

**BARBARA BARTZ PETCHENIK:
HER WORKS, CITATIONS TO HER WORKS, WORKS ABOUT HER**

Alberta Auringer Wood
Map Library
Memorial University of Newfoundland
St. John's, Newfoundland CANADA A1B 3Y1

Abstract

Barbara Bartz Petchenik was one of the "modern" women pioneers in cartography and in the International Cartographic Association. She participated in ICA activities over the years and was the first woman to serve as an ICA Vice President. This paper addresses her contributions to the literature of cartography, in particular. The bulk of the paper is a bibliography of her work, including books, articles, papers in proceedings, and reviews. There is a description of the subject areas about which she wrote and spoke. Her impact upon the discipline and on others will be noted by recognizing where she was cited by other authors.

1 Works

From 1962 to 1992, Barbara contributed about 60 articles, papers, reviews, and other materials to seventeen journals or conference proceedings. A list of these is given below:

The American Cartographer
Association of Canadian Map Libraries *Bulletin*
The Canadian Cartographer
The Cartographic Journal
Cartographica
Cartography and Geographic Information Systems
College and Research Libraries
First IEEE Vehicle Navigation and Information Systems Conference *Proceedings*
International Cartographic Association *Proceedings*
International Yearbook of Cartography
Journal of American History
Journal of Typographic Research
Journal of Geography
La Revue de Geographie de Montreal
Queen's Quarterly
Scholarly Publishing
Special Libraries Association Wisconsin Chapter *Bulletin*
Symposium on the Marketing of Cartographic Information *Proceedings*
The William and Mary Quarterly

As a map librarian, I was delighted to find that Barbara's earliest article appeared in the Special Libraries Association Wisconsin Chapter *Bulletin* in early 1962. This was a one page item entitled "New Map and Air Photo Library Established" and was signed "Barbara Bartz, Map Librarian". It described this new institution founded in September 1961 when she was working at the University of Wisconsin-Milwaukee in the Department of Geography as an Instructor in Geography. Her last article appeared in the 1990 *International Yearbook of Cartography* that was published in 1992. This one was entitled "The Nature of Navigation: an Epistemological Perspective on Recent Developments in Vehicle Navigation Assistance Technology". In between these two very different topics, she covered a wide range of subjects, as well, with something appearing every year except for 1968. The journal that published the majority of her work was *The American Cartographer* (and its successor title, *Cartography and Geographical Information Systems*) with eight

articles, seven reviews, and three other items. She also edited a special issue of it on "Reflections on the Revolution" for which she did the beginning and ending parts. Close behind was *Cartographica* with eight articles. The earliest lengthy article in a scholarly journal appeared in the *Journal of Typographic Research* in 1969. This was "Type Variation and the Problem of Cartographic Type Legibility. Part One: Cartographic Typography As a Medium for Communication; the Cartographic View of Legibility" followed in a later number by part two under the title of "Search: an Approach to Cartographic Type Legibility". Both of these were based upon her doctoral dissertation entitled *Type Variation and the Problem of Cartographic Type Legibility*. The *Cartographic Journal* was the first cartography journal to publish her work when it published "An Analysis of the Typographic Legibility Literature: Assessment of its Applicability to Cartography" in early 1970. It also published two other articles (one done with Arthur Robinson) and one book review. The topics she covered in her writings were type legibility, maps and atlases for children, communication aspects, historical cartography, cognition or other psychological aspects of map design, transition from analog to digital representations, economic aspects and vehicle navigation systems.

Some of her earliest writings were unpublished items, several of which were done for the Field Enterprises Corporation for which she worked from 1968 to 1970. These were dealing with maps for children which was a topic that continued to be of considerable interest to her throughout her life. She wrote eleven pieces about the topic from 1970 to 1987. Another early topic of interest involved type legibility. In addition to writing her Ph.D. dissertation on the subject, she wrote five items about it from 1966 to 1970. These two topics occupied much of her writing for the first ten years. Communications aspects were covered by two works, one done jointly with her mentor and colleague, Arthur H. Robinson. From 1976 on she devoted a lot of her written work to historical subjects with six items. Cognition and several different psychological aspects of cartography figured in five articles. There were two articles that she wrote which dealt with economic aspects of cartography. The emphasis of the last few years was on vehicle navigation and transition from analog to digital representation in cartography with three and seven items, respectively. She was the cartographic editor of a major atlas (*Atlas of Early American History*), author of three chapters in books or yet forthcoming books, and co-author of three books. The books and chapters covered broad aspects of the field, such as *The Nature of Maps: Essays Toward Understanding Maps and Mapping* which was done with Arthur H. Robinson and "A Map Maker's Perspective on Map Design Research, 1950-1980" that appeared in *Graphic Communication and Design in Contemporary Cartography*. Her thirteen reviews were in the areas of psychology (one), history (one), historical atlases (two), atlases (five), statistics (one) and cartography (two). One of her works was translated into Japanese, "The Map As a Communication System" co-authored as noted above by Professor Robinson. Eight of her articles or papers were reprinted in other journals or as chapters in books (or will be).

2 Citations

I am sure that we all wonder what impact our writing might have on others. Sometimes we know, because people will comment directly, but another way of determining this is by looking at who cited the writings. In order to find where Barbara's works were cited, searches were made of *Social Sciences Citation Abstracts* using the online database and issues on CD-ROM. This was followed-up with manual searches of *The Canadian Cartographer* (its monographs and its successor title, *Cartographica*), *The Cartographic Journal*, and the *International Yearbook of Cartography*. While there are no doubt other citations in other non-indexed periodicals, this gives an idea of the use. Book literature was not searched.

In the case of Barbara Bartz Petchenik, thirty-two of her works were cited by one hundred and four authors or joint authors in twenty-six different journals from 1971 to 1994. A listing of these people follows. Among these were all the major cartographic journals, nine geography journals, three related to human engineering, several in the planning area and a variety in other disciplines. The greatest number of articles citing her work appeared in *The Cartographic Journal* with thirty-five, followed by *The Canadian Cartographer* or *Cartographica* with thirty, followed by *The American Cartographer* or *Cartography and Geography*

Information Systems with nineteen and the *International Yearbook of Cartography* with seventeen. The topics covered were those similar to areas about which she had written, much of it focusing on map design in general and for children in particular.

