Science Technology.

Executive Board, North American Geographic Resources Analysis Support System Users Forum.

**1993**

Treasurer-Elect, Society for American Archaeology.

Executive Board, Foundation for American Archaeology.

Nominee, Department of Army, Remote Sensing Advisory Board.

Treasurer, Open GIS Foundation.

Executive Board, Arkansas GIS Users Forum.

Appointed by Governor to State Land Records Modernization Board.

Executive Board, University Consortium for Preservation Science Technology.

**1994**

Treasurer, Society for American Archaeology.

Executive Board, Foundation for American Archaeology.

Chair, Arkansas State Mapping and Land Records Modernization Board.

Executive Board, Arkansas GIS Users Forum.

Appointed to Governor's Task Force on Water Resources and Wetlands, GIS Technical Subcommittee.

**1995**

Treasurer, Society for American Archaeology.

Executive Board, Foundation for American Archaeology.

Chair, Arkansas State Mapping and Land Records Modernization Board.

Board Member, Open GIS Consortium.

Member, Management Committee, Open Geodata Interoperability Project.

Member, GIS Technical Subcommittee, Arkansas Task Force on Water Resources and Wetlands.

**1996**

Chair, 1996 Nomination Selection Committee, Society for American Archaeology.

Board Member, Open GIS Consortium.

Member, Society for American Archaeology, Task Force on Curation.

Member, Society for American Archaeology, Advanced Technology Task Force.

Member, GIS Technical Subcommittee, Arkansas Task Force on Water Resources and Wetlands.

Co-Chair Technical Sub-Committee for the Vision 2010 Project.

**1997**

Member, GIS Technical Subcommittee, Arkansas Task Force on Water Resources and Wetlands.

Board Member, Open GIS Consortium.

Member SPOT Image (satellite systems) National Academic Advisory Board.

**1998**

Board Member, Open GIS Consortium.

Served as consultant to the American Association for Advancement of Science in a review of the Spatial Data Center, University of Wyoming.

**1999**

Board Member, Open GIS Consortium.

Governor appointee to Arkansas State Land Information Board.

Board Member, EAST Program Advisory Board.

**2000**

Board Member, Open GIS Consortium.

Executive Board Member, Intergraph Geospatial Executive Board, Intergraph Corporation.

Consultant to NASA Regional Applications Center for the Northeast, Auburn, NY.

Governor appointee to State Land Information Board.

Board Member, EAST Program Advisory Board.

Advisory Board, Geospatial Information Systems Program, Westark College.

**2001**

American Association for the Advancement of Science National Science Panel Member, review of Desert Research Institute.

Board Member, Open GIS Consortium.

Executive Board Member, Intergraph Geospatial Executive Board, Intergraph Corporation.

Governor appointee to State Land Information Board.

Board Member, EAST Program Advisory Board.

Advisory Board, Geospatial Information Systems Program, Westark College.

**2002**

Board Member, Open GIS Consortium.

Executive Board Member, Intergraph Geospatial Executive Board, Intergraph Corporation.

Governor appointee to State Land Information Board.

Board Member, EAST Program Advisory Board.

Board Member, AmericaView.

Advisory Board, Geospatial Information Systems Program, Westark College.

**2003**

Executive Board Member, Intergraph Geospatial Executive Board, Intergraph Corporation.

Governor appointee to State Land Information Board.

Board Member, EAST Program Advisory Board.

Advisory Board, Geospatial Information Systems Program, Westark College.

External Advisory Board, Geographic Information Systems Curriculum, Southwestern Indian Polytechnic Institute.

**2004**

Executive Board Member, Intergraph Geospatial Executive Board, Intergraph Corporation.

Governor appointee to State Land Information Board.

Board Member, EAST Program Advisory Board.  
External Advisory Board, Geographic Information Systems Curriculum, Southwestern Indian Polytechnic Institute.

## **2005**

Board Member: North American Oracle Spatial Users Group.  
Board Member: National EAST Project.  
Governor appointee to State Land Information Board.  
Board Member, The Nature Conservancy, Regional Programs.

## **2006**

Board member: Open Geospatial Consortium Interoperability Institute  
Secretary: North American Oracle Spatial Users Group.  
Board Member: National EAST Project.  
Governor appointee to State Land Information Board.  
Board Member, The Nature Conservancy, Regional Programs.

## **EXTERNALLY FUNDED RESEARCH**

I have directly received, as Principal or Co-Principal Investigator, total external funding awards exceeding \$26.5 million in the period June 1985 to the present (\$12.7 grants/contracts and \$19.8 M gifts).

Note: Multi-year projects are listed in the year awarded only.

## **1985**

*An archeological synthesis and overview of the Southwestern Division.* US Army Corps of Engineers, Southwestern Division. Award \$455,000. (1985 - 1989).

*Development of an on-line computerized data base system for archeological site, project, and citation data.* Jointly funded by US Fish and Wildlife Service; US Forest Service; US Army Corps of Engineers, Memphis, Vicksburg, and Little Rock districts; National Park Service, Washington Region and Buffalo National River. Award \$132,000. (1985 - 1986).

*An integrated approach to predictive modeling, geographic information systems and regional databases in archeology.* US Forest Service, Region 8. Award \$23,000. (1985-1986).

## **1987**

*Computer hardware grant.* MASSCOMP, Westford, Massachusetts, for development of integrated geographic information system and remote sensing software. Award \$150,000. (1987 - 1988).

*Organizational and travel grant for national meeting on museum database standards for archeological collections.* National Park Service. Award \$2,000.

*Organizational and travel grant for national symposia on archeological applications of microcomputer technologies.* (Co-organizer with S. Gaines and S. Parker). National Park Service, US Army Corps of Engineers, and US Forest Service. Award \$12,500.

*Design and implementation of a nationwide automated system for archeological and historic preservation project data.* National Park Service (1987 - 1989). Award \$45,000.

**1988**

*Design and implementation of a geostatistical software package for the analysis and classification of archeological site data.* (Co-Principal Investigator with S. Parker) US Army Construction Engineering Research Laboratory (1988-1989). Award \$64,200.

*Development of a geographic information system database for Fort Chaffee, Arkansas.* US Army Corps of Engineers. Award \$38,000.

*Computer software grant for development of an integrated GIS and relational database management system.* INFORMIX Software Corporation. Award \$16,000.

*Development of a comprehensive automated data processing environment for archeological resources.* U. S. Army Construction Engineering Research Laboratory. Award \$11,500.

*Training materials for the Geographic Resources Analysis Support System.* US Army Construction Engineering Research Laboratory. Award \$23,000.

*An evaluation of the use and potential for multi-spectral digital imagery in archeological investigations.* US Army Corps of Engineers. Award \$24,500.

**1989**

*Design and implementation of a regional geographic information system and linked database for archeological research.* U. S. Army Corps of Engineers. Award \$48,000 and transfer of \$63,000 computer hardware.

*Interactive Linkage of a RDBMS and the National STATSCO Soils System.* (Co-Principal Investigator with J. Farley). USDA Soil Conservation Service (1989-1990). Award \$50,000.

*A geographic information systems based analysis of nitrate movement in soils* (Co-Principal Investigator with D. Scott and M. Cochran). US Department of Agriculture CSRS Program (1989 - 1990). Award \$79,000.

**1991**

*Development of an On-Line National Archeological Citation Database.* (Co-Principal Investigator with J. Farley). National Park Service (1991-1992). Award \$35,000.

*Continuing Development of a Portable SQL Interface to the GRASS Geographic Information System.* (Co-Principal Investigator with J. Farley). USDA Soil Conservation Service (1991-1992). Award \$98,000.

*Archeological Overview of the Central and Northern Great Plains.* (Senior Co-principal Investigator with C. Ewen and T. Green) U. S. Army Corps of Engineers (1991-1995). Award \$750,000.

**1992**

*Bioarchaeological Database Development: Implementing the Field Museum Committee's Osteological recommendations.* Senior Co-principal Investigator with J. Farley and J Rose. 9121552. National Science Foundation (1992-1993). Award \$81,500.

*Geographic Information Systems Analysis of Biodiversity in Arkansas.* (Co-principal Investigator with T. Martin and K. Smith). U. S. Fish and Wildlife Service. Award \$100,000.

*National Center for Resource Innovation - Southwest.* U. S. Department of Agriculture. Award \$205,000.

*Cooperative GIS Efforts.* U. S. Forest Service. Award \$58,100.

*Thematic Mapper Based Identification of Wetlands.* U. S. Fish and Wildlife National Wetlands Research Center. Award \$36,000. (1992-1993).

*Development of a National Archeological Database.* National Park Service. Co-principal investigator with J. Farley. Award \$86,000. (1992-1993)

*Maintenance and operation of the National Archeological Database.* National Park Service, Co-principal investigator with J. Farley. Award \$30,000.

*Assessment of the Prairie Grove Civil War Battlefield.* National Park Service. Co-principal investigator with J. Farley. Award \$36,000. (1992-1993)

*Software Grant - Image Processing Software System.* ERDAS, computer software awarded with value of \$320,000, with J. Farley.

*Hardware Grant - High performance UNIX color workstations.* Digital Equipment Corporation, computer hardware awarded with a value of \$125,000, with J. Farley.

*Hardware Grant - High performance UNIX color workstations.* OkiData Computer Systems Inc., computer hardware awarded with a value of \$136,000, with J. Farley.

### **1993**

*Development of GIS based methodologies for evaluation and management of Civil War Battlefields,* National Park Service, Co-principal investigator with J. Farley. Award \$108,000.

*National Center for Resource Innovation - Southwest.* U. S. Department of Agriculture. Award \$205,000.

*Use of multi-source imagery data to map urban infrastructure.* Metroplan, Award \$40,999.

*Statewide acquisition of multi-temporal TM imagery.* Multiple Agencies, Award \$86,670.

*Development of a prototype wetlands decision support system.* Arkansas Game and Fish Commission. Award \$16,000.

*Software Grant - Image Processing Software System.* PCI, computer software awarded with value of \$130,000, with J. Farley.

*Hardware and Software Grant - High performance UNIX color workstations and GIS and Imagery software.* Intergraph, computer hardware and awarded with a value of \$160,000, with J. Farley.

*Hardware grant - Large format electrostatic plotter.* RasterGraphics. Hardware with a value of \$25,000 with J. Farley.

*Cooperative GIS development.* USDA- Forest Service Award \$13,500.

*Development of statewide data in support of archaeological inventory studies.* Arkansas Archaeological Survey. \$9,000.

*Continuing Funding for Geographic Information Systems Analysis of Biodiversity in Arkansas.* (Co-principal Investigator with T. Martin and K. Smith). U. S. Fish and Wildlife Service. Award \$150,000.

#### **1994**

*Continuation of the National Biodiversity Inventory (GAP) Program.* (Co-Principal Investigator with Kimberly Smith) U. S. Fish and Wildlife Service. Award \$100,000.

*Prairie Grove Intensive Analysis and Visual Study.* (Co-principal investigator with J. Farley) National Park Service. Award \$36,000.

*Pilot program for development of classification & accuracy assessment methods & improved accessibility for space platform sensor data.* (Year 1) NASA. Award \$129,000.

*National Center for Resource Innovation - Southwest.* U. S. Department of Agriculture, CSRS. Award \$195,000.

*Honey Springs Battlefield Analysis and Modeling.* (Co-principal investigator with Karen Hanna) National Park Service. Award \$42,000.

*Continuing support for a wetland decision support system.* Arkansas Game and Fish Commission. Award \$30,000.

*Systems development and support.* (Co-principal investigator with J. Farley) Arkansas Department of Natural Heritage. Award \$5,000.

*Mission Arkansas: using satellite imagery to enhance K-12 curriculum.* (Co-principal investigator with Lynne Hehr) Arkansas Department of Education. Award \$38,800.

*Graduate student development.* NASA. Award \$3,500.

*National paleoenvironmental database development.* U. S. Army Construction Engineering Research Lab. Award \$22,385.

*Archaeological resources and agricultural practices: a national profile.* Soil Conservation Service. Award \$42,000.

*Hardware and software grant - multiple laboratory system.* (Co-principal investigator with J. Farley) Intergraph Corp. Award \$5,200,000.

*Development of a low cost photogrammetric data archival system.* National Center for Preservation Technology. Award \$37,428.

