## INTRODUCTION

James R. Carter and Ute Dyson

## FEATURING ARTICLES

**Use of Tactile Maps by Blind and Visually Impaired People**

Simon Ungar, Angeles Espinosa Bayal, Mark Blades, Esperanza Ochoa, and Christopher Spencer

**Regional Recognition and Delimitation from Topographic Maps: User Strategies**

Christoper Board

**Map Use Steps and Their Data Quality Requirements**

Fenja Orneling

**Map Use - Perspectives in Geographic Undergraduate Education**

Derek Thompson

**User Interface Studies in the Virtual Map Environment**

Jeffrey S. Torguson

## REVIEWS

**Exploring Geographic Information Systems**

Eric Fowler

**Shapes of Ireland: Maps and Their Makers, 1564-1839**

Sharon Hill

**Counties USA 1997: A Directory of United States Counties**

Scott R. McEathron

### FROM THE GUEST EDITORS

**Introducing the Special Issue on Map Use**

In a personal conversation at the Symposium on Cartographic Design and Research in Ottawa in 1994, Muehrcke opined that 'it just gets down to a question of map use.' In his formal paper from that Symposium, Muehrcke (1996) cited map use many times in "The Logic of Map Design." Some examples from the paper include: "Much of the discussion in this book focuses on the importance of the map user. I would go further to state that changes in the way maps are used in the electronic age are probably far more significant than changes in how they are made." (272-3) "The cartographic literature, including our textbooks, does not seem to be as much at fault here as the cartographic literacy of those who use maps." (273) "Some of our critics seem to have missed the point here—the issue of user responsibility... users must learn to handle mapping tools responsibility." (275) "If we are really
Some of the papers here focus on different types of individuals. Ungar, et al., report on two studies of blind and visually impaired users. One study involves blind adults who are experienced in navigation with tactile maps. Another study examines children, where a group of blind children is compared to a group of sighted children in performing given tasks. Board attempts to catalog the expertise of a group of educated geographers who bring considerable knowledge to the higher level task assigned to them. Thompson pleads for guidance in working with college students who have little or no knowledge of maps and mapping but who are called upon to make and study maps to learn about cities.

Carter (Map Use Commission, 1997) contends that in many cases map user communities determine what maps will be produced, at which scales, and in which forms. The experts in these communities set standards for acceptable uses of their maps, although in many cases these standards are implicit rather than spelled out. In the papers in this issue, Board carries out his study using topographic maps from many different nations. The nature of the community that specifies small scale topographic standards has been so effective that the same tasks can be performed with maps from many different sources. It can be said that the other authors are seeking some standards that may lead to better map use in the future.

For centuries we have thought of maps as ink on paper, being the result of some printing process. While these paper maps are static and fixed in time, a user can linger over a paper map, make measurements, magnify segments of the map, and annotate the map. Of course, these paper products may not be convenient to use under some environmental conditions. As we move into an electronic age, the environments in which maps are being used is changing radically. We have dynamic maps that may be very current. Users have unique tools that allow them to interact with the maps in ways not
possible with the paper maps. While all of the papers in this issue feature some aspects of the map use environment, Torguson most strongly focuses on the map use environment where users can interact with maps in electronic formats. Ormeling hypothesizes ways that maps will evolve in response to user actions. He emphasizes that it is equally important to ‘get the user the right information as it is to make certain the user gets it right.’

There are many ways to classify map uses, or tasks. Each of these papers have a component relating to one or more uses. In the papers by Ungar, et.al., the tasks are assigned by the researchers. In one case, persons are required to use tactile maps to navigate a specific route. In another case, children are required to learn a geographic arrangement and to recreate that pattern in a given time. Thompson wants his students to use maps to gain an understanding of a complex urban world. Board reports on a higher level task, where users are asked to integrate map details to find complex regions. Ormeling is concerned about the design of maps appropriate to the many tasks involved in using maps.

These papers do not tell us all that we need to know about map use, but they represent a good illustration of the many dimensions of this important area of study. As such, they give us a perspective on cartography, and thus deserve to be published in Cartographic Perspectives.

REFERENCES


Monmonier, Mark S., 1996, personal email correspondence.


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COLOPHON

This document was desktop-published at the Florida Resources and Environmental Analysis Center, Florida State University, using Apple Macintosh computers. Word processing was accomplished primarily with Microsoft Word 6.0; page layout with PageMaker 6.5. 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.

The cover was designed by Louis Cross III at the Florida Resources and Environmental Analysis Center.