Unfortunately, the citation index did not seem to find all the references to the two items co-authored by Barbara. Many of those citations were found while looking at a journal in connection with something else or in the manual searches. Two of the citations were references to an award presented to the article "The Map As a Communication System" co-authored with Arthur H. Robinson. In this age of the Internet and such, she was even cited in March on a "listserve" called MAPHIST during a discussion on definitions of map and cartography. Two dissertations on cartography in our library had several references to Barbara's works. No doubt there are many others who have used her work that I did not find.

Names of People Citing or Referencing Barbara's Work

- | | | |
|----------------------------|--------------------------|-----------------------------|
| Andrews, John H. | Head, C. Grant | Robinson, Arthur H. |
| Antes, James | Henning, Mervin D. | Rundstrom, Robert A. |
| Audley, R. J. - 3 | Hocking, Diana - 2 | Saku, James |
| Balogun, Olayinka Y. | Honsaker, John L. | Saitichev, K. A. |
| Beller, Henry K. | Hopkin, V. D. | Sandford, Herbert A. - 3 |
| Blades, Mark - 3 | Jenks, George F. | Schlictmann, Hansgeorg |
| Blakemore, Michael - 2 | Jensen, John R. - 2 | Schneider, Donald O. |
| Board, Christopher - 7 | Karszen, Aart J. | Schwartz, Neil H. |
| Bond, Barbara | Keller, C. P. - 2 | Schwarz, Phillip J. |
| Brandes, D. | Kishimota, Haruko | Shaha, Steven H. |
| Carswell, Ronald J. B. - 3 | Kraak, M.-J. - 2 | Shortridge, Barbara G. |
| Castner, Henry W. - 5 | Kretschmer, Ingrid | Sorrell, Patrick E. - 2 |
| Catling, S. J. | Kulhavy, Raymond W. | Spencer, Christopher - 2 |
| Chang, Kang-Tsung | Lenzen, Thomas | Steinke, Theodore |
| Coles, Peter - 2 | Lloyd, Robert - 2 | Taylor, D. R. Fraser - 2 |
| Cooke, D. F. | Lock, B. F. | Taylor, R. M. - 2 |
| Coulson, Michael R. C. | Marcotte, Louise | Tessier, Yves |
| Crampton, Jeremy | Medlicott, L. | Thrower, Norman J. W. |
| Crawford, Paul V. | Meine, Karl-Heinz | Torok, Zsolt |
| Dahlberg, Richard E. - 2 | Mersey, Janet E. - 2 | Wheate, Roger |
| DeLeeuw, Gary J. A. | Meyer, Judith M. | Wiegand, Patrick |
| Dibiase, David | Miller, Jack W. | Wilks, J. H. C. - 2 |
| Dobson, Michael W. | Moellering, Harold | Winter, N. L. |
| Dorling, D. | Monmonier, Mark S. - 2 | Wonders, Lillian J. |
| Dymon, Ute J. | Morrison, Joel L. - 3 | Wood, Clifford H. - 3 |
| Eastman, J. Ronald | Muehrcke, Phillip C. | Wood, Denis - 3 |
| Fels, John | Mueller, L. | Wood, Michael - 2 |
| Forrest, David | Muller, Jean-Claude - 3 | Yarnal, Careen M. Mackay |
| Foster, Jeremy - 2 | Noyes, Elizabeth - 6 | |
| Frazer, B. M. | O'Brien, C. I. M. | Number after name indicates |
| Gardiner, Richard A. | Ogrissek, Rudi | number of items in which |
| Gerber, Rodney V. - 4 | Olson, Judy M. - 5 | cited or referenced |
| Giannangelo, D. C. | Patton, Jeffrey C. | |
| Gill, G. | Peterson, Michael P. - 2 | |
| Gilmartin, Patricia P. - 3 | Phillips, Richard J. - 3 | |
| Griffin, Trevor L.C. - 2 | Provin, R. W. | |
| Guelke, Leonard - 2 | Randhawa, Bikkar | |
| Harley, J. Brian - 3 | Ratajski, Lech | |

The most cited item by far was *The Nature of Maps* with forty-three. I suspect that even more would have been found by searching for it under Arthur Robinson's name, also. Next was the "Experimental Use of the Search Task in an Analysis of Type Legibility in Cartography" with twenty mentions, and of these eight being to the reprint in *The Cartographic Journal* and twelve to the original in *Journal of Typographic Research*. Close behind with eighteen each were "The Map As a Communication System" that was also co-authored with Arthur Robinson, with seventeen of these being to the original in *The Cartographic Journal* and one to the reprint in *Cartographica*, and "Cognition in Cartography", the references for the latter were evenly divided with nine being to the first appearance in the 1975 *Auto-Carto II Proceedings* and nine to the 1977 reprint in *Cartographica*. This was followed by fifteen articles that referenced "The Map Maker's Perspective on Map Design Research, 1950-1980". "From Place to Space - the Psychological Achievement of Thematic Mapping" had eleven references to it. Her 1974 article "A Verbal Approach to Characterizing the Look of Maps" garnered nine mentions. The unpublished report for Field Enterprises, *Map Design for Children* had eight references. Coming in with seven citations was "Search: an Approach to Cartographic Type Legibility". Three of her articles had six citations ("Maps in the Classroom", "The Natural History of the Atlas: Evolution and Extinction" and "Facts or Values: Methodological Issues in Research for Educational Mapping"). There were five citations to one of her seminar papers *Some Aspects of Dot Map Perception* and three references to another seminar paper *The Figure-Ground Relationship: its Role in Cartographic Design* and her atlas *Atlas of Early American History*. Two of her articles ("Type Variation and the Problem of Cartographic Type Legibility" and "Designing Maps for Children") had four mentions. Two of her other articles had three citations to them ("Cartography and the Making of an Historical Atlas" and "Maps, Markets and Money: a Look at the Economic Underpinnings of Cartography"). Her doctoral dissertation had two citations, as did her 1966 Field Enterprises report *Map Type: Form and Function* and her 1970 article "An Analysis of the Typographic Legibility Literature: an Assessment of its Applicability to Cartography". Her earliest publication and ten other items had one citation each. I found one author (Herbert A. Sandford) who credited Barbara with coining the phrase "map-like object", but did not list her in his references to indicate that it was in a printed source. There were two authors (Fraser Taylor and Christopher Board) who listed a "personal communication" from Barbara among his notes or noted her correspondence regarding a topic.

Most of the articles in which her work was cited had a reference to just one of her materials. The largest number of her works that were noted by a single author was five by Christopher Board in his "Cartographic Communication" in 1981. There were five who noted use of four of her titles, followed by eleven with three uses noted. Thirty instances of notation of two of her items were recorded, with the remainder being just one of her works each. In some instances there were several references to the same item in one work, but this was not tracked.