#### **1995**

*Pilot program for development of classification & accuracy assessment methods & improved accessibility for space platform sensor data (Year 2).* NASA. Award \$132,000.

*National Center for Resource Innovation - Southwest.* U. S. Department of Agriculture, CSRS. Award \$195,000.

*Archaeological resources and agricultural practices: a national profile - continuation.* National Resource Conservation Service Award \$18,000.

*Continuation of the National Biodiversity Inventory (GAP) Program.* (Co-Principal Investigator with K. Smith) National Biological Service. Award \$100,000.

*Development of spatial decision support for wetlands management.* Arkansas Soil and Water Commission. Award \$30,000.

*Synoptic measurement of wetland indices.* Environmental Protection Agency. Award \$75,000.

*Development of World Wide Web capacities for cultural resources at the Waterways Experiment Station.* US Army Waterways Experiment Station. Award \$7,300.

*Development of portable version of the DELOS artifact inventory and analysis system.* Construction Engineering Research Laboratories. Award \$19,840. Co-PI with J. Farley and R. Harris.

*Development of osteological recording system for NAGPRA recordation.* Construction Engineering Research Laboratories. Award \$13,495. Co-PI with J. Farley and R. Harris.

*Software grant, computer assisted drafting system.* Intergraph Corp. Computer software with a value of \$94,000, with J. Farley.

#### **1996**

*Pilot Program for Development of Classification & Accuracy Assessment Methods & Improved Accessibility for Space Platform Sensor Data* (supplemental funding). NASA. Award \$100,000.

*Support for NRCS GIS program.* USDA National Resource Conservation Service. Co-PI with J. Farley. Award \$30,000

*National Center for Resource Innovation,* USDA-CSRRS. Co-PI with J. Farley. Award \$172,535.

*Multi temporal TM based development of land use-land cover for the Mississippi Alluvial Valley.* Arkansas Soil and Water Conservation Commission. Award \$198,200.

*Continuation of the GAP vegetation mapping.* USGS-BRD. Co-PI with K. Smith. Award \$72,000.

*Assessing the Efficacy of using NRI data and Preservation Data to Assess Historic Resources.* USDA-National Resources Conservation Service. Award \$43,000.

*Development of a video based training guide for historic landscape planning.* National Park Service. Co-PI with K. Hanna. Award \$14,500.

*Wetlands decision analysis in Bayou Meta and extension of analysis in the Grand Prairie area.* Arkansas Soil and Water Conservation Commission. Award \$44,038.

#### **1997**

*Delivering Geographic Decision Support Technology to the Desktop.* NASA. Co-PI with J. Farley. Award \$100,000.

*Web based interface to soils data.* USDA-NRCS. Co-PI with J. Farley. Award \$24,000.

*National Center for Resource Innovation.* USDA-CSRS. Award \$126,000.

*Mapping of inundation areas in the Arkansas Delta.* Arkansas Soil and Water Conservation Commission. Co-PI with J. Farley. Award \$98,721.

*Evaluation of NRCS CTA watershed data and cultural resources.* USDA-NCRS. Award \$20,000.

*Historic preservation information system.* USDOJ-National Park Service. Co-PI with J. Farley. Award \$100,000.

*Using spatial data for North American bird conservation.* US Fish and Wildlife Foundation. Co-PI with K. Smith. Award \$100,000.

*Wetlands decision analysis in the Black River.* Arkansas Soil Water Conservation Commission. Award \$36,166.

*Using GIS to analyze birds at risk in Latin America.* The Nature Conservancy. Co-PI with K. Smith. Award \$197,613.

*Cooperative national mapping and education program.* King Fahd Middle Eastern Studies Program. Co-PI with J. Farley. Award \$67,740

## **1998**

*Greenbriar Information Age Curriculum,* Greenbrier School District. Award. \$26,150.

*Arkansas Source Water Protection Plan Year 1,* USGS. Co-PI with J. Farley. Award \$51,225.00

*National Archaeological Database/Online,* NPS, Co-PI with J. Farley. Award \$55,000.

*Development of Desktop GIS Toolbox/Well Log Data,* AR Soil and Water Conservation Commission, Co-PI with M. Williamson. Award \$10,596.

*Delivering GIS Technology to the Desktop,* NASA, Co-PI with J. Farley. Award \$100,000.

*National Center for Resources Innovations - Southwest,* USDA/CSREES, Award \$121,970.

*Priorities for Birds at Risk in Latin America,* The Nature Conservancy, Co-PI with K. Smith. Award \$197,000.

*Prototype World Web (WWW) County Soil Survey,* USDA-NRCS, Co-PI with J. Farley. Award \$25,000.

*Oracle Center of Excellence in Spatial data management.* Oracle Corporation. Co-PI with J. Farley, Award \$4,500,000.

## **1999**

*Greenbriar Information Age Curriculum,* Greenbrier School District. Co-PI with M. Williamson. Award \$69,877.

*Arkansas Source Water Protection Plan Year 2-3,* Co-PI with B. Culpepper USGS. Award \$32,867.

*Statewide land use land cover mapping using Landsat TM,* Arkansas Soil and Water Conservation Commission. Co-PI B. Gorham. Award \$279,203.

*National Archaeological Database/Online,* NPS, Co-PI with J. Farley. Award \$55,000

*National Consortium for Geospatial Innovation in Rural America Innovation.* USDA/CSREES, Award \$121,970.

**2000**

*Geospatial support and training for the EAST initiative.* Dept of Education and the OUR Cooperative. Co-PI with Malcolm Williamson. Award \$69,855..

*Web GIS to evaluate the environmental impact of regional population growth.* EPA. Award \$22,957.

*Mapping Arkansas' information infrastructure.* Arkansas Department of Information Systems. Co-PI with B. Culpepper. Award \$57,957.

*GIS-based natural resources analysis for the St Francis River.* Arkansas Soil and Water Conservation Commission. Co-PI with M. Williamson. Award \$23,845.

*Technical tools for Census 2000.* Arkansas Secretary of State. Co-PI with B. Culpepper. Award \$19,948.

*Development of the Harnessing GeoMedia book.* Intergraph. Co-PI with Debbie Harmon. Award \$20,000.

*Geospatial support and training for EAST (2000).* Department of Education and OUR Consortium. Co-PI with Malcolm Williamson. Award \$139,853.

*Rural consortium for geospatial innovations.* USDA/CSREES. Co-PI with J. Farley. Award \$95,000.

*Developing on on-line economic development information system for the Arkansas Delta using framework data.* USGS-FGDC. Co-PI with J. Farley and D. Harmon. Award \$70,000..

*GIS based analysis of the L'Anguille River and Big Creek WPA.* Arkansas Soil and Water Conservation Commission. Award Co-PI with M. Williamson. \$21,112.

**2001**

*Geospatial support and training for the EAST initiative (2001).* Dept of Education and the OUR Cooperative. Co-PI with M. Williamson. Award \$231,000.

*Rural consortium for geospatial innovations.* USDA/CSREES. Award \$128,939.

*National Archaeological Database/Online,* NPS, Award \$45,000.

*Enhancing GeoStor's capabilities.* Arkansas Department of Information Services. Award \$77,844.

*EAST Archaeological animation workshop.* EAST Initiative. Award \$9,976.

*Destination Labs development.* Destination Labs. Award \$5,525.

*Inundation mapping, Cache River Valley.* Arkansas Soil and Water Conservation Commission. Co-PI with B. Gorham. Award \$59,800.

*Clearinghouse integration with web mapping.* USGS-FGDC. Award \$20,000.

*Center for Excellence in GeoComputation.* Sun Microsystems. Co-PI with J. Farley. Award \$1,100,000 (hardware and software).

*Center for Excellence in Object Oriented Image Analysis.* Definiens Imaging GmbH. Award \$55,000 (software).

*Developing a GEO-Warehouse for New York State.* New York State Office for Technology. Award \$14,950.

## **2002**

*National Archeological Database (2002).* National Park Service. Co-PI with R. Harris. Award \$23,000

*Increasing Geo-Stor Capabilities and Data.* Arkansas Department of Information Services. Award \$306,685.

*Digitization of the Soil Survey of Arkansas and Proposed Remote Sensing Efforts.* Arkansas Soil and Water Conservation Commission. Co-PI D. Scott and B. Gorham Award \$66,050.

*GIS-Based Natural Resources Analysis for the Cache River WPA.* \$54,029. Arkansas Soil and Water Conservation Commission. Co-PI with M. Williamson.

*Expanding Community Involvement in Historic Preservation through EAST.* EAST Initiative. Co-PI with S. Ballard. Award \$7,400.

*OGC Web Services Initiative Thread Set 2 and Demonstration – OGC Style Management.* Open GIS Consortium, Inc. Co-PI with S. Covington. Award \$30,845.

*New Approaches to the Use and Integration of Multi-Sensor Remote Sensing for Historic Resources.* The Strategic Environmental Research and Development Program (SERDP), US Department of Defense. Senior Co-PI with K. Kvamme, M. Hargrave, T. Sever. Total award \$840,000. \$238,298 to UA-CAST (2002-2005).

*Clearinghouse Integration with OpenGIS Services. The Arkansas GeoStor Web Map and Feature Server Portal.* Federal Geographic Data Committee (FGDC). Co-PI with S. Covington. Award \$19,996.

*Arkansas View: Expanding the Use & Value of Remote Sensing Data Through Education.* U.S. Geological Survey/U.S. Department of Interior. Co-PI with B. Gorham. Award \$98,514.

*GIS-Based Natural Resource Analyses for the Coastal Plains WPA.* Arkansas Soil & Water Conservation Commission. Co-PI with M. Williamson. Award \$79,458

*Development of a Web Based Geo-Data Access and Distribution System for the Arkansas Soil & Water Conservation Commission.* Arkansas Soil & Water Conservation Commission. Co-PI with B. Culpepper. Award \$92,538.

*RGIS 2003 – USDA/RGIS MidSouth.* National Consortium for Rural Geospatial Innovations in America (RGIS). Award \$112,720

*Geo-Spatial Support & Training for the EAST Initiative (2002).* EAST Initiative. Co-PI with M. Williamson. Award \$385,883.

*For the Development of Standard GIS County Data Sets & Related Activities.* Arkansas Livestock & Poultry Commission/State Veterinarian. Award \$8,925

*Phase I Washington County Rural Fire Risk Assessment Pilot Project.* Northwest Arkansas Rural Conservation and Development District. Award \$3,000.

*Integrating Remote Sensing/Geospatial Technologies into Red Oak Decline Resource Management.* USDA Forest Service. Co-PI with F. Stephens. Award \$35,000

### **2003**

*Expanding GeoStor capabilities.(2003)* Arkansas Department of Information Services. Award \$113,000.

*Development of Standard GIS County Data Sets & Data Capture Tools.* US/USDA Arkansas State Plant Board. Award \$11,328.

*Acquisition of a High Accuracy/Resolution Landscape and Structure Characterization System .0321286.* National Science Foundation. \$349,452. UAF Matching \$149,745. Total Award \$499,217. (2003-2006).

*Arkansas View: Advancing the Use and Value of Remote Sensing and Technology in Arkansas.* U.S. Geological Survey/FGDC. Award \$89,480.

*Arkansas Data Serving Pilot GAP Web Demo.* DOI/USGS/GAP Analysis Program. Award \$24,283.

*Expanding Sustainable Metadata Development for County and Local Government, Schools, and the Private Sector.* U.S. Geological Survey. Award \$39,756.

*Geo-Spatial Support and Training for the EAST Initiative.(2003).* EAST Initiative. Co-PI with M. Williamson. Award \$338,494.

*GIS-Based Natural Resource Analysis for Ouachita Mountains Wetland Planning.* Arkansas Soil and Water Conservation Commission. Co-PI with M. Williamson. Award \$42,993.

*Quickbird High Resolution Image Acquisition and Derived Map Products* City of Fayetteville. Award \$17,569.

*Developing The National Map Capabilities and Functionalities for a Pilot Project.* USGS/Arkansas Geographic Information Office. Co-PI with S. Covington. Award \$14,961.

*National Archeological Databases and National NAGPRA Databases (2003).* National Park Service. Award \$41,386.

*National Consortium for Rural Geospatial Innovations in America (2003).* USDA/CSREES/RGIS 2003-04. Award \$143,500.

