

Mathew A. Dooley Ph.D.

POSITIONS HELD

2006-Present, Assistant Professor of Geography, Department of Geography and Mapping Sciences, University of Wisconsin – River Falls, 410 S. Third Street, River Falls, WI 54022-5001.

2000-2006, Graduate Teaching Assistant, Department of Anthropology and Geography, University of Nebraska – Lincoln, 810 Oldfather Hall, P.O. Box 880368, Lincoln, NE 68588-0368.

1995-2000, Archaeological Fieldwork: Arizona, Arkansas, Missouri, Montana, Nebraska, New Mexico, North Dakota (detailed list of field experience available upon request)

EDUCATION

Ph.D. Geography (2006) University of Nebraska – Lincoln.

Emphasis: Geographic Information Analysis

Dissertation: *Multi-Temporal Land-Use Patterning in the Western Papagueria: A Geoarchaeological Analysis of Pre-Columbian Cultural Landscapes*. Co-Advisors: Stephen J. Lavin (Geography) and LuAnn Wandsnider (Archaeology)

M.A. Geography (2002) University of Nebraska – Lincoln.

Thesis: *Assessing the Role of Visibility in Prehistoric Place-Use in Central North Dakota*.

Advisor: Stephen J. Lavin

B.A. Anthropology, (1997) University of Nebraska - Lincoln.

HONORS AND AWARDS

- UNL Folsom Distinguished Master's Thesis Award for excellence in and contribution to research, \$500 Award (2003).
- Hazel V. Emley Graduate Fellowship, \$3,500 Award (2003-2004).
- UNL Center of Great Plains Studies Research Grant, \$250 Award (2002).
- McGinnis Award for best graduate student paper in Anthropology, Nebraska Academy of Sciences. Lincoln, NE, \$400 Award (2002).
- Geography Teaching Assistantship (2000-2006).
- Phi Beta Kappa, Golden Key Honor Society (since 1997)

TEACHING EXPERIENCE

University of Wisconsin – River Falls (2006-2007)

- Introduction to Cartography and GIS (Geog. 250), lecture and lab sections.
- Thematic Map Design (Geog. 255), lecture and lab sections.
- GIS: Method and Theory (Geog. 360), lecture and lab sections.
- Animated and Interactive Cartography (Geog. 455), lecture and lab sections.

University of Nebraska-Lincoln (2000-2006)

- Map and Airphoto Interpretation (Geog. 217), lecture and lab sections.
- Cartography I (Geog. 317), lab sections.
- Physical Geography (Geog. 155), lab sections.
- GIS and Cartography lab manager.

PUBLICATIONS

Papers:

Dooley, M. 2008. "Investigating Persistent Places in the Northern Great Plains." *Time in Archaeology: Time Perspectivism Revisited*. Wandsnider, L. and S. Holdaway (eds) pp. 94-109. Salt Lake City: University of Utah Press.

Dooley, M. and S. Lavin 2007. "Visualizing Method-Produced Uncertainty in Isometric Mapping." *Cartographic Perspectives* 56:17-36.

Dooley, M., 2004. "Long-Term Hunter-Gatherer Land Use in Central North Dakota: An Environmental Analysis." *Plains Anthropologist* 49:105-127.

Dooley, M., 2003. "Obsidian Sourcing and Archaeological Significance." *Nebraska Anthropologist* 18:51-64.

Dooley, M. and W. Volf, 1995. "Relationship of Paleosol Slope to Hearth Location in the Oglala National Grasslands." *Nebraska Anthropologist* 11: 21-26.

Maps:

National Arbor Day Foundation, Plant Hardiness Zone maps, Hardiness Zone Change Maps. 2002, 2004, 2005, 2006. (http://www.arborday.org/media/map_change.cfm).

Luebke, F.C. 2005. *Nebraska: an Illustrated History (Second Edition)*. Lincoln: University of Nebraska Press (Population Distribution in Nebraska).

Osborn, A. J. and M. Kornfeld (eds). 2003. *Islands on the Plains: Ecological, Social, and Ritual Use of Landscapes*. Salt Lake City: University of Utah Press.

