

cartographic perspectives

bulletin of the
North American Cartographic Information Society

Number 11, Fall 1991

cartographic perspectives

Number 11, Fall 1991

in this issue

MESSAGE FROM THE EDITOR	1
LETTER TO THE EDITOR <i>Gail Papa</i>	2
FEATURED ARTICLE A Content Analysis and Comparison of Three Cartographic Journals: 1964-1989 <i>Patricia Gilmartin</i>	3
CARTOGRAPHIC PERSPECTIVES ON THE NEWS	23
CARTOGRAPHIC ARTIFACTS ATLAS REVIEW Turner, Eugene and James P. Allen <i>An Atlas of Population Patterns in Metropolitan Los Angeles and Orange Counties</i> <i>reviewed by Michael Hyslop</i>	24
Defining what we do <i>Christopher Board</i>	25
CARTOGRAPHIC EVENTS	27
NACIS NEWS	27

message from the editor

At the 1991 annual conference in Milwaukee, NACIS's Board of Directors approved a motion to publish *Cartographic Perspectives* three times per year instead of four. The change is effective immediately; this issue (Number 11, Fall 1991) will be followed by Number 12, Spring 1992. There will no longer be a Winter issue. Publishing one less issue will help us maintain *CP's* diverse content and distinguished format while avoiding a dues increase.

In the first issue of *CP* (March 1989) I expressed my hope that the publication would become one that "NACIS members will find useful, be proud of, and most important, be part of." Your interest and participation is no less important now. If you find *CP* valuable and wish it to continue, you can help in two ways. First, renew your membership and encourage others, particularly institutions, to subscribe. NACIS treasurer Edward Hall has added codes to your address label to inform you of the status of your membership. "OK" confirms that you are a member in good standing; "REN" means that your annual membership has expired, and that you need to pay your

Editor

David DiBiase

Deasy GeoGraphics
Department of Geography
302 Walker Building
Penn State University
University Park, PA 16802
email: dibias@essc.psu.edu

Coeditor

Karl Proehl

C202 Pattee Library
Penn State University

Editorial Assistant

Suzanne Peterson

Deasy GeoGraphics
Penn State University
email: suz@essc.psu.edu

ISSN 1048-9058

Cartographic Perspectives
is published triannually

dues to continue receiving *CP*; "COMP" indicates that you have received a complimentary copy of *CP* that is intended to entice you to become a NACIS member. Both renewals and new memberships can be accomplished by sending a copy of the form on the last page of *CP*, along with a check, to Ed.

Second, contribute materials for publication. If the featured article format doesn't suit you, contact me with an idea for a book review, map review, mapping software review, or "fugitive literature" review. If you don't like to write, just send relevant news clippings or graphics. *CP* is special because it encourages commentators to express themselves in their own voices. Your involvement is essential.

David DiBiase

letter to the editor

Dear Editor:

Brian Harley's commentary, "Can there be a cartographic ethics?" [published in *Cartographic Perspectives* Number 10, Summer 1991], raises serious issues for his colleagues. Such dialogues play an important role in the evolving standards of a profession. Ironically, this article appears to breach another profession's standards. In publishing, careful editing requires meticulous checking of attributions of any kind, including personal communications.

To be more specific, Dr. Harley states correctly that he was invited to publish a version of his paper in the *ACSM Bulletin*. He then states that he was informed by the editor that his remarks about the Peters projection were at variance with an official ACSM pronouncement on the subject and that for this reason his essay would not be published! [his punctuation]. This is incorrect on two major points.

First, in 1987 the ACSM Board of Directors, prompted by a mistaken attribution that had appeared in the literature, confirmed unanimously that ACSM does **not** have an official position on the Peters projection. Second, after Dr. Harley submitted his article in response to my request, it was read by several cartographers on my review committee, one of whom is the editor of *Cartography and Geographic Information Systems (CAGIS)*, the ACSM scholarly journal addressing cartographic issues. I discussed the reviewers' comments in detail with Dr. Harley and suggested that due to the length and depth of his discussion, *CAGIS* would be a more appropriate forum for publication. With Dr. Harley's full knowledge, the article was sent to *CAGIS*. It is my understanding that because additional peer review and further delay would

have been required to publish in the journal, Dr. Harley eventually decided to send his paper to *Cartographic Perspectives*. The paper was not rejected by ACSM.

Dr. Harley's strong implication of censorship by the *ACSM Bulletin* is totally unfounded. In his attempt to illustrate a well-taken point about the important role ethics must play in cartography, he has been allowed to make statements that responsible editing would have removed. The unfortunate result is that the credibility of an important discussion has been weakened.

Gail Papa, Editor
ACSM Bulletin

a passing

On Sunday, October 27, just a few days after the NACIS annual conference in Milwaukee, founding member John Schroeder died.

John will be remembered for his genuine interest in people and what they had to say. He always made a point of getting to know new members at the annual meetings. He will also be missed at future NACIS social gatherings, for John was as smooth on the dance floor as he was in the conference hall. It is a sad irony that John passed away while out dancing with friends. He added much to the quality of the organization and his profession, and we mourn his passing.

The following is reprinted from *The Gazette* of the Library of Congress, November 1, 1991:

Monday, October 28, was to be the day that Geography and Map Division catalogers celebrated receipt of a group award for the

continued on page 23

The contents of three major English-language cartographic journals from Great Britain, Canada, and the United States were analyzed and compared to determine if there are significant differences among them. Results show considerable similarities in the publication of user-oriented research and articles related to automated cartography. The three journals varied considerably in their publication record for historical cartography and several other relatively minor categories. The question of editors' influence on journal content was considered and input sought from representatives of the three journals in the study.

Most cartographers are quite familiar with the three major English-language journals, *Cartographica*, *The Cartographic Journal*, and *Cartography and Geographic Information Systems* (formerly named *The American Cartographer*). These are the primary scholarly cartographic journals published in Canada, Great Britain, and the United States, respectively, and each is linked to a national cartographic organization. The journals have much in common — similar purposes, content, audiences, and contributors — but each is also different in some respects from the other two.

The study reported here was designed to investigate whether there are differences among the three journals in overall content or in the evolution of their content through time. In addition, the data may suggest whether individual editors have been pro-active in shaping their journal's content, above and beyond the prevailing research trends of the time. To provide some additional insights into these issues, I have invited a representative from each journal to comment on the findings of the study.¹ Thus, contributions by Bernard Gutsell from *Cartographica*, David Fairbairn representing *The Cartographic Journal*, and Robert McMaster from *Cartography and Geographic Information Systems* accompany this article.

The following data should be useful to cartographers from a variety of standpoints. First, and most obvious, it informs potential authors as to which journal frequently publishes manuscripts on a specific topic, indicating that the journal welcomes such submissions, has developed a pool of reviewers qualified to evaluate papers on that subject, and, presumably, has a readership interested in the topic. There may even be something about the journal or its sponsoring organization that predisposes it to publish more of one kind of article than another (Hart 1990: 357-8; Orme 1990: 361). Such information may help authors decide where to submit a manuscript or assist researchers in locating material on specific topics. It should be noted, however, that just because articles dealing with a particular subject are published frequently in a journal does not mean that its editor would reject papers on topics that appear more rarely. Indeed, the opposite might be the case: an editor might welcome atypical papers in the interest of providing variety and balance within the journal. In any case, these data should confirm or refute empirically the conjecture that circulates informally among cartographers regarding topical "predilections" among the three publications.

Secondly, cartographers have a vested interest in understanding the status, focus, and general workings of their professional publications. For many members of the organizations affiliated with these journals, the journal, itself, is the most tangible return on their membership fees. Academic cartographers in particular, for whom publishing is required

A Content Analysis and Comparison of Three Cartographic Journals: 1964-1989

Pat Gilmartin

Pat Gilmartin is Associate Professor of Geography at the University of South Carolina, Columbia, SC 29208

¹ I wrote to the current editor of each of the three journals and invited them (or some other qualified individual whom they and/or their editorial board wished to select) to provide comments, for publication, on the findings of this study.

These data should confirm or refute empirically the conjecture that circulates informally among cartographers regarding topical "predilections" among the three publications.

for tenure, promotion, salary increments, and professional standing, can benefit from learning more about the primary outlets for their scholarly research.

Thirdly, taken together, the data presented here show the major research trends in Anglo-American cartography over the last twenty-five years. Disaggregated by journal, the figures reveal how those trends were reflected differentially in the three publications. While there were substantial similarities, there also were interesting contrasts which set the journals apart from each other through time.

Finally, since publications help to embody a discipline to the "outside" world, "insiders" should be aware of the image conveyed by its publications — not for the purpose of manipulating that image but simply to understand how we may be perceived by others. This overview also provides a more complete picture to cartographers, themselves, of the discipline's research agenda in recent decades.

Relatively little previous work has been done regarding the content of cartographic journals. As part of a much larger study on the discipline of cartography, Wolter (1975) conducted a content analysis of several cartographic publications, including *The Cartographic Journal* (TCJ) and *Cartographica* (known then as *The Canadian Cartographer*). His analyses of these two journals covered the period from 1964 through 1972 and employed the classification system from *Bibliotheca Cartographica*, an international bibliography of cartographic publications. (It has since been renamed *Bibliographia Cartographica*.) Wolter found that the content of TCJ fell primarily into four categories: applied cartography (20 percent), theoretical cartography (20 percent), history of cartography (16 percent), and institutional topics (13 percent). *Cartographica* had devoted 30 percent of its content to historical topics, followed in importance by applied cartography (17 percent) and theoretical cartography (11 percent) (Wolter 1975: 187-191). These data are limited in scope, however, because at the time the two journals had been in existence only nine years and *The American Cartographer* had not yet appeared. In addition, *Bibliotheca Cartographica's* classification categories are quite broad and not particularly sensitive to contemporary research topics such as communication research and automated cartography.

In 1980, Cole, a former editor of *The Cartographic Journal*, reported that based on the entries in the Recent Literature section of his journal, the subject matter of cartography consisted primarily of Design and Communication (25 percent), Automation (18 percent), Historical and Map Collections (17 percent), and Topographic and Remote Sensing (14 percent) (p. 49). However, he attempted no comparisons among journals or across time.

Thus, the following study provides information about three major English-language journals which has not been available heretofore. I hope that this empirical data, along with the commentary provided by representatives of the three journals involved, will contribute toward a better understanding of differences and similarities among the journals.

BACKGROUNDS OF THE JOURNALS

Cartographica was founded in 1964 by Bernard V. Gutsell of York University, Toronto. The journal originally was called *The Cartographer* but was re-named *The Canadian Cartographer* in 1968. In 1971 a monograph series known as *Cartographica* was added to the regular semi-annual publication schedule. The monographs provided a vehicle for the publication of single major works or sets of papers on a single cartographic theme. In 1977 the Canadian Cartographic Association adopted *The Canadian Cartographer* as its official journal. Major changes occurred for the journal

in 1980: the University of Toronto became its publisher; it converted from a semi-annual to a quarterly publication schedule; the monographs were no longer treated as a separate series but became a regular part of the series; and the name of the consolidated publication, comprising both monographs and regular issues, was changed to *Cartographica*. Most of its articles are written in English, but since Canada is officially a bilingual nation, the publication occasionally carries articles in French.

Although *Cartographica* has undergone several changes in name, publisher, and format over the years, it has had but one editor, Bernard Gutsell, since its inception in 1964. This is quite unusual among scholarly journals, whose editors usually rotate every few years.

The Cartographic Journal (TCJ) was founded in 1964, the same year as *Cartographica*. Its sponsoring organization, The British Cartographic Society, developed from an informal cartographic symposium in 1962 at the Universities of Glasgow and Edinburgh. The Society was formally created in 1963 and the first issue of its semiannual journal appeared in June 1964. Unlike the other two journals in this study, *TCJ* has undergone no changes in name or format in its 28 years. It has been guided by five editors, however:

June 1964 – June 1970	J.S. Keates Department of Geography University of Glasgow
December 1970 – December 1973	A.D. Jones Department of Geography University College of Wales, Aberystwyth
June 1974 – December 1977	G.E.D. Cole Department of Land Surveying N. E. London Polytechnic
June 1978 – December 1987	G.R.P. Lawrence Department of Geography University of London, King's College
June 1988 – present	D.J. Fairbairn Department of Surveying University of Newcastle upon Tyne.