*eSpatial Center of Excellence in Spatial Applications.* eSpatial Corporation. Award \$1,700,000. (in-kind software)

### **2004**

*Computing and retrieving 3D archaeological structures from subsurface surveying.* 0431070 National Science Foundation. Co-PI with K. Daniilisis, G. Biros, J. Shi, A. Vranich. Award \$350,000 (year 1 of 3 total award \$1.51M).

*Digitization of the Arkansas Soil Survey and use land cover studies* ASWCC. Award \$63,113.

*Geospatial &Visualization Support & Training for EAST Initiative (2004).* EAST Initiative. Co-PI with M.

Williamson. Award \$303,760.

*GIS-Based Natural Resource Analyses for Arkansas River Valley Wetland Planning.* Arkansas Soil & Water Conservation Commission Co-PI with M. Williamson. Award \$45,686.

*GeoStor Operations & Maintenance (2004).* Arkansas Geographic Information Office Award \$123,394.

*Establishing Framework Data Services Using the OGC Web Feature Service.* Department of Interior – US Geological Survey. Co-PI with S. Covington. Award \$74,966.

*National Consortium for Rural GeoSpatial Innovations in America (RGIS) -USDA/CSREES.* Award \$130,000.

*The Northwest Arkansas Regional Planning Commission Database Management Project.* 03/15/04 - 12/15/04. Northwest Arkansas Regional Planning Commission. \$3,200. PI F Limp and CoPI C Scarlat

*Summer Animation Project Proof of Concept - Physical Science (1).* 05/31/04 - 12/31/04. Moments Projects. \$19,394. PI Fred Limp.

*State View Program Development and Operations for the State of Arkansas, FY 2004: Arkansas View: Expanding the Use and Value of Remote Sensing Data Through Education, Research and Outreach.* 07/01/04 - 06/03/05. U.S. Department of the Interior. \$89,496. F. Limp and Co-PI B Gorham.

*National Archeological Database and National NAGPRA Databases (Modification #2)* 09/26/04 - 07/31/05 National Park Service/Department of the Interior. \$31,403. PI F Limp and CoPI B Harris

*Northwest Arkansas Regional Planning Commission GIS Development Project.* 10/16/04 - 12/15/04. Northwest Arkansas Regional Planning Commission. \$2,400. PI F Limp and CoPI Cristina Scarlat.

## **2005**

*Computing & Retrieving 3D Archeological Structures from Subsurface Survey (year 2 of 3).* F. Limp. University of Pennsylvania-National Science Foundation. 10/15/2005-9/30/2006. UA 2005 funds \$54,322 (total 3 year award \$1.55M) PI K. Daniilidis Co-PI(s): G. Biros, J. Shi, A. Vranich, F. Limp.

*GIS-Based Natural Resource Analyses for the Ozark Wetland Planning Region.* F. Limp and M. Williamson 1/3/2005 - 12/31/2005. Arkansas Natural Resource Commission. \$58,697.

*GeoSpatial & Visualization Support & Training for EAST Initiative.* F. Limp and M. Williamson. 7/1/2005 - 6/30/2006 EAST Initiative. \$249,217.

*Automated mapping and reporting system.* F. Limp, R. Davis. Arkansas Natural Resource Commission. 10/15/2005-07/31/2007. \$220,000.

*State View Program Development & Operations for the St. of Ark.* F. Limp and B. Gorham. 7/1/2005-6/30/2006 USGS. \$89,500

*RGIS-Midsouth.* F. Limp and B. Culpepper. 7/1/2005 -7/31/2006. USDA-CSREES \$175,000.

*National Archeological Database (Mod 3 and 4).* F. Limp and B. Harris. 8/1/2005-7/31/2006. National Park Service. \$ 11,103.

*Travel Demand Model Development.* F. Limp and C. Scarlat. Arkansas Highway and Transportation Dept. 8/15/2005-12/31/2005. \$4,800.

## 2006

*An Enterprise Geospatial Architecture and Development of Automated Analysis Methodologies for Central American Carbon Sequestration Analysis.* PI. Limp F. and J. Cothren.. National Aeronautics & Space Administration (NASA). 1-Dec-2007. \$25,000.

*ArkansasView: Expanding the Use and Value of Remote Sensing through Education, Research, and Outreach.* 30-Jun-06. US Geological Survey/AmericaView, Inc.. PI J. Tullis, Limp, W and Gorham, B. \$84,000

*Northwest Arkansas Travel Demand Model Development.* Arkansas Highway and Transportation Department (AHTD). 17-Aug-05.. Limp, W and C. Scarlat. \$12,142

*Developing web based on-line educational tools.* EAST Initiative. 6-Jun-06.. PI. Limp, W. \$8,467

*Streamlining Archaeo-Geophysical Data Processing and Integration for DoD Field Use.* U.S. Army Corps of Engineers. 3-Apr-06. PI Limp W, Johnston, W. Cothren, J. \$194,616. (year 1 of four year \$915,000).

*Evergreen Cemetery Mapping Website Fayetteville Evergreen Cemetery Association.* 1-Mar-06. PI. Limp, W. F and Wilson, J. \$2,292.

*Evaluation of Geographic Explorers with Local 3D Models and Data.* 3DbyDesign. 7-Apr-06. PI Limp, W F. \$15,855.

*GIS-Based Mapping of HGM Wetland Classes and Subclasses for the Western Lowlands.* Arkansas Natural Resources Commission. 10-May-06. PI Limp, W F. and Williamson, M. \$110,758

*Computing and Retrieving 3D Archaeological Structures from Subsurface Surveying-* IIS 431070. 2-Dec-06. National Science Foundation, University of Pennsylvania. PI K. Daniilidis, G. Biros, J. Shi A. Vranich and W. Limp. \$59,719. (Year 3 of total \$1,552,270 award).

*NW Arkansas Travel Demand Model Development (continuation).* Arkansas Highway and Transportation Department (AHTD). 17-Mar-06. PI Limp, W. F. and Scarlat, C. \$6,138

*GeoSpatial & Visualization Support & Training for EAST Initiative EAST Initiative.* 30-June-2006. PI Limp, W. F and M. Williamson. \$265,780.

*National Archaeological Database System.* National Park Service Mod 5. 7-July-2006, PI Limp, W. and B. Harris. \$12,000

*Probabilistic Risk Based Decision Support for Oil and Gas Exploration and Production Facilities in Sensitive Ecosystems.* 1-Oct-06. US Department of Energy. PI Thoma, G., K. Khursheed, F. Limp and J. Cothren. \$496,554.

## PUBLICATIONS

### Books

Early, Ann and W. Fredrick Limp (editors)

1981 *Fancy Hill: Contributions to the Archeology of the Ouachitas.* Arkansas Archeological Survey Research Series No. 15. 334 pp.

Lafferty, Robert, Sandra Scholtz, Jeffery Otinger, W. Fredrick Limp and Beverly Watkins

1981 *Settlement Predictions in Sparta,* Arkansas Archeological Survey Research Series 14. 260 pp.

- Limp, W. Fredrick, Sandra Parker and Sylvia Gaines (editors)  
 1986 *Proceedings of the National Workshop on Microcomputers in Archaeology*, Society for American Archeology. 190 pp.
- Limp, W. Fredrick  
 1989 *The Use of Multispectral Digital Imagery in Archeology*. Arkansas Archeological Survey Research Series No. 34. 122 pp.
- Limp, W. Fredrick, James P. Harcourt, and Ellen Zahn (editors)  
 1989 *The Archeological Literature of the South Central United States*. Arkansas Archeological Survey Research Series No. 36. 4 vols., 1150 pp.
- Harris, B., A. Gisiger, J. C. Rose and W. F. Limp (Editors)  
 1997 *Archeological literature of the north central United States, a volume in the central and northern plains overview*. Arkansas Archeological Survey Research Series No. 50, Fayetteville, Arkansas.
- Limp W. Fredrick and Deborah Harmon  
 1998 *Inside GeoMedia*. High Mountain Press, Santa Fe, NM, 600 pp.
- Smith, K., R. Dzur, D. G. Catenzaro, M. Garner and W. Limp  
 1998 *Arkansas GAP Analysis Project*, Special Publication of the US Geological Survey, Biological Resources Division. Washington, DC. Compact disk.
- Brooks, T., D. Melman, R. Roca, A. Jahn, W. Limp and K. Smith  
 1999 *Conservation priority setting for birds in Latin America*, The Nature Conservancy. Washington DC. Compact disk.
- Eiteljorg, N. and W Limp  
 In press *Archeological Computing*. Center for the Study of Architecture and Archaeology. Bryn Mawr, PA.
- Articles, abstracts and reviews in national and international refereed journals**
- Limp, W. Fredrick  
 1974 Water separation and flotation processes. *Journal of Field Archaeology* 1(3):337-342.
- Limp, W. Fredrick and Van Reidhead  
 1979 An economic evaluation of the potential of fish utilization in riverine environments. *American Antiquity* 44(1):70-79.
- Limp, W. Fredrick and Jerome Rose  
 1986 The relocation of the historical cemetery at Cedar Grove. *Journal of Field Archaeology* 13(3):339-342.
- Carr, Christopher and W. Fredrick Limp  
 1987 CA Comment on "Processual archaeology and the radical critique" by Earle T. and R. Prucel. *Current Anthropology* 28(4):514 - 515.
- Limp, W. Fredrick  
 1987 Review of *Method and Theory for Activity Area Research*, edited by Susan Kent. *American Anthropologist* 90:176.

- Banks, Larry, W. Fredrick Limp and Jerome Rose  
 1990 Bioarcheology of the Southwestern Division (abstract). *American Journal of Physical Anthropology* 81(2):191
- Limp, W. Fredrick  
 1991 Review of *Quantifying Archaeology* by Stephen Shennan and *Quantifying Diversity in Archaeology*, Robert Leonard and George Jones, editors. *Journal of Field Archaeology* 18(4):520-523.
- Rose, J. C., R.W. Harris, W.F. Limp and J.A. Farley  
 1995 Standardized osteological database: a computerized, free-standing encoding system for osteology. *AAPA Abstracts* 183.
- Green, T. and W. F. Limp  
 1995 Archaeological overviews: The Southwestern Division Overview and the Central Northern Plains Overview and their use in historic preservation: *The George Wright Forum* 12(1):52-57.
- Dzur, R. Garner, M. Smith, K., Limp, W. F., X. Li and W. Song  
 1995 Arkansas GAP analysis project: statewide biodiversity mapping research. *URISA 1995 Proceedings* 1:74-83. Urban and Regional Information Systems Association.
- Dzur, R., M. Garner, K. Smith and W. F. Limp  
 1995 GAP analysis partnerships for mapping the vegetation of Arkansas. *GAP analysis a landscape approach to biodiversity planning*. M. Scott, T. Tear and F. Davis, editors. Special publication of the American Society of Photogrammetry and Remote Sensing, pages 179-186.
- Yuan, Y., D. Smith and W. F. Limp  
 1996 Remodeling census population with spatial information from Landsat TM imagery *Computers, Environment and Urban Systems* 21(3/4):245-258.
- Zuccotti, L. F., M. D. Williamson, W. F. Limp, and P. S. Ungar  
 1998 Modeling primate occlusal morphology in three dimensions using Geographic Resources Analysis Support System software. (abstract). *American Journal of Physical Anthropology*, Supplement 26, 1998:238-239. Wiley-Liss Inc., New York.
- Zuccotti, L. F., M. D. Williamson, W. F. Limp, and P. S. Ungar  
 1998 Modeling primate occlusal topography using Geographic Information System Technology. *American Journal of Physical Anthropology*. 107(1):137-142. Wiley-Liss Inc., New York.
- Limp, W. F.  
 2001 Review of *Anthropology, space and geographic information systems* edited by M. Aldenderfer and H. Maschner. *Journal of Field Archaeology* 27:223-226.
- Cothren, J. and W. Limp  
 2006 The application of long range, large area high density survey for heritage site analysis in Bini, M., S. Bertocci and S. Mecca (eds) *Documentation for conservation and development: New heritage strategy for the future*. Firenze University Press. Firenze, Italy. pg 127.
- Limp, W.  
 2006 Review of *Ground Penetrating Radar* by Larry Conyers. *Journal of Field Archaeology*. 31-105-107.

