

fugitive cartographic literature

Interesting articles about cartographic information often appear in unexpected outlets. The goal of this section is to bring those publications to the attention of our readership. We invite synopses of papers appearing in journals other than those devoted to cartography, geography, and map librarianship.

Buchanan, Rex and Don Steeples
(1990) **On-demand map publication.** *Geotimes*, April 1990, pp. 19-21.
Reviewed by Terry A. Slocum, University of Kansas

This article deals with the advantages of computer cartography within the production environment of the Kansas Geological Survey (KGS). Until about 10 years ago, KGS published only two or three large-format maps a year, at a cost of several thousand dollars per map product. With the development of the GIMMAP automated mapping system and associated hardware, KGS is now able to provide a much greater variety of maps on demand; for example, for a request of a cartographic base map (e.g. county boundaries and hydrology) of a portion of Kansas, a customer can be given a hardcopy color map at a cost of \$10-15 within 4 hours.

The GIMMAP mapping system is an in-house product developed at KGS over the last 10 years. It permits one to overlay, update, and correct geographic databases for Kansas such as the public-land survey system, political boundaries, hydrography, transportation networks, earthquake epicenters, gravity data, magnetic data, oil and gas field boundaries, and locations of dry holes.

A key hardware component of the automated production environment is a 44-inch electrostatic plotter with a resolution of 400 dots per inch, and a display palette of 1,024 colors at one time. Such a plotter is very expensive to purchase (\$60,000 when KGS pur-

chased it) and maintain (in excess of \$1,000 per month), but it is useful because of its capability to produce high-quality unique (one-of-a-kind) maps from the GIMMAP system on demand. Many of these maps would be far too expensive to create in a manual environment. (Those wishing to develop a similar production environment should realize that cheaper smaller-format plotters are available.)

In addition to providing unique cartographic products to customers and the KGS research staff in a cost effective and timely manner, the automated production system 1) saves space by not having to store numerous hardcopy versions of maps, and 2) saves money by only producing the hardcopy maps that are certain to be used. There are some problems, however, in implementing an on-demand production environment. One is the nature of archival. For each unique map produced, should one attempt to store a hardcopy version, a softcopy version, or both? Currently, KGS is considering optical disk storage because of its 1,000,000 Mb capacity. Other problems include 1) whether one-of-a-kind maps should be designated as published or unpublished, and 2) the establishment of a referencing system for maps. With regard to the latter, should each unique map receive a new reference number, or should only major revisions receive different reference numbers? Others who are involved in an on-demand map production environment may wish to contact KGS to find out how they are handling some of these problems.

cartographic artifacts

ATLAS REVIEW

Kerr, Donald and Deryck W. Holdsworth, Editors; Geoffrey J. Matthews, Cartographer/Designer. *Historical Atlas of Canada, Volume III: Addressing the Twentieth Century, 1891-1961.* Toronto: University of Toronto Press, 1990. xxiv, 212 pages. ISBN 0-8020-3448-9 (v. 3) \$95.00 cloth. C87-094228-x. The French edition is available from Les presses de l'Université de Montréal.
Reviewed by William G. Loy, University of Oregon

Canada is rich in atlases. The National Atlases of 1906, 1915, 1957, 1974 and 1985 give synoptic views for those dates and now a three-volume set of historical atlases will provide a time-phased view of the nation. This atlas is another jewel in the crown of Canadian atlases.

As a book this atlas is large, but not huge, and reasonably priced at \$95. It measures 37.7 cm in height (14.8 in.), 27.7 cm in width (10.9 in.), 3 cm in thickness (1.2 in.), and it weighs 2.3 kilos (5.1 lbs.). The atlas comes plastic-sealed in a sturdy box. The cover is a very substantial binder board covered in a top-quality black cloth stamped in gold on both the cover and the spine. There are no endpapers. The paper is matte and unusually heavy, approaching the weight of index card stock. The eye-catching dust jacket is dark with shining railroad rails reflecting a sky lit by the sun below the horizon. The reader is left to ponder the significance. Perhaps the sunrise of a nation, perhaps the sunset of an atlas project, perhaps. . .