The Cartography Division of the American Congress on Surveying and Mapping (ACSM) inaugurated *The American Cartographer (TAC)* in 1974, ten years after *TCJ* and *Cartographica*. In announcing the new journal, the then-president of ACSM, Robert Reckert, stated that it would encompass all of cartography, "... ranging from the topographic to the thematic, from the history of mapmaking to map collecting, from automation to the aesthetic" (1974:4). The journal appeared semiannually at first but expanded to a quarterly schedule in 1986. Three years later the format of the journal was increased from a 17 x 25.4 cm (7" x 10") page size to 21.6 x 28 cm (8.5" x 11"). In 1990 the name of the journal was changed to *Cartography and Geographic Information Systems (CaGIS)*, signaling a broadened scope of publication interests. In a statement accompanying the name change, the editors stated that they welcomed manuscripts dealing with all aspects of cartography and GIS papers that focused on cartographic

and/or conceptual issues (McMaster and Dahlberg 1991). This journal, too, has experienced the normal, periodic rotation of editors:

1974 – 1976	Arthur H. Robinson Department of Geography University of Wisconsin—Madison
1977 – 1982	Judy M. Olson then of the Department of Geography, Boston University Boston, MA
1983 – 1984	Mark S. Monmonier Department of Geography Syracuse University Syracuse, NY
1985 – 1987	A. Jon Kimerling Department of Geography Oregon State University Corvallis, OR
1988 – 1990	Richard E. Dahlberg Department of Geography Northern Illinois University DeKalb, IL
January 1991 – present	Robert B. McMaster Department of Geography University of Minnesota Minneapolis, MN

Each of the three journals is affiliated with a major national cartographic organization — The British Cartographic Society, the Canadian Cartographic Association, or the American Cartographic Association of the American Congress on Surveying and Mapping — and there is considerable overlap in their audiences and the authors who publish in them. While there may be some preference for publishing in the journal of one's own country, authors may also consider other factors when deciding where to submit a manuscript. For example, they may be influenced by their perception of what topics a journal is most receptive to, what the expected "turn-around" time is between submission and publication of manuscripts, the quality of their previous dealings with the journals and/or editors, and, perhaps, even the format of the journal (that is, the larger format of *CaGIS* and *TCJ* may be attractive to authors of articles containing certain kinds of graphics). Thus, although the three journals have much in common, they are also unique entities in a variety of ways. The following study will distinguish them from each other even more clearly.

RESEARCH DESIGN

The primary subject of all articles appearing *Cartographica*, *The Cartographic Journal*, and *The American Cartographer* from their inception through 1989 was categorized and recorded. (In the balance of the paper, I will refer to *The American Cartographer* (*TAC*) by its former name rather than as *Cartography and Geographic Information Systems*, since that was the name of the journal during the period under analysis.) This type of analysis is an

example of the research method known as **content analysis**. Berelson (1952:18) defined content analysis as, "... a research technique for the objective, systematic, and quantitative description of the manifest content of communication". Practically every form of communication can be analyzed in this way to reveal the most salient themes in the message. The unit of analysis can range from the very detailed, such as counting key words within some written or verbal communication, through an intermediate scale, where one might record the central idea of sentences, paragraphs, or chapters, to a broader scale, in which the themes of entire works are noted. The latter approach was used in this study.

Conducting a content analysis is fairly straightforward in most respects. The basic steps include formulating a research hypothesis, identifying the material to be analyzed, devising a sampling method, defining the relevant categories into which content will be grouped, the actual counting and recording of the data, and finally, analyzing the results. Perhaps the most difficult step in the process is defining the categories for the study. According to Budd, et al., (1976: 39) the categories should meet three criteria. They must be: a) exhaustive relative to the study, b) mutually exclusive, and c) formulated so that they answer the questions addressed in the study. Ideally, the categories also should be defined before the actual data-recording procedures begin, but in practice, this goal often proves to be unrealistic. Therefore, Budd, et al. recommend setting a priori definitions so that they can be expanded or extended, if necessary, while still meeting the criteria listed above. (See Krippendorff 1980, and Weber 1985, for further reading on the method of content analysis.)

In order to satisfy the third criterion outlined above — that is, to answer the research question addressed by this study — the categories should differentiate among journals along the major research streams in cartography since the mid-1960's. The categories should also reveal any individual differences that were out of the mainstream. The following is a summary of the categories as they were ultimately defined:

User-oriented studies. This category included all articles in which map-use and the map-user are central, such as articles on communication and all experimental studies of perceptual and cognitive aspects of map reading and design. The category did not include papers on map design unless they were based on empirical experiments.

Analytical studies. Numerical map analysis in which the author sought to measure, compare, or analyze cartographic data, content, error, methods of representation, etc. An example of a study in this category is MacEachren and Davidson's analysis of sampling and isometric mapping (1987). The map was the focus of these studies; the category did not include analyses of digital systems and components such as data bases.

Automated cartography. Any article dealing with the hardware, software, algorithms, data models, information structures, or processes for creating maps and atlases with computers. The class included articles about geographic information systems but excluded papers on remote sensing (which were placed in the Miscellaneous category). The category also excluded certain articles which amounted to progress reports on recent computer activities within an agency, company, or country and did not really advance knowledge in the field. Such articles were categorized as "Institutional."

CATEGORIES FOR THE STUDY

In conducting the content analysis, I examined every article which appeared in the three journals from 1964 through 1989 and assigned each to one of twelve categories.

Projections. Any article dealing with the calculation, characteristics, design, or contemporary application of map projections. Articles about the history of a projection were assigned to the following category.

Historical. Papers on the history of cartography or historical cartography.

Education. Articles about curricula, educational needs, or centers for the education or training of cartographers.

Production. Articles dealing with the materials and/or methods of manually constructing or reproducing maps or three-dimensional models.

Institutional. Reports of recent activities or current status within a country, agency or organization.

Maps and atlases. Encompassed articles which reviewed, discussed, described, or critiqued published maps, map series, and atlases.

The discipline. Philosophical papers about the status, future, definitions, etc. of the field of cartography.

Methods. A broad category encompassing articles in which the author explains some mapmaking procedure not covered by any other category. An example of an article assigned to this category is "Nested Value-by-Area Cartograms for Symbolizing Land Use and Other Proportions" (Cuff et al. 1984) in which the authors introduce and explain a symbolization method.

Miscellaneous. For articles on topics so diverse that they did not merit a category of their own, such as legal issues in cartography, map librarianship, remote sensing, and the like.

In conducting the content analysis, I examined every article (or the English abstract of French articles in *Cartographica*) which appeared in the three journals from 1964 through 1989 (a total of 920 articles) and assigned each to one of the categories defined above. Excluded from the count were various reports from professional meetings or texts of speeches and addresses which are published occasionally in the journals.

A content analysis such as this, where the unit of analysis is a topic or theme, is somewhat more subjective than one involving, say, a simple count of the number of times certain keywords are used. Nevertheless, I believe that the categories were defined clearly enough that the proportion of equivocal classifications was very small. In most cases, there was no question regarding to which category an article belonged; in perhaps 5 percent of the cases it was necessary to make a judgment regarding an article's primary purpose in order to classify it. Although another researcher might have made a few judgments differently, I do not believe that the overall findings of the study would have been affected significantly.

One further explanation of methodology is in order. In addition to their "regular" issues, two of the journals publish special issues devoted to a single topic. These monographs may be authored by a single individual or contain a collection of papers by several authors. In the latter case, there is usually a guest editor who either compiles selected manuscripts from a professional conference or solicits manuscripts on a topic of interest. The number of authors contributing to such issues varies greatly,

from just a handful to twenty or more.

These multi-author special issues presented a problem in content analysis. Should they be counted as one publication on a topic or should each chapter count as an entry? The former approach would seem to underrate the amount of research they represent, but the latter would give too much weight to the number of chapters in the volume. For example, if there were one monograph containing ten papers on automated cartography and another comprising twenty papers on cartographic education, a content analysis would imply that there is twice as much interest in education as in automated cartography. Such a conclusion clearly is not justified, since the number of chapters is also a function of the source of the papers, the guest editor's enterprise and policies, the scope and purpose of the monograph, and the like.

The problem is further complicated by the fact that *TCJ* does not publish monographs at all, and *Cartographica* has published many more of them over a longer period of time than has *TAC*. In comparing the content of the three journals, then, it was necessary to provide somehow for these differing editorial policies and changes in the policies through time. This was done in the following way. Monographs were not compiled in the basic content analysis of the three journals but are shown in the graphic summaries of findings (Figures 1-7). Thus, the reader can see when these special issues were published and what their subjects were.

Also included in the study were the number of book and atlas reviews and the number of pages of "Recent Cartographic Literature" for each volume of the three journals. *TAC* initiated a software review section in 1985 but is the only journal to have done so. While no comparison can be made of the number of software reviews published, the fact that only one journal publishes such reviews may indicate their relative importance among the journals.

Finally, the raw numbers in the study were converted to percentages and generalized using a three year moving average to smooth out minor variations and reveal overall time trends more effectively. (See Hammond and McCullagh 1978:98, for a discussion of moving averages.)

Figure 1 summarizes the percent by subject of all articles published in the three journals between 1974 and 1989². It is evident from this illustration that three research themes — user-oriented studies, automated cartography, and historical cartography — have dominated the literature, in general. More importantly for the purposes of this article, the figure shows that there are considerable differences among the three journals in the proportion of articles published by category. The greatest differences appear in the categories of historical research, projections, and cartographic production.

Figures 2 through 4 represent for each journal the yearly publication rate for its top three categories of articles. Only the three principle topics are shown here because they are of the greatest interest and, for two of the journals, the percentages drop off substantially after the top three, as can be seen in Figure 1.

Two things should be noted about the information in the graphs. First, as discussed earlier, the percentages refer only to articles in regular issues

Monographs were not compiled in the basic content analysis of the three journals but are shown in the graphic summaries of findings.

The raw numbers in the study were converted to percentages and generalized using a three year moving average to smooth out minor variations and reveal overall time trends more effectively.

RESULTS

² In Figure 1, only the data for the sixteen years in which all three journals existed (1974-1989) were used. To have included figures for the years 1964-1973, before *TAC* began publication, would have affected percentages for research topics that which were more or less prominent in the earlier literature and resulted in misleading comparisons. The Miscellaneous category is not shown in Figure 1 but amounted to between nine and eleven percent for each journal.

Three research themes have dominated the literature. More importantly, there are considerable differences among the three journals in the proportion of articles published by category.

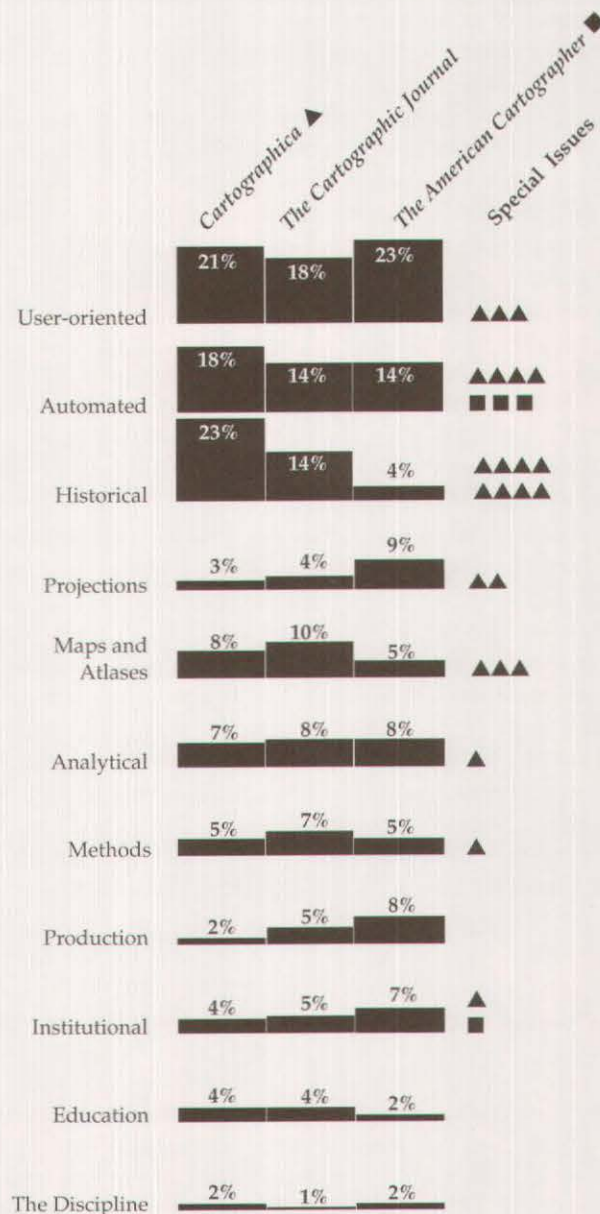


Figure 1: Percent of articles and number of special issues by topic and journals, 1974-1989. The point symbols represent special issues.

of the journal; the publication of a monograph is represented by a point symbol at the year of publication. Second, a change of editor is symbolized by vertical lines within the graphs, making it possible to look for indications that editorial changes resulted in some shift in the content of the journal. Recall, however, that the figures in the graphs are three-year moving averages, not actual annual percentages, so the boundaries between years (editors) are fuzzy. Furthermore, there is always some carry-over between editors, so the first one or two issues under a new editor would have been produced mostly by the outgoing editor. Thus one can search only for general trends within an editor's tenure.

Figure 2 illustrates *Cartographica's* publication record for user-oriented studies, historical research, and automated cartography. These three themes account for 15 percent, 23 percent, and 14 percent, respectively, of the journal's regular articles since 1964. The next largest category is

articles about maps, which has accounted for only 10 percent of the journal's content.

There are fairly obvious temporal trends in the three major research topics published in *Cartographica*. Literature on user-oriented studies increased gradually from 1964 through the mid-1970s, expanded rapidly to a peak of 44 percent in the late 1970s (the raw percentage in 1979 was 62 percent), dropped off just as quickly through the early 1980s, and then began what may be another growth trend. The publication of automated cartography papers prior to 1980 was somewhat variable, but averaged about 10 percent of the total content. Since 1980, however, the proportion of such papers has been more than double that of the preceding 16 years. Historical papers clearly dominated *Cartographica's* content during the first half of its existence — both in regular papers and in monographs. Publication rates then declined somewhat and have dropped even further in the last five years.