### Articles in edited volumes

Limp, W. F. and T. Cook

- 1981 The ORACLE computerized information retrieval system. In *Data Bank Applications in Archeology*, edited by Sylvia Gaines. University of Arizona Press. pp. 57 - 66.

Scholtz, S. and W. F. Limp

- 1981 The application of a multivariate logistics model to the prediction of site locations. In *Coloquis, Manejos do Dactos y Metodas Matematicos de Arqueologica X Congress, Union International de Ciencias Prehistorias y Protohistoricas*, Mexico City, pp. 236 - 255.

Limp, W. F., R. Lafferty, and Sandra Scholtz

- 1981 Towards a model of location choice in Sparta. In *Settlement Prediction in Sparta*, by Robert Lafferty et al. Arkansas Archeological Research Series 14:59 - 100.

Limp, W. F. and R. Lafferty

- 1981 Conclusions and recommendations. In *Settlement Prediction in Sparta*, by Robert Lafferty et al. Arkansas Archeological Survey Research Series 14:223 - 240.

Moore-Jansen P., W. F. Limp, and M. Million

- 1981 Specific topographic settings. In *AMASDA Site Encoding Manual*, by J. Hilliard and J. Riggs. Arkansas Archeological Survey Technical Paper 1.

Schambach, F., N. Trubowitz, F. Rackerby, E. Hemmings, W. F. Limp, and J. Miller

- 1982 Test excavations at the Cedar Grove site (3LA97): a late Caddo farmstead in the Great Bend region, southwest Arkansas. In *Contributions to the Archeology of the Great Bend*, edited by Frank Schambach and Frank Rackerby. Arkansas Archeological Survey Research Series No. 22:90 - 130.

Limp, W. F.

- 1983 An economic model of settlement aggregation and dispersal. In *Ecological Models in Economic Prehistory*, edited by Gordon Bronitsky. Arizona State University Anthropological Research Papers 29:18 - 45.

Limp, W. F., J. Farley and C. Andrews

- 1985 MICROART: A user friendly archeological data base system. In *Proceedings of the Amsterdam Commission IV Meetings. Society of Pre- and Proto-Historic Sciences*, edited by Louise van Wijngaarden-Bakker, pp. 73-86.

Parker, S., W. F. Limp and J. Farley

- 1985 Archeological database management as conceptual process. In *For Concordance in Archaeological Analysis*, edited by Christopher Carr. Westport Press. pp. 91-113.

Limp, W. F. and C. Carr

- 1985 The analysis of prehistoric decision making. In *For Concordance in Archaeological Analysis*, edited by Christopher Carr. Westport Press. pp. 128-172.

Limp, W. F. and J. Rose

- 1985 Introduction. In *Gone to a Better Land*, edited by Jerome Rose, Arkansas Archeological Survey Research Series No. 25:1-5.

- Lafferty, R., S. Parker and W. F. Limp  
 1986 Testing the Sparta Hypotheses. In *Model Validation in Sparta*, edited by Robert Lafferty and John House. Arkansas Archeological Survey Research Report 25:206-229.
- Lafferty, R. and W. F. Limp  
 1986 The Significance and National Register Eligibility of Cultural Resources. In *Model Validation in Sparta*, edited by Robert Lafferty and John House. Arkansas Archeological Survey Research Report 25:243-273.
- Limp, W. F.  
 1986 Introduction. In *Proceedings of the National Workshop on Microcomputers in Archaeology*, edited by W. Fredrick Limp, Sandra Parker and Sylvia Gaines. Society for American Archeology. pp. 1-3.
- Williams, G. I., W. F. Limp and F. Briuer  
 1990 Using Geographic Information Systems and Exploratory Data Analysis for Archeological Site Classification and Analysis. In *Interpreting Space: GIS and Archaeology*, edited by Kathleen Allen, Ezra Zubrow and Stanton Green. Taylor and Francis, London. pp. 239 - 273.
- Farley, J., W. F. Limp and J. Lockhart  
 1990 The archeologist toolbox, integrating GIS, EDA, DBMS and remote sensing in archeology. In *Interpreting Space: GIS and archaeology*, edited by Kathleen Allen, Ezra Zubrow and Stanton Green. Taylor and Francis, London. pp. 141 - 164.
- Limp, W. F. and P. Smith  
 1990 Environmental Parameters of the Rush Locality. In *Archeological Investigations at 3MR80-Area D in the Rush Development Area, Buffalo National River*, by George Sabo et al. National Park Service Southwest Cultural Resources Center Professional Papers No. 38:25-60.
- Limp, W. F.  
 1990 Intersite Analysis: Aboriginal Use of the Rush Locality. In *Archeological Investigations at 3MR80-Area D in the Rush Development Area, Buffalo National River*, by George Sabo et al. NPS Southwest Cultural Resources Center Professional Papers No. 38:285-318.
- Williams, I., S. Parker, W. F. Limp and J. Farley  
 1990 The Integration of GRASS-GIS, S and Relational Database Management: A Comprehensive Interactive Environment for Spatial Analysis. In *New Tools from Mathematical Archaeology*, edited by A. Voorrips and B. S. Ottaway. Polish Academy of Sciences, Warsaw. pp. 91-106.
- Limp, W. F.  
 1991 Continuous Cost Movement Surfaces. In *Applications of Space Age Technology in Anthropology* edited by Clifford Behrens and Thomas Sever. NASA-STL Technical Publication. pp. 237 - 250.
- Limp, W. F.  
 1992 Applications of multispectral digital imagery in Southeastern archaeological investigations, in *Method and Theory in Southeastern Archaeology*, edited by Jay Johnson, University of Alabama Press, pages 184-206.
- Limp, W. F.  
 1997 Developing methodologies in the analysis of spatially referenced data and their impact on archaeological method and theory in Bietti, A., A. Cazella, A. Johnson and A. Voorrips, eds., *XIII International Congress of Prehistoric and Protohistoric Sciences. Colloquia Vol. 1 Theoretical and Methodological Problems*, pages 115-125.

- Limp, W. F.  
 1997 Developing methodologies in the analysis of spatially referenced data and their impact on archaeological method and theory. Reprinted in *Archaeological applications of GIS: Proceedings of colloquium II, UISPP XIIIth Congress*. Edited by M. North and I. Johnson. Sydney University Archaeological Methods Series Volume 5. Sydney, Australia
- Dzur, R. S., M. E. Garner, K. G. Smith, W. F. Limp, D. G. Catanzaro, and R. L. Thompson  
 1998 Cooperative accuracy assessment strategies for sampling a natural land cover map of Arkansas.” In *Spatial accuracy assessment in natural resources and environmental sciences: Second International Symposium*. (Eds.) Mowrer, H. T., R. L. Czaplewski, and R. H. Hamre. Pp. 517-526. RM-GTR-277, Fort Collins, Colorado (released in 1997)
- Gisiger, A., E. S. Cooper, Y. Yuan and W. F. Limp  
 1997 Development and implementation of a rapid low-cost photogrammetric data archival system for artifact and osteological inventory. In *Archaeological applications of GIS: Proceedings of Colloquium II, UISPP XIIIth Congress*. Edited by M. North and I. Johnson. Sydney University Archaeological Methods Series Volume 5. Sydney, Australia
- Limp, W. F.  
 2000 Geographic information systems in historic preservation in *Scientific methods in historic preservation*, Ray Williamson editor. Advances in Archaeological and Museum Science 4, Kluwer Academic Press, New York. Pgs 231-248.
- Nigro, J., R. Limp, K. Kvamme, D. Ruitter and L. Berger  
 2002 The creation and potential application of a 3-dimensional GIS for the early hominin site of Swartkrans, South Africa. *Computer Applications and Quantitative Methods in Archaeology CAA02 Tempus Reparatum* Oxford pp 121-133.
- Limp, W. F.  
 2005 Data curation in H. Maschner and C. Chippendale (eds.) *Handbook of Archaeological Methods*. Altamira Press. Pp: 1270-1305.
- In press. “The tyranny of tools: advantages and pitfalls in geospatial analysis and visualization methods for archeological analysis.” In S. Branting (ed.) *Analyzing space in time: New directions for GIS in archaeology*. Oxford. Archeopress.

#### **Articles in regional journals**

- Reidhead, V. and W. F. Limp  
 1974 The Haag Site (12 D19): A preliminary report. *Indiana Archaeological Bulletin* 1(1):4-19.
- Early, A. and W. F. Limp  
 1984 Response to Johnson. *Southeastern Archaeology* 3(1):79-80.
- Limp, W. F.  
 1989 Report on emergency excavations of two features at 3NW538, Boxley Valley, Buffalo National River, *Bulletin of the Arkansas Archeological Society*, 23:71 - 94
- Briuer, F., I. Williams and W. F. Limp  
 1990 Geographic Information Systems: A Tool for Evaluating Historic Archeological Sites. *Mississippi Archaeology* 25(1):43-63.

Limp, W. F.  
1994 Review of *Low altitude large scale reconnaissance: a method of obtaining high resolution vertical photographs* by James W. Walker in *Southeastern Archaeologist* 13(2):202.

**Articles in national, non-refereed, technical journals**

Limp, W. F.  
1987 Using the S statistical software for exploratory data analysis. *Grassclippings* 1(3):4-6/1987  
1987 MASSCOMP 5600 Benchmarked. *Grassclippings* 1(2):3.

Limp, W. F., J. A. Farley, and F. McManamon  
1988 National Archeological Database: Project position, purpose, and plans. *Federal Archeological Newsletter*, April 1988, pp. 1-5

Limp, W. F.  
1989 Producing DEMs from point data. *Grassclippings* 3(1):8-10.  
1989 DLG extraction and sample design. *Grassclippings* 3(2):11-15.  
1990 GRASS Applications for Archeological Inquiry. *Grassclippings* 4(2):11-24.  
1990 UNIX shell programming and GRASS. *Grassclippings* 4(2):15.  
1991 Basic scripting in GRASS. *Grassclippings* 5(1):15.  
1991 Map annotation in GRASS, *Grassclippings* 5(2):15-19.  
1992 Using selected tools. *Grassclippings* 6(1): 15-16.  
1992 The challenge of automated systems in archaeology, *Federal Archaeology Report*, 5(3):1-6.

Limp, W. F. and A. Gisiger  
1992 Continental scale archaeological studies using GIS. *Federal Archaeology Report*, 5(3):2-4.

Limp, W. F.  
1995 Software review: MacGridzo. *GIS World* 8(9):96-98.  
1995 Software review: Map II. *GIS World* 8(10):80-82.  
1995 Software review: Habitec 4.3. *GIS World* 8(11):100-102.  
1995 Software review: US GIS. *GIS World* 8(11):102-104.  
1995 Software review: MapPublisher. *GIS World* 8(12):97-98.

Gisiger, A. E. Cooper, Y. Yuan and W. Limp  
1996 *Development and implementation of a rapid low-cost photogrammetric data archival system for artifact and osteological inventory*. Final report submitted to the National Center for Preservation Technology and Training. 82 pages.

Limp, W. F.  
1996 Lifelong learning, an integral part of the technical professional's life. *Globallink* 2:7.

- 1996 Society for American Archaeology financial status. *SAA Bulletin* 14(3).
- 1996 Software review: Vestra MapMaker and LUS Modeler *GIS World* 9(1):93-94.
- 1997 Software review: City View 4.0 *GIS World* 9(2):92.
- 1996 Software review: Maptitude 3.0b *GIS World* 9(2):92-93.
- 1996 Software review: S+Gislink 1.1 *GIS World* 9(3):80.
- 1996 Software review: Overview Data and TrueVue *GIS World* 9(3):81-82.
- 1996 Software review: Gsharp 1.3.1 *GIS World* 9(7):86.
- 1996 Software review: MapFactory *GIS World* 9(7):86-87.
- 1996 Software review: AutoVue and AutoVue Professional *GIS World* 9(8):82.
- 1996 Software review: SAS/GIS 6.0 *GIS World* 9(10):82-84.
- 1996 Software review: TruFlite 4.2 *GIS World* 9(11):84.
- 1996 Software review: GeoFirma 2.4 for ArcView 2.1 *GIS World* 9(11):76-77.
- Thompson, R., R. Dzur and W. Limp
- 1997 A preliminary comparison of minimum unit aggregation procedures for raster data. *GAP Analysis Bulletin* 5:22-23.
- Gisiger, A., E. S. Cooper, S. Riggle, W. F. Limp and T. W. Hodgson
- 1997 *Cultural resources in America and agricultural land use: An initial national profile*. RCA III Working Paper No. 17, Natural Resources Conservation Service, USDA, Washington D.C
- Tulloch, D. L., B. J. Nieman, Jr., S. J. Ventura, E. F. Epstein, W. Limp and Shelby Johnson.
- 1997 Comparative study of land records modernization in multiple states. In *1996 GIS/LIS Proceedings* pp. 128-141.
- Williamson, M., P. Teague, M. Wiggins and W. Limp
- 1997 GIS as a planning tool for wetland conservation in the Arkansas Delta, in Scott, H. D. editor, *Proceedings of the Arkansas Water Resources Center, Annual Research Conference*, AWRC Publication MSC-210 pp. 52-53.
- Limp, W. F.
- 1997 Three software packages that support enterprise efforts. *Business Geographics* 5(1):26-31.
- 1997 Software review: MapInfo Professional 4.1. *GIS World* 10(1):82-84.
- 1997 Software review: S+Spatial Stats. *GIS World* 10(2):78-80.
- 1997 Software review: MAPublisher 2.0. *GIS World* 10(4):80-82.
- 1997 Software review: Geographic Translator. *GIS World* 10(5):70-71.