Ritter, B.R. 2002. Piecing Together the Ponca Past: Reconstructing Degiha Migrations to the Great Plains. *Great Plains Quarterly* 22:272,274.

CONFERENCE PRESENTATIONS

Where are the Oldest Trees: Mapping Tree Longevity in the American West. (co-authors, Erika K. Wise and Troy A. Knight) Presented at the Annual Meeting of the North American Cartographic Information Society, Missoula, Montana, October 2008.

Time Scale, Animation Pace, and Pattern Detection. (co-author, Matthew Millett) Presented at the Annual Meeting of the Association of American Geographers, Boston, Massachusetts, April 2008.

Mapping the Oldest Trees: Spatial Patterns of Tree Longevity in the American West. (co-authors, Troy A. Knight and Erika K. Wise) Presented at the Annual Meeting of the Association of American Geographers, Boston, Massachusetts, April 2008.

Time Scale, Pattern Detection, and Animation Pace: Map Animation as a Window into Multi-Temporal Processes. Presented at the Annual Meeting of the North American Cartographic Information Society, Saint Louis, Missouri, October 2007.

A Multi-Disciplinary Approach for Mapping and Dating Alluvial Surfaces in Southwestern Arizona. Presented at the Annual Meeting of the Association of American Geographers, San Francisco, California, March 2007.

Evaluation of Remote Sensing Tools for Documenting and Characterizing Terrace Cobble Deposits in the Interior Wyoming Basin: Continuing Studies (co-author, LuAnn Wandsnider). Presented at the Annual Meeting of the Society for American Archaeology, Austin Texas, April 2007.

Evaluation of Remote Sensing Tools for Documenting and Characterizing Cobble Terrace Deposits in the Interior Wyoming Basin: Preliminary Investigations (co-author, LuAnn Wandsnider). Presented at the Annual Meeting of the Plains Anthropological Society, Topeka, Kansas, November 2006.

Visualizing Uncertainty in Isometric Mapping. Presented at the Annual Meeting of the North American Cartographic Information Society, Madison, Wisconsin, October 2006.

Visualizing Method-Produced Uncertainty in Isometric Mapping. (co-author, Stephen Lavin) Presented at the Annual Meeting of the Association of American Geographers, Chicago, March 2006.

An Experiment in Artifact Discovery Potential on the "High Plains" of Northern New Mexico. Presented at the 62nd Annual Meeting of the Plains Anthropological Society. Billings, MT, Oct. 2004.

Landscape Approaches to Regional Archaeological Variation (co-author, LuAnn Wandsnider). Presented at the 69th Annual Meeting of the Society for American Archaeology. Electronic Symposium: Survey Methodologies in Global Archaeological Contexts. Montreal, April 2004.

Cave Archaeology on the Buffalo National River, Arkansas: Preliminary Investigations (co-author, William Volf). Presented at the 61st Annual Meeting of the Plains Anthropological Society. Fayetteville, AR, Oct. 2003.

The Spatial Integrity of Lithic Scatters and Implications for Archaeological Interpretation: An Experiment in Cattle Trampling (co-author, Benjamin Koziol). Presented at the 61st Annual Meeting of the Plains Anthropological Society. Fayetteville, AR, Oct. 2003.

Animating Uncertainty in Time-Sequence Dot Map Representations. Presented at the 23rd Annual Meeting of the North American Cartographic Information Society. Jacksonville, FL, Oct. 2003.

Investigating Persistent Places in the Northern Great Plains (North Dakota, USA). Presented at the 68th Annual Meeting of the Society for American Archaeology. Electronic symposium: Time and Archaeology: Time Perspectivism 20 Years Later. Milwaukee, WI, April 2003.

Visualizing Variability In Plant Hardiness Zones (co-author, Stephen Lavin). Presented at the 22nd Annual Meeting of the North American Cartographic Information Society. Columbus, OH, Oct. 2002.

Stone Rings, Cairns, and Place Use Histories in Central North Dakota: Assessing the Role of Visibility in Prehistoric Land Use. Presented at the 60th Annual Meeting of the Plains Anthropological Society. Oklahoma City, OK, Oct. 2002.