There have been numerous reviews of the books that she co-authored. In my search of *Book Review Digest*, cartographic journals, and other reference tools, I found seventeen reviews of *Atlas of Early American History*, four of *Mapping the American Revolution*, and ten of *The Nature of Maps*.

3 Works About

Before and after her death several articles about Barbara appeared. The earliest was in 1990, two years before her death, and was written by Valerie Wulf Krejcie to appear in *Progress & Perspectives; Affirmative Action in Surveying and Mapping*. The last one appeared in the 1994 issue of *Imago Mundi* and was authored by her friend and long-time mentor, Arthur H. Robinson. One of her closest cartographic colleagues and friends, Joel L. Morrison, wrote a remembrance for *Cartographica* and shared in writing one for the *ACSM Bulletin*. Others writing or sharing the writing about her were Leona Sorenson, Richard E. Dahlberg, Robert A. Rundstrom, and last but certainly not least, ICA President D. R. Fraser Taylor.

No attempt was made to compare Barbara's output to that of other cartographers of her time. Maybe this will be a project for a future thesis or dissertation. A great number of those people producing the literature are

or were academic cartographers who were expected to publish. However, Barbara worked for a commercial firm whose main purpose was cartographic rather than textual production. She was given some time and support for these writing efforts, as she noted in one or more instances. Nonetheless, her contributions to the literature seem much beyond what would normally be expected from someone in the type of job that she held.

4 BIBLIOGRAPHY

4.1 Works by Barbara

1962

New map and air photo library established. *Special Libraries Association Wisconsin Chapter Bulletin* vol. 31, no. 2, p. 11.

1963

Some aspects of dot map perception. Unpub. seminar paper, Dept. of Geography, University of Wisconsin, Madison.

1964

The figure-ground relationship: its role in cartographic design. Unpub. seminar paper, Dept. of Geography, University of Wisconsin, Madison. 79 p.

1965

Map design for children. Unpub. research rept. done for Field Enterprises Educational Corporation, Chicago. 224 pp. Available on microfilm.

1966

Map type: form and function. Unpub. research rept. done for Field Enterprises Educational Corporation, Chicago. 145 pp. Available on microfilm.

1967

Evaluation of two-color political maps in World Book. Unpub. research rept. done for Field Enterprises Educational Corporation, Chicago. 43 pp. Available on microfilm.

What about Illinois? Or, children and a reference map. Unpub. research rept. done for Field Enterprises Educational Corporation, Chicago. 71 pp. Available on microfilm.

1969

Search: an approach to cartographic type legibility. *Journal of Typographic Research*, vol. 3, no. 4, pp. 387-397.

Type variation and the problems of cartographic type legibility. [Ann Arbor, Mich. : University Microfilms International], 1969. Thesis (Ph.D.)--University of Wisconsin, 1969. 311 leaves.

Type variation and the problem of cartographic type legibility. Part one: Cartographic typography as a medium for communication; the cartographic view of legibility. *Journal of Typographic Research*, vol. 3, no. 2, pp. 127-144.

1970

An analysis of the typographic legibility literature: assessment of its applicability to cartography. *The Cartographic Journal*, vol. 7, no. 1, pp. 10-16.

Experimental use of the search task in an analysis of type legibility in cartography. *Journal of Typographic Research* vol. 4, Spring, pp. 102-108 and reprinted in: *The Cartographic Journal*, vol. 7, no. 2, pp. 103-112.

The Intelligent Eye - R. L. Gregory. London: Widenfeld and Nicolson, 1970. Review in: *The Cartographic Journal*, vol. 7, December, p. 124.

Maps in the classroom. *Journal of Geography*, vol. 69, January pp. 18-24 and reprinted in: *Readings in Social Science Education: A Geographic Perspective* (John Ball, ed.), Wiley.

1971

Cartography for children: a research approach. *La revue de géographie de Montreal*, vol. 25, pp. 407-410.

Designing maps for children. Map Design and the Map User, Symposium on the Influence of the Map User on Map Design, Queen's University, *Cartographica*, monograph 2, pp. 35-40.

1972

Maps and children. Letter in: *Journal of Geography*, vol. 71, no. 2, p. 68.

Nature of research in education. *Journal of Geography*, vol. 71, no. 4, pp. 215-232.

A verbal approach to map design and map evaluation. [Paper presented to] International Cartographic Association. 6th Technical Conference. Montreal and Ottawa, 16. - 25. Aug. 1972. 24 p.

1973

The American Campaigns of Rochambeau's Army 1780, 1781, 1782, 1783 - Rise, Howard C., and Anne S. K. Brown (eds.). Review in: *The William and Mary Quarterly*, vol. 30, July, pp. 544-546.

Historical atlas of Kansas - Socolofsky, H. W., and H. Self. Review in: *Journal of American History*, vol. 60, no. 2, pp. 460-461.

1974

Letter to the editor. *The Canadian Cartographer*, vol. 11, no. 2, p. 195.

The Times Concise Atlas of the World. London: Times Newspapers Ltd., London, 1972. Review in: *The American Cartographer*, vol. 1, no. 2, pp. 173-174.

A verbal approach to characterizing the look of maps. *The American Cartographer*, vol. 1, no. 1, pp. 63-71.

1975

Cognition in cartography. *Auto-carto II Proceedings*, pp. 183-193. Reprinted in: *Cartographica*, 1977, monograph 19, pp. 117-128.

The map as a communication system (with Arthur H. Robinson). *The Cartographic Journal*, vol. 12, no. 1, pp. 7-14. Reprinted in: *Cartographica*, 1977, monograph 19, pp. 92-110. Also translated into Japanese by Toshitomo Kanakubo, Map Management Division, Geographical Survey Institute (Tokyo, Japan) and appeared in a 1977 issue of the Institute's periodical, *The Map*, vol. 15, pp. 1-10.

Oxford World Atlas - Cohen, S. B. (ed.). New York: Oxford University Press, 1973. Review in: *The American Cartographer*, vol. 2, pp. 180-182.

1976

Atlas of Early American History: The Revolutionary Era, 1760-1790 (with Lester J. Cappon and others). Princeton: Princeton University Press, 1976. 157 p.

Expectation versus realization: the history of the Atlas of early American history. Rapport présenté à la 8^e Conférence cartographique internationale. Paper presented to the 8th International Cartographic Conference. Moskva, 1976. 13 p. [mimeographed].

The Nature of Maps: Essays Toward Understanding Maps and Mapping (with Arthur H. Robinson). Chicago, London: University of Chicago Press, 1976. xi, 138 p.

