

PRELIMINARY PROGRAM NACIS XVI

The Sixteenth Annual Meeting of the North American Cartographic Information Society

Visit our program web site at <http://maps.unomaha.edu/NACIS/Conference.html>
Conference Registration material will be mailed to all members in early August

Oct. 2-5, 1996
San Antonio, Texas

Wednesday, Oct. 2, 1996

3:00 - 5:30 PM

NACIS Board Meeting

3:00 - 7:30 PM

Registration

7:30 - 9:00 PM

Opening Session Keynote Speaker

9:00 - 11:00 PM

(also 8:00 AM - noon on Thursday and Friday)

Poster Session/Exhibits & Reception. Organizer: Donna Schenström, University of Wisconsin - Milwaukee

Thursday, Oct. 3, 1996

8:30 - 10:00 AM

Plenary Session: Cartography and the Internet I. Chair: Michael P. Peterson, University of Nebraska - Omaha
Cartography and the Internet: Implications for Modern Cartography
Michael P. Peterson, University of Nebraska-Omaha

The Internet and the National Atlas of the United States
Stephen C. Gupill, U.S. Geological Survey

New Approaches to Data Delivery
Timothy Trainor, U.S. Census Bureau, Washington, D.C.

Thursday, Oct. 3, 1996 10:30 - 12:00 AM

Paper Session B: Cartography and the Internet II. Chair: Jeremy Crampton, George Mason University

USGS Cartographic Data Available Online

John Faundeen, Hughes STX, Reston, VA and Hedy Rossmeissl, U.S. Geological Survey, Reston, VA

The Census Bureau's Geographic Data on the Web

Leo B. Dougherty, U.S. Census Bureau, Washington, D.C.

The Internet - Effects and Chances for Cartography

Georg F. Gartner, University of Technology Vienna

Thursday, Oct. 3, 1996 10:30 - 12:00 AM

Paper Session C: Cartography and GIS Education. Chair: Charles P. Rader, , University of Wisconsin-River Falls

Learning Advanced Mapping Methods in the "Applied Cartographic Design" Course at Penn State

Cynthia A. Brewer, Pennsylvania State University

Life After Lectures: Using the Internet in a Senior Undergraduate GIS Course

Janet E. Mersey, University of Guelph

Teaching Multimedia Map Design and Production: A Comparison of Techniques and Theory

Keith Rice, University of Wisconsin- Stevens Point

Thursday, Oct. 3, 1996 12:00 - 2:00 PM

Luncheon & Annual Business Meeting

Thursday, Oct. 3, 1996 2:00 - 6:00 PM

Tours

Thursday, Oct. 3, 1996 7:30 - 9:00 PM

Cartographic Conversations

George McCleary, University of Kansas

Dennis Fitzsimmons, Southwest Texas State University

Friday, Oct. 4, 1996

8:00 - 10:00 AM

Paper Session D: Cartographic Animation and Visualization. Chair: Terry A. Slocum, University of Kansas

Color Cycling in Map Animation

Mark J. Garey, The University of Georgia

Software for Exploring Temporal Data Associated with Point Locations

Terry A. Slocum and Stephen C. Yoder, University of Kansas

Symbolizing Isarithmic Map Data Reliability: Which Visual Variables are Most Effective?

Keith Rokoske, University of Colorado-Boulder

A Neural Network Approach to Cartographic Visualization

David K. Patton, Slippery Rock University of Pennsylvania

Friday, Oct. 4, 1996 8:00 - 10:00 AM

Paper Session E: Maps, Cognition and Education. Chair: Valerie W. Krejcie

Mapping the Perceived Geopolitical Importance of the Countries of the World

J. Clark Archer, University of Nebraska-Lincoln, Fred M. Shelley, Southwest Texas State University, and Jonathan I. Leib, Florida State University

The Use of Maps in Art: A Preliminary Survey

Ren Vasiliev, State University New York - College at Geneseo

Map Reading Across the Curriculum: Linking Geography to Children's and Adolescent Literature

Joan Maier, University of Houston-Clear Lake

The Effectiveness of Reaction Time and Open-Ended Questions with Early Elementary Subjects