The three-volume historical atlas project began in 1969. By 1979 financial backing from the Social Sciences and Humanities Research Council of Canada (SSHRC) was

obtained and research began. In 1987, *Volume I: From the Beginning to 1800* appeared to critical acclaim; now in 1990 we have *Volume III*; in 1993/4 we expect *Volume II: The Nineteenth Century*. The overall project is monumental — involving hundreds of people, decades of time, and millions of dollars in effort. While the SSHRCC provided the basic funding, significant amounts were obtained from other sources, notably from the Bank of Montreal for this volume.

The acknowledgments page contains four long columns of names of people who worked on this atlas from 1979 to the present. Gold leaf on the spine singles out the primary persons — editors Donald Kerr and Deryck W. Holdsworth plus cartographer/designer Geoffrey J. Matthews. The first name listed in the acknowledgments is the director of the executive committee, William G. Dean. The last Acknowledgments section, "Translator for the French Edition," reminds us that bilingual Canada has produced a French language edition simultaneously to the English language version. Yet another monumental task!

The contents are organized into two parts. Part One, *The Great Transformation, 1891-1929*, depicts the change in Canada from a rural, mostly British or French society to a more urban and multi-cultural land. Part Two, *Crisis and Response, 1929-1961*, chronicles the Great Depression, the Second World War, and the post-war boom years. The stage is set before these major parts by a short overview section covering territorial evolution, economic growth, and the composition of the population from 1891 to 1961.

The basic organization of each section or part is an introductory essay of three to five pages telling the story and referencing the appropriate maps. This essay is

followed by the full-color double-page plates; there are four plates in the overview, thirty-five plates in Part One, and twenty-seven plates in Part Two. Supporting the plates is an extensive Notes section from pages 163 to 197. The Notes include comments, bibliography, and suggested further readings.

The sixty-six plates are the cartographic heart of this endeavor. Chief cartographer Geoffrey J. Matthews of the University of Toronto is credited with seventeen previous atlases. His experience shows in the variety and excellence of the design of the plates. Each plate is a unique and complex assemblage of diverse graphics masterfully juxtaposed into a visual feast of informational graphics. Color choices are uniformly excellent. Open the volume to any plate — you will see maps of diverse scale and positioning deftly separated visually from one another by devices such as feathered edges. There are many numerical and graphical scale notations but, no references to map projections. Blocks of text relate to the graphics naturally without boxes. An endless variety of symbols abound — proportional divided circles, flow lines, bar charts, graphs of all sorts, drawings and innovative diagrams.

All are produced to technical perfection.

For sheer volume of information presented it is difficult to excel plate 47, Military Activity in the Second World War. On one double-page spread information is presented on mobilization, military fatalities, war graves, and military actions down to where and when which ship sunk which U-boat! Incredible!

Can any cartographic flaws be discerned? This reviewer feels that the plates suffer a little from being over-full, and too many map scales are employed. Any project involving so many people over

such a long time is likely to include too much in every topic. A little more space between elements even at the expense of some data would be welcome. A few other criticisms, in order of the plates, will be offered. On plate 5, I find the use of multiple-colored dots confusing. Also, red dots on the upper map equal black, red and green dots on the lower map. On plate 12, the legend of Industrial Generating Capacity, the word 'hydraulic' seems misused. Either 'water' or 'hydro-electric' seems better. On plate 14 and elsewhere the photographs are printed too dark. On plate 21 the drainage does not fit the shaded relief plate, especially in the upper Peace River drainage. Finally, slight misregistry may be seen occasionally where the linework does not trap the colors. Inattention by the printer is assumed to be the cause. In sum, however, the flaws are slight.

Canada has a right to be proud of this atlas. Every library and as many citizens as possible should own a copy. It will answer many questions and afford many hours of enjoyable and enlightening perusing. We look forward to the final volume of the trilogy.

BOOK REVIEW/COMMENTARY Rimbert, Sylvie (1990)

Carto-graphies, Hermes, 175 pp.
260F. ISBN 2-86601-233-X
reviewed by Peter Gould,
Penn State University

The hyphen in the title of this book should warn us that this is not a text on cartography in any of the usual senses. Rather, it is a series of reflections, couched in both written text and graphic illustration, by a geo-cartographer who directs one of France's major centers of cartographic research. Her subject is what I would like to call the 'missing potentialities' of the graphic revolution brought