1977

Cartography and the making of an historical atlas - a memoir. *The American Cartographer*, vol. 4, no. 1, pp. 11-28.

Mapping the eighteenth century. *Scholarly Publishing*, vol. 8, no. 4, pp. 357-366.

1978

Atlas of Early American History review. Letter in: *The American Cartographer*, vol. 5, no. 1, pp. 70-72.

A Comparative Atlas of Americas Great Cities: 20 Metropolitan Regions - Adams, J. S., R. Ablar, K. S. Lee. Review in: *The American Cartographer*, vol. 5, no. 2, pp. 175-176.

The mapping of the American Revolutionary War in the Twentieth Century. Chapter 5 in her (with J. B. Harley and Lawrence W. Towner): *Mapping the American Revolutionary War*. Chicago: University of Chicago Press. viii, 187 p., [14] leaves of plates. (The Kenneth Nebenzahl, Jr., lectures in the history of cartography at the Newberry Library).

1979

Correction. *The American Cartographer*, vol. 6, no. 1, p. 83.

From place to space - the psychological achievement of thematic mapping. *The American Cartographer*, vol. 6, no. 1, pp. 5-12.

1980

Spatial knowledge in the future: perspectives from the past. Association of Canadian Map Libraries *Bulletin*, no. 37, pp. 1-6.

The National Atlas of Japan - Oshima, T. Review in: *The American Cartographer*, vol. 7, no. 1, pp. 82-86.
Thematic and reference maps - response. Letter in: *The American Cartographer*, vol. 7, no. 2, p. 176.

1981

Junior Atlas of Alberta - Muller, J. C. and L. J. Wonders and *Junior Atlas of Alberta Teachers Manual* - Wonders, W. C. Review in: *The American Cartographer*, vol. 8, no. 1, pp. 83-85.

1982

The futures of cartography in 'Cartographic Commentary'. *Cartographica*, vol. 19, no. 3 & 4, pp. 109-114.

1983

A map maker's perspective on map design research, 1950-1980. Chapter 3 in: D. R. F. Taylor (ed.). *Graphic Communication and Design in Contemporary Cartography*. New York : Wiley. (Progress in contemporary cartography, 2). pp. 37-38.

Understanding Maps - Keates, J. S. Review in: *The American Cartographer*, vol. 10, no. 2, pp. 159-160.

1984

Facts or values: methodological issues in research for educational mapping. 12th Conference of the International Cartographic Association, Perth, Australia, August 6-13. *Technical Papers*, vol. 1, pp. 788-804 and reprinted as Essay 2 in: Value and values in cartography, *Cartographica*, 1985, vol. 22, no. 3, pp. 20-42.

Maps, markets and money: a look at the economic underpinnings of cartography. *Proceedings* of a Symposium on the Marketing of Cartographic Information, Queen's University, Kingston, Ont., May 14-17, pp. 1-10 and reprinted as Essay 1 in: Value and values in cartography, *Cartographica*, 1985, vol. 22, no. 3, pp. 7-19.

The natural history of the atlas: evolution and extinction, lecture delivered at a symposium, "Images of the World: The Atlas Through History", co-sponsored by the Center for the Book and the Geography and Map Division of the Library of Congress, October. To be a chapter in a forthcoming book to be published by the Library of Congress. Printed as Essay 3 in: Value and values in cartography, *Cartographica*, 1985, vol. 22, no. 3, pp. 43-59.

1985

Semiology of Graphics: Diagrams, Networks, Maps - Bertin, J. Review in: *The American Cartographer*, vol. 12, no. 1, pp. 71-72.

1986

The Elements of Graphing Data - Cleveland, W. S. Review in: *College and Research Libraries*, vol. 47, no. 3, p. 286.

1987

Donnelley Cartographic Services. *The American Cartographer*, vol. 14, no. 3, pp. 241-244.

Fundamental considerations about atlases for children. *Cartographica*, monograph 36, vol. 24, no. 1, pp. 16-23.

1988

Historical Atlas of Canada, vol. I: From the Beginning to 1800. Toronto: University of Toronto Press, 1987.

Review in: *Queen's Quarterly*, vol. 95, no. 3, Autumn, pp. 720-722.

Reflections on the revolution - the transition from analog to digital representations of space, 1958-1988.

Editor. *The American Cartographer*, vol. 15, no. 3, pp. 245-246.

Reflections on the revolution - the transition from analog to digital representations of space, 1958-1988 - foreword. *The American Cartographer*, vol. 15, no. 3, pp. 245-246.

Reflections on the revolution - the transition from analog to digital representations of space, 1958-1988 - afterword. *The American Cartographer*, vol. 15, no. 3, pp. 321-322.

1989

The nature of navigation: some difficult cognitive issues in automatic vehicle navigation. *Proceedings*, First IEEE Vehicle Navigation and Information Systems Conference, VNIS '89, Toronto, Ont., Canada, pp. 43-48.

The road not taken. *The American Cartographer*, vol. 16, no. 1, pp. 47-50.

1990

The nature of navigation: an epistemological perspective on recent developments in vehicle navigation assistance technology. *International Yearbook of Cartography*, vol. 30, pp. 13-24.

Spatial Data Needs - the Future of the National Mapping Program (with John D. Bossler, J. D. Finnie, and T. M. Usselman). Washington, D.C. : Mapping Science Committee, U.S. National Research Council, 1990.

Spatial data needs - the future of the national mapping program (with John D. Bossler, J. D. Finnie, and T. M. Usselman). *Cartography and Geographic Information Systems*, vol. 17, no. 3, pp. 237-242.

1991

A case study of institutional response to technological transformation: the cartographic enterprise of the United States. *Mapping the Nations*, 15th Conference of the International Cartographic Association, Bournemouth, 1991. *Proceedings*, vol. 1, pp. 295-303.

4.2 Works that cite Barbara's work**1971**

Carswell, Ronald J. B. Children's abilities in topographic map reading. Map Design and the Map User, Symposium on the Influence of the Map User on Map Design, Queen's University, *Cartographica*, monograph 2, pp. 40-45.

1972

Beller, Henry K. Problems in visual search. *International Yearbook of Cartography*, vol. 12, pp. 136-144.

O'Brien, C. I. M. International Cartographic Association technical conference Montreal/Ottawa 1972 [report]. *The Cartographic Journal*, vol. 9, no. 2, pp. 78-79.

Wood, Michael. Human factors in cartographic communication. *The Cartographic Journal*, vol. 9, no. 2, pp. 123-132.