Karen M. Trifonoff, Bloomsburg University

Friday, Oct. 4, 1996 10:30 - 12:00 AM

Session F: Maps, Internet and Multimedia. Chair: Barbara P. Battenfield, Univ. of Colorado

Genesis of a Map: Portland, Oregon's "Trees of Couch Park"

Joseph Poracsky, Portland State University

Conceptual Design of an Interactive Cartographic Multimedia Information System of Austria

Robert Ditz, University of Technology Vienna

The Human Component of an Internet Digital Map Library: Re-Thinking User Interface Evaluation

Barbara P. Battenfield, University of Colorado

Friday, Oct. 4, 1996 10:30 - 12:00 AM

Paper Session G: Small Business Cartography in an Era of Downsizing & Outsourcing. Chair: Alex Tait, Equator Graphics

Opportunities for the Small Business Cartographer

Martin von Wyss, Hybrid Designs

Don't Sell the Store! Maximizing Value Through Use and Reuse of Maps for Sale to Multiple Clients

Alex Tait, Equator Graphics

Friday, Oct. 4, 1996 12:00 - 1:30 PM

Cartographic Perspectives, Editorial Board Meeting

Friday, Oct. 4, 1996 1:30 - 3:00 PM

Paper Session H: Maps Design and Production

The Design of Transit Maps

Dennis McClendon, Chicago CartoGraphics

MAPSCO Transitions to Digital Cartographic Production

David D. Halliday and Wayne J. Baird, Mapsco, Inc.

Impact of Modern Automated Cartography and Reproduction Pre-Press Operations on Future Cartographers

Ron Bolton, NOAA

Friday, Oct. 4, 1996 1:30 - 3:00 PM

Panel Session I: Changing Roles of University Cartography Labs. Moderator: Gregory Chu, Dept. of Geography, Univ. of Wisconsin-La Crosse

Observations in the Increasing Complexities in the Management of University Cartography Labs"
Gregory Chu, Dept. of Geography, Univ. of Wisconsin-La Crosse

Friday, Oct. 4, 1996 3:30 - 5:00 PM

Paper Session J: Map Availability, Production, and Use

What Can They Do For You?

Harold C. Boke Bowker, Denver, Colorado

Orienteering in the United States: Geographic Patterns of Participation

Elisabeth S. Nelson, San Diego State University

Friday, Oct. 4, 1996 3:30 - 5:00 PM

Panel Session K: PostScript Mapping Round Table. Moderator: Dennis McClendon, Chicago CartoGraphics

Friday, Oct. 4, 1996 3:30 - 5:30 PM

NACIS Board Meeting

Friday, Oct. 4, 1996 6:30 - 10:00 PM

Annual Banquet

Speaker: Kenneth E. Foote, University of Texas, Austin

Mercator's Laptop: Cartographic Frontiers in Cyberspace?

Saturday, Oct. 5, 1996**WORKSHOPS**

All workshops will be held at the Department of Geography and Planning, Southwest Texas State University, San Marcos, TX. Transportation to from the Menger hotel will be provided. The bus will leave the hotel at 7:30 AM.

9:00 AM - 5:00 PM

A) Digital Terrain Modeling Workshop

J. Ronald Eyton, Southwest Texas State University

9:00 AM - 12:30 PM

B) Internet and Web for Cartography and GIS

Kenneth Foote, University of Texas - Austin

9:00 AM - 12:30 PM

C) Stop the Insanity: GIS Import/High Quality MAP Graphics Made Easy — with MAPublisher
Roger Fradgley, Avenza Software Inc.

1:30 - 5:00 PM

D) Creating New Worlds — 3D Cartography with KPT Bryce 2
Tom Patterson, National Park Service, Harpers Ferry, WV

5:30 - 8:30 PM

Barbecue

EXCHANGE PUBLICATIONS

Cartographic Perspectives gratefully acknowledges the publications listed below, with which we enjoy exchange agreements. We continue to seek agreements with other publications.

ACMLA Bulletin. Published triannually by the Association of Canadian Map Libraries and Archives. Offers article, reviews, and news on cartography and map library related issues. Contact: Colleen Beard, Brock University Map Library, St. Catharines, Ontario L2S 3A1 Canada.

