National Atlas of Canada. Due to our limited funding, it is unlikely that we will be able to maintain current coverage at 1:50,000 scale for much of Canada.

We also have a large raised relief model, on permanent loan, of the Mt. Baker area. The Mt. Baker area is approximately fifty-five miles east of Bellingham and is best known for its ski area, climbing, and scenic beauty. The model is five feet by six feet and has been recently restored. A new base and interpretive exhibit for the model have been developed with funding provided by a Geography alumnus.

Additional unique collections include WWU Geography master's theses and Environmental Impact Assessments (EIA's) completed by Huxley students.

The Map Library is the repository for cartographic information at WWU and services approximately 42 courses from across campus representing a wide variety of disciplines. In addition, the collection is open to everyone to use, and is used extensively by the local community. Most frequent off campus users include genealogists, consultants, historians, researchers, and government agencies. Handouts are available to assist with use of the collections. Circulation of cartographic materials is limited to classroom presentations. Photocopies are available for a small fee.

Map Library facilities include 4 IBM pc's, a power MAC, an 11 x 17 color flatbed scanner, an 8 1/2 x 14 color flatbed scanner, an HP color laserjet printer, CD tower server, and a wide variety of software packages. Most of the above were provided through Student Technology Fees. WWU holds site licenses, as part of a statewide consortium, for ESRI ArcView and ArcInfo. Light tables, drafting tables, and a Map-O-Graph are also available for patrons.

The budget for acquisitions is virtually non-existent and has required creative solutions to build the collection. Partial solutions have included participation in Library of Congress summer projects, solicitation of donations and maps from likely donors, acquisition of duplicates from other map collections, and purchase of supportive collection material through faculty grants.

A comprehensive collection development policy exists for the Map Library. Very little deselection is accomplished due to the staffing levels. Staffing consists of one full-time map librarian, and during the academic year, student workstudy assistants.

Cataloging of collections does not comply with Library of Congress MARC standards, but utilizes Microsoft Access for databases of holdings. As such, we do not contribute records to OCLC and our holdings are not represented in the Main Library's online catalog. Retrospective conversion of the old card catalog in the Map Library is still underway and will be for quite some time. We are currently working on linking the databases to our web page, and hope to have them available by fall quarter. Staffing, funding, software training, training of student assistants, and space considerations remain the most serious challenges. Like everyone else, we have endless projects.

We are looking forward to cooperative scanning projects with local government agencies and increasing the collection access and increasing the amount of information available through our web

The Map Collection at the University at Stony Brook

David Y. Allen

In many respects the map collection of the University at Stony Brook is typical for a medium-sized academic library. The collection has about 130,000 maps and 600 atlases. Coverage is worldwide in scope, but best for the United States. Our primary clientele is students and faculty at the university, and to a lesser extent the local community. A more detailed description of the collection can be found at our Web site at www.sunysb.edu/library/ldmaps.htm.

Like most map libraries in our situation, we are thinly staffed. There is only one librarian who devotes a sizable portion of his time to maps. The map collection is located in our science and engineering library, and the map librarian receives some backup from other staff in that area. Most of the checking in and filing of maps is done by student assistants. In spite of inadequate staffing, we have taken on some new services. In recent years we have been acquiring aerial photographs, and have moved cautiously into providing some GIS services.

The challenges we face are essentially those of running a regional resource. Although we have by far the strongest map collection on Long Island, we are located in a area with several large and distinguished map libraries--most notably the Map Division of the New York Public Library, which is located about fifty miles to our west.

Our collection does have some significant pockets of strength. Although the map collection has been in existence for only about thirty years, some twenty years ago we acquired a long-established collection from another branch of the State University of New York. This gave us a large number of maps of New York State, including many regional and town maps going back to the middle of the nineteenth century. We also inherited a huge nationwide collection of soil surveys. In a recent inventory I found that we have about 1400 soil survey maps antedating 1950.

In collection development we have attempted to build on existing strengths. We have purchased several rare or unique maps of New York, including a copy of Bleau's 1635 map of New Netherland, and a copy of David Burr's 1829 atlas of New York State. Recently we purchased on microfilm a complete set of Sanborn Fire Insurance maps for New York State.

I have found that there is a surprising amount that a library in our position can do to contribute to map librarianship on a statewide and to some extent a national level. Much of what we have accomplished has been done through cooperation with other libraries. Several years ago we played an important role in cooperative preservation projects for old New York State maps and atlases, and we are hoping to do something similar with our soil surveys and 15 minute maps.

We have also been engaged in the digitization of historical maps of New York State. This has been a pet project of mine, since I am interested in the history of cartography, and few of the maps in our collection date from before 1830. Our own digital images have been eclipsed by higher resolution work done elsewhere, and I am trying to take advantage of the work done by others by adding links and explanatory information to their images. As we improve our own capabilities for high-resolution digitization, we may return to the fray with more and better images of historical maps, and possibly of such materials as 15 minute maps and soil maps.

Only a portion of our map collection is cataloged. A by-product of many of my projects is a series of databases in EndNote format, most of which are only available in-house. These include a list of the New York State maps in our Special Collections Department, a list of our soil-surveys published prior to 1950, and a bibliography of New York State maps published prior to 1830. I hope to make at least some of these available on the Web using the Institute for Scientific Information's new product, Reference Web Poster.

book reviews

GIS and Health

Edited by Anthony Gatrell and Markku Löytönen. GISDATA 6. London: Taylor and Francis, 1998. xvii, 212 pp., maps, figures, tables, index. $75.00, hardcover (ISBN 0-7484-07790).

Reviewed by Russell S. Kirby, PhD, MS, FACE
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This book is a collection of essays that were the result of a symposium sponsored by the GISDATA scientific program of the Standing Committee of Social Sciences of the European Science Foundation, held near Helsinki, Finland, in 1996. The sixteen symposium participants were an international group, mostly European with some American participants. The editors have worked with the authors of each chapter to provide a series of essays that are both internally coherent and consistent with a monographic approach.

The primary goal of the book is to explore the opportunities for applying GIS technology and methodology to the domain of health (p. ix). To that end, the editors have structured the essays in two sections, the first dealing with methodological issues and the second describing a series of health applications for GIS. The editors contributed introductory and concluding chapters.

Methodological issues range from the philosophical and theoretical to the specific application of methods to problems in medical geography and spatial epidemiology. Jacquez, for example, chastises users of GIS for health research who adopt the "gee whiz" approach through the use of GIS to transform spatial data into thematic maps which are then utilized to develop hypotheses, preferring instead that the scientific method remain the basis for the development and testing of research hypotheses derived from GIS-based analyses of health concerns. Haining provides a brief discussion of the types of spatial statistical methods; this chapter is far too abbreviated to serve to do more than whet the appetite of the interested reader but the author does provide a useful set of references. Of all the chapters in this book, that by Kulldorff on statistical tests for randomness in spatial epidemiology is most able to stand on its own. Kulldorff reviews the voluminous literature on clustering of health events in space and time, classifies these into four general approaches, evaluates the strengths and weaknesses of each approach, identifies the most useful techniques, and discusses the methodological concerns that remain unresolved. In this reviewer's opinion, Kulldorff's chapter should replace the earlier reviews by Besag and Newell (1991) and Marshall (1991) as a resource for students and researchers seeking a comprehensive introduction to this subject.

Rushton's contribution focuses on methods for improving the spatial aspects of public health surveillance using GIS. Rushton's work will be familiar to many in public health through his summer courses and presentations at national public health meetings, but for others this chapter provides a useful overview of the application and relevance of his methodology. There is a major gap between