1973

Meyer, Judith M. W. Map skills instruction and the child's developing cognitive abilities. *Journal of Geography*, vol. 72, no. 6, pp. 27-35.

1974

Carswell, Ronald J. B. Comparative use of a picture, and written material, in social studies. *The Cartographic Journal*, vol. 11, no. 2, pp. 122-123.

Miller, Jack W. Comparisons of conventional "subdued" to vivid "highly contrasting" color schemes for elementary school maps: report of an experiment. *Journal of Geography*, vol. 73, no. 3, pp. 41-45.

Sorrell, Patrick E. Map design - with the young in mind. *The Cartographic Journal*, vol. 11, no. 2, pp. 82-90.

1975

Coles, Peter, and Jeremy Foster. Typographic cueing as an aid to learning from typewritten text. *Programmed Learning & Educational Technology*, vol. 12, no. 2, pp. 102-108.

Olson, Judy M. Experience and the improvement of cartographic communication. *The Cartographic Journal*, vol. 12, no. 2, pp. 94-108.

Taylor, R. M., and V. D. Hopkin. Ergonomic principles and map design. *Applied Ergonomics*, vol. 6, no. 4, pp. 196-204.

1976

Brandes, D. The present state of perceptual research in cartography. *The Cartographic Journal*, vol. 13, no. 2, pp. 172-176.

Guelke, Leonard. Cartographic communication and geographic understanding. *The Canadian Cartographer*, vol. 3, no. 2, pp. 107-122.

Jenks, George F. Contemporary statistical maps - evidence of spatial and graphic ignorance. *The American Cartographer*, vol. 3, no. 1, pp. 11-19.

Schneider, Donald O. Performance of elementary teachers and students on a test of map and globe skills. *Journal of Geography*, vol. 75, no. 6, pp. 326-332.

- Schwarz, Phillip J. State Library history bibliography series. 12. Bibliography of Wisconsin library history. *Journal of Library History, Philosophy and Comparative Librarianship*, vol. 11, no. 2, pp. 87-166.
- Thrower, Norman J. W. and John R. Jensen. The orthophoto and orthophotomap - characteristics, development and application. *The American Cartographer*, vol. 3, no. 1, pp. 39-56.
- Wilks, J. H. C. Society record [re award to article]. *The Cartographic Journal*, vol. 13, no.2, pp. 113-119.
- 1977
- Board, Christopher. The geographer's contribution to evaluating maps as vehicles for communicating information. *International Yearbook of Cartography*, vol. 17, pp. 47-58.
- and R. M. Taylor. Perception and maps - human-factors in map design and interpretation. *Transactions - Institute of British Geographers*, vol. 2, no. 1, pp. 19-36.
- Foster, Jeremy, and Peter Coles. An experimental study of typographic cueing in printed text. *Ergonomics*, vol. 20, no. 1, pp. 57-66.
- Giannangelo, D. C., and B. M. Frazee. Map reading proficiency of elementary educators. *Journal of Geography*, vol. 76, no. 2, pp. 63-65.
- Mueller, L. Language as art and art as language. *English Journal*, vol. 66, no. 7, pp. 49-53.
- Olson, Judy M. Rescaling dot maps as a pattern enhancement. *International Yearbook of Cartography*, vol. 17, pp. 125-137.
- Patton, Jeffrey C., and Paul V. Crawford. The perception of hypsometric colours. *The Cartographic Journal*, vol. 14, no. 2, pp. 115-127.
- Phillips, Richard J., and Liza Noyes. Searching for names in two city street maps. *Applied Ergonomics*, vol. 8, no. 2, pp. 73-77.
- , -----, and R. J. Audley. The legibility of type on maps. *Ergonomics*, vol. 20, no. 6, pp. 671-682.
- Provin, R. W. The perception of numerosness on dot maps. *The American Cartographer*, vol. 4, no. 1, pp. 111-125.
- Robinson, Arthur H. Research in cartographic design. *The American Cartographer*, vol. 4, no. 1, pp. 163-169.
- Wilks, J. H. C. Society record [re award to article]. *The Cartographic Journal*, vol. 14, no.1, pp. 3-6.
- 1978
- Board, Christopher. How can theories of cartographic communication be used to make maps more effective? *International Yearbook of Cartography*, vol. 17, pp. 41-49.
- , Map reading tasks and cartographic communication. *The Canadian Cartographer*, vol. 15, no. 1, pp. 1-12.
- Gilmartin, Patricia P. Evaluation of thematic maps using the semantic differential test. *The American Cartographer*, vol. 5, no. 2, pp. 133-139.
- Kretschmer, Ingrid. The pressing problems of theoretical cartography. *International Yearbook of Cartography*, vol. 17, pp. 33-40.
- Meine, Karl-Heinz. Certain aspects of cartographic communication in a system of cartography as a science. *International Yearbook of Cartography*, vol. 17, pp. 102-117.
- Morrison, Joel L. Towards a functional definition of the science of cartography with emphasis on map reading. *The American Cartographer*, vol. 5, no. 2, pp. 97-110.
- Muller, Jean-Claude, and John L. Honsaker. Choropleth map production by facsimile. *The Cartographic Journal*, vol. 15, no. 1, pp. 14-19.
- Noyes, Elizabeth. Evaluating maps. Letter in: *The Cartographic Journal*, vol. 15, no. 2, p. 104.
- Phillips, Richard J., Elizabeth Noyes and R. J. Audley. Searching for names on maps. *The Cartographic Journal*, vol. 15, no. 2, pp. 72-77.
- Ratajski, Lech. The main characteristics of cartographic communication as a part of theoretical cartography. *International Yearbook of Cartography*, vol. 18, pp. 21-32.
- Salitchev, K. A. Cartographic communication, its place in the theory of science; translated by James R. Gibson. *The Canadian Cartographer*, vol. 15, no. 2, pp. 93-99.