- 1997 Software review: Map Maker Pro 2.0. *GIS World* 10(6):78-79.
- 1997 Weave maps across the web. *GIS World* 10(6):46-52.
- 1997 Spatially enable the web: part I. *Business Geographics* 5(6):26-28.
- 1997 Spatially enable the web: part II. *Business Geographics* 5(7):22-29.
- 1997 Software review: ERDAS MapSheets 1.1 *Business Geographics* 5(6):48-50.
- 1997 Software review: Mapsheets 1.1. *GIS World* 10(6):80-81.
- 1997 Software review: GeoMedia 1.0. *Business Geographics* 5(9):47-48.
- 1997 Software review: PresentTable for MapInfo/Arc/View. *Business Geographics* 5(9):46-47.
- 1997 Software review: PresentTable for MapInfo/Arc/View. *GIS World* 10(9):78-80.
- 1997 Software review: Drive 5.0. *Business Geographics* 5(10):40-41.
- 1998 Software review: ER Mapper 5.5. *GIS World* 11(1):68-69.
- 1998 Software review: ArcExplorer 1.0. *GIS World* 11(3):68-69.
- 1998 Software review: World Construction Set 3.0. *GIS World* 11(4):69-70.
- 1998 Software review: MapInfo Pro 4.5. *GIS World* 11(5):68-69.
- 1998 Software review: MapFactory 2.0. *GIS World* 11(5):69-70.
- 1998 Software review: GeoTerrain. *GIS World* 11(6):72-73.
- 1998 Software review: ProAlign 4.3. *Business Geographics* 6(1):43.
- 1998 Software review: DB MarketPlace 4.0. *Business Geographics* 6(3):40.
- 1998 Software review: STARManager 5.0. *Business Geographics* 6(3):42-43.
- 1998 Software review: ArcExplorer. *Business Geographics* 6(4):46-48.
- 1998 Software review: Street Atlas 5.0. *Business Geographics* 6(4):48.
- 1999 Software review: ModelServer Discovery *GeoWorld* 12(1):56. Reprinted in *Mapping Awareness* March page 34.
- 1999 Software review: MFWorks 2.0. *GeoWorld* 12(1):57. Reprinted in *Business Geographics* March page 35.
- 1999 Software review: ArcView 3.1. *GeoEurope* January page 34, reprinted in *Mapping Awareness* January page 30 and *Business Geographics* January page 47.

- 1999 Software review: MapInfo Professional 5.0. *Business Geographics* January page 48.
- 1999 Software review: SpatialVision 1.1. *GeoWorld* 12(2):62-63.
- 1999 Software review: Video Mapping System. *GeoWorld* 12(2):64.
- 1999 Image compression eases network demand. *GeoEurope* February page 44-46, reprinted in *Mapping Awareness* February page 32-35.
- 1999 Software review: Vertical Mapper 2.1. *GeoWorld* 12(3):56
- 1999 Software review: ArcView Tracking Analyst. *GeoWorld* 12(3):57.
- 1999 Software review: IMAGINE VirtualGIS 8.4. *GeoWorld* 12(4):62-63. Reprinted in *Mapping Awareness* November pages 50-52.
- 1999 Software review: RFP Expert 1.1. *GeoWorld* 12(4):64.
- 1999 Software review: AutoCAD Map 3.0. *GeoEurope* April page 48.
- 1999 Image processing software selection depends on user needs. *GeoWorld* 12(5):36-41. Reprinted in *GeoEurope* May pages 40-45 and *Mapping Awareness* May pages 26-30.
- 1999 Software review: CartaLinx 1.1. *GeoWorld* 12(8):56.
- 1999 Mapping hits warp speed on the world wide web (cover article). *GeoWorld* 12(9):32-38. Reprinted in *GeoAsia/Pacific* October pages 40-46 and *GeoEurope* November pages 50-56.
- 1999 Multiple vendors release software upgrades (part 1). *GeoWorld* 12(9):62-64. Reprinted in *Mapping Awareness* September pages 62-64.
- 1999 Multiple vendors release software upgrades (part 2). *GeoWorld* 12(11):62-63. Reprinted in *GeoEurope* December pages 18-20 and *GeoAsia/Pacific* December pages 32-34.
- 1999 Don't hit warp speed with the wrong equipment. *GeoWorld* 12(11):44-46.
- 1999 Ride the waves of innovation. *GeoWorld* 12(12):54-57.
- 2000 Mapping on the Web. *InfoTech Report* 14(4):1-6. Article was reprinted from *GeoWorld*, November, 1999.

Culpepper, B. J. Wilson and W. Limp

- 2000 Spatial data development methods for the Arkansas source water assessment and protection project: an assessment of relative contamination risk to each public water system in Arkansas (abstract), in *Water resource issues in the Delta* edited by K. F. Steele. Arkansas Water Resources Center Publication No. MSC 0. Pg 46-47.

Limp, W. F.

- 2000 Software review: E&S RapidSite. *GeoWorld* 13(1):57-58.
- 2000 Software review: AutoCAD Map 2000 and MapInfo 5.5. *GeoEurope* February, page 41.

- 2000 Software review: GeoMedia 3. *GeoEurope* March, page 36.
- 2000 Software review: IMAGINE OrthoBase. *GeoWorld* 13(2):56 reprinted in *GeoEurope*.
- 2000 Software review: Virtual Frontier 1.0. *GeoWorld* 13(2):56.
- 2000 Geospatial systems go mobile. *GeoWorld* 13(3):64-66.
- 2000 Software review: Oracle 8i. *GeoWorld* 13(4):56-57. Reprinted in *Business Geographics*.
- 2000 RESPECT Raster GIS Packages finally receive well-deserved recognition. *GeoWorld* 13(5)44-48 (cover article). Reprinted in *GeoAsia Pacific* and *GeoEurope*.
- 2000 Software review: ERDAS IMAGINE 8.4. *GeoWorld* 13(6):64-65.
- 2000 Software review: RiverTools 2.0. *GeoWorld* 13(7):72.
- 2000 Software review: World Construction Set 5.0. *GeoWorld* 13(7):73.
- 2000 Software review: CubeSTOR, CubeSERV, CubeVIEW. *GeoWorld* 13(8):58.
- 2000 Putting the fizz in data viz. *GeoWorld* 13(9):40-45.
- 2000 Software review: FME 2000. *GeoWorld* 13(10):57.
- 2000 Software review: GeoGraphic Calculator. *GeoWorld* 13(11):54.
- 2000 Software review: AutoCAD Map 2000i, Land Development Desktop, MapGuide Author, Server and Viewer. *GeoWorld* 13(12):80-81.
- 2001 Software review: Autodesk Land Development Desktop 2i *GeoEurope* 3:32 (reprint of 2000 *GeoWorld* article).
- 2001 3-D innovations – diverse products bring earth imaging to the desktop. *GeoWorld* 5:32-40.
- 2001 User needs drive web mapping product selection. *GeoWorld* 2:30-34. Reprinted in *GeoEurope*.
- 2001 Software review: MapCalc Learner. *GeoWorld* 6:45.
- 2001 Software review: IcoMap 3.0. *GeoWorld* 4:44.
- 2001 Raster GIS and image processing products expand functionality in 2001. *GeoWorld* 5:34-38. Reprinted in *GeoEurope*.
- 2001 Software review: X-Map Geographic. *GeoWorld* 2:42
- 2001 Software review: Maptitude 4.2 and Maptitude for the Web. *GeoWorld* 5:45-46
- 2001 Software review: ArcGIS 8.1. *GeoWorld* 7:43-46. Reprinted in *GeoEurope*.
- 2001 From the back room to the glass room (cover article) *GeoWorld* 8:30-36. Reprinted in *GeoEurope*.
- 2001 Software review: GE SmallWorld Internet Map Server. *GeoWorld* 9:41.

- 2002 Web mapping application servers. *GeoWorld*. January 2002. page 42.
- 2002 Software review: Visual Nature Studio. *GeoWorld*. February 2002. page 40.
- 2002 Software review: Ecomodeler 2.5 and GeoData Editor 1.5. *GeoWorld*. February 2002. page 44.
- 2002 GIS and the internet: Web mapping 2002. *GeoWorld*. March 2002. pages 28-32.
- 2002 Software review: Autodesk MapGuide 6. *GeoWorld*. March 2002. page 39.
- 2002 Software review: eCognition 2.1. *GeoWorld*. April 2002. page 44.
- 2002 Software review: MapFusion. *GeoWorld*. May 2002. page 42.
- 2002 Software review: Jmap 2.0. *GeoWorld*. June 2002. page 43.
- 2002 Software review: EarthViewer 3D 1.03. *GeoWorld*. July 2002. page 44.
- 2002 Software review: MapCiti. *GeoWorld*. July 2002. page 40.
- 2002 Shop the GeoStor. *GeoWorld*. July 2002. pages 30-34.
- 2002 Software review: MAPublisher 5.0. *GeoWorld*. August 2002. page 37.
- 2002 Software review: CitiView 8. *GeoWorld*. November 2002. page 39.
- 2002 Software review: R2V. *GeoWorld*. December 2002. page 46.
- Johnston, W. and W. F. Limp
- 2002 Software review: TerraSuite. *GeoWorld*. November 2002. page 40.
- Limp, W. F.
- 2003 Software review: MapInfo Professional. *GeoWorld*. January 2003. page 52-53.
- 2003 Software review: ERDAS Imagine 8.6 2*GeoWorld*. February 2003. page 52.
- 2003 Software review: World Construction Set 6. *GeoWorld*. February 2003. page 53.
- 2003 Software review: Earth 2.1. *GeoWorld*. March 2003. page 52.
- 2003 Software review: ENVI 3.6. *GeoWorld*. March 2003. page 52-53.
- 2003 Software review: Feature Analyst. *GeoWorld*. April 2003. page 50.
- 2003 Software review: DataGate. *GeoWorld*. May 2003. page 50.
- 2003 Software review: Maptech Terrain Navigator Pro 6. *GeoWorld*. June 2003. page 54.
- 2003 Software review: RaveGeo. *GeoWorld*. June 2003. page 55.
- 2003 Software review: DbGIS, DbMAP Internet Server and DbMAP ASJ. *GeoWorld*. July 2003. page 56.

