How Maps Work is a gold mine of information and well-worth the sticker price. While not appropriate for introductory or intermediate level cartography classes, it would serve well as a basis for graduate research seminars and is an excellent reference source. Every cartographic researcher should own a copy.

## BOOK REVIEW

## Editing Early and Historical Atlases

Joan Winearls, Ed. Toronto: University of Toronto Press, 1995. 196 pages, 18 figures, 4 tables. \$39.95, cloth (ISBN 0-8020-0623-X).

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This book is a collection of seven contributions on the history of and historical atlases. The material was originally presented as papers at the Twenty-ninth Annual Conference on Editorial Problems. held at the University of Toronto on November 5-6, 1993. The issues the conference focused upon included text and cartographic authorship, atlas editorial content, and production editing. These published chapters, however, expand the intentions of the conference, as stated in the introduction by the editor, to examine both the nature and history of atlas evolution and the atlas as a systematic and structural text.

The chapters are written from different viewpoints, settings, and time periods. Their arrangement in the book as a whole begins first with works of broad overview by James R. Akerman and Walter A. Goffart. Akerman writes about atlases in their most general conception while Goffart focuses on the development of historical

atlases. Taken in its most broad sense, that the atlas has an author or editor which consciously structures the work into a compendium according to an idea, Akerman digs deep into the past to trace such books or sets of maps. He focuses most on the uniformity of format and standardization of editions which are the characteristics of atlases in modernity, and also on the authority of an author. Despite the fact that the idea or narrative of the atlas is Ackerman's criteria of atlas value. the inclusion of all works which fall within general structural terms resembling modern atlases are the consistent focus of his study. The wide variety of possible editorial decisions is less developed. Goffart's classification of early historical atlases (gathered from various places) traces the ties of these works to academia, to the study of the classics and their ideals, and to prose texts. Goffart also stresses standards of consistency; world-wide coverage, chronology, and the use of identical base-maps form a threshold in the evolution of historical atlases.

These atlases become a history of our own historiography, and a mirror of the imposition of our own valued ideas upon the past, as in the rise of the depiction of boundaries on historical events (particular to the late eighteenth and nineteenth centuries) where they were most likely ephemeral.

Mary Sponberg Pedley's study of atlases in Enlightenment France provides a complement to these first two studies by presenting a more specific analysis of variations in issues such as maps over text and non-standardized works. These, she argues, are attributable to problems of language, economics, and the demands of science. Forces on atlases in Enlightenment France worked against standardization; the customers were the chief compilers of maps into atlas factice and this practice was protected by law. Engraving and printing practices were also kept separate by law, and in the eighteenth century, scientific standards and the influence and support of the scientific community encouraged the modernization of maps one at a time, making atlases too costly a venture. This situation persisted until the appearance of the *Atlas Universel* in 1758, in which modern principles of atlas publication were explicitly stated and were to include a historical section.

Anne Godlewska's careful analysis of Edme Jomard's facsimile atlas, resembling an atlas factice in that it is a compilation of independently produced maps assembled according to the criteria of an individual, suggests that sets of separately produced maps compiled within the terms of a selection process are rooted and structured by the geographical approach of the compiler, and not necessarily by systematic or scientific standardization. Jomard lived and worked on the threshold of an implied shift in emphasis from the science of positional accuracy in mapping to maps for purposes of spatial analysis. His facsimile atlas, though it was intended as a world history via the map itself, was largely ineffective this way because of Jomard's persistent simplistic view that most problems in general could be analyzed directly by mapping.