1979

- Board, Christopher. Maps in the minds eye - maps on paper and maps in the mind. *Progress in Human Geography*, vol. 3, no. 3, pp. 434-441.
- Castner, Henry W. A model of cartographic communication: practical goal or mental attitude? *International Yearbook of Cartography*, vol. 19, pp. 34-40.
- and Roger Wheate. Re-assessing the role played by shaded relief in topographic scale. *The Cartographic Journal*, vol. 16, no. 2, pp. 77-85.
- Viewing time and experience as factors in map design research. *The Canadian Cartographer*, vol. 16, no. 2, pp. 145-158.
- Catling, S. J. Maps and cognitive maps - young child's perception. *Geography*, vol. 64, no. 285, pp. 288-295.
- Dobson, Michael W. The influence of map information on fixation localization. *The American Cartographer*, vol. 6, no. 1, pp. 51-65.
- Griffin, Trevor L. C., and B. F. Lock. The perceptual problem in contour interpretation. *The Cartographic Journal*, vol. 16, no. 2, pp. 61-71.
- Guelke, Leonard. Perception, meaning and cartographic design. *The Canadian Cartographer*, vol. 16, no. 1, pp. 61-69.
- Noyes, Liza. Are some maps better than others? *Geography*, vol. 64, no. 285, pp. 303-306.
- Olson, Judy M. Cognitive cartographic experimentation. *The Canadian Cartographer*, vol. 16, no. 1, pp. 34-44.
- Shorridge, Barbara G. Map reader discrimination of lettering size. *The American Cartographer*, vol. 6, no. 1, pp. 13-20.

1980

- Blakemore, Michael J., and J. Brian Harley. Concepts in the history of cartography: a review and perspective. *Cartographica*, monograph 26, vol. 17, no. 4, pp. 1-117.
- Castner, Henry W. Special purpose mapping in 18th-century Russia - a search for the beginnings of thematic mapping. *The American Cartographer*, vol. 7, no. 1, pp. 163-175.
- Cooke, D. F. Thematic and reference maps. Letter in: *The American Cartographer*, vol. 7, no. 1, p. 176.
- Karszen, Aart J. The artistic elements in map design. *The Cartographic Journal*, vol. 17, no. 2, pp. 124-127.
- Moellering, Harold. Strategies of real-time cartography. *The Cartographic Journal*, vol. 17, no. 1, pp. 12-15.
- Muller, Jean-Claude. Perception of continuously shaded maps - reply. Letter in: *Annals of the Association of American Geographers*, vol. 70, no. 1, pp. 107-108.
- Noyes, Liza. The positioning of type on maps - the effect of surrounding material on word recognition time. *Human Factors*, vol. 22, no. 3, pp. 353-360.
- Wonders, Lillian J. *The Junior Atlas of Alberta* - introducing new mapping techniques to young students. Note in: *The Canadian Geographer*, vol. 24, no. 3, pp. 306-311.

1981

- Board, Christopher. Cartographic communication. *Cartographica*, monograph 27, vol. 18, no. 2, pp. 42-78.
- Gardiner, Richard A. Cartography and the mind of man. *The Cartographic Journal*, vol. 18, no. 2, pp. 112-115.
- Gerber, Rodney V. Competence and performance in cartographic language. *The Cartographic Journal*, vol. 18, no. 2, pp. 104-110.
- Gilmartin, Patricia P. The interface of cognitive and psychophysical research in cartography. *Cartographica*, vol. 18, no. 3, pp. 9-20.
- Kishimoto, Haruko. Communication problems between geography and cartography. *International Yearbook of Cartography*, vol. 21, pp. 125, 122-124.
- Monmonier, Mark S. Automated techniques in support of planning for the national atlas. *The American Cartographer*, vol. 8, no. 2, pp. 161-168.
- Morrison, Joel L. Systematizing the role of 'feedback' from the map percipient to the cartographer in cartographic communication models. *International Yearbook of Cartography*, vol. 21, pp. 121, 126-132.

- Ogrissek, Rudi. Theorie der Kartengestaltung und theorie der Kartennutzung als Hauptkomponenten eines Systems der theoretischen Kartographie für Ausbildung und Forschung. *International Yearbook of Cartography*, vol. 21, pp. 133-153.
- Olson, Judy M. Spectrally encoded two-variable maps. *Annals of the Association of American Geographers*, vol. 71, no. 2, pp. 259-276.
- Sorrell, Patrick E. Cartography: a manufacturing industry concerned with the processing, transformation, packaging and transportation of spatial data. *The Cartographic Journal*, vol. 18, no. 2, pp. 84-90.
- 1982**
- Balogun, Olayinka Y. Communicating through statistical maps. *International Yearbook of Cartography*, vol. 22, pp. 23-41.
- Gerber, Rodney V. An international study of children's perception and understanding of type used on atlas maps. *The Cartographic Journal*, vol. 19, no. 2, pp. 115-121.
- Kulhavy, Raymond W., Neil H. Schwartz, and Steven H. Shaha. Interpretative framework and memory for map features. *The American Cartographer*, vol. 9, no. 2, pp. 141-147.
- Lloyd, Robert. A look at images. *Annals of the Association of American Geographers*, vol. 72, no. 4, pp. 352-548.
- Monmonier, Mark S. Cartography, geographic information, and public-policy. *Journal of Geography in Higher Education*, vol. 6, no. 2, pp. 99-107.
- Muehrcke, Phillip C. An integrated approach to map design and production. *The American Cartographer*, vol. 9, no. 2, pp. 109-122.
- Yarnal, Careen M. Mackay, and Michael R. C. Coulson. Recreational map design and map use: an experiment. *The Cartographic Journal*, vol. 19, no. 1, pp. 16-27.
- 1983**
- Board, Christopher. The development of concepts of cartographic communication with special reference to the rôle of Professor Ratajski. *International Yearbook of Cartography*, vol. 23, pp. 19-29.
- Griffin, Trevor L. C. Problem solving on maps - the importance of user strategies. *The Cartographic Journal*, vol. 20, no. 2, pp. 101-109.
- Henning, Mervin D. Toward an understanding of scale and its relevance to cartographic communication. *The Cartographic Journal*, vol. 20, no. 2, pp. 119-120.
- 1984**
- Gerber, Rodney V. The development of competence and performance in cartographic language by children at the concrete level of map-reasoning. *Cartographica*, monograph 31, vol. 21, no. 1, pp. 98-119.
- Head, C. Grant. The map as natural language. Second International Symposium on Cartographic Communication, London, 1983, *Cartographica*, monograph 31, vol. 21, no. 1, pp. 1-32.
- Lloyd, Robert, and Theodore Steinke. Recognition of disoriented maps: the cognitive process. *The Cartographic Journal*, vol. 21, no. 1, pp. 55-59.
- Mersey, Janet Elizabeth. The effects of color scheme and number of classes on choropleth map communication. [Ann Arbor, Mich. : University Microfilms International], 1986. Thesis (Ph.D.)--University of Wisconsin, 1984. 284 p.
- Morrison, Joel L. Applied cartographic communication: map symbolization for atlases. *Cartographica*, monograph 31, vol. 21, no. 1, pp. 44-84.
- Olson, Judy M. Cognitive issues in map use. *International Yearbook of Cartography*, vol. 24, pp. 151-157.
- Sandford, Herbert A. A new analysis and classification of school atlases. *International Yearbook of Cartography*, vol. 24, pp. 173-196.
- 1985**
- Chang, Kang-Tsung, James Antes, and Thomas Lenzen. The effect of experience on reading topographic relief information: analyses of performance and eye movements. *The Cartographic Journal*, vol. 22, no. 2, pp. 88-94.
- Eastman, J. Ronald. Cognitive models and cartographic design research. *The Cartographic Journal*, vol. 22, no. 2, pp. 95-101.
- Peterson, Michael P. Evaluating a maps image. *The American Cartographer*, vol. 13, no. 1, pp. 41-56.

