Christine Delbridge  
Reviewer

Book Review  
Reviewed Work:  
*Historical GIS Research in Canada*  
by Jennifer Bonnell and Marcel Fortin

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Although Historical GIS (HGIS) has its challenges (and is not for the faint of heart), it represents a new frontier in historical research in Canada. Jennifer Bonnell and Marcel Fortin’s edited collection, *Historical GIS Research in Canada*, provides the reader with an introduction to the field, highlights the various challenges, and offers examples of work undertaken to make GIS data more accessible to scholars.

The material presented in this book covers a wide range of topics; from the spatial analysis of the history of race and social class division (chapters 1 & 4) to what those of us working in the GIS field would consider more traditional uses of GIS technology (salt marsh evolution for example). Importantly, while GIS has been around for quite some time, HGIS is a relatively new discipline and the book recognizes this reality. Matthew Hatvany, for instance, points to the problem of ‘presentism’ in environmental science. In other words, there is a tendency for research initiatives to look only at the present or towards the future as opposed to historical evolution (p.182). HGIS not only confronts ‘presentism,’ but can also help to answer questions not otherwise feasible through traditional research.

The book also suggests that by uncovering geospatial relationships and patterns, HGIS provides historians with a new tool. As Stephen Bocking and Barbara Znamirowski note in chapter five,
“visualizing places and the relations between them can make evident patterns that an historian may only otherwise vaguely sense.” (p. 90) HGIS, therefore, is not only useful in answering new historical queries, but has the potential to create a new framework for historical research. Perhaps Sally Hermansen and Henry Yu put it more succinctly when they write that visually analyzing data leads “to other questions that without the visual may not have become apparent” (p.231).

Unquestionably GIS technology is rapidly changing. What was once considered a specialized discipline is now generally mainstream (and, in fact, part of our daily lives). Whether it is Google Maps or real time traffic on our cell phones, everything has gone ‘geo,’ and as Colleen Beard, Daniel Macfarlane, and Jim Clifford argue, the advent of freeware GIS applications, specifically Google Earth, provides an opportunity for the public to use (and create) geospatial information. Through the work of mapping the spatial history of the Welland Canal and St. Lawrence Seaway, for example, any individual with a cellphone or laptop can discover this material in situ. Moreover, by linking historic audio files to their HGIS application, the public can enjoy a walking tour of the canal via a “talking map” (p.38), an innovative way of making this research available to the public.

Many of the challenges in using HGIS are common to other applications of GIS technology. Obviously, the acquisition, digitization and georeferencing of source information has to be in a standardized format that can be analyzed. Yet, for HGIS researchers working with historical (read old) source data, it takes a lot of effort to parse the information and then make it geographical in nature. In the chapter entitled “Turning Space Inside Out: Spatial History and Race in Victorian Victoria,” the authors note that analyzing the lived experience in Victoria from 1861-1911 required the digitization and spatialization of material from census records. In many cases, street addresses were obsolete as addressing systems had changed. Similarly, when discussing delimiting forests, farms, and the census of agriculture on Prince Edward Island, researchers experienced
difficulties in interpreting census data with respect to changing definitions of “cultivated land.” Indeed, as pointed out by Stephen Bocking and Barbara Znamirowski, the challenge lies in the “contrast between the precisely defined locations and spatial patterns represented by GIS and the more subtle concepts of place and landscape employed by geographers and historians” (p.105).

The Canadian Century Research Infrastructure (CCRI) Project, which is adroitly described in chapter thirteen, is an excellent example of the efforts being made to lay the groundwork of HGIS among historical researchers. This project, which involved the digitizing and georeferencing of core historical census data (the ‘microdata’ that was used as the source for censuses), was a gargantuan effort over many years. Moreover, the Don River Historical Mapping project (detailed in chapter 3), which maps the changes of a dynamic area in the City of Toronto over time, did not seek to answer specific historical questions, but rather it provided scholars with a comprehensive body of data from which to examine a broad range of topics from social, land-use, and environmental studies.

Of course, there is a risk inherent in undertaking this type of work without a specific research question in mind. In fact, as R.W. Sandwell discovered through his work in mapping fuel use in Canada, “historians characteristically do not know the outcome of their research before they embark on it, and research questions most often emerge through or are clarified in the process of the research itself” (p. 240). Moreover, there is no guarantee that that it will ultimately be “worth’ the investment” (p. 241).

The editors of Historical GIS Research in Canada do a masterful job of highlighting the obstacles of HGIS while offering perspective of the state of the science. It is difficult, however, to present a comprehensive report on HGIS in hard-copy format, because, of course, the real power of GIS is in visualization and user interaction. When data is presented textually, Matthew Hatvany notes, “readers are forced to imagine landscape evolution. Mapping data provides the
reader with an optical representation that enhances understanding by directly engaging the reader’s sense of sight” (p. 190).

Much of the book is dedicated to the processes of the research and associated challenges in the various case studies, as opposed to groundbreaking findings. This is understandable given the early stage of this discipline, but somewhat disappointing for those working in the field. Once the field of study has developed, I look forward to future publications by these editors to see more of what HGIS has to offer and what answers it can provide.

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Christine Delbridge is a multi-disciplinary hydrographer with the Canadian Hydrographic Service (Central and Arctic Region), based in Burlington, Ontario, at the Canada Centre for Inland Waters. A graduate of the College of Geographic Sciences (COGS) in Lawrencetown, Nova Scotia, and the faculty of engineering and computer science at the University of New Brunswick, she has been involved in hydrographic surveys in various parts of Canada including the Bay of Fundy, the Great Lakes, and the Arctic as well as in the Nautical Publications division producing and updating paper charts and Electronic Navigational Charts (ENCs). Christine's current role in the Hydrographic Data Access Centre of Expertise (HDACoE) has her working on various initiatives aimed at facilitating access to marine geospatial data holdings managed by the CHS.