

thematic information is the census tract, an area roughly the size of a city neighbourhood, with an average population of about 4,000.

Although most maps are straightforward one-variable choropleth maps using soft red patterns, a number of themes incorporate different techniques to convey the spatial distribution of the data. For instance, three different ethnic origins are mapped together using dots of 3 colours. Also, the distribution of separate but related variables (such as education and income) is brought to life using two-variable choropleth maps with 3 colours and 9 classes. The two largest CMAs (Toronto and Montreal) have 53 by 36 cm maps, while the other CMAs have maps of 28 by 22 cm.

As a result of a user survey conducted on the 1981 *Metropolitan Atlas Series*, major improvements were incorporated in this 1986 Series. For instance, the development and use of an up-to-date urban ecumene permits a more accurate spatial representation of Census data. As well, the maps focus on a 'window' area which includes a very large percentage of a CMAs population (up to 97 percent), with a dramatic increase in the scale of the core area. Thirdly, each theme includes either a graph which compares values across all 25 CMAs in Canada, or a scattergram of 2 variables.

In addition, each *Atlas* volume contains a helpful Census Tract Reference map in colour, and two transparent plastic maps containing, respectively, the boundaries of Census Subdivisions (municipalities) and Forward Sortation Areas (the first 3 digits of a postal code). These can be used as overlays to view the same themes using different geostatistical units.

The maps are supplemented by informative explanatory text on each major theme written by subject matter specialists, and by

an extensive set of appendices with notes on data quality, the derivation of map variables and a set of selected map summaries.

The volumes in this Series (catalogue numbers 98-101 through 98-112) are priced at \$24, except for the (larger) Toronto and Montreal volumes, which are priced at \$30. The complete set of 12 Atlases (Catalogue number 10-520) is available for \$240, representing a 20% discount. The Atlas volumes can be ordered by writing Publication Sales, Statistics Canada, Ottawa, K1A 0T6, or by calling the national toll-free order line, 1-800-267-6677.

XEROXABLE U. S. ATLAS

The United States Today is the latest reproducible atlas published by World Eagle, Inc. The 8.5 by 11 inch atlas is printed in black and white, and contains comparative maps, tables and graphics depicting resources, commodities, trade, cities, food and agriculture, health, schools, jobs, energy, industry and demographics. The atlas is available in paperback, looseleaf or hardcover bindings at costs of \$25.50, \$26.50 and \$36.95, respectively. Contact: World Eagle, Inc., 64 Washburn Avenue, Wellesley, MA 02181; (617) 235-1415.

NEW GIS TEXT AVAILABLE FROM ACSM

Fundamentals of Geographic Information Systems: A Compendium is a new publication co-published by the American Congress on Surveying and Mapping (ACSM) and the American Society for Photogrammetry and Remote Sensing (ASPRS). This volume focuses on the fundamentals, principles, and issues in geographic and land information systems (GIS/LIS).

Fundamentals of Geographic Information Systems was compiled and edited by William J. Ripple. It is a follow-up to his first GIS

compendium entitled *Geographic Information Systems for Resource Management*, published in 1987, which concentrates on GIS/LIS applications.

Topics covered in this 248-page, softbound compendium include a definition of GIS, a history of technology, requirements and principles for GIS implementation, GIS data-quality issues and error assessment, how to select and evaluate a GIS, and a guide to sources on GIS literature. A comprehensive listing of GIS newsletters and editors is also included.

William J. Ripple is Director of the Environmental Remote Sensing Applications Laboratory (ERSAL) in the College Forestry at Oregon State University in Corvallis. Ripple has 12 years experience in research and applications of geographic information systems and remote sensing for the study of vegetation and other natural resources.

Fundamentals of Geographic Information Systems sells for \$45.90 to ACSM members and students, and is available to non-members for \$65. Orders must be prepaid; send check or money order to ACSM Publications, 5410 Grosvenor Lane, Bethesda, MD 20814. To order by phone with VISA or MasterCard, contact: ACSM Publications, (301) 493-0200.

new maps

WORLD. World seismicity, 1979-1988. (NEIC Poster 1). Denver: National Earthquake Information Center, 1990. 3 spheres on 1 sheet. (U.S. Geological Survey, NEIC Maps, Box 25046), Federal Center, MS967, Denver, CO 80225).

CANADA. Canada—land cover associations. (National Atlas of Canada, 5th ed. - MCR 4113). Ottawa: Geographical Services Division, Energy, Mines and Resources Canada, 1989. Scale 1:7,500,000.