Sandford, Herbert A. The future of the school pupils' desk atlas. *The Cartographic Journal*, vol. 22, no. 1, pp. 3-10.

----- Objectives of non-professional map use. Society of University Cartographers *Bulletin*, vol. 19, pp. 7-11.
Schlichtmann, Hansgeorg. Characteristic traits of the semiotic system 'map symbolism'. *The Cartographic Journal*, vol. 22, no. 1, pp. 23-30.

Taylor, D. R. Fraser. The educational challenges of a new cartography. *Cartographica*, vol. 22, no. 4, pp. 19-37.

1986

Blades, Mark, and Christopher Spencer. The implications of psychological theory and methodology for cognitive cartography. *Cartographica*, vol. 23, no. 4, pp. 1-13.

Blakemore, Michael. Cartography and geographic information systems. *Progress in Human Geography*, vol. 10, no. 4, pp. 553-563.

Dahlberg, Richard E., and John R. Jensen. Education for cartography and remote-sensing in the service of an information-society - the United-States case. *The American Cartographer*, vol. 13, no. 1, pp. 51-71.

Muller, Jean-Claude. *North of 50-degrees - an Atlas of Far Northern Ontario*, by J. E. J. Fahlgren and G. Matthews. Review in: *The Canadian Geographer*, vol. 30, no. 2, pp. 189-190.

Sandford, Herbert A. Higher-order map-using tasks: a contribution from geographic education. *International Yearbook of Cartography*, vol. 26, pp. 117-138.

Wood, Denis. *The New State of the World Atlas*, by M. Kidron and R. Segal. Review in: *The American Cartographer*, vol. 13, no. 2, pp. 172-173.

----- and John Fels. Designs on signs / myth and meaning in maps. *Cartographica*, vol. 23, no. 3, pp. 54-103.

1987

Blades, Mark, and Christopher Spencer. How do people use maps to navigate through the world? *Cartographica*, vol. 24, no. 3, pp. 64-75.

Carswell, Ronald J. B., and Gary J. A. DeLeeuw. Curriculum relationship and children's atlases. *Cartographica*, monograph 36, vol. 24, no. 1, pp. 135-145.

Castner, Henry W. Education through mapping / a new role for the school atlas? *Cartographica*, monograph 36, vol. 24, no. 1, pp. 82-100.

Dahlberg, Richard E. An ICA response to the educational challenges of cartography in transition. *Cartographica*, vol. 24, no. 4, pp. 1-13.

Harley, J. Brian. Innovation, social context and the history of cartography / review article. *Cartographica*, vol. 24, no. 4, pp. 59-68.

Marcotte, Louise, and Yves Tessier. Applied research and instructional atlas design / the 'ten commandments' of L'Interatlas. *Cartographica*, monograph 36, vol. 24, no. 1, pp. 101-117.

Peterson, Michael P. The mental image in cartographic communication. *The Cartographic Journal*, vol. 24, no. 1, pp. 35-41

Randhawa, Bikkar. Atlases for children / a legacy of perceptual and cognitive processes. *Cartographica*, monograph 36, vol. 24, no. 1, pp. 47-60.

1989

Harley, J. Brian. Historical geography and the cartographic illusion. *Journal of Historical Geography*, vol. 15, no. 1, pp. 80-91.

----- and David Woodward. Why cartography needs its history. *The American Cartographer*, vol. 16, no. 1, pp. 5-15.

1990

Andrews, John H. Map and language / a metaphor extended. *Cartographica*, vol. 27, no. 1, pp. 1-19.

Blakemore, Michael. Cartography. *Progress in Human Geography*, vol. 14, no. 1, pp. 101-111.

Kraak, M.-J. Theoretical aspects of three-dimensional cartography. *International Yearbook of Cartography*, vol. 30, pp. 81-91.

Mersey, Janet Elizabeth. Colour and thematic map design: the role of colour scheme and map complexity in choropleth map communication. *Cartographica*, monograph 41, vol. 27, no. 3, pp. 1-157.

1991

Bond, Barbara A. Map and chart collections in crisis - change or decay. *The Cartographic Journal*, vol. 28, no. 2, pp. 217-220.

Taylor, D. R. Fraser. A conceptual basis for cartography / new directions for the information era. *Cartographica*, vol. 28, no. 4, pp. 1-8.

Wiegand, Patrick. A model for the realization of a school atlas. *Geography*, vol. 76, no. 330, pp. 50-57.

1992

Blades, Mark, and L. Medicott. Developmental differences in the ability to give route directions from a map. *Journal of Environmental Psychology*, vol. 12, no. 2, pp. 175-185.

Board, Christopher. Report of the Working Group on Cartographic Definitions. *ICA Newsletter*, no. 19, pp. 9-13.

Crampton, Jeremy. New directions in the information era - a reply. *The Cartographic Journal*, vol. 29, no. 2, pp. 145-150.

Dibiase, David, et al. Animation and the role of map design in scientific visualization. *Cartography and Geographic Information Systems*, vol. 19, no. 4, pp. 201.

Dorling, D. Visualizing people in time and space. *Environment and Planning B - Planning & Design*, vol. 19, no. 6, pp. 613-637.

Forrest, David. *Map Generalization - Making Rules for Knowledge Representation*, by Barbara P. Buttenfield and Robert B. McMaster. Review in: *The Cartographic Journal*, vol. 29, no. 2, pp. 187-190.

Gilmartin, Patricia P. 25 years of cartographic research - a content-analysis. *Cartography and Geographic Information Systems*, vol. 19, no. 1, pp. 37-47.

Hocking, Diana, and C. Peter Keller. A user perspective on atlas content and design. *The Cartographic Journal*, vol. 29, no. 2, pp. 109-117.

Saku, James. Map use teaching and experience. *Cartographica*, vol. 29, no. 3 & 4, pp. 38-45.