- 2003 Software review: XMap 4.0 Professional. *GeoWorld*. July 2003. page 56-58.
- 2003 Software review: Bentley PowerMap 8.1. *GeoWorld*. September 2003. page 54.
- 2003 Software review: AltaMap, Version 4. *GeoWorld*. December 2003. page 68.
- 2003 Software review: Canvas 9, GIS Edition. *GeoWorld*. December 2003. page 68-70.
- 2004 Software review of MapPoint 2004. *GeoWorld*. January 2004. page 48-49.
- 2004 Software review of Spatial Search Engine 2004. *GeoWorld*. January 2004. page 49.
- 2004 A brave new (spatial) world. *GeoWorld*. April 2004. page 32-36.
- 2004 Software review of GISConnect. *GeoWorld*. February 2004. page 53.
- 2004 .NET – the future of geospatial development? *GeoWorld*. February 2004. page 50-52.
- 2004 Software review of iSmart 4.3. *GeoWorld*. JAugust 2004. page 56.
- 2004 Software review of SilverEye 2.0. *GeoWorld*. September 2004. page 56-58.
- 2004 Software review of TerraSuite. *GeoWorld*. October 2004. page 54.
- 2004 Software review of KeyHole Pro *GeoWorld*. December 2004. page 68.
2004. Software review of Map2PDF. *GeoWorld*. December 2004. page 68-70.
- Cothren, J. and F Limp  
 2004 Product Innovations Lead to Real-World Mapping Solutions. *Earth Imaging Journal*. July/August.
- Limp, W. F. and J. Cothren  
 2005 Searching for earth imagery. *Earth Imaging Journal* 2(4): 22-27.
- Limp, W. F.  
 2005 Software review of ArcGIS Extensions. *GeoWorld*. July page 54-56.
- 2005 Software review of MapInfo Envinsa 3.5. *GeoWorld*. August page 46.
- 2005 Software review of DeLorme XMap 4.5, XMap/GIS Editor. *GeoWorld* September page 50-51.
2005. Software review of Google Earth Plus and Pro 3.0. *GeoWorld*. December 2005. page 62-63
- 2005 Google Earth: the future is now. *Earth Imaging Journal*. 2(6) 34-38.
- Limp, W. F.  
 2006 Geographic imager adds raster functionality to Adobe Photoshop CS2. *Earth Imaging Journal* 3(1): 38-39.
- 2006 Review of Image Web Server 7. *GeoWorld*. January page 40.

- 2006 Review of StereoGIS. *GeoWorld*. January page 41.
- Cothren, J, A. Payne, A. Vranich and F. Limp  
 2006 A modern survey of ancient ruins. *GeoWorld*. February page 22-26.
- Limp, W. F.  
 2006 Review of Stereo Analyst for ArcGIS 9.1. *GeoWorld*. February pages 44-45.
- 2006 An impending massive 3D mashup. *GeoWorld*. April pages 20-25. (cover article).
- 2006 Review of AWhere 3.7 *GeoWorld*. June page 48.
- 2006 Review of TerraSeer Space-Time Intelligence System *GeoWorld*. June page 49.
- 2006 3D data and creation *GeoWorld*. June pages 28-31.
- 2006 LineWorks solves vector alignment problems. *Earth Imaging Journal*. 3(2)) 38-39.
- 2006 Future developments in 3D *GeoWorld*. August pages 28-31.
- 2006 Review of Merrick Advanced Remote Sensing MARS 4.0 *GeoWorld*. December page 44

#### **Technical Publications (partial listing)**

- Limp, W. F.  
 1975 *The Bailly Site: An Archaeological Study of an Early Historic Homestead in the Calumet*. Report submitted to National Park Service, Dunes National Lakeshore. 85 pp.
- 1977 Ellerbush faunal material. In *Economic Relationships Underlying Mississippian Settlement Patterns in Southwestern Indiana and North-central Kentucky* by Thomas Green. Ph.D. dissertation, Indiana University. University Microfilms, Ann Arbor.
- Munson, C, W. F. Limp, and D. Barton  
 1977 *Cultural Resources of the Ohio River Valley in Indiana*. Report submitted to US Army Corps of Engineers, Louisville.
- Limp, W. F.  
 1978 *Oracle System Users Manual*. Glenn A. Black Laboratory of Archaeology, Indiana University, Research Reports 2.
- 1978 *Oracle System Survey Guide*. Glenn A. Black Laboratory of Archaeology, Indiana University, Research Reports 3.
- 1978 *Oracle System Artifact Classification Guide*. Glenn A. Black Laboratory of Archaeology, Indiana University, Research Reports 4.
- Tallen, M. and W. F. Limp  
 1981 *A Database Manager's Guide*. Glenn A. Black Laboratory of Archaeology, Indiana University, Research Reports 7.
- McGimsey, C. R. III, W. F. Limp, and H. A. Davis  
 1981 *Annual Report*. Arkansas Archeological Survey. 141 pp.

- Limp, W. F., and T. Green  
1988 *Handbook for Cultural Resources Assessment*. University of Alabama, Huntsville. 500 pp.
- Limp, W. F., S. Parker, J. A. Farley D. Waddell, I. Johnson and J. Westervelt  
1989 *Integrated Tools for Cultural Resource Management*. USA-CERL Technical Report. 225 pages. Construction Engineering Research Laboratories, Champaign, IL.
- Limp, W. F.  
1989 *Training Materials for the Geographic Resources Support System*. USA-CERL Document. 310 pages. Construction Engineering Research Laboratories, Champaign, IL.
- Parker, S. and W. F. Limp  
1989 *S-GRASS Training Materials*. NPS GIS Field Unit Denver. 130 pages.
- Williams, I., F. Briuer and W. F. Limp  
1990 *The Application of Quantitative Methodologies for the Assessment of Archeological Site Variability, Fort Hood Military Installation*. USA-CERL Report. Construction Engineering Research Laboratories, Champaign, IL.
- Limp, W. F.  
1992 Commentary in *Automation Tools for Cultural Resource Managers* edited by Fredrick Bruier, Department of Army Technical Report EL-92-11.
- Williamson, M. D., D. G. Catanzaro, and W. F. Limp  
1998 *A Multi-Scalar Synoptic Assessment of Riparian Sedimentation in the White River Watershed, Arkansas*. A report submitted to the U.S. Environmental Protection Agency, Environmental Research Laboratory, Corvallis, Oregon. April 26, 1998.
- Limp, W. F.  
2000 Mapping on the Web. *InfoTech Report* 14(4):1-6. Article was reprinted from *GeoWorld* November, 1999.
- Culpepper, B. J. Wilson and W. Limp  
2000 Spatial data development methods for the Arkansas source water assessment and protection project: an assessment of relative contamination risk to each public water system in Arkansas (abstract), in *Water resource issues in the Delta* edited by K. F. Steele. Arkansas Water Books Resources Center Publication No. MSC 0. Pg 46-47.
- Briuer, F., C. Brown, A. Gilliespie, F. Limp, M. Trimble, E. Regan and L. Richensho  
2001 *Considerations of the state of cultural resource management and the mission of the Department of Defense*. Strategic Environmental Research Defense Program Special Publication, Washington, DC. 37 pps.

## **IIF. Papers**

### **PRESENTED PAPERS**

#### **Keynote, plenary and distinguished lecture series presentations**

- Limp, W. F.  
1986 *Predicting the Future of the Past: The Effect of New Technologies on Archeology*. Plenary lecture, National Workshop on Microcomputers in Archeology.

- 1988 *The Geographic Resources Analysis Support System*. Invited keynote presentation, Annual Meeting of the GRASS Users Society, Champaign.
- 1989 *Yesterday's Data, Tomorrow's Technologies*. Albert Spaulding Lectures in Quantitative Anthropology. Arizona State University, Tempe.
- 1989 *Landscape Archeology*. Invited Session Chair, First Joint Archeological Congress, Baltimore, Maryland.
- 1990 *The Characteristics and Benefits of a Statewide GIS*. Invited keynote speaker, Missouri Statewide GIS Planning Meetings, Columbia.
- 1992 *Building new conceptual frameworks for spatial analysis of heritage resources*. Medioambiente y Arqueologia, Organization of American States. December, San Juan, Puerto Rico.
- 1993 *Viewing the past through the eyes of the future*. Keynote Presentation, Alaskan Anthropological Association, Anchorage. March.
- 1993 *The organizational requirements for successful spatial systems*. American Society for Photogrammetry and Remote Sensing Lectures, University of Oklahoma, Norman. April.
- 1995 *Spatial data and county and local government reinvention*. URISA National Meetings: Reinventing Government. San Antonio TX. June.
- 1995 *Interoperability and open systems impacts on local governments*. Plenary Session: Geographic Technology in Government, Reston VA Sept.
- 1996 *The future of spatial technologies in archaeology*. XIII Congress, *Unione Internazionale Delle Scienze Preistoriche e Protostoriche*, Forli Italy.
- 1996 *Keynote address*, 1998 Missouri State GIS Users Conference, St. Joseph, Missouri. March.
- 1998 *Geomatics and spatial interoperability*. Opening keynote, Joint International Geomatics Conference and Canadian Geomatics Conference. Ottawa, Canada.
- 2000 *Looking at the earth in new ways*. International Association of Programs for Agricultural Leaders, Little Rock, AR October.
- 2000 *The future of GIS*. Closing Plenary Panel, GIS 2000, Toronto Canada. March
- 2001 *Development in geospatial technologies*. Closing Plenary Panel, GIS 2001, Vancouver, Canada. February
- 2001 *Raster really IS vaster: the future of fields and raster geospatial systems*. Opening keynote Presentation, GeoSASK 2001, Regina Saskatchewan, Canada. October 2001.
- 2002 *Remote sensing and GIS: integration and competition*. Invited keynote Geospatial Applications of Coastal Research. Gulf Coast Geospatial Center. Ocean Springs, MS. January 2002.
- 2003 *The future of geospatial solutions: through a CRT darkly*. Invited keynote Ohio Geospatial Technology Conference for Agriculture and Natural Resource Applications. Columbus, OH. March 2003.

- 2003 *Closing plenary*. GeoTec 2003. Vancouver BC. March 2003.
- 2004 *Closing plenary*. GeoTec 2004. Toronto BC. March 2004.
- 2005 *Opening plenary*. GeoTec 2005. Toronto. March 2005.
- 2006 *It's a 3D World*. Opening Plenary MidAmerican GIS Conference. Kansas City.

#### **Invited discussant**

- 1986 Discussant, Society for American Archeology National Meetings, *Developing a radiocarbon database*.
- 1990 Discussant, Corps of Engineers National Meetings, *Automated tools for cultural resource management*.
- 1990 Discussant, Society for American Archeology National Meetings, *Research designs and resource management*.
- 1992 Discussant, *Cultural resources data management workshop*. Department of Defense, Champaign IL.
- 2002 Discussant. Society for American Archaeology, National meetings *Beyond map and database: future directions of GIS in archaeology*. Denver.

#### **Invited papers at national and international meetings**

Limp, W. F.

- 1977 *The economics of agricultural dispersal*. Society for American Archaeology Meetings, New Orleans.
- 1978 *Optimization theory and subsistence change: applications for prehistoric settlement location analysis*. Society for American Archaeology Meetings, Tucson.
- 1980 *Significance and site prediction: Issues in computer data bank management*. Society for American Archaeology Meetings, Philadelphia.
- 1981 *Rational location site selection and resource patterning in the eastern woodlands*. Society for American Archaeology Meetings, San Diego.

Scholtz, S. and W. F. Limp

- 1981 *The application of a multivariate logistics model to the prediction of site locations*. Congress of the International Union of Pre- and Protohistoric Sciences, Mexico City.

Limp, W. F.

- 1983 *Location choice and settlement predictions: The conformity of method and theory*. Society for American Archaeology Meetings, Pittsburgh.
- 1983 *Standardization of archeological artifact data utilizing a structured classification approach and Utilization of low cost microcomputers for archeological inventories*. Meetings of the Archaeology Work Group of the Pan American Institute of Geography and History, San Germane, Puerto Rico.