ACSM Bulletin. Published six times a year by the American Congress on Surveying and Mapping. Offers feature articles, regular commentaries, letters, and news on legislation, people, products, and publications. Contact: Membership Director, 5410 Grosvenor Lane, Bethesda, MD 20814; (301) 493-0200.

Baseline. Published six times a year by the Map and Geography Round Table, American Library Association. Contact: Editor Nancy J. Butkovich, Physical Sciences Library, 230 Davey Laboratory, Penn State University, University Park, PA 16802; (814) 865-3716; e-mail: njb@psulias.psu.edu

Bulletin of the Society of Cartographers. Published twice a year, the *Bulletin* features articles on techniques and ideas applicable to the Cartographic Drawing Office. Contact: Pamela Sperry, Department of Geography, University of Cambridge, Downing Place, Cambridge, CB2 3EN, England.

Cartouche. A quarterly publication offering news and announcements to members of the Canadian Cartographic Association. Contact: Canadian Cartographic Association, c/o Weldon Hiebert, Geography Department, University of Winnipeg, Manitoba, R3B 2E9, Canada; (204) 786-9483; fax (204) 786-1824; e-mail: weldon.hiebert@winnipeg.ca.

Cartographica. A quarterly journal endorsed by the Canadian Cartographic Association/ Association Canadienne de Cartographie that features articles, reviews, and monographs. Michael Coulson, Editor. ISSN 0317-7173. Contact: University of Toronto Press Journals Department, 5201 Dufferin Street, Downsview, Ontario, M3H 5T8 Canada; (416) 667-7781.

Cartographic Journal. Biannual Journal of the British Cartographic Society. Includes research articles, 'shorter' articles, official records of the Society, book reviews, and a list of recent cartographic literature. Contact: Hon. Secretary, Charles Beattie, 13 Sheldrake Gardens, Hordle, Lymington, Hants, SO4 10FJ, England.

Cartography. Biannual Journal of the Australian Institute of Cartographers. Each issue contains two parts: the Journal proper and the Bulletin. The Journal contains original research papers, papers describing applied cartographic projects, reviews of current cartographic literature, and abstracts from related publications. ISSN 0069-0805. Contact: John Payne, Circulation Manager, GPO Box 1292, Canberra, A.C.T. 2601, Australia.

Cartography Specialty Group Newsletter. Triannual publication of the Cartography Specialty Group of the Association of American Geographers. Features news, announcements, and comics. Contact: Ann Goulette, Editor, Intergraph Corporation, 2051 Mercator Drive, Reston, VA 22091-3414; (703) 264-7141; e-mail: ann@pluto.ne1300.ingr.com.

Cartomania. The quarterly newsletter of the Association of Map Memorabilia Collectors. Offers a unique mix of feature articles, news, puzzles, and announcements of interest to cartophiles. ISSN 0894-2595. Contact: Siegfried Feller, Publisher/Editor, 8 Amherst Road, Pelham, MA 01002; (413) 253-3115.

Geotimes. Monthly publication of the American Geological Institute. Offers news, feature articles, and regular departments including notices of new software, maps and books of interest to the geologic community. Articles frequently address mapping issues. ISSN 0016-8556. Contact: Geotimes, 4220 King Street, Alexandria, VA 22302-1507.

GIS World. Published monthly, this news magazine of Geographic Information Systems technology offers news, features, and coverage of events pertinent to GIS. Contact: John Huges, Managing Editor, GIS World, Inc., 155 East Boardwalk Drive, Suite 250, Fort Collins, CO 80525; (303) 223-4848; fax: (303) 223-5700.

Information Bulletin. Triannual publication of the Western Association of Map Libraries. Contains features, atlas and book reviews, WAML business, and news. Contact: Mary L. Larsgaard, Executive Editor, Map and Imagery Laboratory, UC-Santa Barbara, Santa Barbara, CA. 93106; (805) 893-4049; fax: (805) 893-8799, 4676, 8620; e-mail: mary@wash.uscdic.ucsb.edu.