Wood, Clifford H. Is cartographic design important? The example of the figure-ground relationship. *CISM Journal*, vol. 46, no. 4, winter 1992, pp. 435-448.

-----. The influence of figure and ground on visual scanning behavior in cartographic context. [Ann Arbor, Mich.: University Microfilms International], 1993. Thesis (Ph.D.)--University of Wisconsin, 1992. 414 p.

Wood, Denis. Replies to Barbara Belyea's commentary. *Cartographica*, vol. 29, no. 3 & 4, pp. 97-99. · 1993

Dymon, Ute J., and N. L. Winter. Evacuation mapping - the utility of guidelines. *Disasters*, vol. 17, no. 1, pp. 12-24.

Gerber, R. Map design for children. *The Cartographic Journal*, vol. 30, no. 2, pp. 154-158.

Gill, G. Road map design and route selection. *The Cartographic Journal*, vol. 30, no. 2, pp. 163-166.

Hocking, Diana, and C. Peter Keller. Analysis of state and provincial atlas reviews. *Professional Geographer*, vol. 45, no. 1, pp. 73-83.

Kraak, M.-J. Three-dimensional map design. *The Cartographic Journal*, vol. 30, no. 2, pp. 188-194.

Rundstrom, Robert A. Introduction [to] Introducing cultural and social cartography. *Cartographica*, monograph 44, vol. 30, no. 1, pp. vii-xii.

Torok, Zsolt. Social context, part 3 in The selected main theoretical issues facing cartography: an ICA report. *Cartographica*, vol. 30, no. 4, pp. 9-11.

Wood, Michael. The map-users response to map design. *The Cartographic Journal*, vol. 30, no. 2, pp. 149-153.

1994

Wood, Clifford H. Effects of brightness difference on specific map-analysis tasks: an empirical analysis. *Cartography and Geographic Information Systems*, vol. 21, no. 1, pp. 15-30.

4.3 Works about Barbara .

1990

Krejcie, Valerie Wulf. Barbara Petchenik. *Progress & Perspectives; Affirmative Action in Surveying and Mapping*, Sept-Oct, p. 3.

1992

Krejcie, Valerie Wulf, Leona Sorenson, Richard E. Dahlberg, and Joel L. Morrison. Barbara Bartz Petchenik: an appreciation. *ACSM Bulletin*, no. 139, Sept./Oct., p. 24.

Morrison, Joel L. Barbara Bartz Petchenik: in remembrance. *Cartographica*, vol. 29, no. 2, p. 60.

Rundstrom, Robert A. Barbara Bartz Petchenik: a personal appreciation. *Cartographica*, vol. 29, no. 2, pp. 60-61.

Taylor, D. R. Fraser. Barbara Bartz Petchenik: in remembrance. *ICA Newsletter*, no. 2, p. 7 and reprinted in *The Cartographic Journal*, vol. 29, no. 2, p. 160.

1994

Robinson, Arthur H. B. B. Petchenik (1939-1992). *Imago Mundi*, vol. 46, p. 174-175.

4.4 Reviews of Barbara's works

Atlas of Early American History

1976

Adams, P. L. *Atlantic*, vol. 288, Sept., p. 97, 90 w.

Choice, vol. 13, Nov., p. 1115, 100 w.

Collier, Bonnie. *The New York Times Book Review*, September 19, p. 31, 900 w.

Cunliffe, Marcus. *Times Literary Supplement*, Sept. 24, p. 1200, 1050 w.

Discovering the atlas of early American history. *The Washington Post*, July 11, p. H-9.

Economist, vol. 260, Aug. 7, p. 79, 450 w.

Noted in *Special Libraries Association Geography and Map Division Bulletin*, no. 106, p. 70.

Scheer, G. F. *Library Journal*, vol. 101, Nov. 15, p. 2357, 180 w.

The William and Mary Quarterly, vol. 34, no. 2, pp. 310-312.

1977

Alden, J. R. *American History Review*, vol. 82, April, p. 432, 350 w.

Booklist, vol. 74, Oct. 1, p. 317, 3000 w.

Eccles, W. J., W. G. Dean, G. J. Matthews, and T. S. Milwraith. *The American Cartographer*, vol. 4, no. 2, pp. 177-183.

Guelke, Leonard. Association of Canadian Map Libraries *Bulletin*, no. 25, pp. 49-52.

Harley, J. Brian. *The Cartographic Journal*, vol. 14, no. 1, pp. 56-57.

Jackson, Donald. *Virginia Quarterly Review*, vol. 53, Winter, p. 176, 1600 w.

Wolter, John A. *The Canadian Cartographer*, vol. 14, no. 1, pp. 82-84.

Wood, Clifford H. *Special Libraries Association Geography and Map Division Bulletin*, no. 110, pp. 69-70.

Mapping the American Revolutionary War

1978

Choice, vol. 15, Sept., p. 941, 220 w.

1979

DeVorse, Louis, Jr. *The Cartographic Journal*, vol. 16, no. 2, pp. 116-117.

Gruber, L. D. *American Historical Review*, vol. 84, June, p. 846, 400 w.

1980

Dwyer, John A. *Special Libraries Association Geography and Map Division Bulletin*, no. 122, p. 53.

The Nature of Maps (with A. H. Robinson)

1976

Bruss, Elizabeth W. *Centrum: Working Papers* of the Minnesota Center for Advanced Studies in Language, Style, and Literary Theory, vol. 4, no. 1, pp. 58-63. Reprinted in Special Libraries Association Geography and Map Division *Bulletin*, no. 111, 1978, pp. 25-31.

LC consultant publishes map study. *LC Information Bulletin*, Sept. Reprinted in Special Libraries Association Geography and Map Division *Bulletin*, no. 106, p. 59.

Johnson, E. S. *Library Journal*, vol. 101, Sept. 15, p. 1854, 100 w.

1977

Crawford, Paul V. Special Libraries Association Geography and Map Division *Bulletin*, no. 110, pp. 77-79.

Dent, Borden D. *The American Cartographer*, vol. 4, no. 2, pp. 174-176.

Hayes, Brian. *American Scholar*, vol. 46, Spring, p. 262, 1100 w.

Guelke, Leonard. *The Canadian Cartographer*, vol. 14, no. 2, pp. 182-189.

Choice, vol. 13, Feb., p. 1645, 210 w.

Schorr, A. E. *College and Research Libraries*, vol. 38, Mar., p. 171, 400 w.

Scientific American, vol. 236, Mar., p. 144, 700 w.