Cartography Lab at Rutgers University

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The Rutgers University cartography laboratory primarily creates thematic maps to accompany the publications or presentations of faculty and graduate students. The revolution in desktop computer technologies during the last few years has caused an evolution of our cartography lab and the services we offer the university community. The production of map artwork is now completely done using computer technology. Duplication is almost completely digital. We still print computer generated artwork onto conventional slide film, but that output may soon become electronic too.

This evolution is also spreading the production of artwork beyond the confines of the cartography lab. As the software for creating thematic maps and other presentation materials has become easier for anyone to use, more people in our department are interested in creating their own graphics. Now that a personal computer on a desk is as common as a telephone, a lot of manipulation and graphic representation of spatial data is being done by individuals in their offices. Since a desktop computer can replace a light table, lettering machine, drafting supplies, and a darkroom for the production of thematic maps, the idea of a cartography lab being a defined place is changing. At this point, a virtual cartography lab is just and idea, like a virtual geography department on the Internet, but it is a lot of fun to think about.

Although there is cartography being carried out in individual offices, we maintain several computer labs in the department that remain hubs of cartographic activity because of two functions that have not been changed by technology. The labs contain specialized equipment that is too large or expensive to put in every office. Also, the special facilities in the labs allow us to teach cartography in a hands-on manner that could not be done in an ordinary classroom. The need for training sessions in the use of this hardware and software has increased with the interest of geographers here in preparing graphic materials for teaching in smart classrooms. Designing multimedia "classware" to communicate geographic information in new ways is a natural extension of creating thematic maps.

The Geography Department's cartography facilities include: a lab that contains our flat map collection, light tables, and a fledgling smart classroom with a Power Macintosh computer, color flatbed scanner and a b&w laser printer; a lab with ten Pentium computers, several 486 PCs, digitizing tablets, and a color inkjet printer; a lab with six Power Macintosh computers, a flatbed color scanner, a slide scanner, and a b&w laser printer; and four laptop computers for instructors to project maps and graphics in Rutgers' new smart lecture halls. The Department also has a specialized climate research laboratory equipped with several computers including a Sun SparcStation. All of our rooms have recently been wired to allow us to share information or to connect to the Internet.

In addition to moving towards the development of multimedia graphics, the cartography lab staff is getting more involved in helping to design web pages. We hope to share good design principles with geographers interested in creating web pages for their classes. The Internet is also helping us lessen the effects of Rutgers being spread out on several different campuses. By linking homepages, we hope to help students find out about courses related to cartography in different departments and research centers at the university. Also, we have started to create an electronic image and map library from the slide collections of people in the department, and from links to images available on the Internet. Now, if we could only link up all the cartography labs and map libraries around the world via the Internet. That is a virtual cartography lab to dream about.

THE UNIVERSITY OF CHICAGO MAP COLLECTION

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The University of Chicago Map Collection, which holds more than 380,000 sheets, is one of the largest university map libraries in North America.

The Collection was founded in 1929. The Collection's first curators aimed in particular to amass contemporary maps. With substantial funds at their disposal, they made a serious attempt to acquire all then-available topographic map sets, especially but not exclusively for Europe, Canada, and the United States. They also did what they could to obtain urban and geological maps, again concentrating on Europe and North America.
Much of what is unique to the Collection stems from this early collecting activity. There are numerous detailed topos from the early 20th century that are held by few other libraries. There are also a very large number of city maps (including planning maps) from the 1920s and 1930s that may not be held anywhere else.

The early curators also acquired older maps. Several thousand historical maps were purchased from the John Crerar Library in 1929. Additional historical maps were added throughout the 1930s and a certain number of older maps were transferred from the existing central library when the Collection was founded. But, in general, the collection of early maps is not as strong as that in many other major libraries. Given the continued focus of faculty interest in the modern world and the growth of the nearby Newberry Library after World War II as a center of the study of cartography, there has never been any need to put much emphasis in this area.

The Map Collection had little financial support between the late 1930s and early 1970s, but, after World War II, it ranked quite high in the Army Map Service’s distribution lists and during the 1950s and 1960s, the Collection acquired large numbers of maps of the Soviet Union, Japan and India, largely through the efforts of Professors Chauncy Harris and Norton Ginsburg of the Department of Geography and Maureen Patterson of the Library.

Since the 1970s, some effort has been put into building on the Collection’s strengths. Topographic maps of many parts of the world have been acquired. The Map Collection now has 1:50,000 topographic coverage for most of Western Europe, Southern Canada, and Mexico. It has purchased contemporary topographic sets for Latin America as well as for other parts of the Third World, as available. Recently, it has been taking advantage of the release of topographic maps from the Soviet Union and Eastern Europe. It has, for example, acquired 1,200,000 Soviet topos of most of the populated parts of the former USSR, much of the Middle East, and a large part of China. Considerable effort has also been put into updating holdings of urban and geology maps.

One of the Collection’s peculiarities is that its holdings were, until recently, entirely uncataloged. But, in recent years, Map staff have begun the process of rectifying this situation. As of the early fall of 1996, there were about 11,750 map records in the University of Chicago’s on-line catalog. However, since the Collection holds between 75 and 80,000 titles, there is a long way to go. Cataloging Department policy has dictated that only about a quarter of the records (mostly, those with LC copy) are considered to have been “finished.” Only “finished” records are reported to OCLC.

The Map Collection has been acquiring digital cartographic data since 1992. It holds two major software packages, Sammamish GeoSight Professional and ArcView 2.1. With its ability to generate maps from depository data, the Sammamish program has been the most frequently used software in the Collection. In addition to the standard U.S. government materials and ESRI data sets, the Map Collection has also acquired some Chicago-area digital data. The Collection has also installed Paradox and DBase, data-base management programs that can be used to manipulate data, and Macromedia Freehand, a drawing program. The Collection also holds some stand-alone mapping packages—including Street Atlas USA and Global Explorer—that contain both data and software.

The Map Collection has a site on the World Wide Web. Its URL is http://www.lib.uchicago.edu:80/
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The Map Collection has a site on the World Wide Web. Its URL is http://www.lib.uchicago.edu:80/LibInfo/Libraries/Maps. From here you can navigate to a list of some of the major sources of cartographic and spatial data available over the Internet (http://www.lib.uchicago.edu:80/LibInfo/Libraries/Maps/mapweb.html) as well as to set of Chicago 1990 census maps prepared by Map Collection staff (http://www.lib.uchicago.edu:80/LibInfo/Libraries/Maps/chimaps.html).

The Collection houses approximately 1500 atlases and several hundred reference books. There is also a small travel collection. This contains both classics (e.g., WPA guides, Baedekers) and a representative selection of contemporary guidebooks as well as thousands of current travel brochures.

The Map Collection is located on B-Level of the Joseph Regenstein Library, 1100 E. 57th Street, Chicago 60637. Hours are Monday to Friday, 12 to 5.

Map Room
Colorado School of Mines

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The Colorado School of Mines (CSM) is located 13 miles west of Denver in Golden. Founded in 1874 to meet the state's growing need for professional geologists and mining engineers, the school currently enrolls 3,000 students—2,000 undergraduate, 1,000 graduate. The emphasis of the school has shifted from geology and mining to engineering; approximately 40% of the undergraduates are enrolled in the Division of Engineering. In addition to the traditional programs of mining engineering and geology, CSM also offers five