essay

History of Mapping and Map Use in the Twentieth Century: An Invitation

When Mike Peterson asked me to serve as a guest editor for *Carto-graphic Perspectives*, I willingly agreed—what better way to recruit scholars for Volume Six of the *History of Cartography* than a special issue of the United States' premier journal for maps, mapping, and map use.

Volume Six will complete the multi-volume general history of cartography conceived in 1977 by David Woodward and the late Brian Harley, and published by the University of Chicago Press. Most readers will have seen the first two volumes, and many, I am sure, have their own copies. Volume Two is actually three large books, the last of which was published in 1998. David and Brian had hoped to complete the entire work in the mid 1990s. But the subject—cartography, maps, mapping, map use, and the social and intellectual roles of mapping—proved richer and more challenging than either they or the Press had realized. Volume Three is underway, and the complete manuscript is scheduled to go to the Press in Fall 2002. To assure a more timely completion of the remaining volumes, David has recruited co-editors for Volumes Four and Six. I'm the first, and David has recently announced the co-editors for Volume Four: Graham Burnett, Matthew Edney, and Mary Pedley.

As Table 1 indicates, the boundaries between the *History*'s six volumes are either regional or chronological, and the scope of Volume Six is the Twentieth Century. That's an enormously rich time period for what's planned as a 1,500 page book. More daunting, though, is the relative dearth of published scholarship on the historical development of cartography in the twentieth century: a puzzlement insofar as the cartographic literature of the past quarter century is no doubt far larger in number of words, pages, or any other metric than all previously published cartographic writings combined. Despite generally conscientious attempts by contemporary researchers to relate their contributions to existing literature, most articles in cartographic journals are flagrantly ahistorical or, to borrow a historian's pejorative, 'presentist'.

Table 1. The six volumes of the History of Cartography *are organized by region and time period.*

Volume 1: Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean (1987)

Volume 2, Book 1: *Cartography in the Traditional Islamic and Southeast Asian Societies* (1992)

Volume 2, Book 2: Cartography in the East and Southeast Asian Societies (1994)

Volume 2, Book 3: Cartography in the Traditional African, American, Arctic,

Australian, and Pacific Societies (1998)

Volume 3: Cartography in the European Renaissance (forthcoming)

Volume 4: Cartography in the European Enlightenment

Volume 5: Cartography in the Nineteenth Century

Volume 6: Cartography in the Twentieth Century

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What's worse, historians of cartography as a group have shown little interest in the twentieth century. Although the history of cartography is a recognizable subdiscipline within cartography, there's little research, published or in progress, on the recent history of maps and mapping. Why that's so is a mystery—political historians, for instance, have no qualms about probing the very recent past, for which primary sources and living informants are comparatively abundant. Maybe it's a matter of collectability: few maps from the 1930s or the 1950s appear in dealers' catalogues—not yet anyway. Or perhaps the twentieth century's maps seem too common, too mundane, too aesthetically unattractive, or even too functional. Whatever the reason, the history of cartography in the twentieth century lacks the critical mass to attract substantial numbers of doctoral candidates or mature scholars in search of new challenges.

That's where this special issue of *Cartographic Perspectives* might help. Its individual essays, although few in number, reflect a diversity of intriguing questions awaiting curious scholars. In the first paper, for instance, historian Susan Schulten examines how Rand McNally courted consumers by reinforcing the public's sense of America's role in the world political economy. Following Susan's contribution, cartographic historian James Akerman provides an intriguing examination of how some consumers, not satisfied with the product offered, blurred the line between map maker and map user by annotating road and travel maps. In the third paper, geographer Jeremy Crampton applies his fascination with theory to the emergence of the Internet as a key vehicle for map dissemination and interactive mapping. And in the final essay, I look at the interaction among GIS and detailed census data, legislative and judicial efforts to promote minority voting rights, and public resistance to irregularly shaped voting districts.

To put these four essays in a wider context, I invite inspection of Table 2, the tentative outline for Volume Six. The third or fourth revision of an outline David, Brian, and I developed in the mid 1980s, the current plan focuses on the uses and societal impacts of maps and mapping as well as the development of new technology. In October 1997, the outline was critiqued at a conference held at the U.S. Library of Congress and sponsored by the National Endowment for the Humanities. The 34 scholars and practitioners who attended the conference reassured us that the general direction was appropriate and offered numerous suggestions for fleshing out the outline and carrying the work forward.

Table 2. The tentative outline of Volume Six consists of introductory material and five major sections, unequal in length.

Introduction and Historiography

I—Major Technical Developments in Cartography and GIS

Geodetic triangulation; figure of the earth

Surveying instrumentation and techniques; training, apprenticeship, and textbooks

Scales and metrication

Navigation (including longitude determination)

Changing theory, practice, and training

Map transformations, coordinate systems

Cartographic instrumentation

Map production

Storage media: paper, film, electronic media, etc.

New formats

Division of labor and mass production in cartography

Cartographic signs:

- New specialized techniques and symbolism
- The third dimension in cartography
- Animation

Cartographic algorithms

The interactive map and hypertext

GIS

II—Maps and the Military; Defense and Surveillance Technologies

World War I

Geopolitical use of maps in the interwar period

World War II

The Cold War

Civilian applications of military technology

III—Maps and the Arts, Sciences, and Humanities

Maps and the Sciences

- Earth Sciences: geological mapping and geology, geomorphology, climatology, meteorology, soil science, hydrology, geophysics (including volcanology, seismology, and geomagnetism), and oceanography.
- The Life Sciences
- Engineering
- Medicine and Public Health

Maps and the Social Sciences

- Geography
- Psychology
- History
- Anthropology
- Archaeology
- Sociology
- Economics and Management

Maps and the Arts and Humanities

- Maps and Literature
- Maps and Linguistics
- Maps and Philosophy and Aesthetics
- Maps and Design

IV—Maps and Public Life

Legal and Public Policy

- copyright
- privacy
- data standards, accuracy, and uncertainty (and its representation)
- access
- pricing strategies, marketing
- liability
- land-use legislation
- boundary issues
- political redistricting
- hierarchies of mapping agencies
- international cooperation

Public Information and Communications

- media
- commercial mapping

- wayfinding
- advertising
- growth of map collections and map librarianship and cartobibliography
- education
- the Internet/World Wide Web

Maps and Public Administration

- basic mapping a world survey
- · cadastral mapping
- real property assessment
- land use and land cover mapping a world survey
- statistical mapping a world survey
- the national atlas
- environmental management
- growth control
- planning
- environmental protection and remediation
- risk management (hazard maps)
- emergency management
- demographic analysis

V—Maps in Everyday Life

Aesthetics Recreation Humor Folk cartography

With the help the National Science Foundation we are, ever so deliberately, carrying the work forward with the "Exploratory Essays Initiative." Our three-year grant provides small research stipends for a minimum of ten scholars who agree to conduct original research on a topic within the scope of the outline in Table 2 and prepare an essay, which we will publish in a special double-issue of a cartographic journal. A seven-member international board of advisors is helping us select candidates, and all of us (participating authors, board members, and project staff) will meet in June to discuss sources, approaches, and conceptual issues. And two years later the authors will present their results at a symposium on the history of cartography in the twentieth century. Between the two meetings David and I will work closely with the participants, many of whom, we hope, will eventually join us as chapter or section authors for Volume Six.

If you're intrigued and qualified, write me at once for details. At this writing, we can still accommodate a few more participants.