Stone Rings, Rock Cairns, and Land-Use Histories: Preliminary Investigations in Central North Dakota. Presented at the 122nd Annual Meeting of the Nebraska Academy of Sciences. Lincoln, NE, 2002.

Predicting Vessel Size from Rim Sherd Thickness: An Experiment and Application within the Central Plains Tradition of Nebraska. Presented at the 59th Annual Meeting of the Plains Anthropological Society. Lincoln, NE, 2001.

Relationship of Paleosol Slope to Hearth Location in the Oglala National Grasslands (co-author, William Wolf). Presented at the Nebraska Academy of Sciences. Lincoln, NE, 1995.

RESEARCH INTERESTS

Visualization
Cartographic and GIS Uncertainty
Map Animation
Applied Remote Sensing
Pre-Columbian and Geomorphic Landscapes

GRANTS AWARDED

Mathew A. Dooley. 2007. Professional Development Grant. \$1,000. University of Wisconsin-River Falls. For travel to the North American Cartographic Information Society's Annual Meeting in Saint Louis, Missouri. October 9-13.

Mathew A. Dooley. 2007. University of Wisconsin-River Falls Foundation Grant to purchase GPS equipment and satellite imagery for teaching and research. \$6,000.

Mathew A. Dooley and Charles P. Rader. 2007. GIS Laboratory Modernization Grant. \$56,500. University of Wisconsin-River Falls. To remodel GIS laboratory and upgrade workstations.

Mathew A. Dooley. 2006. Professional Development Grant. \$1,000. University of Wisconsin-River Falls. For travel to the Association of American Geographers Annual Meeting in San Francisco, CA. April 17-21.

SERVICE

University Service

Participation in the Facilitating Educational Technology group to create a plan for the support of instructional technology, Spring 2007.

Informal advising to students in the GIS/Cartography minor.

Map creation for McNair Senior Scholar Jessica Crocker, Fall 2006.

Departmental Service

Chair of Search and Screen Committee for GIS Lab Manager, Spring-Summer 2008.

Undergraduate advisor to five Geography majors.

Organized GIS Day 2006 events, including student and faculty poster display and GIS laboratory open house.

Organization of *Map of the Year Contest*, 2006-2007 and 2007-2008.

Community / Non-Profit Organization Service

Supervised student Cheryl Arcand on map for the *Pierce County Economic Development Center*, Spring 2008. Map to be included in brochures and other relevant literature.

Plant Hardiness Zone mapping for the National Arbor Day Foundation, Fall 2006. Maps included in press release, Arbor Day web site, *Washington Post*, and cover of the *New York Times*.

Disciplinary Service

Review of Paper "Using 2D and 3D Campus Maps for Navigation and Location" for *Cartographic Perspectives (CP)*, Spring 2008.

Review of Dent, B., Torguson, J., and T. W. Hodler. *Cartography: Thematic Map Design, Sixth Edition*. Chapter 10: "Mapping Geographic Volumes: The Isarithmic Map." McGraw-Hill Publishing, Spring 2007.

SOFTWARE EXPERTISE

Arc/Info, ArcGIS, ArcView, Erdas Imagine, Trimble Pathfinder Office / TerraSync, Surfer, Map Viewer, SPSS, Flash, Adobe Illustrator, Adobe Photoshop, Adobe Acrobat, Microsoft Access.

PROFESSIONAL EXPERIENCE

Fieldwork in Dendroclimatology (Tree Ring studies) and Ecology, 9-Mile Canyon (near Price, Utah).
Tree coring, sample plot setup, ecological data collection, and GPS (July 2007).

Archaeology and Geospatial Field Director, Valles Caldera National Preserve (Northern New Mexico),
Coordination, execution, and supervision of field operations; development of field procedures; GPS, GIS, total station mapping, in-field artifact analysis (May-August 2004).

GIS/Archaeological Technician, NPS, Midwest Archaeological Center,

Spatial data development and analysis, thematic cartography, data processing and management, archaeological field work (2001-2004).

PROFESSIONAL MEMBERSHIPS

North American Cartographic Information Society (2002-present)

Association of American Geographers (2003-present)

Society for American Archaeology (2002-2006)

Plains Anthropological Society (2001-2003)