William Dean's analysis of two atlas projects, *Economic Atlas of Ontario* and *Historical Atlas of Canada* shows how the movement away from simple and direct expressions of nationalistic interests, as noted by Goffart for example, on the focus of the rise and fall of empires, and toward the study of social factors continued into the proliferation of twentiethcentury atlases, beginning, he states, in the 1950s. The two atlases are good choices for a comparative study. *The Economic* 

Atlas..., exploring and sometimes even restructuring statistical data sources, exemplified modern science as a "search for a more rational ordering" of geographical phenomena. The Historical Atlas. . ., in contrast, was more demanding in terms of direction, objectives, and addressing a wide breath of audience. This contrast suggests the conditions behind the scarcity of historical atlases in strongly empiricist England (as was noted by Goffart). Dean's conclusion that the statistically driven economic atlas maintained a direct relationship to and enriched the understanding of social data, but that the design and juxtaposition of thematic maps can further our understanding of phenomena only within primarily spatial terms recalls Jomard's dilemma of exploring scientific patterns through maps.

In the sixth chapter of *Editing Early and Historical Atlases*, R. Cole Harris, editor of *Historical Atlas of Canada Volume I*, shares his thoughts about the atlas as an interpretation of Canadian identity. Despite the clear editorial principles and the management of facts, finances, and an editorial team and network, Canada emerges as the concept that shaped the historical atlas. The atlas is changed by and changes the dialogue of this editorial concept.

Historically we interpret from the evidence transitions from boundaries and nationalism, to social/spatial analysis. The last chapter, written by Deryk Holdsworth, shows us this distinction is an artificial one and is only more complex. Other dialectical differences are also unmasked. The authority of a single author can be established for economic reasons, not solely intellectual, and coexisted with an editorial process shaped by the client. Holdsworth explains what the political issues surrounding the Historical Atlas of

*Canada* were and the action taken in response to them, but not what constituted the outcome of these attempts at resolution.

The seven contributions of Editing Early and Historical Atlases work together well and build a cohesive history in themselves. Points raised by the authors both logically support what is known about atlases, yet challenges our present history of the genre as a whole. Editing Early and Historical Atlases is an excellent contribution-highly readable and wellwritten-and very welcome in the general history of atlases. It fills a valuable and very lacking need for information to further our understanding of this bibliographic genre, enhancing our appreciation of atlases without destroying the beauty and mystery of these works.

## BOOK REVIEW

Proceedings of the Seminar on Teaching Animated Cartography Ferjan Ormeling, Barend Köbben & Rufino Perez Gomez, editors. Enschede, The Netherlands: International Cartographic Association / Association Cartographique Internationale at ITC. 1996. 113 pages. maps, diagrams, illustrations, screen captures, and a list of participants. \$10.00, paper (no ISBN).

Reviewed by Rex Cammack Department of Political Science and Geography Old Dominion University

The Proceedings of the Seminar on Teaching Animated Cartography is a bound collection of papers and abstracts by the participants at an ICA seminar held at Escuela Universitaria de Ingeniera Tecnica Topograpfica in Madrid, Spain from August 30 - September 1, 1995. The seminar was sponsored by various ICA commissions and working groups: the Commission on Multimedia, Commission on Education and Training, Commission on Map Use, and Working Group on Temporal Issues in GIS. The main thrust of the seminar was the teaching of cartographic animation techniques. Like many open invitation seminars, authors interpreted this central theme in their own unique manner and as a result, the proceedings is a collection of papers and ideas covering the broad area of dynamic cartography.

The book is divided into seven parts: Introduction, Basics of Animated Cartography, Use Aspects and Evaluation, Applications, Present Situation, Future, and a List of Participants. The introduction discusses the historical events leading up to the seminar, the groups involved in its sponsorship, and how the different contributions were categorized. The most exciting aspect of the introduction is the announcement that the material in the book is available on the World Wide Web at http://nvkserver.frw.ruu.nl/ ICA/madridiproc.html (Unfortunately, at this writing, the web site has not been completed).

The section on the Basics of Animated Cartography has five papers concerned with many different forms of digital cartography. The first paper (by William Cartwright) discusses in detail the issues of computer equipment and staff needed to complete a multimedia title. The next paper (by Michael Peterson) focuses on dynamic mapping over the World Wide Web. The paper covers the basic concept of the Web and plots its growth history. The article also provides numerous Web sites where basic and advanced information about internet resources and animated mapping can be located. The last three papers in