CANADA. Canada - native peoples, 1740. (National Atlas of Canada, 5th ed. - MCR 4094). Ottawa: Geographical Services Division, Energy, Mines and Resources Canada, 1988. Scale 1:7,500,000.

UNITED STATES. Electing the President, 1789-1988. (National Atlas sheet). Denver: U.S. Geological Survey, 1989. \$4.50.

MASSACHUSETTS. Metro Boston transit map. Taunton, MA: Arrow Publishing Co., 1989. \$1.95.

NEW YORK. Erie County. (New York Digital County Base Map Series). Albany: State Department of Transportation, 1990. Scale 1:75,000. \$4.50 or \$6 (Map Information Unit, State Department of Transportation, Office Campus, Building 4 - Room 105, Albany, NY 12232).

CALIFORNIA. AIDS in LA. Northridge: Center for Geographical Studies, 1989. \$5 (Center for Geographical Studies, California State University, Northridge, CA 91330).

CALIFORNIA. California: land managed by the Bureau of Land Management and other federal agencies. Sacramento: Bureau of Land Management, 1989. Scale 1:750,000.

NORTH SEA. Tectonic map of the North Sea and adjacent on-shore areas. Working: GECO Exploration Services, 1989.

GERMANY. The Berlin region. (Washington: Central Intelligence

Agency, 1989.) Scale 1:75,000. SuDoc No. PrEx 3.10:B45/3.

ISRAEL. Gaza Strip, August 1988. (Washington: Central Intelligence Agency, 1989.) Scale 1:150,000.

SOVIET UNION. Soviet pipeline map. London, Ontario: Department of Geography, University of Western Ontario, 1989. \$27 (Order from Milford Green, Department of Geography, University of Western Ontario, Social Science Center, London, Ontario N6A 5C2).

AFRICA. North-Central Africa. (Washington: Central Intelligence Agency, 1989.) Scale 1:5,000,000.

ANTARCTICA. Oblique maps of Antarctica. (Miscellaneous Investigations Series I-1992). Denver: U.S. Geological Survey, 1989.

NATIONAL ATLAS OF CANADA

The ACML Bulletin No. 73 (December 1989) on Pages 11-17 provides an outline of published and proposed map titles for the *National Atlas of Canada*, 5th edition. Forty one maps remain to be published with the completion date by 1992. Canada has produced more national atlases than any other country. The publication dates of the National Atlas of Canada are 1906, 1915, 1956, 1974, and 1985-.

new atlases

Atlas of China. Chicago: Rand McNally & Co., 1990. 48 p. ISBN 0-528-83385-5. \$8.95

Attenborough, David. *The Atlas of the Living World.* Boston: H.M. Houghton Mifflin Co., 1989. ISBN 0-395-49481-8. \$39.95.

Barnaby, Frank (ed.). *The Gaia Peace Atlas: Survival into the Third Millennium.* New York: Doubleday, 1988. 271 p. ISBN: 0-385-24190-0. \$29.95.

Bayley, Christopher. *Atlas of the British Empire.* New York: Facts on File, 1989. ISBN 0-8160-1995-9. \$40.

Census Canada 1986: Metropolitan Atlas Series. Ottawa: Statistics Canada, 1989. \$24 (Canada) \$25 (Other countries) \$30, \$31*/set \$240 and \$250 (Statistics Canada, Publication Sales, Ottawa K1A OT6). Clacary, Edmonton, Halifax, Hamilton, Montreal*, Ottawa-Hull, Regina, St. John's, Toronto*, Quebec, Vancouver, and Winnipeg.

Courbon, Paul. *Atlas of the Great Caves of the World.* St. Louis: Cave Books, 1989. 369 p. ISBN 0-939748-21-5. \$25.

Friesel, Evyatar. *Atlas of Modern Jewish History.* Oxford: Oxford University Press, 1989. ISBN 0-19-505393-1. \$39.95.

Harris, Geraldine. *Atlas of Ancient Egypt.* (Cultural Atlas for Young People Series). New York: Facts on File, 1990. ISBN 0-8160-1971-1. \$17.95

India Market Atlas. Hong Kong: Business International Asia/Pacific, 1988. \$345 (Business International, 215 Park Avenue South, New York, NY 10003).

Keegan, John (ed.). *The Times Atlas of the Second World War.* New York: Harper & Rowe, 1989. 256 p. ISBN 0-06-016178-7. \$45.

Lobel, Mary D. (ed.). *Atlas of Historic Towns: London From Prehistoric Times to 1520.* Oxford: Oxford University Press, 1989. ISBN 0-19-822979-8. \$110.