Like *Cartographica*, the three most common themes appearing in the pages of *The Cartographic Journal (TCJ)* have been user-oriented studies, automated cartography, and historical cartography (15 percent each since 1964). The overall percentages are similar between the two journals for user studies and automated cartography, but *Cartographica* has published a greater proportion of historical papers (23 percent vs. 15 percent). The temporal patterns in publication share some general similarities but there are differences in certain details of their profiles. (See Figure 3).

Compared to *Cartographica*, *TCJ's* publication of user-oriented studies began earlier, lasted somewhat longer, but did not reach a corresponding maximum level. Nevertheless, at the peak of communication studies' popularity, such articles accounted for more than a third of all articles in the journal. The proportion of *TCJ's* articles related to historical topics has fluctuated over the years, but generally increased during the 1960s, declined during the 1970s, and rebounded in the 1980s. As was seen in user-oriented studies, *TCJ* has devoted a smaller proportion of its pages, overall, to historical research than *Cartographica*. Articles related to automated cartography constituted a much greater percentage of *TCJ's* content in the first decade of publication than for *Cartographica*. Such articles then waned in both journals (in the late 1970s for *Cartographica* and the early 1980s for *TCJ*) but expanded substantially in the ensuing years.

The American Cartographer (TAC) was launched a decade later than *Cartographica* and *TCJ*, but its content is similar to theirs in the area of user-oriented studies and automated research (Figure 4). Publication of the former peaked at about one-third of all articles in the late 1970s, then dropped to around 20 percent (a less dramatic decrease than was seen in the other two journals), and rose again in the late 1980s. *TAC's* publication rate in automated cartography declined sharply in the late 1970s but increased again to about 25 percent of the journal's content. (The percentage is much higher if one considers the special issues published in 1987 and 1988. In 1988, for example, two of the journal's four issues were special issues focussing on automated cartography, and 30 percent of the articles in the remaining two "regular" issues were on the same topic. In reality, then, articles on automated cartography constituted about 80 percent of all papers published that year.)

Beyond the themes of communication studies and automated cartography, there are major differences between *TAC* and the other journals. Historical topics, which constituted 15 percent and 23 percent, respectively, of *TCJ* and *Cartographica's* content, made up only 4 percent of *TAC's* articles. For *TAC*, the next largest category was projections (9 percent), followed closely by production (8 percent), analytical studies (8 percent),

Cartographica

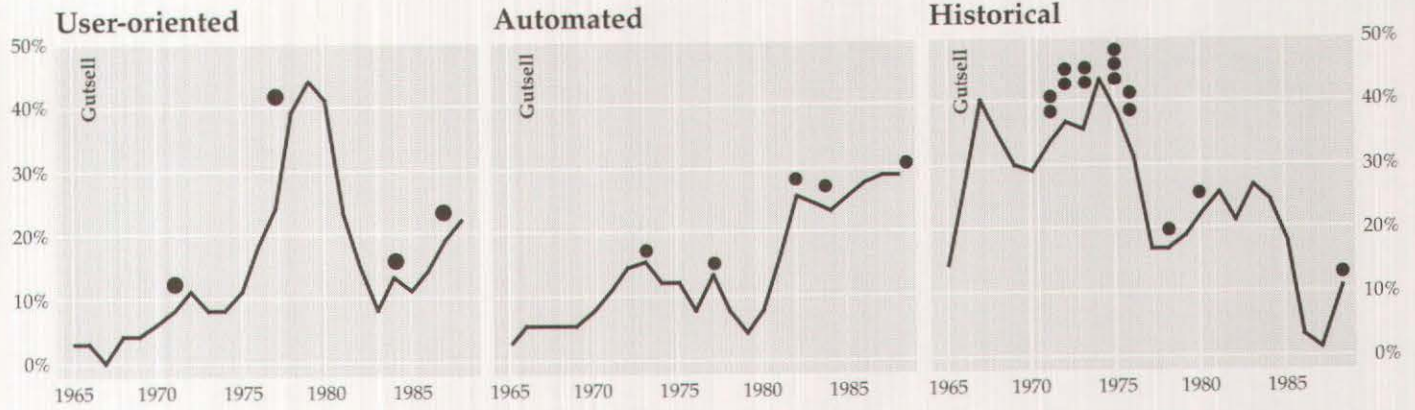


Figure 2: Top three content categories for *Cartographica*, 1964-1989; three year moving average of annual percentages.

The Cartographic Journal

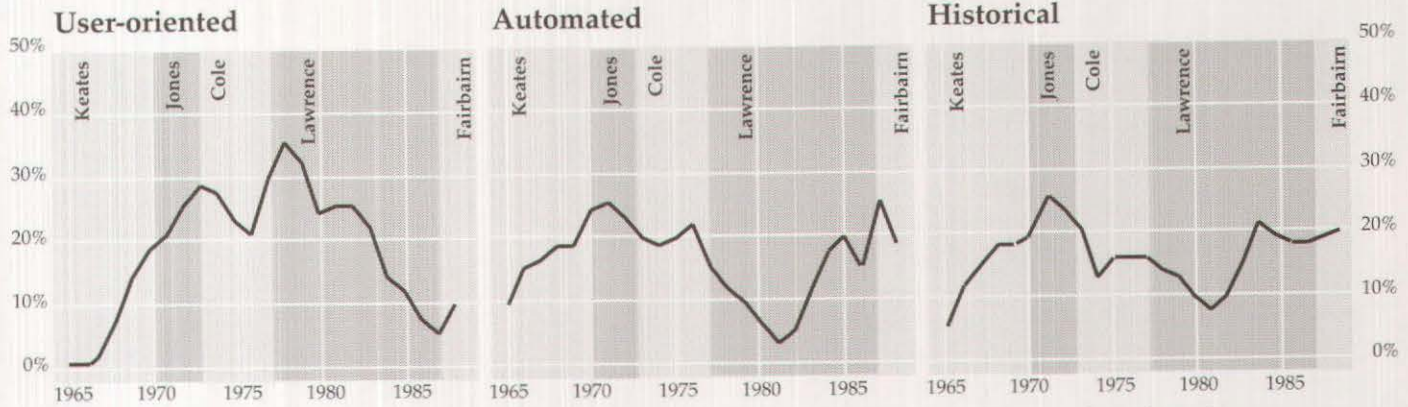


Figure 3: Top three content categories for *The Cartographic Journal*, 1964-1989; three year moving average of annual percentages.

The American Cartographer

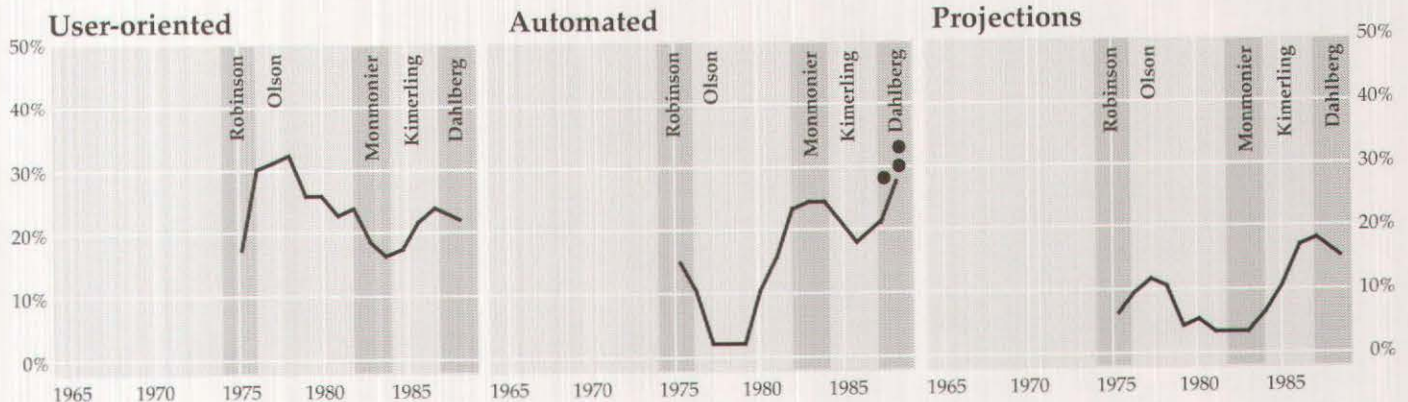


Figure 4: Top three content categories for *The American Cartographer*, 1974-1989; three year moving average of annual percentages.

● Represents a monograph or special issue.

and institutional articles (7 percent). As Figure 4 shows, the proportion of papers related to projections declined in the late 1970s and early 1980s but increased considerably thereafter. About 80 per cent of these articles were authored or co-authored by just two individuals, Waldo Tobler and John Snyder.

Figure 1 summarized the overall content of the three journals in this study, and Figures 2 through 4 showed the trends through time for each journal's three principle topics. Most of the remaining line graphs which might be shown are of lesser interest, either because they show no discernable temporal trends, represent just a few isolated articles, and/or are not different among journals. However, there are three additional content categories which are noteworthy for various reasons; these are presented in Figures 5 through 7.

Figure 5 shows the number of books and atlases reviewed annually in the journals. The number for *TCJ* has ranged from less than ten to more than twenty, with the lowest figures in its first decade of publication. *Cartographica*, during its first fifteen years of publication, reviewed an average of seven books a year, but the numbers increased significantly after 1980 — coincidentally, perhaps, the same year in which the University of Toronto Press took over publication and the journal grew from a semi-annual to a quarterly publication schedule. The increased number of book reviews cannot be attributed to the expanded publication schedule, however, because in both 1988 and 1989, when only two regular issues of the journal were published, 53 books and atlases were reviewed. (Regular journal sections such as book reviews and recent literature summaries usually are omitted from special issues.) *Cartographica* currently has three editors who handle the reviews of atlases and books.

The number of books reviewed in *TAC* also increased as of about 1983. The journal expanded from a semi-annual to a quarterly publication in 1986, but there appears to be no corresponding increase in the number of books reviewed at that time. Reviews in *TAC* dropped off again in the late 1980s, possibly because two of the journal's four issues in both 1987 and 1988 were monographs. As was pointed out above, however, in a similar situation *Cartographica's* book and atlas reviews continued to increase.

The number of books and atlases reviewed in a journal may be a function, in part, of the volume of new works available, of course, but this variable should be about the same for all three cartographic journals. Another determining factor affecting the number of books reviewed is the very practical consideration of how many pages are available for reviews after all articles are typeset. The trends seen in Figure 5 are somewhat similar for all three journals until the mid-1980s, when the number of reviews in *Cartographica* rose dramatically.

Figure 6 summarizes the journals' publications of analytical cartography articles through time. The overall proportions are very similar (as seen in Figure 1) but the temporal patterns are quite different. Each journal has had a period of relatively high publication rates for analytical papers, but the peak periods have shifted among journals, moving from the earliest, *Cartographica*, to *TCJ*, to *TAC*. Most recently *TAC* has published about twice the proportion of such articles as the other two journals. It is interesting to consider whether individual editors either encouraged or discouraged (directly or indirectly) the publication of analytical manuscripts. For example, note the increase in the proportion of analytical articles published in *TAC* during and just after Monmonier's editorship and the decline for *TCJ* during Lawrence's editorship.

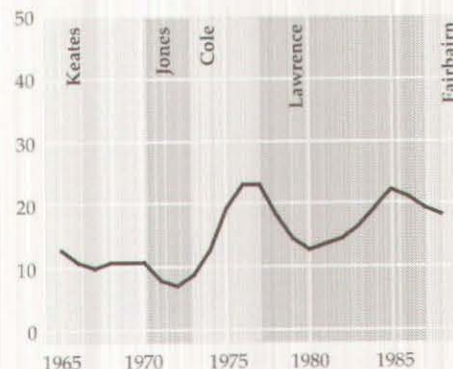
The final figure illustrates what appears to be an excellent example of a

Book Reviews

Cartographica



The Cartographic Journal



The American Cartographer

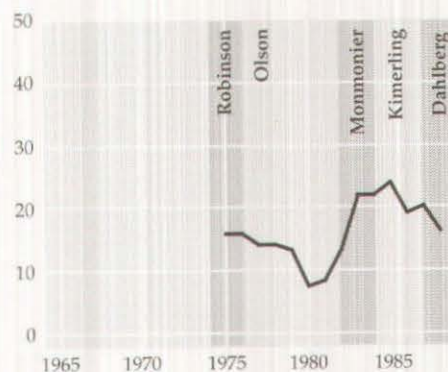


Figure 5: Number of books and atlases reviewed by the three journals: three year moving average.