- 1984 *Resolution of Conflicts in Resource Planning*. Presentation to annual meeting National Association of State Historic Preservation Officers, Washington, DC.
- Limp, W. F., J. Farley and C. Andrews
- 1984 *Microart: A User Friendly Menu-driven System for Archeological Inventory and Analysis*. Commission IV Meetings of the International Union of Pre- and Protohistoric Sciences, Amsterdam, Netherlands.
- Limp, W. F. and S. Parker
- 1985 *Interfacing the Stone: The Development of an Archeological Infrastructure*. Society for American Archaeology meetings, Denver.
- Limp, W. F.
- 1985 *Planning and the Cooperative Benefits of State and Federal Interaction*. National Park Service Conference on National Park Planning, Harpers Ferry.
- Mires, A., J. Rose, W. F. Limp and Lawrence Santeford
- 1985 *Cedar Grove Historic Cemetery: Excavation, Analysis and Reburial of a Rural Black Population in Southwest Arkansas*. Society for Historic Archaeology Meeting, Boston.
- Limp, W. F. and J. Farley
- 1986 *Utilizing Computerized Mapping and Geographic Information systems for Exploratory Data Analysis of Geobased Data*. Society for American Archaeology Meeting, New Orleans.
- Limp, W. F.
- 1986 *Integration of Remote Sensed and Geobased Information*. Conference on Remote Sensing Applications in Archeology, Boston University
- 1986 *Effective Database Management Systems for Archeology*. Conference on Remote Sensing Applications in Archeology, Boston University
- 1986 *Integrating Database Management and Geographic Information Systems for Archeologists*. Archeological Institute of America meetings, San Antonio, Texas.
- Limp, W. F., and J. A. Farley
- 1987 *Archeological Applications of the GRASS System*. GRASS User's Group Meeting, National Space and Technology Laboratories, Bay St. Louis, Mississippi. November.
- Limp, W. F.
- 1987 *Predictive Modeling and Geographic Information Systems*. US Forest Service's National Heritage Resources Meetings, Alexandria, Virginia.
- 1988 *An Overview of the Overview: Managing Synthesis on a Continental Scale*. Society for American Archaeology Annual Meeting, Phoenix, Arizona. May.
- Farley, James A., and W. F. Limp.
- 1988 *The Theoreticians' Workbench: Integrating GIS, Remote Sensing, EDA, and Database Management*. Society for American Archaeology Annual Meeting, Phoenix, Arizona. May.

- Limp, W. F.  
 1988 *The Design Characteristics of the Geographic Resource Analysis and Support System. Symposia Series*, Canadian Bureau of Mines, Minerals, and Energy. Ottawa, Canada.
- 1988 *Using the Geographic Resource Analysis Support System: A Demonstration*. Federal Computer Conference, Washington, DC, and National Computer Graphics Association Meetings, Orlando, Florida.
- Williams, W. F. Limp S. Parker and F. Briuer  
 1989 *Archeological Site Management Using GRASS and Exploratory Data Analysis*. Society for American Archeology Annual Meeting, Las Vegas.
- Limp, W. F., J. Farley, J. Lockhart, S. Parker and I. Williams  
 1990 *Archeological databases at the continental, state and local levels*. Society for American Archeology Annual Meeting, Las Vegas.
- Limp, W. F.  
 1990 *Continuous Cost Surface Movement Modeling. Applications of Space Age Technology in Anthropology*. NASA Sponsored Conference, Stennis Space Center.
- Williams, I., S. Parker, W. F. Limp and J. Farley  
 1990 *The integration of the GRASS-GIS, S and relational database management: a comprehensive interactive environment for spatial analysis*. Fifth International Symposium, Commission 4 of the Union Internationale des Sciences Prehistoriques et Protohistoriques. Cracow, Poland.
- Limp, W. F.  
 1991 *The technical implications of the historical development paths for current GIS software*. Fourth National "GIS in the Forest Service" meetings. Tacoma.
- 1991 *Using GIS to improve cultural resource management efforts*. Fourth National "GIS in the Forest Service" meetings. Tacoma.
- 1991 *GIS, remote sensing and related technologies for archeological analysis and management*. University of Nevada Reno, Cultural Resource Training Program.
- 1991 *Shell programming applications*. International GRASS Users Meeting. Berkeley.
- 1991 *Developing a structure for GIS technology transfer*. American Entomological Society national meetings. Reno.
- Gaffney, V. Z. Stanic, J. Farley, B. Harris, W. F. Limp, J. Lockhart and I. Williams  
 1991 *GIS, territorial analysis and prehistoric agriculture on the island of Hvar, Dalmatia. XII Congress of the International Union of Prehistoric and Protohistoric Sciences*. Bratislava, Yugoslavia.
- Limp, W. F.  
 1992 *GIS methodologies for soils analysis*. Soil Conservation Service, State Soil Scientists, National Conference. February, Mobile, AL.
- 1992 *Using integrated systems to improve cultural resources management*. Bureau of Reclamation Archeological Workgroup. March, Phoenix, AZ.
- 1992 *Spatial tools for heritage resources*. American Society of Photogrammetry and Remote Sensing, August, Washington, DC.

- 1992 *The role of GIS in historic preservation.* Society for American Archaeology, April. Pittsburgh, PA.
- 1993 *Modeling regional interactions between centers.* Southern Illinois Conference on GIS in Archaeology, Carbondale, IL. March.
- 1993 *Conceptual and institutional implications of new technologies in heritage management.* Society for American Archaeology. April St. Louis.
- Dzur, R., M. Garner, K. Smith, X. Li and W. Song
- 1995 *Arkansas GAP analysis project: statewide biodiversity mapping research.* Paper presented at the American Society for Photogrammetry and Remote Sensing. Charlotte VA. April.
- Limp, W. F.
- 1996 *The University of Arkansas' Center of Excellence.* Intergraph International Users Conference, Huntsville, AL. July.
- 1995 *The implications of open geodata in university research and teaching.* National Geo-data Forum, Crystal City VA. May.
- 1995 *Building partnerships in biodiversity research.* National GAP Conference, Fayetteville, AR. Aug.
- 1995 *An overview of spatial technologies for wildlife managers,* Organization of Fish and Wildlife Information Managers Annual Meeting: Fayetteville, AR. Aug.
- 1995 *The process of partnership building: the experience of the Arkansas GAP project.* International Natural Areas Conference. Fayetteville, AR. Oct.
- Limp W. and J. Farley
- 1995 *Using the World Wide Web for geodata acquisition and distribution.* National State's Geographic Information Conference, Burlington VT, Sept.
- Limp, W. F.
- 1995 *The promise of open geodata and integration of government units.* GIS/LIS, Nashville, TN, Oct.
- Tulloch, D.L., B. J. Newman, E. Epstein, W. F. Limp and S. Johnson
- 1996 *Comparative study of multipurpose LIS development in Arkansas, Ohio and Wisconsin* Urban and Regional Information Systems Association 1996 National Conference.
- Limp, W. F.
- 1998 *Developing competence in spatial analysis.* Invited presentation, A/E/C International Conference Chicago IL April.
- 1998 *Enterprise spatial database systems.* GeoEngineering Summit, Breckenridge CO, Oct 1998
- Zuccotti, L. F., M. D. Williamson, W. F. Limp, and P. S. Ungar.
- 1997 *Modeling primate occlusal morphology in three dimensions using Geographic Resources Analysis Support System Software,* presented at the 67th Annual Meeting of the American Association of Physical Anthropologists, Salt Lake City. Utah, March 31-April 4, 1998.

- Limp, W. F.
- 2000 *Interoperability and data access - the next years*. Paper presented at GIS 2000, Toronto Canada March.
- 2000 *GIS in archaeology*, Invited half-day workshop presented at Society for American Archaeology National meetings, Philadelphia, April.
- 2000 *Future geospatial systems and place based decision support, through a CRT darkly*. Federal interagency decision support conference, Denver CO, June.
- 2000 *A sense of where you are: geoinformatics in the university*. University of Mississippi, Oxford, September.
- 2000 *Pioneering remote sensing in state local and tribal governments*. NASA Northeast Regional Workshop, Skaneateles, NY, October.
- 2000 *Practical applications of remote sensing to state local and tribal governments*. NASA Northeast Regional Workshop, Skaneateles, NY, October.
- 2001 *Applications of remote sensing to state, local and tribal governments*. NASA Southeastern Regional Conference. Memphis. February.
- 2001 *Half-day workshop on remote sensing applications*. NASA Southeast Regional Conference. Memphis. February.
- 2001 *Architecture for enterprise class geospatial warehouses*. GIS 2001, Vancouver, Canada February.
- 2001 *Design and implementation of enterprise geospatial systems*. GeoSASK, Regina, Saskatchewan, October 2001
- Ernenwein, E., K. Kvamme, W. Limp, D Harmon, M. Hargrave, T. Sever
- 2004 *Archaeo-geophysical, panchromatic and multispectral data synergy at four DoD and DoE archaeological sites*. US Department of Defense, National Conservation Conference. Savannah GA.
- Lucio, L.D., F. Limp, and F.M. Stephen.
- 2004 *Comparison of landscape attributes to level of tree damage determined by a rapid estimation procedure for red oak borer, Enaphalodes rufulus (Haldeman) (Coleoptera: Cerambycidae)*. ESA Poster. Salt Lake City, November 14-17, 2004
- Limp, F., J. Cothren, A. Smith, E Ernenwein and D Harmon.
2004. *Application of Ground-Based LIDAR and Other Innovative Photogrammetric Methods to the Documentation and Interpretation of Historic Structures and Archeological Sites*. SERDP National Conference. Washington, DC. December.
- Kvamme, K., E. Erenwein, F. Limp, D. Harmon, M. Hargarve and T. Sever
- 2004 *Data Fusion of Archaeological Remote Sensing from Ground-, Air-, and Space-Based Platforms*. SERDP National Conference. Washington, DC. December.
- Kvamme, K., E. Erenwein, F. Limp, D. Harmon, M. Hargarve and T. Sever
- 2004 *Data Fusion of Archaeological Remote Sensing From Ground-, Air-, and Space-Based Platforms*. DoD Conservation Conference. Savannah. August.

Limp, W F.

2005 Digital archiving and improving access to the archaeological grey literature. Society for American Archaeology Annual Meetings. Salt Lake City, UT. April.

Limp, F., J. Cothren, A. Smith, E Ernenwein and D Harmon.

2005. *Application of Ground-Based LIDAR and Other Innovative Photogrammetric Methods to the Documentation and Interpretation of Historic Structures and Archeological Sites*. ICOMOS US Conference Charleston, SC May.

Erenwein, E., K. Kvamme, F. Limp, M. Hargrave and D. Harmon

2005 *Fusion of geophysical data for subsurface archaeological detection and mapping*. Partners in environmental technology, Technical symposium and workshop. Washington, DC. November.

Limp, F and J. Farley

2005 *State of Arkansas - GeoStor Project: Unified Vector and Raster Data Warehouse*. GITA North American Oracle Spatial Users Conference. Denver, CO. March.

Cothren, J. and W. Limp

2006 *The application of long range, large area high density survey for heritage site analysis*. International Council on Monuments and Sites. Documentation for conservation and development: New heritage strategy for the future. Firenze, Italy.

Limp, F.

2006 *Technologies for cultural resource detection*. Joint Services Environmental Management Conference and Exposition. Denver. CO. March.

Cothren, J and F Limp

2006. *Managing very large LiDAR data in an enterprise geospatial database*. Oracle Spatial Users Conference. Tampa FL April.

Hargrave, B and F. Limp

2006 *RFID and geospatial technology research at the University of Arkansas*. Aerospace Automation Consortium National meetings. Chicago, IL. September.

Hargrave, M. W. Limp, E. Ernenwein W. Johnson, J. Cothren

2006 *Streamlined archaeo-geophysical data processing for DoD field use*. SERDP-ESTCP National Conference. Washington DC. Nov 2006.

### **Papers at national and regional meetings**

Reidhead, V. and W. F. Limp

1972 *Analysis of the Haag Site Ceramics: Southeastern Indiana*. Paper presented at the Southeastern Archaeological Conference, Morgantown.

Limp, W. F.

1973 *The Utilization of Faunal Data in Formal Economic Analysis*. Midwest Archaeological Conference, East Lansing.

1974 *A Preliminary Evaluation of the Effectiveness of the Water Separation Process*. Midwest Archaeological Conference, Milwaukee.

Reidhead, V. and W. F. Limp

1974 *Nutritional maximization: A multifaceted nutritional model for archaeological research*. American Anthropological Association Meetings. Mexico City.

Limp, W. F.

