journal of the North American Cartographic Information Society

cartographic perspectives

Number 44, Winter 2003

in this issue

(*continued on page 3*)

Letter from the Editors

The Changing Face of Atlases

Scott Bell
Scott Freundschuh

Maps hold the fascination of many. Always have. As a collection of maps, Atlases represent a treasure for both the map connoisseur, and the stop-and-look-at-those-really-neat-maps Barnes & Noble shopper. We theorize that the lay public can be divided into two broad groups (of course, we only have anecdotal evidence for this classification, so use caution if you cite us). The first group is those that believe geography is nothing more than pieces of trivia associated with places (e.g., where is the longest river). These are the folks who expect "us" to perform well when "our category" comes up in Trivial Pursuit, or on Jeopardy. If they only knew "our" secret... The second group is those who, when learning that we are geographers, more specifically mapmakers,

(*continued on page 3*)

NACIS WEB SITE
www.nacis.org

express a shared affection for maps and other representations of the world. As such, an atlas would be a superb gift for these folks who share our passion for geography and maps.

Contemporary atlases are pushing the boundaries of cartography and geography, as well as how map-readers view and use map collections. Cartography relies on both science and art to produce accurate and functional representations of the world. In addition, there is an important need to conform to standards of practice while introducing new innovations to improve the ability of maps to communicate, and to store information and to provide tools for analysis (both spatial and non-spatial). Cartography relies increasingly so on the development of new tools for the storage, analysis, and communication of spatial information. Geographic Information Systems (GIS) software, initially developed as a storage and analysis tool for governments, geographers, and industry, is fast developing tools for the communication and visualization of spatial data. Furthermore, cartographers are quickly assimilating emerging technologies, and building their own, to enhance the cartographic products they are delivering. This includes, but is not limited to, Internet publication and animation software, statistical software, and analytical tools. This development and adaptation has provided today's mapmakers with the ability to live up to, and beyond, the traditional expectations of cartography.

In this focus issue of *Cartographic Perspectives*, we see exemplary map products in the form of traditional and non-traditional map atlases. As cartographers continue to explore new topics in the realm of map-making, we are seeing an expansion of what has traditionally been classified as a map, as well as a resurgence of traditional cartographic elements that might have lately become more closely associated with other geographic techniques (analysis, storage, etc.). With the continued improvement in software designed for developing and delivering content via multi-media (CDROMs, the Internet, digital images, digital line drawing, dynamic authoring, etc.), the decisions for which a cartographer is responsible are increasing rapidly. With these new tools, the line between cartography and related geographic techniques is further blurred. Contemporary atlas developers are creating collections of maps that provide an increasingly flexible experience to the map-reader.

Users of modern digital and multi-media atlases can create "on the fly" maps that are the product of mixing data; these maps represent relatively novel spatial representations, and in many respects represent geo-visualization and spatial analysis. Such maps are just one of the unique features of the online version of the *Atlas of Canada* (Natural Resources Canada, 2002), the country's official atlas, and the sixth edition of an atlas that was first published in 1906 (the preceding 5 editions were traditional paper atlases). While conveying an immense amount of data, the atlas offers a flexible, user-centered approach to map production, but structures the presentation of information so that map appearance is not compromised by non-cartographically trained users of the site. Giving the atlas user the opportunity to determine what is mapped allows for the potential production of representations that the cartographer who developed the atlas may never have seen or anticipated. In more traditional situations, the cartographer can use dynamic mapping and media production tools to produce engaging maps that display time and space in a way that static maps simply cannot.

Two contributions to this issue consider design issues associated with developing regional (sub-national) atlases. The *Atlas of Saskatchewan (CD-ROM Edition)* (Martz 2000) and the *Atlas of Oregon, Second Edition* (Loy, Allan et al. 2001) both take advantage of emerging technology to support the presentation of maps while adhering to the standards and principles of cartographic and information design. The bases for both atlases lie in earlier offerings and specific decisions related to graphic communication and cartographic design. Martz and Pietroniro (this volume) describe how traditional cartographic principles guided their initial decisions, while considering the limitations of these principles given the dynamic nature of the

in this issue

(*continued from page 1*)

medium through which they were communicating. It would be a reasonable suggestion, as alluded to by Martz and Peitroniro, that the cartographic community examine the work of Marshall McLuhan's more closely to understand better how cartography can take advantage of new and emerging media. Others in geography, particularly in GIScience, have already picked up on this theme and are considering some of the ramifications of how technology shapes our view of the world and GSI as a tool (Sui and Goodchild 2001; Sui and Goodchild 2003).

The fourth contribution (Lobben and Patton, this volume) concerns an important step towards the development of a set of guidelines for digital atlases. The guidelines are based on examining the standards for effective communication in a variety of media, including printed atlases, digital cartography, graphic communication via the Internet, and digital atlases delivered via the Internet (WWW). In summary this article provides a set of guidelines for WWW published digital atlases; a unique and valuable tool for those interested in taking advantage of this powerful medium.

As students of cartography develop into mapmakers they are doing so in a changing world, both in respect to the reality that surrounds them and the tools at their disposal. The fact that so many contemporary cartographers have adapted to these changes is a testament to the nature of cartography and the people who practice it. Cartography is defined not only by its past and the work that has established the practice of mapmaking, but also by its continued search for new modes of expression and new tools for spatial communication. We hope the readers of this volume will find something of value that can contribute to their own work, just as the atlases and maps discussed here have been, and will continue to be, valued by the public.

Loy, W. G. and Allan, S. (Eds.), 2001. *Atlas of Oregon, Second Edition*. Eugene, Oregon: University of Oregon Press.

Martz, L. W., (Ed.), 2000. *Atlas of Saskatchewan, CD-ROM Edition*. Saskatoon, Canada: University of Saskatchewan.

Natural Resources Canada, 2002. Atlas of Canada. URL (most recent update 8/6/2003), http://atlas.gc.ca/site/english/index.html

Sui, D. Z. and Goodchild M. F., 2001. "GIS as media?" *International Journal of Geographical Information Science* **15**(5):387-390.

Sui, D. Z. and Goodchild, M. F., 2003. "A tetradic analysis of GIS and society using McLuhan's law of the media." *Canadian Geographer-Geographe Canadien* **47**(1):5-17.

Correction:

Figure 4 in "Earle Birney's *Mappemounde*: Visualizing Poetry with Maps" was inadvertently printed upside down (*Cartographic Perspectives* 43, Fall 2002, p. 68). The author, Adele Haft, apologizes for this error.