Analytical

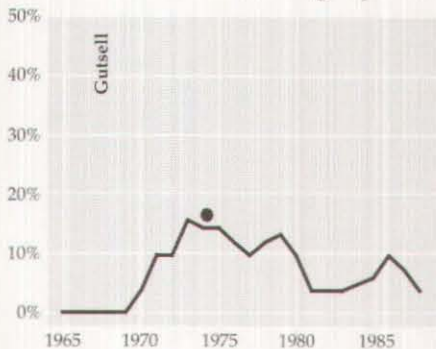
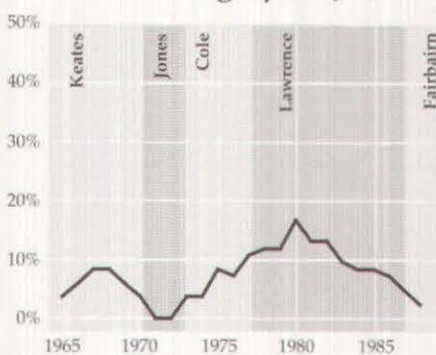
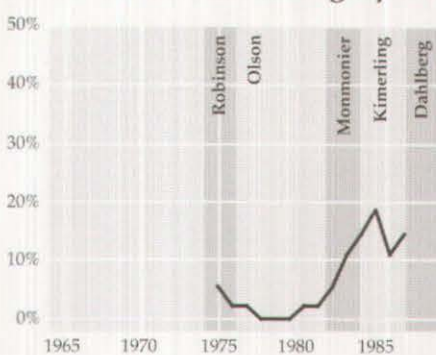
Cartographica*The Cartographic Journal**The American Cartographer*

Figure 6: Percent of articles on analytical cartography in the three journals: three year moving average of annual percentages.

● Represents a monograph or special issue.

pro-active editor's influence on the journal content. Papers related to cartographic production made up 8 percent of *TAC*'s content, overall, and, as Figure 7 shows, almost all were published during and just subsequent to Olson's tenure as editor. Production articles made up only 5 percent and 2 percent of the content of *TCJ* and *Cartographica*, respectively, and there is no apparent correlation with any individual editor.

Several conclusions can be drawn from the content analysis summarized here. For both *TCJ* and *TAC*, the top three categories of articles accounted for about 45 percent of their overall content since 1974, when *TAC* began publication; for *Cartographica* the cumulative total was 62 percent. Thus the British and American journals appear to publish a somewhat greater variety of subject matter (based on the categories as defined for this study) than the Canadian.

All three journals had similar patterns of publication for user-oriented research. They differed somewhat in details such as maximum and minimum proportions through time, but the general shapes of the curves were similar for all three. In articles on automated cartography, the three have published about the same proportions, overall, and all experienced a decline in such articles in the late 1970s, followed by a sharp increase. In their first decade of publication, however, *TCJ* carried a much higher proportion than *Cartographica*. The primary distinguishing category among the journals was historical research: *TAC* was set apart from the other two by its sparseness of historical papers, and *Cartographica* far exceeded *TCJ* in publishing such articles, especially when the number of historical monographs are factored in.

TAC also was distinguished from the other two journals by its relatively high proportion of map projection articles. The statistics should be interpreted carefully, however, because, as was pointed out earlier, the majority of those articles were authored by just two individuals. Thus, one cannot necessarily conclude solely from this study that there is a higher interest in map projections in the United States than elsewhere.

The previous sentence assumes that the content of these journals reflects the research profiles of their respective countries, but there is no evidence to support or refute such a premise. There is some amount of "cross-publication," of course, but do authors publish primarily in their own national journals? Or do authors from one country tend to send manuscripts abroad more than authors from another country? Questions such as these were not addressed in this study and will require further research to answer. Indeed, the broader topic of interrelationships among cartographic journals is still unexplored and represents a logical extension of the current inquiry. Citation analyses, for example, would reveal one level of association among the journals.

The question of whether an editor influences journal content was raised several times in this paper, without really expecting to find any definite answers. At best, one might have seen some circumstantial evidence, such as the increase in production articles during Olson's editorship of *TAC*. Any influence an editor may exert probably is relatively minor in comparison to the weight of major disciplinary research trends. On the other hand, as noted by Orme (1990), editors can "... show initiative, encourage new ideas, and discourage worn and hackneyed concepts. ..." (p. 361). In my own experience, I have observed that editors can affect journal content in two ways. One is by actively soliciting papers from authors. Solicited papers still must pass the normal review process, but enlisting authors to submit them is the first step toward publication. Editors vary greatly in how aggressively they engage in this activity;

some are much more pro-active than others.

The second means by which editors influence journal content lies in their authority to accept or reject papers. The final decision on whether to publish a manuscript rests with the editor, and if reviews are mixed or borderline, the deciding factor could be how significant she or he thinks the subject matter is. Perhaps the editors' responses that follow this article will provide further insight into this question.

The fact that there are content differences among the three journals is interesting, but it would be even more helpful to understand the bases for those differences. Unfortunately, it is probably not possible to identify and measure all the relevant variables needed to answer such a question, but there is a great deal more that could be learned through additional research. In the meantime, if I had written a manuscript about historical cartography, would I consider sending it to *Cartography and GIS* (formerly *The American Cartographer*), even though the record shows they have published relatively few articles on that subject? Indeed I would. I can assure you that every editor of a cartographic journal welcomes with open arms (and mind) quality papers on any cartographic topic. The keyword is "quality." ☐

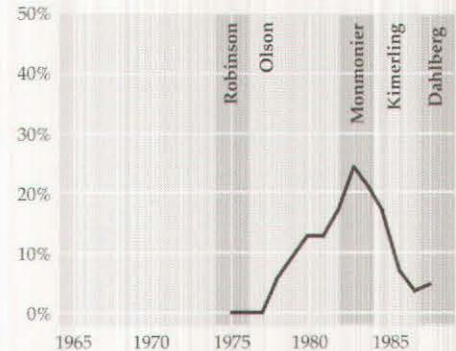


Figure 7: Percent production articles, *The American Cartographer*: three year moving average of annual percentages

Berelson, B. (1952) *Content Analysis in Communication Research*. Glencoe, IL: Free Press.

Budd, R., R. Thorp, and L. Donohew (1976) *Content Analysis of Communications*. New York: The Macmillan Company.

Cole, G. E. D. (1980) The content and role of *The Cartographic Journal*, *The Cartographic Journal*, Vol. 17 (1), pp. 49-50.

Cuff, D., J. Pawling, and E. Blair (1984) Nested value-by-area cartograms for symbolizing land use and other proportions. *Cartographica*, Vol. 21 (4), pp. 1-8.

Hammond, R. and P. McCullagh (1978) *Quantitative Techniques in Geography: An Introduction*, second edition. Oxford: Clarendon Press.

Hart, J. F. (1990) Canons of good editorship, *The Professional Geographer*, Vol. 42 (3), pp. 354-358.

Krippendorff, K. (1980) *Content Analysis: An Introduction to its Methodology*. Beverly Hills, CA: Sage Publications.

MacEachren, A. and J. Davidson (1987) Sampling and isometric mapping of continuous geographic surfaces, *The American Cartographer*, Vol. 14 (4), pp. 299-320.

McMaster, Robert B. and Richard E. Dahlberg (1991) Cartography and GIS, *Cartography and Geographic Information Systems*, Vol. 17 (4): 269.

Orme, A. (1990) Responsibility and editorship, *The Professional Geographer*, Vol. 42 (3), pp. 361-363.

Reckert, Robert (1974) "A message from the president of ACSM," *The American Cartographer*, Vol. 1 (1), p. 4.

REFERENCES

Weber, R. P. (1985) *Basic Content Analysis*. Beverly Hills: Sage Publications.

Wolter, John (1975) The emerging discipline of cartography. Unpublished doctoral dissertation, University of Minnesota, Minneapolis, MN.

Una Comparasion y Análisis de el Contenido de Tres Jornales Cartográficos

Extracto

El contenido de tres influyentes jornales cartográficos Británico, Canadiense, y Norte Americano fueron comparados y analizados para determinar si existen diferencias en sus contenido. Los resultados indican considerable semejanzas entre la publicación de artículos sobre la cartografía asistida por el uso de computadoras y en los procedimientos en las investigaciones cartográficas. Los tres jornales variaron considerablemente en la cantidad de artículos sobre la historia de la cartografía y otras menores categorías. La cuestión de la influencia de los editores sobre el contenido de los jornales fue considerado y el comentario de representativos de estas publicaciones fue procurado.

Translation by Juan José Valdés
National Geographic Society

COMMENTARIES

Bernard Gutsell
Cartographica

The journal was originally established because the editor needed a creative outlet and believed that cartography needed its own literature. What was lacking was a national organization for cartography. So, perhaps the cart was put before the horse! But did it matter?

In the formative years of the journal emphasis was placed on the publication of history of cartography research and authors were encouraged to submit manuscripts in this subject area. A major factor in this editorial decision was due to encouragement from a potential funding agency to include material that would relate to the social sciences as well as to technology and technique. The first decade of publication was dominated by the grim pursuit of funds to keep the journal afloat. As it was a privately published journal with little support except from its readers, funding was critical. An attempt was made to sell advertising space and this was reasonably successful from 1965 to 1969 when the federal government suddenly lowered the boom after a routine audit of the printer's books. Apparently, advertising was not allowed in publications issued less than quarterly! Curiously, this regulation was governed by a Post Office Act of a bygone era and was still on the books. As a result, advertising disappeared overnight from the pages of the journal.

From the beginning, *Cartographica* was envisaged as an international journal, hence the translation of the abstracts into French, Spanish and German, and the encouragement to non-Canadian authors to submit manuscripts. As soon as it was firmly established, this active solicitation was discontinued and the editor waited hopefully for the arrival of new papers.

The proportion of Canadian to non-Canadian authors in volumes 1 to 16 is just about 50/50. From 1980 to 1989, the percentages changed considerably to 63 percent non-Canadian and 37 percent Canadian. There are any number of possible explanations: the change of title, format, status,

publisher, the effect of increased promotion by the University of Toronto Press, or even the endorsement by the International Cartographic Association in the early 1980s. I'm not sure.

In 1967, it was decided to publish translations of Russian research in order to make this valuable pool of knowledge available to the readership. These translations became possible owing to the enthusiastic collaboration of my colleague, Dr. James Gibson of York University. This work was carried on for more than a decade and was extended into the monograph series as well.

The editor exerted some influence on the publication of design and communication studies when the theme was in vogue. As well as publishing journal papers, two monographs on the subject were organized. Another ongoing area of interest has been the subject of generalization.

A late start was made in automation research even though a monograph on computer cartography was published as early as 1973, and the very first issue of the journal (Volume 2, Number 1, May 1965) included a paper on automation in cartography.

On the question of the journal's review section, it should be noted that for the first 16 years the journal had no review editor. In 1980, when *Cartographica* became quarterly, it was decided to increase the number of reviews partly in response to the number of excellent cartographic works coming off the press and also because the journal could now be extended in size as it was fully funded and in the capable hands of the University of Toronto Press. We appointed three review editors. The results were immediate and have continued due to the enthusiasm and hard work of Michael Coulson (atlases), Edward Dahl (history of cartography) and Janet Mersey (cartographic literature).

As for the reason why there has been only one editor for the whole life of the journal — well, that's a good question. Part of the reason may be because the editor owned the journal for the first 16 years. In the following years, in addition to enjoying the expertise and management skills of the University of Toronto Press, the editor has had the solid support of the Canadian Cartographic Association and a great deal of editorial help. For many years now, Ed Dahl of National Archives has been the editor of the history of cartography component and has organized the brilliant commentaries, often the most intriguing part of the journal. And Mike Coulson of Calgary University, as well as being a review editor, has managed the refereeing process making my work that much easier. As a result of all this, editing *Cartographica* became a way of life — or maybe just a bad habit!

I welcome the opportunity to comment on and further explore the results of Patricia Gilmartin's work. She reveals interesting differences in certain areas of interest among the journals, although I would contend that there is more uniformity than disparity revealed by the study.

It must be pointed out that the period reviewed by Gilmartin finished in 1989, and that I had only been in the editorial chair for one year at that time. The particular comments which follow, therefore, express, to a certain extent, a personal view of the work of many previous colleagues. According to its 'Hints to Authors', *The Cartographic Journal* publishes material covering all aspects of cartography, the science and technology of presenting, communicating and analysing spatial relationships by means of maps and other graphical representations of the earth's surface. This 'definition' was an early attempt by me to ensure that it was understood that a broad scope of submitted material is welcome for submission to the

David Fairbairn
The Cartographic Journal

Journal. I would contend that editors have little control of either quantity or subject matter of the contributions received. There are peaks and troughs throughout a year in terms of numbers of papers submitted, and the topics of papers sent to *The Cartographic Journal* have varied enormously. It is not for 'topical predilections' to govern which material is published, but its quality. *The Cartographic Journal* has striven, despite these strictures against the whims of topicality, to reflect contemporaneous cartographic activity. That it has done so is a tribute to the authors as much as to the successive editors: it is the former who 'determine the agenda' to a large extent and this editor has certainly never commissioned articles (other than the occasional Shorter Article) on particular topics. This is not to say that I will not in future, and I also reserve the right to consider some material as 'out of date' or not suitable.

The matter of timeliness may be regarded as important, but with a bi-annual publication, there is no 'fast track' along which particularly important papers can go, even if it was felt desirable.