- 1977 *Oracle: A Computerized Information Retrieval System Designed for Archeological Survey Research.* Midwest Archaeological Conference, Beloit.
- 1978 *Resource Distribution and Location Choice in the Ohio River Valley.* Midwestern Archaeological Conference, Bloomington.
- 1980 *Location Analysis at Sparta.* Southeastern Archaeological Conference, New Orleans.
- 1983 *The Resource Protection and Planning Process in Arkansas.* Western Regional Meeting, National Park Service, San Francisco.
- 1985 *Evaluation of Methodologies and Theoretical Basis of Two Approaches to Settlement Pattern Recognition.* Indiana University, Anthropology Departmental Lecture Program, Bloomington.
- 1985 *Archeology of the Ozarks.* Ozark Highlands Association, Fayetteville.
- 1986 *A Guide to Choosing a Microcomputer for Anthropologists.* Anthropology Colloquium Series, University of Arkansas.
- 1986 *The Potential of an Integrated Approach to the Study of Remotely Sensed Data in Geographic Information Systems and Regional Databases.* Space Remote Sensing Center at the National Space Technology Laboratory.
- 1986 *Arkansas' Prehistoric Heritage: The View from Space.* Arkansas Archeological Society meeting, West Memphis, Arkansas.
- 1988 *The Once and Future GIS.* Annual GRASS User's Meetings. Champaign, Illinois.
- 1987 *Recent Developments in the Search for Natural Intelligence: Computers as if Archeology Mattered.* Caddo Conference, Shreveport, Louisiana.
- 1989 *GIS Technologies for Historic Preservation.* Gulf Coast Chapter, American Society for Photogrammetry and Remote Sensing, National Space Technology Laboratories, Mississippi.
- 1990 *Digital Desoto, an automated analysis of alternative routes.* Second Desoto Conference, University Museum, Fayetteville.
- 1990 *Mapping the natural and cultural landscape.* Ozark Archeology Workshop, Buffalo National River, Harrison.
- 1991 *An introduction to GIS applications. New Perspectives in Forestry.* Arkansas Board of Registration for Foresters. Little Rock.
- Scott, H. D., P. A. Smith, A. Mauromoustakos, M. J. Cochran and W. F. Limp
- 1991 *Using a GIS for nitrate water quality analysis.* International meeting of the American Society of Agricultural Engineers. Chicago.
- Smith, P. Z., H. D. Scott, A. Mauromoustakos and W. F. Limp
- 1991 *A GIS assessment of landscape parameters affecting the water quality of a watershed.* National meeting of American Society of Agronomy. Denver.

- Limp, W. F.
- 1992 *GIS methodologies for soils analysis*. Soil Conservation Service, State Soil Scientists, National Conference. February, Mobile, AL.
- 1992 *Using integrated systems to improve cultural resources management*. Bureau of Reclamation Archeological Workgroup. March, Phoenix, AZ.
- 1992 *Spatial tools for heritage resources*. American Society of Photogrammetry and Remote Sensing, August, Washington, DC.
- 1992 *Analysis of watershed characteristics using a GIS*. Poster presentation with P. Smith, D. Scott and A. Masourakia, GRASS Conference, March, Denver.
- 1992 *The role of GIS in historic preservation*. Society for American Archaeology, April. Pittsburgh, PA.
- 1992 *Implementing a local GIS, practices and pragmatics*. Arkansas GIS Users Forum, state meeting. March, Little Rock.
- 1992 *Landscape characterization at the Durst Site*. Southeastern Archaeological Conference, November, Little Rock.
- 1992 *Basic characteristics of GIS*. Arkansas State Tax Assessors Association, Pine Bluff.
- Ewen, C. and W. F. Limp
- 1992 *The Central Northern Plains Project*, Plains Anthropological Conference, November, Lincoln.
- Smith, K., W. F. Limp and T. Martin
- 1993 *Vegetation and vertebrate species mapping*. Arkansas State GIS Users Forum, Little Rock. AR. May.
- Limp, W. F.
- 1993 *The analysis of Civil War battlefields using GIS methods*. Second National Battlefield Protection Congress. Kansas City. July.
- 1998 *Using the world wide web as a source for research information for archaeologists*. Society for American Archaeology National Meeting. Nashville, TN April 1997.
- 1997 *Geosciences research at the University of Arkansas*. American Association for the Advancement of Science EPSCOR Meetings, Sioux Fall ND, November 1997.
- 1997 *Recent spatial research and data at the Center for Advanced Spatial Technologies*. GIS and The Corps of Engineers Conference, December, Little Rock, AR.
- Williamson, M. D., P. D. Teague, M. Wiggins, and W. F. Limp
- 1997 *GIS as a Planning Tool for Wetland Conservation in the Arkansas Delta*. Arkansas Water Resources Center Conference, April 24, Fayetteville, Arkansas.
- Yuan, Y., D. Smith, W. F. Limp
- 1997 *Remodeling census data by integrating spatial information from satellite imagery*. AAG National Meetings, Ft. Worth TX, April 1997.

- Limp, W. F.  
 1998 Presented workshop *Watershed Management-Modeling and GIS Aspects*, Arkansas Water Resources.
- 1999 *Building place based decision support systems*. Arkansas GIS Users Forum meeting, Eureka AR, September.
- Culpepper, B., J. Wilson, L. Fye, F. Limp  
 1999 *The Arkansas source water assessment project*. Arkansas GIS Users Forum meeting, Eureka AR, Sept
- Limp, W. F.  
 2000 *The GeoStor System: implications for the Arkansas GIS Users Forum*. Arkansas GIS Users Forum, Little Rock, August.
- 2000 *Arkansas GIS Stakeholders and the GeoStor System*. Arkansas Stakeholders Meeting, State Land Information Board., Little Rock, September.
- 2001 *Economic development, the web changes everything*. Vision 2010 state meetings, Fayetteville, March.
- 2001 *GIS in archaeology, new directions*. Council of Texas Archaeologists, Austin, April.
- Nigro, J. W Limp, K. Kvamme, D. DeRuiter and L. Berger  
 2001 *The creation and potential applications of a 3-dimensional GIS for the early hominin site of Swartkrans, South Africa*. Computer Applications and Quantative Methods in Archaeology Conference. Gotland Sweden.
- Limp, W., K. Kvamme, K. Ernenwein, , D Harmon, M. Hargrave, T. Sever  
 2002 *Multidimensional remote sensing: a SERDP Project fusing ground, air and satellite from archaeological sites*. US Department of Defense, Strategic Environmental and Research Program partners. Washington, DC.
- Limp, W. F.  
 2002 *Fields and objects – implications for archeological predictive modeling*. Society for American Archaeology, national meetings, Denver, April.
- Stephen, F., V. Salisbury, F. Limp, D. Crook, E. Heitzman and L. Thompson.  
 2002 *Red oak borer, Enaphalodes rufulus (Coleoptera: Cerambycidae), a Remarkable Epidemic of Oak Mortality In The Interior Highland Forests*. Proceedings of the AFRC-CES sponsored symposium. Little Rock May.
- Stephen, F. M., J. D. Crook and W. F. Limp.  
 2003 *Issues in the development of a monitoring protocol for the red oak borer epidemic in the Ozark mountains*. Forest Health Monitoring Workshop. Southern Forest Insect Work Conference. August
- Covington, S. and W. F. Limp  
 2003 *A multistate, seamless interoperable "National Map" pilot*. Geospatial technology for community planning and local government. State College, PA. October.
- 2003 *Using Interoperability to integrate state data: The MidAmerica GIS Consortium National Map Project*. Arkansas GIS Users Forum. Eureka Springs, AR. August.

- Kvamme, K. E. Ernenwein, W. Limp, D Harmon, M. Hargrave, T. Sever  
 2003 Archaeo-geophysical, panchromatic and multispectral data synergy at four DoD and DoE archaeological sites. US Department of Defense, Strategic Environmental and Research Program partners. Washington, DC.
- Ernenwein, E, K. Kvamme, W. Limp, D. Harmon, M. Hargrave, T. Sever and L. Sommers  
 2003 Multi-dimensional remote sensing: fusing ground, air and satellite data form archaeological sites. Annual Meeting Society for American Archaeology. Milwaukee.
- Kinney, D. L., V. Salisbury, D. J. Crook, M. Fierke, W. F. Limp and F. M. Stephen  
 2003 *Intensive, Extensive and Rapid Techniques for Estimating Within-tree Population Densities of Red Oak Borer, Enaphalodes rufulus (Haldeman) (Coleoptera: Cerambycidae)*. Entomological Society of America National Meeting, Cincinnati, OH.
- Limp, W. F.  
 2003 *Geospatial data – a key enterprise asset*. Oracle World. San Francisco, CA. September.
- 2003 *Increasing data accessibility through effective system design: The GAPServer Project*. National GAP Conference. Ft Collins, Co. October.
- 2003 *Developing an interoperable statewide geospatial data distribution system – implications for rural communities*. Geospatial technology for community planning and local government. State College, PA. October.
- Lucio, L., F. Stephen and W. Limp.  
 2003 *Does a landscape determine the fate of its trees? Predicting outbreaks of red oak borer using geographic information systems*. Entomological Society of America National Meeting. Cincinnati, OH.
- Lucio, L., F. Stephen and W. Limp.  
 2003 *Assessing and predicting the impact of oak decline and the red oak borer, Enaphalodes rufulus (Haldeman) (Coleoptera: Cerambycidae) epidemic using geographic information systems (GIS)*. Entomological Society of America National Meeting. Ft. Lauderdale, FL.
- 2003 *Assessing and predicting the impact of oak decline and the red oak borer epidemic using GIS*. Southern Forest Insect Work Conference. Roanoke, VA,
- 2003 *Red oak borer populations at the landscape level*. East Texas Forest Entomology Symposium. Nacogdoches, Texas.
- 2003 *Predicting outbreaks of red oak borer using geographic information systems*. Arkansas Crop Protection Association Abstracts Research Conference. Fayetteville, Arkansas.
- 2004 *Geospatial opportunities for research*. Southern Universities Research Association Annual Meeting. Fayetteville AR. Nov. 2004
- Stephen, F.M., D.J. Crook, M.K. Fierke, D.L. Kinney, L.D. Lucio, V.B. Salisbury and W.F. Limp.  
 2004. *Investigations to understand the causes and course of the current red oak borer epidemic*. Invited Presentation. AFRC-CES Symposium. May 2004. Little Rock, AR
- Limp, F.  
 2004 *Rural geospatial initiatives*. Mid-America GIS Conference. April. Kansas City.

2004 *GRID-based geospatial collaboration*. UALR Axiom Conference on Computing. January.

Collier, N., R. Jones, F. Limp

2005 *Innovative planning for interdisciplinary learning* Society of College and University Planners. Washington, DC. July.

Leah L., F. Stephen and F. Limp

2005 *Comparison of landscape attributes to level of tree damage determined by a rapid estimation procedure for red oak borer, *Enaphalodes rufulus* (Haldeman) (Coleoptera: Cerambycidae)*. USDA Forest Health Monitoring National Meetings.

Limp, F.

2005 *Interoperability and web services: It's not just for geeks anymore*. GIS for local government 2005. State College PA October.

Limp, F.

2006 *Introduction and welcome*. American Society for Photogrammetry and Remote Sensing, Regional Meeting, Fayetteville, AR. April.

2006 *It's a 3D world*. NW Arkansas GIS users Conference. Fayetteville, AR September.

#### **SYMPOSIUMS AND MEETINGS ORGANIZED**

1977 *Analytical approaches in prehistoric economics* (with Van Reidhead). Society for American Archaeology Meetings, New Orleans.

1985 *Preservation planning in the Southwest*, Fayetteville.

1986 *National workshop on microcomputers in archaeology* (with Sylvia Gaines and Sandra Parker). Society for American Archaeology, New Orleans.

1987 *Computer data bank management in archaeology* (with Sylvia Gaines). Society for American Archaeology Meetings, Philadelphia.

1987 *Development of museum documentation and nomenclature standards for archeological collections*. Fayetteville.

1988 *From the Mississippi to the Rio Grande, archeological synthesis on a continental scale*. Society for American Archaeology Meetings. Phoenix.

#### **SCHOLARSHIPS AND AWARDS**

National Science Foundation Science Institute (1964)

National Merit Scholarship Finalist (1965)

Indiana Merit Scholarship, Indiana University (1965 - 1966)

State Fee Remission Scholarship, Indiana University (1965 - 1966)

Glenn Black Laboratory Fellowship (1973 - 1974, 1976 - 1977, 1977 - 1978)

Sigma Xi (1981)

Keck Foundation/Boston University Award to participate in National Workshop on Remote Sensing in Archaeology (1986)

GAIA Award, International Geographic Resources Analysis Support System Users Group (1990)

William Fulbright College of Arts and Sciences Master Researcher Award (2001)  
University of Arkansas Alumni Associations Distinguished Faculty Research Award (2001)  
University of Arkansas Alumni Associations Distinguished Faculty Service Award (2001)  
Lifetime Accomplishments Award., Arkansas GIS Users Conference, November 2005  
Arkansas Computing Hall of Fame, Fayetteville, May 2006