Apart from the more complex thematic cartography the staff still produce a sizeable number of black and white maps for publication by academic staff, and for other publishers including the University of Toronto Press. An even greater volume of simple ink and leroy lettered graphs are produced for wide cross-section of departments within the University. We even produce the occasional poster. This is the bread and butter of our operation and ensures a constant flow of funds to the Department.

For colour cartography our methods are state of the art, although the office is not yet involved in the application of the computer for day-to-day production. The computer is involved, however, in the research and data manipulation for maps and on occasion for graphic illustration. Two members of the cartographic staff are specialists in computer cartography and it is inevitable that the office will eventually move in that direction.

Currently all type orders are prepared and coded on a word processor in the office and discs are supplied to a commercial typographic plant for setting. All our type is supplied on waxed stripping film.

All map production overlays are scribed. All colour separations are by the peelcoat method and peeled manually. All overlays are punch registered on a Ternes 6-hole punch. Preliminary and intermediate film requirements are produced by the Faculty of Art and Science Photographic Laboratory.

Colour proofs are contracted commercially using the watercote process. Type negatives and final plating film are also made commercially in Toronto.

The cartographic responsibility for a contract extends also to the printing stage, and a cartographer familiar with the job is always on hand with a representative of the publisher to approve the colours and registration on the printed sheet as it comes off the press.

Because each cartographer is allowed to use creative freedom in style and colour within certain guidelines, and are totally involved with all aspects of production of the maps they produce, there is a strong spirit of pride in the projects that issue from this office.

KWIK PROOF TECHNICAL NOTE

Don Myrick
Energy, Mines and Resources Canada

Despite a whole new generation of colour proofing systems which have come into use during the past few years, here at the Map Reproduction Centre at Energy, Mines and Resources, we have continued to use the old Kwik-Proof wipe on system. This has given us the flexibility to mix our own colours (our colour book contains over fifty) and allows us to proof large format work up to 48" by 65".

For us, Kwik Proof "Brightner" has become a very important tool. Brightner is a powerful cleaning agent originally intended to remove background or scumming from a colour proof. However, in removing the scum, the Brightner renders the image very fragile and can in fact damage it unless great care is taken.

We use Brightner as part of our wash off stock solution. We mix three ounces of strong ammonia and fifteen ounces of Brightner per gallon of water. When doing a wash-off, we further dilute the stock solution to about 8 ounces to 48 ounces of water. Not only does this solution take care of any background, but, more importantly, it enhances the quality of the image itself. This is because the Brightner sharpens the screen dot, fine type etc.. compensating for unevenness and slight overexposure. This is particularly true of high percentage screens which tend to plug with normal exposure. Since we began to use Brightner, we have significantly reduced the number of remakes and are able to provide a better quality proof.
(CCA Newsletter, 15:1, 1989)

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 librianship.

CORRIGENDUM

CP number 2, Summer 1989 featured an excerpt from Mary Kingsley's *Travels in West Africa* (London: 1897) graciously submitted by Pat Gilmartin. The editors regret that *CP*2 stated that "Mary Kingsley was an English explorer who explored the Ogowé and Rembé rivers of West Africa in the late 1900's." In fact, Kingsley explored West Africa in the late 1890's.

Guptill, Stephen C. and Starr, Lowell E. (1988). Making maps with computers.
American Scientist, 76: 2, (March–April 1988) pp. 136-142.
reviewed by Marsha L. Selmer, University of Illinois at Chicago

This article, written for a popular scientific journal, reviews the state of computer cartography in the 1980s for a non-specialist audience. Guptill and Starr, of the U. S. Geological Survey, National Mapping Division, introduce the topic by discussing maps as a medium of communication, by outlining the characteristics of detailed topographic mapping, by touching on the rapid changes in mapmaking technology, and by

reviewing the earlier limitations of computers in map production.

The body of the paper is devoted to an explanation of how, in the 1980s, it "has become technologically feasible and cost-effective to assemble and use the data required to automate the mapping process." The application of graph theory to the creation of digital maps is outlined and the use of this digital data in the production of perspective views is graphically illustrated. Practical applications of this cartographic database, in the form of geographic information systems, are noted.

The paper is well illustrated by both color and black and white photography, and by a table on "Digitizing a map." The titles listed in the "Suggested reading" range from the general to the scholarly level. This article could be used in an introduction to cartography class that is aimed at an undergraduate or an adult education audience.

Bylinsky, Gene (1989). Managing with electronic maps.
Fortune, April 24, p. 237-254.
reviewed by Don E. Kiel
East Tennessee State University

It isn't often that cartography and geography have been featured in a leading business magazine. In a recent issue of *Fortune* magazine, however, electronic maps and geographic informationsystems (GIS) were reviewed and characterized as revolutionizingthe way many governments and businesses operate. Illustrative,diverse examples of use of this technology include: a largeforestry company managing 600,000 acres and 4,900 timber standsusing GIS; researchers predicting the effects of an earthquake onrescue vehicle response times; transportation planners calculatingeffects of new roads and traffic signals on travel times; and adepartment store chain determining new store locations based uponpopulation, income, and other computerized demographic data. Perhaps most revealing about the growth of the automated mapping/GIS industry is a prediction by one market research analystthat sales of such systems will reach $590 million by 1992 andpotentially be expanding by as much as 35% annually.

The article also highlights the availability of previouslydigitized maps and associated databases. In addition to well-knowndigital products from the U.S. Census Bureau and U.S. Geological Survey, mention is made of a private firm, Etak, Inc., which will bemaking available digital electronic maps to be used as automatednavigational aids in automobiles. General Motors expects to beginequipping its luxury cars with "moving maps" in the next two years.

Fortune also profiles a few of the key figures in the GIS and automated mapping industry, most notably Jack Dangermond of theEnvironmental Systems Research Institute (ESRI) firm. The company's ARC/INFO software is the most advanced and widely usedGIS package in the world, with reported sales of $40 million for1988. Other companies' strong sales are cited and the article focuses on the fact that automated cartography and GIS are becoming big business indeed.

The decade of the 1980s has seen an unprecedented cahnge take placein the usage of computers in geography and cartography. The far-ranging application of automated mapping and GIS software in suchfields as profiled in this article indicates that a new preeminenceis being achieved by these disciplines. Continued development ofthis trend will positively affect collegiate geography and cartography programs and the number of professionals in these fields. As the article sums up, "Geography has come a long waysince you memorized the state capitals for Miss McGonagle in the fifth grade." It's good to see the business world recognize that fact.

Ganter, John (1989). CAD for cave mapping: a cautious assessment.
Compass & Tape, Spring 1989

Abstract:
It has been suggested that CAD packages may reduce the burdens of cave map drafting. I constructed some simulated caves and performed timing tests to investigate the suitability of CAD for cave map compilation and drafting. I discovered dramatic increases in processing time as the maps increased in complexity. While vector (line drawing) approaches have inherent limitations for present cave maps, some methods of breaking down large cave maps into parts (tiling, Blocks) may apply. It appears that CAD cave mapping is only practical with very fast microcomputers, and that a number of conceptual and practical problems remain. In particular the issue tends to highlight the distinctions between sophisticated tools and skilled tool users.

Abel, Robert and Kulhavy, Raymond (1986). Maps, mode of text presentation, and children's prose learning
American Educational Research Journal 23:2, pp. 263-274.
reviewed by Jeffrey C. Patton
University of North Carolina—Greensboro

A study undertaken to determine the effectiveness of reference maps in aiding children in the recall of prose presented either orally or in written form.

The authors, both educational psychologists, proposed two basic