Other material included in *The Cartographic Journal* is also governed by its availability. The books and maps review section is dependent on the supply of complementary copies by publishing houses, and again this is an area where little control can be exercised by the book review editor. All such material received which has some connection with cartography is given a full or short review. Variations in number of publications reviewed (Figure 5 in Gilmartin) reflect factors as diverse as the assiduity of the review editor and the state of the national economy (and, by extension, the publishing business). It is hoped that the striven-for relevance of the *Journal* is successful despite an immediate visual impression which is of immense conservatism in appearance and layout. It is felt that a uniformity of presentation and continuity of style is important. Indeed, I try to ensure that papers are carefully presented in 'the house style' (hence the introduction of the Hints to Authors now printed in every issue), that text is presentable, that references are correctly listed and that diagrams are laid out properly with reference to the written material. This can prove difficult when faced by sloppy authors and by the physical distance (200 miles) separating the editor from the printers (who are more used to colour printing immensely long runs of television magazines).

The lack of finance for colour printing is felt deeply. A journal devoted to a visual means of communication, in which colour plays a vital role, should by right have the facility to reproduce authors' material as they would like. Unfortunately, in depressed economic times, advertisers are understandably reluctant to commit themselves to colour advertising and the opportunities for colour work within *The Journal* do not yet exist, except at authors' expense.

An institutional shortcoming is the lack of an Editorial Board for *The Cartographic Journal*. Control over the *Journal* is exercised by the editor, the Chair of The British Cartographic Society Publications Committee and the book review editor. In essence, they form a hard working editorial board (which has never, in fact, physically met together) and along with a range of referees (introduced by me in 1988) help to ensure the quality of the publication.

In turning to matters more directly relevant to Gilmartin's survey, the content analysis performed by her has produced a useful categorisation of cartographic material. It is interesting to see that, despite wide differences within the categories over time, user-oriented research, automated cartography and historical cartography (except for *Cartography and GIS*) are the overwhelmingly popular topics for all three journals. I would

contend that the first category is represented mainly by academic authors, who, when research grants were somewhat more plentiful in the late 1970s, turned their attention, within the paradigm of theories of cartographic communication, to studies of map users and map use. Hence the peak period for this type of article was from 1975-1980.

Automated cartographic practices, on the other hand, have been expensive and in the past were usually only justified in a production environment. However, technological developments in this area proceeded apace throughout the 1970s. Why, then, were there so few papers on this topic? I suspect that the potential authors of such pieces, in industry and commerce, were reluctant or unable to submit material, and it is only since the rise of inexpensive and readily available automated cartographic systems that the academics have managed to 'get in on the act' and contribute the growing number of papers on the subject. In addition, a more recent reflective approach to the theoretical basis of automated methods has led to more academic input into this area. It should be noted by practitioners in industry and commerce that their contributions are always welcome to editors and readers (provided they are not overt advertising material), as a relief from the material engendered by ivory towered academics.

The contributions by historical cartographers have always impressed me by their scholarship and attention to detail. These authors vary enormously in their background, from dedicated amateurs to eminent public persons. Perhaps it is because it is not my own area of specialisation that I am easily fascinated by these contributions. Luckily, there are good referees who are able to point out strengths and weaknesses considerably more easily than I can!

It is often assumed that editors of scholarly journals are retiring individuals, unable to do anything other than correct the spelling in an otherwise splendid and original piece submitted by some 'bright young thing,' working in rarefied academe. This is not a picture that should be encouraged. It is important for editors to write articles themselves, to do research and to attend conferences; it is important for them to feel the pulse of their subject, to determine its direction, its personalities, its innovations and its failings; it is important for them to be reactive to authors and readers alike, but also to be pro-active, encouraging work, giving advice and seeking material.

Attracting contributions from authors can pose difficulties, even for a journal with a wide remit. It has already been suggested that actual practitioners are hampered by commercial confidentiality, lack of time or a belief that the rest of the cartographic community is uninterested in their work. A further perceived stumbling block is the submission of papers to referees, who can be regarded as ogres, looking at work in a purely negative way. None of these reasons should be regarded as barriers to any contribution to a journal. If a paper is of high quality it will be accepted.

I set up a category of 'Shorter Articles' in *The Cartographic Journal* from 1988. This section is intended for contributions ranging "from conference reports, technical matters and historical notes to reminiscences, interviews and innovations. The term 'shorter article' is intended to reflect the philosophy of the author's approach rather than the length of the contribution." These contributions are not refereed and the turnaround time tends to be shorter than for the main articles.

A further problem in attracting material may be the existence of other journals, publishing material in a similar vein in the same country. For example, in the UK, there are three specialist historical cartography/history of cartography publications regularly issued. *Imago Mundi* is an

international journal with a high reputation for original, scholarly papers from the international community. *The Map Collector* is somewhat more populist, appealing to the amateur historian of cartography as well as the more serious researcher, but with a similarly high standing in its field. *Sheetlines* is a newsletter (of the Charles Close Society — primarily devoted to the study of early OS maps), but this term doesn't do justice to the in-depth articles which appear in it. With competition like this, it is greatly to the credit of *The Cartographic Journal* that it receives historical cartography material at all, let alone the good quality papers it does publish.

Similarly, the UK published *Bulletin of the Society of Cartographers* (*SUC Bulletin*), could be regarded as a mainstream 'competitor.' Its position vis-a-vis *The Cartographic Journal* is similar to *Cartographic Perspectives'* position in relation to *Cartography and Geographic Information Systems*. The *SUC Bulletin* is regarded, rightly or wrongly, as a much more practical publication, presenting papers relating to cartographic activity and map production. This inevitably decreases the number of available articles covering practical cartography (methods and production in Gilmartin's taxonomy) submitted to *The Cartographic Journal*.

A final point to make covers an area not considered by Gilmartin: the origin of authors of material published in the three journals. Even a cursory glance through the list of authors for each of the journals reveals a pleasing internationalism in the scope of cartography and origin of papers. It is significant that none of the journals has its country of origin in its title. As English maintains its position as the preferred language of late 20th century science and technology, the journals covered in this survey will inevitably attract papers from all over the world. This obviously increases the size of the pool of papers available and thus improves the quality of the final choice. In addition, this means that authors who have cartographic concerns and priorities different to the editor or outside his experience should be able to publish. Unfortunately, in many cases, particularly when English is the author's second or third language, the quality of writing is such that not even prolonged alteration by the editor can salvage the piece. This is a pity, as *The Cartographic Journal* has a worldwide reputation which it is my intention to maintain. The 'overseas' influence has been such that within recent memory (Volume 24, Number 2, December 1987) there was an issue of *The Cartographic Journal* with not a single British contribution amongst the articles!

I have strayed beyond my task of commenting on the paper by Patricia Gilmartin. However, in raising issues of concern to all editors and expounding on my approach to editing, I hope I have demonstrated that *The Cartographic Journal* is not a unique, one-off publication. There are different emphases for *Cartography and Geographic Systems*, *Cartographica* and *The Cartographic Journal* but the similarities between the journals considered outweigh their differences. I find much to admire in the other publications — the quality of illustration and presentation of *Cartography and Geographic Information Systems*, its software reviews and its special US National Reports to ICA; the quality of writers, such as Brian Harley and Denis Wood, which *Cartographica* manages to attract, its comprehensive book reviews and its special monographs. I am pleased that there is room for all three within the English language cartographic community.

I am pleased, of course, to have the opportunity to respond to Professor Gilmartin's paper, "A Content Analysis and Comparison of Three Cartographic Journals: 1964-1989." The project in general is timely and the results of the analysis are enlightening, particularly the consistency in content amongst the three major journals in cartography. In terms of a response from *The American Cartographer* (TAC), now *Cartography and Geographic Information Systems* (CaGIS), it is others, not I, who should probably respond, since I am less than one year into the editorship term of the journal. Thus the comments I make are based on limited experience as editor, although I have received, read, and studied TAC, and now CaGIS, since 1976.

I would like first to comment on the basic consistency in content which is indicated by Gilmartin's results. The fact that the categories of user-oriented research and automated cartography rank first and second (in most time periods) for all three journals indicates a consistency in the cartographic research activities in both North America and Europe. Although, as Gilmartin carefully notes, it is difficult to ascertain the degree of cross-publication, I am relatively certain that most papers published in *TCJ* are written by Europeans and most authors in TAC and *Cartographica* are based at North American universities (I also think there is a great deal of cross-publication between TAC and *Cartographica*). Thus the research activities on both sides of the Atlantic have been similar and editors quite logically try to publish those papers that are timely. That is why, I imagine, the number of user-oriented research papers has substantially decreased throughout the 1980s. Cartographers became increasingly frustrated with the lack of progress in this area and switched to other research projects. For instance, as a member of the "Kansas school," I have noticed a definite transition of 1970 and early 1980 Kansas Ph.D.s in other directions: computer and analytical studies, atlas production, amongst others. Editors, then, tend to publish what is deemed most significant at the time.

As a second comment, I am not surprised by the lack of historical papers in TAC, nor the significance of projections. There are very few cartography programs in United States universities that offer a formal course, much less formal education, in historical cartography. Certainly one node of activity has been the University of Wisconsin and several Ph.D.s have been produced at Madison. Other programs graduating Ph.D.s with a research emphasis in this area, however, simply do not come to mind. Again, my knowledge may be flawed, but my perception is that both Canada and the United Kingdom provide a much more thorough curriculum in the history of cartography and have a higher percentage of faculty with research interests in the area. Thus the supply of papers is greater than in the United States. The situation with respect to map projections in TAC is also unique. As Gilmartin notes, in the United States Professor Waldo Tobler of the University of California, Santa Barbara and John Snyder of the United States Geological Survey, both gifted, insightful, and prolific scientists, have created an on-going research agenda in the area of map projections and transformations and have provided strong support to TAC, and now CaGIS, with their publications. Not only has there been a consistent supply of high-quality manuscripts, but I think perhaps most editors still consider work in map projections to be at the very core of our discipline.

I would like to make an additional comment on the question of editor bias. Unquestionably, editors maintain preconceived ideas on what research is central, at a given time, to the discipline. The examples Gilmartin provides are poignant: map production papers under Olson's

Robert B. McMaster
*Cartography and
Geographic Information
Systems*

editorship and analytical studies under Monmonier's. I am certain that I, also, have certain biases in accepting papers. In the next two or three years I will attempt to diversify *CaGIS* to include both research central to all areas of cartography and conceptual issues in *GIS*. In order to maintain balance between cartography and geographic information systems research published in *CaGIS*, I have already found it necessary to solicit manuscripts in certain areas. For instance, I have become convinced that a strong relationship exists between visualization, cartography, and *GIS*. Thus papers in visualization will have a high priority over the next few years, since such work tends to relate to both aspects of *CaGIS* (cartography and *GIS*). But, as Gilmartin writes in her summary, the critical factor for publication continues to be quality. In this respect, as with other journals, *CaGIS* continues to receive a flow of quality papers. Thus while editors do have biases, in the end the content of the journal is also constrained by the nature and quality of submission.

A last comment involves the special departments of a journal, such as book and software reviews. It is clear to me that the editor does have a significant impact on these and can shrink or expand such departments, either for the short or long term. If, over a given period of time, the journal is backlogged with quality papers, these departments will of course tend to shrink. And (very) lastly, the editor can completely restructure the format of a given issue by publishing a special edition.

I appreciate the opportunity to respond to Gilmartin's paper and add my thoughts on her findings and the editorial process in general. In closing, I would reemphasize her point that, despite certain perceived biases and trends in each of the journals, editors are always open to reviewing and publishing high quality papers on any topic related to the journal.

continued from page 2

recent publication of the *Map Cataloging Manual*. Instead, it was the day they mourned the death of their supervisor and friend, John R. Schroeder, 51, head of the Cataloging Unit.

Schroeder died suddenly early Sunday morning, October 27. He collapsed in the company of close friends and Library colleagues during an Oktoberfest celebration at Blob's Park in Jessup, MD, and was not able to be resuscitated by a Fort Meade emergency crew.

Schroeder was awarded a Special Achievement and cash award in October for his effort in developing the text of the *Map Cataloging Manual*, which codifies some 20 years of Library of Congress map cataloging policies and procedures. The manual is "the seminal work for map catalogers," said his supervisor, David Carrington, Head, Technical Services Section.

"This manual is a legacy to John," said Ralph Ehrenberg, acting division chief.

Typical of Schroeder's fairness as Cataloging Unit supervisor, he insisted that a group award for the manual be shared not only by the three staffers who had helped compile the manual, but with the entire Cataloging Unit staff "who took up the slack for those who worked on the project," Ehrenberg said on Monday. "The awards were handed out today; this was going to be a day of celebration."

Schroeder was born November 30, 1939, in Ansley, NE. He worked for the Union Pacific Railroad from 1957-60. Serving in the U.S. Air Force from 1960-64, he attended an Arabic-Egyptian language school at Georgetown University in 1960 and was stationed in Kansas, where he was an educational services specialist.

Graduating *cum laude* with a B.A. from Western Washington State College in Bellingham in

1967, he was awarded the National Council for Geographic Education's award for scholastic excellence. During 1967-68, he was a library trainee at Bellingham Public Library, and he was awarded the M.L.S. degree from the University of Washington in 1969. Schroeder joined the Geography and Map Division as a cataloger on September 8, 1969. He was nominated and selected for the 1972-83 Intern Program.

After serving as head of the map section for the U.S. Geological Survey Library from 1975 to 1977, he returned to the Library as head of the Cataloging Unit on October, 15, 1977.

"John ran the largest map cataloging operation in the world; it was a unique job, and he did it well," Ehrenberg said. "He was highly respected for map librarianship." Schroeder acted as the secretariat for the Anglo American Cataloging Committee for Cartographic Materials and had served as chair of the Geography and Map Division of the Special Libraries Association.