Mapline. A quarterly newsletter published by the Hermon Dunlap Smith Center for the History of Cartography at the Newberry Library. This newsletter contains notes, announcements, recent publications, calendar, and short essays on topics of interest to the history of cartography. ISSN 0196-0881. Contact: James R. Akerman, Editor, *Mapline*, The Newberry Library, 60 West Walton Street, Chicago, IL 60610.

Perspective. This newsletter of the National Council for Geographic Education (NCGE) is published five times a year in October, December, February, April and June. News items related to NCGE activities and geographic education are featured. Contact: NCGE, Leonard 16A, Indiana University of Pennsylvania, Indiana, PA 15705; bitnet: clmccard@iup.

FEATURED PAPERS

Each issue of *Cartographic Perspectives* includes featured papers, which are refereed articles reporting original work of interest to NACIS's diverse membership. Papers ranging from theoretical to applied topics are welcome. Prospective authors are encouraged to submit manuscripts to the Editor or to the Chairperson of the NACIS Editorial Board. Papers may also be solicited by the Editor from presenters at the annual meeting and from other sources. Ideas for special issues on a single topic are also encouraged. Papers should be prepared exclusively for publication in *CP*, with no major portion previously published elsewhere. All contributions will be reviewed by the Editorial Board, whose members will advise the Editor as to whether a manuscript is appropriate for publication. Final publication decisions rest with the Editor, who reserves the right to make editorial changes to ensure clarity and consistency of style.

REVIEWS

Book reviews, map reviews, and mapping software reviews are welcome. The Editor will solicit reviews for artifacts received from publishers. Prospective reviewers are also invited to contact the Editor directly.

TECHNICAL GUIDELINES FOR SUBMISSION

Literature cited should conform to the Chicago Manual of Style, 14th ed., University of Chicago Press, Chapter 16, style "B." Examples of the correct citation form appear in the feature articles of this issue. Authors of Featured Papers should submit four printed copies of their manuscript for review directly to Dr. Michael Peterson, Chair of the *CP* Editorial Board, Department of Geography, University of

Nebraska - Omaha, Omaha, Nebraska 68182. Manuscripts are reviewed by a minimum of two referees. The recommendations of the reviewers and the Chair of the *CP* Editorial Board are sent to the Editor of *CP*. The Editor will contact all authors to notify them if their paper has been accepted for publication and if revisions are necessary prior to publication. The following technical guidelines should be followed for all accepted manuscripts (these guidelines also apply to book, map, and software reviews).

Material should be submitted in digital form on 3.5" diskettes. Please send a paper copy along with the disk. Text documents processed with Macintosh software such as *WriteNow*, *WordPerfect*, *MS Word*, and *MacWrite* are preferred, as well as documents generated on IBM PCs and compatibles using *WordPerfect* or *MS Word*. ASCII text files are also acceptable.

PostScript graphics generated with *Adobe Illustrator* or *Aldus FreeHand* for the Macintosh or *Corel Draw* for DOS computers are preferred, but generic PICT or TIFF format graphics files are usually compatible as well. Manually produced graphics should be no larger than 11 by 17 inches, designed for scanning at 600 dpi resolution (avoid fine-grained tint screens). Continuous-tone photographs will also be scanned.

Materials should be sent to: Dr. Sona Karentz Andrews, Editor- *Cartographic Perspectives*, Department of Geography, 3210 N. Maryland Avenue, University of Wisconsin-Milwaukee, Milwaukee, WI 53211; (414) 229-4872, fax: (414) 229-3981; e-mail: sona@csd.uwm.edu.

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This document was desktop-published at the Department of Geography, University of Wisconsin-Milwaukee, using Apple Macintosh computers. Word processing was accomplished primarily with *Microsoft Word 6.0*; page layout with *PageMaker 5.0*. Graphics not rendered with *Aldus FreeHand*, *Adobe Illustrator*, *Corel Draw*, or *ATLAS*GIS* were scanned from paper originals using a desktop scanner. The *PageMaker* document was output at 2400 dpi. The bulletin was printed by offset lithography on Warren Patina 70# text stock. Text type is set in Palatino, a face designed by Herman Zapf.