He worked out in the middle of cataloging operations where he was accessible to his staff. He was "approachable," "always available," "always willing to stop what he was doing to help you out," "very fair," his staff said Monday. "This was team effort here; we were one big family," said Richard Fox.

Schroeder and his wife, Beth, a copy cataloger for the Enhanced Cataloging Division, met at G&M, where she was working on a National Union Catalog cartography project. They were married in 1982. In addition to his wife, Schroeder leaves two daughters, Jessica and Janann, from a previous marriage, and a stepdaughter, Kate.

cartographic perspectives on the news

DATED MAPS BETTER THAN NONE

The unification of East and West Germany has been a gain for Bolivia. As a result of the action last year, more than 10,000 wall-sized world maps that showed the two German republics became outdated and unmarketable. But instead of destroying the maps, the National Geographic Society has donated them to the Bolivian public school system.

Bolivia is the poorest country in South America, and many of its schools lack desks, blackboards, books — and maps. At a diplomatic reception early this year, the wife of Bolivian Vice President Luis Ossio asked Alene Gelbard, the wife of then U.S. Ambassador Robert Gelbard, for help in obtaining maps for the national school system. Alene Gelbard passed on the request to Robert Callahan, director of the U.S. Information Service here. Callahan had no maps to offer. "But it occurred to me that with the unification of Germany, National Geographic should have plenty of old maps available," Callahan said. "The question was, what would National Geographic do with them?"

Callahan's hunch paid off. Contacted by Callahan's headquarters in Washington, DC, National Geographic said it had 10,100 maps made in 1987 showing the two German republics. The maps were too outdated to sell and were gathering dust at the organization's warehouse in Gaithersburg, MD. National Geographic said it would be delighted to donate the maps to Bolivia, provided the US government handled the transportation. The U.S. military mission in La Paz transported the maps to Bolivia last summer aboard several of its periodic flights here.

In September, Callahan began presenting the maps to schools

around the nation. The goal of the project is to place a map in each of the approximately 10,000 Bolivian public schools. The 4-by-6-foot maps are made of heavy stock paper and retail in the United States for around \$10 apiece. Stephen Hubbard, a special projects manager for National Geographic, said by phone from his office in the U.S. capital that the maps were the first ever donated by the organization to an overseas government. In addition to the two German republics, Hubbard said, the maps show North and South Yemen, which were also unified last year. *Arthur Golden, San Diego Union, December 1, 1991*

NATIONAL GEOGRAPHIC SCHOLARSHIP

The Cartography Specialty Group and the National Geographic Society are pleased to announce the sixth annual National Geographic Scholarship in Cartography. The scholarship recognizes exceptional student achievement and encourages graduate work in cartography. The scholarship is open to full-time college students of junior or senior standing. The amount of the award is \$1,000. All students who enter will receive a map product from National Geographic. Deadline for application is February 11, 1992.

Information and application forms are available from: Borden Dent, Department of Geography, Georgia State University, Atlanta, GA 30303; (404) 651-3232.

LANDSAT 6 ERA BEGINS

The Landsat 6 Era has begun for EOSAT customers. Last week EOSAT operations engineers brought the Landsat 6 ground system on line at EOSAT headquarters in Lanham, MD. Members of the operations and production staffs immediately

began training on the new image processing equipment and order tracking software. The new system makes it possible for EOSAT to offer improved TM products from Landsats 4 and 5 in anticipation of the Landsat 6 launch next year. The first products from the system will be shipped October 1.

In anticipation of the 1992 launch of Landsat 6, EOSAT will begin distributing digital TM products in a new, improved version of Fast Format. The panchromatic band on Landsat 6, with 15-meter ground resolution, will generate four times as much data as the reflective bands on current Landsats. Fast Format Version B will make it easier for TM data users to load the data into their computers. Other changes have been made to Fast Format in response to suggestions from customers. In August, EOSAT notified image processing software companies of the changes, which will take place on October 1.

cartographic artifacts

ATLAS REVIEW

Turner, Eugene and James P. Allen

An Atlas of Population Patterns in Metropolitan Los Angeles and Orange Counties 1990

Reviewed by Michael Hyslop, Michigan State University

An Atlas of Population Patterns in Metropolitan Los Angeles and Orange Counties is Number 8 in Occasional Publications in Geography series from California State University, Northridge. It is a spiral-bound, large-format atlas that consists of ten maps and a table of Race and Hispanic Population Totals for Los Angeles and Orange Counties, 1980 to 1990. Each map is accom-

panied by several paragraphs of explanation that highlight areas of interest and explain certain distributions. In addition, an introductory page discusses the geographic region mapped, the sources of data, map design and production techniques, and data adjustments.

The atlas addresses the most populous region of California: Los Angeles and Orange Counties. The less populated areas outside of Metropolitan Los Angeles — eastern Orange County and portions of Los Angeles County north of the San Fernando Valley and west of Pacific Palisades — are excluded from the maps. Census tract boundaries from 1980 are the areal units outlined. County boundaries and major highways are also delineated for reference.

The maps are of two types. Four dot maps show the distribution change from 1980 to 1990 for non-Hispanic white, black, Asian and Hispanic populations. Blue and red dots are used to show a population decrease or increase. Four choropleth maps illustrate the distribution of non-Hispanic white, black, Asian and Hispanic persons as a percentage of total tract population. Two additional choropleth maps show ethnic diversity by tract, and change in ethnic diversity for 1980-1990. Some of the choropleth maps contain five classes, others have six. A different color sequence is used for each of the choropleth maps. According to the introductory page, colors were chosen to accentuate high and low percentage tracts. Most colors in the sequences are easily distinguishable.

The introduction to this atlas states, "The production of this book represents a significant change from the way that atlases have traditionally been created since it was produced entirely on a Macintosh II computer. None of

the usual manual and photographic map production methods were used." Breaking with traditional production methods is becoming common: other atlases produced in a similar fashion have appeared recently. The maps were created using commercially available software. Atlas *MapMaker* was used to produce the base maps, which were saved as PICT files. The PICT files were then opened in Deneba Software's *Canvas*, and exported using *Canvas Separator* as Adobe *Illustrator* files. Final editing was done in *Illustrator*, and color separated negatives were created using a Linotronic 330 Imagesetter.

Census tract boundary files created by Strategic Mapping, Inc. were used for the base maps. This is understandable — digitizing the hundreds of census tracts in this area would have been a time-consuming task. However, SMI's boundary files do contain flaws. Slivers, gaps and spurious polygons are common. These flaws do not affect the presentation of the data, they only detract from the appearance of the maps.

This atlas gives an excellent overview of the distribution of ethnic groups in Metropolitan Los Angeles, and how these distributions are changing. Copies of the atlas can be acquired by sending a check for \$10 (payable to CSUN Trust Fund) to the Center for Geographical Studies, Department of Geography, California State University, Northridge, Northridge, CA 91330. Individual map pages are available for \$3, two for \$5.

DEFINING WHAT WE DO

Final meeting of the ICA Working Group on Cartographic Definitions, Bournemouth, England, 30 September 1991

Twenty-two individuals participated in a discussion of the report

presented by the chairman, Dr. Christopher Board, on the deliberations of the Working Group. The discussion began with the definitions of three terms — map, cartography and cartographer — proposed in the chairman's report. In view of the ICA Executive Committee's intention to propose a new Working Group to report on the main theoretical issues in cartography to report by May 1993, president D.R.F. Taylor explained that it was vital that working definitions were agreed upon at the meeting.

It is with some satisfaction that I can report that a consensus was achieved on the following definitions:

Map

A conventionalized image representing selected features or characteristics of geographical reality designed for use when spatial relationships are of primary relevance.

Cartography

The discipline dealing with the conception, production, dissemination and study of maps.

Cartographer

A person who engages in cartography.

It will be noted that these three definitions are intimately related, nesting together in the manner of three Russian dolls. We were conscious that cartographers ought to be prepared to say what a map was, because both the scientific community and the general public associated maps with cartography. In short we have attempted to find definitions acceptable to both cartographers and those outside the profession. Some explanation of the specific form of words was thought desirable. The notion of communicating geographical information through maps did not find favor because it implied

success, which was not achieved.

Attention then focused upon the definition of **map**. This had to be broad enough to embrace both the catholicity of Brian Harley's concept of representation in any kind of socio-political or cultural context, and also to include mental images that appeared to share many of the properties of paper maps. We did not feel constrained to mention digital or tactile maps per se. Digital geographically referenced data become maps when imagined or imaged as maps; and the use of tactile maps created spatial images. Conventionalized images incorporated the idea of there being rules or principles involved in representing the real world. For instance, Beran's landscape drawings were regarded as maps because they made use of conventions of mapmaking. Conventional also implied a restraint on the form of a representation that suited the socio-cultural milieu in which it was being used, but which allowed for changes in viewpoint throughout history.

Moreover, it was vital to indicate that the function of a map was to represent only a selection of what the real world consisted of and someone or some organization had deliberately to select what was to be represented. We felt it was helpful to specify that features and/or characteristics of what was generally and conventionally accepted as geographical provided the content of maps. Thus there could be identified a core content that normally excluded features or characteristics of spaces as small as desk-tops or as far away from the Earth as neighboring planets. It was decided that the utility of maps would be better expressed by employing the word "design" rather than the term "tool." Design carried with it the connotation of intention and a process, embedding within it the idea of a device or instrument for a specified purpose. Features or charac-

teristics are not to be regarded as alternatives, the "or" being inclusive.

Finally, maps were conceived as representations mainly concerned to express absolute and relative location of phenomena with reference to the Earth. When spatial relationships, which involve both location and arrangement (or geometry and topology), are the primary concern of the representing, the latter is a **map**.

Cartography is about maps. It is a discipline without doubt. We avoided using loaded and divisive words like science, as we shied away from the exclusivity of a profession. A discipline by some definitions implies a set of rules for conduct, or in cartography rules about mapping. The four activities involved in mapping cover the whole process undertaken by cartographers. They range from the abstract theoretical and other mental processes, through practical map making, distribution and marketing, to all forms of study. Study includes training and education in mapping, just as much as using maps to inform people about the world they live in or what it was like in the past.

Cartographers engage in cartography, implying a level of involvement which is both deliberate and binding. We thought it better expressed the nature of commitment of cartographers to mapping than involvement, which could be relatively loose. "Engaging in" was more appropriate than "practice" because the latter carried too strong a connotation of manual drafting or handiwork, a specific but not the only end-product of cartographic activity.

Present at the meeting were: Kirsi Artimo (Finland); Christopher Board (UK); David Cooper (UK); Jorge Fernandez (Spain); Ulrich Freitag (Germany); Jean-Philippe Grelot (France); Olof Hedbom (Sweden); Dexter Johnston (Australia); Naftali

Kadmon (Israel); Tositomo Kanakubo (Japan); Miljenko Lapaine (Yugoslavia); Sandy Moir (UK); Takashi Morita (Japan); Barbara Petchenik (USA); Wolfram Pobanz (Germany); Andrew Tatham (UK); Zsolt Török (Hungary); Regina Vasconcellos (Brazil); Mahes Visvalingam (UK); Bogodar Winid (Poland); Michael Wood (UK); Chris Worth (Australia). Discussion on the three definitions is welcomed and should be sent to Mr. Tositomo Kanakubo, Japan Map Center, or to Jean-Philippe Grelot, Institut Geographique National, 136bis rue de Grenelle, 75700 Paris, France.
Christopher Board

VIDEODISC PROJECT

The Department of Geography of the University of Wisconsin-Milwaukee will be receiving a grant from the U.S. Department of Education to develop an Interactive Videodisc and Database on Geography and Mapping. The videodisc, which is scheduled for completion in 1993, will use images from the American Geographical Society Collection to illustrate the topic of mapping.

In addition to thousands of still frame images of maps, charts, globes and photographs, the videodisc will contain linear video segments and animation which highlight and explain the processes involved in mapping and various map elements. The videodisc will be accompanied by an interactive database of the imagery. The technology, applicability, and potential of this media for map education and research will be evaluated.

Contact Mr. Mark Warhus, Office for Map History, Golda Meir Library, University of Wisconsin-Milwaukee, PO Box 604, Milwaukee, WI 53201; (414) 229-4104, fax (414) 229-4380.

HRB WORLD MAP

It took HRB engineers about two years to digitize a map database capable of displaying an area as large as the whole world or as small as a 140-mile grid (or 19,600 square miles). Now, that database is available to employees and to educational institutions.

The database provides six selectable map features: shorelines, topography (height above sea level), bathymetry (ocean depth), cities, hydrology (rivers, canals, and lakes), and political boundaries.

Because no single map database can provide fast displays and high visual quality over the entire range of map scales, the database developed at HRB consists of five different parallel databases or "tier levels."

Other map databases are commercially available but have drawbacks. Often they lack coverage of the entire Earth or provide fewer map features. Some show the maps only in outline form, which can result in a confusing picture. Others have such high resolution that it takes too long to generate the display.

The HRB World Map is stored on twelve 5.25" high-density disks. The database runs most effectively on an 80386SX or 80386DX, EGA or VGA, PC with a math co-processor and hard disk. The entire set of 12 disks costs \$200 for a single PC or \$1,000 for a site license. Schools and universities can purchase the map database as an instructional tool at the low cost of \$100 per site. The HRB world map is chiefly intended for users who develop their own map-oriented application programs and who need a digitized map.

For information, contact Marge Johnson, HRB Systems Inc., Science Park, State College, PA 16801; (814) 238-4311.

cartographic events

EVENTS CALENDAR

1992

January 18: **1990 Census Data User Conference**, New Orleans, LA. Contact: U.S. Census Bureau's Data User Services Division, User Training, Washington, DC 20244; (301) 763-1510.

February 4-7: **ICOGRAPHICS '92**, Milan, Italy. Contact: World Computer Graphics Association, Ste. 399, 2033 M St., NW, Washington, DC 20036. (202) 775-9556; fax: (202) 775-8122.

February 9-14: **GIS '92, 6th Annual Symposium**, Working Smarter, Geographic Information Systems in Forestry, Environment and Natural Resources Management, Vancouver, British Columbia, Canada. Contact: GIS '92 Symposium Office, 720-845 Cambie Street, Vancouver, British Columbia, Canada V6B 4Z9, (604) 688-0188; fax: (604) 688-1573.

February 11-14: **MICAD '92**, Paris, France. Contact: World Computer Graphics Association, 2033 M St., NW Ste. 399, Washington, DC 20036. (202) 775-9556; fax: (202) 775-8122.

February 25-27: **Mapping Awareness '92**. Conference and Exhibition, Olympia 2, London. Contact: Lindsey Deakin, Blenheim Online, Blenheim House, Ash Hill Drive, Pinner, Middlesex, HA5 2AE, UK
telephone: 081 868 4466.

March 17-20: **SIG-GIS '92**, Paris, France. Contact: World Computer Graphics Association, Ste. 399, 2033 M St., NW, Washington, DC 20036. (202) 775-9556; fax: (202) 775-8122.

March 22-28: **ACSM/ASPRS Annual Convention**, Albuquerque,

que, NM. Contact: ACSM, 5410 Grosvenor Lane, Bethesda, MD 20814, (301) 493-0200.

June 2-6: **Canadian Cartographic Association and Carto-Quebec Joint Annual Conference**, Montreal, Canada. Contact: Jacqueline M. Anderson, Department of Geography, Concordia University, 1455 de Maisonneuve Blvd. W., Montreal, Quebec H3G 1M8, (514) 848-2052; email JAHFH10@VAX2.CONCORDIA.CA; fax: (514) 848-3494, **Attention: Geography Department**.

June 15-18: **Computer Vision & Pattern Recognition**, Chancellor Hotel and Convention Center, Champaign, IL. Contact: Aziel Rosenfeld, e-mail: ar@alv.umd.edu

Summer: **Fifth International Symposium on Spatial Data Handling, USA**. Contact: Prof. Duane F. Marble, Department of Geography, The Ohio State University, Columbus, OH 43210, (614) 292-2250, telex: (650) 218-4975 MCI.

August 2-14: **17th International Society for Photogrammetry and Remote Sensing Congress**, Washington, DC. Contact: 17th ISPRS Congress Secretariat, Box 7147, Reston, VA 22091.

August 9-16: **27th International Geographical Congress**, Washington, DC. Contact: Anthony de Sousa, 27th IGC, 17th and M Sts. NW, Washington, DC 20036, (202) 828-6688.

October 14-17: North American Cartographic Information Society XII, St. Paul, MN.
Contact: Jeff Patton, Department of Geography, University of North Carolina at Greensboro, Greensboro, NC 27412; (919) 334-5388.

November 6-12: **GIS/LIS 1992 Annual Conference and Exposition and ACSM/ASPRS Fall Convention**, San Jose, CA. Contact: ACSM, 5410 Grosvenor Lane, Bethesda, MD 20814, (301) 493-0200.

1993

February 15-18: **ACSM/ASPRS Annual Convention**, New Orleans, Louisiana. Contact: ACSM, 5410 Grosvenor Lane, Bethesda, MD 20814, (301) 493-0200.

NACIS news

NACIS OFFICERS

President: **Jack L. Dodd**, Tennessee Valley Authority, 1101 Market St., HB 1A, Chattanooga, TN 37402-2801; (615) 751-5404.

Vice President: **Jeff Patton**, Department of Geography, University of North Carolina-Greensboro, Greensboro, NC 27412; (919) 334-5388.

Secretary: **Craig Remington**, Geography Department, University of Alabama, Tuscaloosa, AL 35487; (205) 348-1536.

Treasurer: **Edward J. Hall**, 410 McGilvrey Hall, Kent State University, Kent, OH 44240-0001; (216) 672-2017.

Past President: **James F. Fryman**, Department of Geography, University of Northern Iowa, Cedar Falls, IA 50613; (319) 273-6245.

NACIS EXECUTIVE OFFICER
Chris Baruth, NACIS, American Geographic Society Collection, P.O. 399, Milwaukee, WI 53201; (800) 558-8993 or (414) 229-6282

BOARD OF DIRECTORS

James R. Anderson, Jr., FREAC, 361 Bellamy Building, Florida State

University, Tallahassee, FL 32306; (904) 644-2883.

Ron Bolton, NOAA, 6010 Executive Blvd, Room 1013, Rockville, MD 20852; (301) 443-8075.

Will Fontanez, Department of Geography, 408 G & G Building, University of Tennessee, Knoxville, TN 37996; (615) 974-2418.

Hull McLean, 1602 Society Court, Herndon, VA 22070; (703) 834-3123.

Jim Minton, Map Library, University of Tennessee, Room 15 Hoskins, Knoxville, TN 37996; (615) 974-4315.

Ruth Rowles, 337 Atwood Dr., Lexington, KY 40515; (512) 564-5174.

John Sutherland, Map Collection, Science Library, University of Georgia Libraries, Athens, GA 30602; (404) 542-0690.

CARTOGRAPHIC PERSPECTIVES

Editor: **David DiBiase**, Department of Geography, 302 Walker Building, Penn State University, University Park, PA 16802; (814) 863-4562; email: dibiase@essc.psu.edu.

Coeditor: **Karl Proehl**, C202 Pattee Library, Penn State University, University Park, PA 16802; (814) 863-0094.

INTER-AMERICAN COMMITTEE

Chair: **Jim Minton**, Map Library, University of Tennessee, Room 15 Hoskins, Knoxville, TN 37996; (615) 974-4315.

NOMINATIONS COMMITTEE

Chair: **James F. Fryman**, Department of Geography, University of Northern Iowa, Cedar Falls, IA 50613; (319) 273-6245.

PUBLICATIONS COMMITTEE

Chair: Michael Peterson, Department of Geography, University of Nebraska at Omaha, Omaha, NE 68182; (402) 554-2662.

NACIS BOARD CONFERENCE CALL, AUGUST 24, 1991

The following members participated in the conference call: F. Fryman, J. Dodd, C. Baruth, E. Hall, R. Bolton, C. Remington, P. McHaffie, N. Ryckman, S. Andrews, J. Sutherland, D. Rivera, and J. Anderson.

1992 Site

Fryman began the call at 9:15 am. Andrews stated that local arrangements were progressing well. A meeting would be held in the next week with the hotel. Question was asked about transportation to the hotel from the airport. Dodd stated this information would be listed in the preliminary program. Andrews suggested including a map of the area in the preliminary program. Fryman stated that people would like a list of pre-registrants. Rivera asked if people had been designated to lead field trips.

Dodd stated that preliminary programs were scheduled to be mailed Tuesday, August 27th. A return address label will be enclosed. There will be ten sessions with three or four roundtables. Rivera asked about the composition of the program. Dodd responded that there were two workshops, session on map production, map information, cartographic education and animation, public access to geographic information, federal government, ethics in cartography, cartography in private sector, historical cartography, and general cartography. Sutherland asked number of people on program. Andrews stated there were nineteen people presenting papers. Fryman asked if chair person had been secured for session. Dodd is currently working on. Remington asked about cartography lab poster session participation. Andrews thought everything was progressing well. Baruth asked about exhibit. Dodd replied that a few inquiries had been made. Rivera asked about bringing students from Michigan State to help with registration.

Old Business

Bolton asked about who should make up Teller's committee. Rivera will take care of ballot mail out and Rivera and White will form Teller's committee. Motion made. Unanimous.

Andrews has agreed to assume editorship of *Cartographic Perspectives* pending approval of her dean. Sutherland asked if production function would transfer

also. Fryman stated that it would. Baruth stated Andrews would no longer be able to chair membership committee. Baruth felt we needed to increase our institutional members. McHaffie felt maybe we should contact Departments of Geography to have them request that their libraries purchase *Cartographic Perspectives*. Sutherland stated that we also needed to attract more regular members. Bolton and McHaffie volunteered to work with membership. Hall reported that we had \$19,592.64 in our account. Hall stated that he needed to get deposit information. Hall said that membership was increasing. Rivera reported that four board slots needed to be filled as well as secretary and vice president. Rivera will handle mail out and counting of ballots with Ellen White. Fryman asked if there were any objections to the selection of the hotel. Suggestion was made to have Baruth sign contract. It was also suggested that Greg Chu head the local arrangements and recruit some other members. Hall asked about mailing label policy. Anderson suggested that we defer until the October meeting. Baruth asked about NACIS participation in a cartographic information planning meeting in November. Rivera was appointed to represent NACIS. Ryckman asked when the Board meeting was scheduled. Fryman will inform the Board members. Call concluded at 10:47 am.

James Anderson, Secretary

NACIS BOARD MEETING, OCTOBER 20, 1991

The following members were present: Ed Hall, Ron Bolton, Nancy Ryckman, John Sutherland, Fred Fryman, Sona Andrews, Jack Dodd, Craig Remington, Jim Anderson, David DiBiase, Diana Rivera, Chris Baruth and Hull McLean.

Old Business

Conference planning:

Andrews reported that the preparations were going well. A final budget was not yet available due to meal costs not yet available. Pre-registration was approximately seventy-five. Andrews recommended passing on certain procedures to future local arrangements committees. Room reservations at the Astor Hotel were below our guarantee thus requiring that we had to pay for meeting space. Sutherland asked if a loss would be incurred on this meeting so that that could be considered in other budget planning. Baruth mentioned that the mailing list for the conference was deficient in reaching people who would want to attend. He also suggested that future contracts with hotels be carefully examined.

Program

Dodd expressed his thanks to Sona and Chris for their help with the program and their work on local arrangements. Dodd felt that we had a good program and he encouraged people to let him know how the program could be improved.

Motion to accept the minutes was made and accepted.

Cartographic Perspectives

Andrews had spoken to her Dean about assuming editorship of the *Cartographic Perspectives*. His reaction has been favorable and she hopes to have a final approval shortly. She recommended that NACIS purchase desktop publishing software. David DiBiase stated that each issue required 125 hours of production times which NACIS was paying about 20 hours. Ways of cutting costs were discussed. Baruth suggested trying to increase our membership and getting more institutional members. DiBiase suggested appealing to students. Bolton suggested acquiring select mailing lists and sending out membership information. Baruth suggested preparing a brochure advertising *Cartographic Perspectives*. Anderson suggested establishing a subcommittee of the Board to study *Cartographic Perspectives* and report back to the board. Fryman suggested that the membership committee aggressively pursue new membership. Anderson suggested a dues increase for students to cover more of the cost of *Cartographic Perspectives*. Bolton agreed a small increase was necessary and that students should be encouraged to join as well as geography departments and government employees. Fryman appointed a membership growth committee composed of Fryman, Hall, Baruth, Bolton, Andrews and a cartography lab representative to be named.

New Business

Treasurer's Report:

Hall reported that the memberships varied during the year. Hall reported that the current balance was \$18,312.82 which included interest earnings of \$688.13. Hall suggested changing the membership year from September to August. Anderson suggested keeping the calendar year but sending out dues notices in September and providing an opportunity to pay at the annual meeting.

Teller's Committee:

Rivera reported on the results of the election. Rivera reported that Anderson, Sutherland, Rowles, and Minton had been elected to the Board, Craig Remington, Secretary and Jeff Patton, Program Chair. Upon being elected Program Chair, Patton will need to be replaced as Publications

Chair. Baruth mentioned that in some instances Board Members and candidates for the Board were not current in their dues. Baruth stated that the Bylaws should specifically state that officers and board members be members of NACIS.

Executive Director Report:

Baruth stated the desire for more centralization of such items as mailing lists, call for papers, preliminary programs, etc. He felt that a program committee needed to be created to assist the program chair composed of a person from each of the constituent groups. Program construction and schedule time should be carefully considered. Sutherland commented that it had been useful in the past to get input from the Board. A timetable was discussed for sending out meeting information. A consensus was that the "Call For Papers" should go out in March.

Other Committee Reports:

DiBiase emphasized the need for a strong Publications Committee Chair and committee. He stated that good papers were coming through the committee.

Planning for NACIS XII:

Fryman suggested discussing at board meeting following the meeting.

Site Selection for NACIS XIII:

Bolton reported that Washington was possible if we selected a fringe hotel. Bolton asked for guidance. Consensus was to pursue Washington and look for possible local arrangements help. Washington was adopted as the site for the 1993 meeting.

Other Business

Hall asked about NACIS policy on mailing labels. The Board adopted a policy of \$.25 per name on gummed labels. Anderson proposed creating a brochure on cartographic careers, employers, cartography departments, etc. DiBiase suggested making it a special issue of *Cartographic Perspectives*, and then use it to distribute in the future. He suggested appointing a special editor for this issue. Ryckman stated that Paul Anderson is interested in NACIS participating in a map sale fundraising effort. Sutherland suggested that a subcommittee of the Board meet with Dr. Anderson and then report back at the next Board Meeting.

James R. Anderson, Secretary

NACIS ANNUAL BUSINESS MEETING, OCTOBER 21, 1991

Fred Fryman thanked Sona and Chris for local arrangements and Jack Dodd for the program. Andrews reported that approximately eighty people had registered to date.

He asked for any comments that would help to improve future meetings. Diana Rivera reported for the Teller's Committee that Anderson, Rowles, Minton, and Sutherland had been elected to the Board. Craig Remington will be the new Secretary and Jeff Patton will be the new Program Chair.

Ed Hall reported that the balance in the NACIS account was \$18,312.82 which included interest earnings of \$688.13. Fryman announced that Sona Andrews would be the new editor of *Cartographic Perspectives*. Greg Chu reported that next year's meeting would be October 14-17, 1992 in St. Paul, MN at the Ramada Inn Hotel. Fryman reported that Washington, DC had been selected for 1993. Ron Bolton reported that we should be able to get rates in the \$70-\$80 range. He asked for hotel suggestions from the membership. Fryman asked for members to leave site selection preferences for 1994 at the registration desk. Fryman reported that the Board was going to form a program committee to assist in program planning which would represent all membership segments of NACIS. Fryman reported that Board was initiating a campaign to increase membership. He also reported that the Board was considering a possible increase in dues and asked for input from the membership. Ed Hall reported that dues notices would be sent in November. There was no further business to conduct and the meeting was adjourned.
James R. Anderson, Secretary

NACIS OPEN BOARD MEETING, OCTOBER 23, 1991

President Dodd called the meeting to order at 1:40 pm. The following Board members were present: Jim Minton, Jim Anderson, John Sutherland, Hull McLean, Ed Hall, Chris Baruth, Ron Bolton, Craig Remington, Jeff Patton and Ed Fryman.

NACIS XII

President Dodd began the meeting by asking Greg Chu to report on local arrangements for NACIS XII to be held at the Ramada Inn in St. Paul on October 14-17, 1992. Chu reported that arrangements were moving forward satisfactorily and suggested that NACIS offer workshops on cartographic animation at the meeting. A yet undecided workshop fee would be charged to cover expenses. Chu further offered the facilities of the University of Minnesota as well as IBM platforms for the workshop. Bolton spoke in favor of the workshop concept and pointed out that it would be a mechanism to attract new membership. Sona Andrews suggested a classroom environment as an appropriate setting. David DiBiase suggested the possibility of Penn State offering Macintosh

platforms to round out the hardware requirements. Dodd asked Chu to draft a proposal of his ideas, including a budget, and submit it to the Board before the December break. The consensus of the Board was to support Chu's efforts.

Anderson's Proposal

Dodd asked Anderson to make a presentation concerning a personal travel journal to be sold by schools for fund raising. Anderson sought the endorsement and financial support of NACIS with the understanding that part of the profits from the sales of the journals would be returned to NACIS. After hearing Anderson's presentation, Dodd asked for the Committee appointed to consider this matter to present their recommendation. Sutherland offered a motion to end discussion until the Board can meet in closed session. The motion was seconded and passed.

Publications Committee

Dodd announced that Michael Peterson has accepted the chairmanship of the publications committee and offered the Board's support and appreciation.

Cartographic Perspectives

Sona Andrews is awaiting final approval of institutional support from her Dean, so that she may assume editorship of the journal. She suggested that three editions annually would ease expenses of publication and that an increase in the monetary contribution of NACIS toward publication would be helpful. She also requested that NACIS provide funds to purchase desktop publishing software. DiBiase supported Andrews' position and pointed out significant subsidization of *CP* by Penn State. Bolton offered a motion that, pending institutional approval, NACIS provide \$500 to \$700 for the Editor to purchase publishing software. Fryman asked if the software will remain at UW-M permanently. Bolton responded that it will be licensed to UW-M and therefore it will be their property, regardless of future sites for *CP* production. Bolton's motion was seconded and passed. Hull makes a motion that *Cartographic Perspectives* begin publishing three regular issues annually under the new Editor. Added to the motion is the possibility of additional issues to cover special topics. Motion was seconded and passed. Discussion concerning the current level of funding by NACIS for *CP* along with the need for greater support by our organization for our journal led to a motion by Bolton to fund Cartographic Perspectives at a rate of \$1000 per issue to begin when UW-M takes over production, with any residual funds to be returned to the treasury. Seconded and passed.

Other Business

The Local Arrangements Committee distributed a statement on the preliminary costs of NACIS XI. Ninety-two people registered. The Committee asked that a future effort be made to encourage members to preregister for our meetings to aid in planning. Sutherland offered a motion thanking the Local Arrangements Committee for their fine effort. Passed. Unanimous. Dodd suggested that a daily registration fee might be more accommodating for some conference participants. Dodd appoints Jim Minton to chair the Inter-America Committee. A letter of acknowledgment will follow. An increase in dues was discussed and will be decided upon at the Winter meeting. The Winter Board Meeting is scheduled for March 20-22, 1992 at St. Paul. The Nominating Committee was instructed to advise members who are seeking office that their *dues must be current and should remain so* through their tenure in office. Sutherland moves that the open meeting be adjourned and that the Board meet in executive session. Seconded and passed.

Executive Session

The discussion in the executive session involved the aforementioned proposal by Anderson. The committee appointed to review the matter felt that the increased commitment to *CP* would bring a new burden upon the treasury and therefore preclude the funding of Anderson's project. Bolton added that NACIS had never in the past given an endorsement to a private venture. Fryman made a motion that NACIS not accept Anderson's offer to sponsor personal travel journals. Seconded and passed. The final matter of business was a request by Jeff Patton that the President write a letter of thanks to A.G.S. for their hospitality. Dodd concurred and adjourned the meeting at 3:30 pm.

Craig Remington, Secretary

EXCHANGE PUBLICATIONS

Cartographic Perspectives gratefully acknowledges the publications listed below, with which we enjoy exchange agreements. We continue to seek agreements with other publications.

ACSM Bulletin. Offering feature articles, regular commentaries, letters, and news on legislation, people, products and publications, the American Congress on Surveying and Mapping's *Bulletin* is published six times a year. Contact: Membership Director, 5410 Grosvenor Lane, Bethesda, MD 20814; (301) 493-0200.

Bulletin of the Society of Cartographers. Published twice a year, the *Bulletin* features articles on techniques and ideas applicable

to the cartographic drawing office. Contact: John Dysart, Subscriptions Manager, Room 514, Middlesex Polytechnic, Queensway, Middlesex, EN3 4SF, England.

Cartouche. A quarterly publication offering news and announcements to members of the CCA. Contact: Canadian Cartographic Association, c/o Jim Britton, Sir Sandford Fleming College, School of Natural Resources, P.O. Box 8000, Lindsay, Ontario K9V 5E6 Canada; (705) 324-9144; e-mail: britton@trentu.ca; fax: (705) 324-9716.

Cartographica. A quarterly journal endorsed by the Canadian Cartographic Association/ Association Canadienne de Cartographie that features articles, reviews and monographs. B V Gutsell, founder and editor. ISSN 0317-7173. Contact: University of Toronto Press Journals Department, 5201 Dufferin Street, Downsview, Ontario, M3H 5T8 Canada; (416) 667-7781.

Cartographic Journal. Biannual Journal of the British Cartographic Society. Includes research articles, 'shorter' articles, official records of the Society, book reviews, and list of recent cartographic literature. Contact: Hon. Secretary, Charles Beattie, 13 Sheldrake Gardens, Hordle, Lymington, Hants, SO4 10FJ, England.

Cartography. Biannual Journal of the Australian Institute of Cartographers. Each issue contains two parts, the Journal proper and the Bulletin. The Journal contains original research papers, papers describing applied cartographic projects, reviews of current cartographic literature and abstracts from related publications. ISSN 0069-0805. Contact: John Payne, Circulation Manager, GPO Box 1292, Canberra, A.C.T. 2601, Australia.

Cartography Speciality Group Newsletter. Biannual publication of the Cartography Speciality Group of the Association of American Geographers. Features news, announcements and comics. Contact: Ellen White, Editor, CSG Central Office, Department of Geography, Michigan State University, East Lansing, MI 48824; (517) 355-4658.

Cartomania. This quarterly newsletter of the Association of Map Memorabilia Collectors offers a unique mix of feature articles, news, puzzles, and announcements of interest to cartophiles. ISSN 0894-2595. Contact: Siegfried Feller, publisher/editor, 8 Amherst Road, Pelham, MA 01002; (413) 253-3115.

Geotimes. Monthly publication of the American Geological Institute. Offers news feature articles, and regular departments

including notices of new software, maps and books of interest to the geologic community. Articles frequently address mapping issues. ISSN 0016-8556. Contact: Geotimes, 4220 King Street, Alexandria, VA 22302-1507.

GIS World. Published six times annually, this news magazine of Geographic Information Systems technology offers news, features, and coverage of events pertinent to GIS. Contact: Julie Stutheit, Managing Editor, GIS World, Inc., P.O. Box 8090, Fort Collins, CO 80526; (303) 223-4848; fax: (303) 223-5700.

Information design journal. Triannual publication of the Information Design Unit. Features research articles reporting on a wide range of problems concerning the design and use of visual information. Contact: Information design journal, P.O. Box 185, Milton Keynes MK7 6BL, England.

Perspective. This newsletter of the National Council for Geographic Education (NCGE) is published five times a year in October, December, February, April and June. News items related to NCGE activities and geographic education are featured. Contact: NCGE, Leonard 16A, Indiana University of Pennsylvania, Indiana, PA 15705; bitnet: CLMCCARD@IUP.

FEATURED PAPERS

Each issue of *Cartographic Perspectives* includes a featured paper, which is a refereed article reporting original work of interest to NACIS' diverse membership. Papers ranging from theoretical to applied topics are welcome. Prospective authors are encouraged to submit manuscripts to the Editor or to the Chairperson of the NACIS Publications Committee. Papers may also be solicited by the Editor from presenters at the annual meeting and from other sources. Papers should be prepared exclusively for publication in *CP*, with no major portion previously published elsewhere. All contributions will be reviewed by the Publications Committee, whose members will advise the Editor as to whether a manuscript is appropriate for publication. Final publication decisions rest with the Editor, who reserves the right to make editorial changes

to ensure clarity and consistency of style. No house style is imposed, but spelling, references, and notes must be consistent within papers.

REVIEWS

Book reviews, map reviews, and mapping software reviews are welcome. The Editor will solicit reviews for artifacts received from publishers. Prospective reviewers are also invited to contact the Editor directly; review copies of new books, maps and software can often be acquired at no cost.

FUGITIVE CARTOGRAPHIC LITERATURE

Information of interest to map makers, librarians, and educators appears in diverse publications. We invite synopses of reviews, news, and papers found in outlets not usually associated with cartography, map librarianship, or geography.

TECHNICAL GUIDELINES FOR SUBMISSION

Cartographic Perspectives is designed and produced in a micro-computer environment. Therefore, contributions to *CP* should be submitted in digital form on 3.5" or 5.25" diskettes. Please send paper copy along with the disk, in case it is damaged in transit.

Text documents processed with Macintosh software such as *WriteNow*, *WordPerfect*, *Word*, and *MacWrite* are preferred, as well as documents generated on IBM PCs and compatibles using *WordPerfect* or *Word*. ASCII text files are also acceptable.

PostScript graphics generated with Adobe *Illustrator* or Aldus *FreeHand* for the Macintosh or Corel Systems' *CorelDraw* for DOS computers are preferred, but generic PICT or TIFF format graphics files are usually compatible as well.

For those lacking access to microcomputers, typed submis-

sions will be cheerfully accepted. Manually produced graphics should be no larger than 11" by 17", designed for scanning at 600 dpi resolution (avoid fine-grained tint screens). Continuous-tone photographs may also be scanned.

Submissions may be sent to: David DiBiase, Department of Geography, 302 Walker Building, Pennsylvania State University, University Park, PA 16802; (814) 863-4562; email: dibiase@essc.psu.edu.

COLOPHON

This document was desktop-published at Deasy GeoGraphics, Department of Geography, Penn State University, using an Apple Macintosh IIcx. Word processing was accomplished primarily with *WordPerfect 1.03*; page layout with *PageMaker 4.0*. Graphics not rendered with Aldus *FreeHand 3.0* were scanned from paper originals using an HP 9190 ScanJet desktop scanner. The *PageMaker* document was output by a Linotronic 300 at PSU Printing Services. The bulletin was printed by offset lithography on Warren Patina 70# text stock. Text type is set in Palatino, a face designed by Herman Zapf. The featured color is PMS 2705C.

NACIS membership form

North American Cartographic Information Society Sociedad de Información Cartográfica Norte Americana

Name/Nombre:

Address/Dirección:

Organization/Afiliación profesional:

Your position/Posición:

Cartographic interests/Intereses cartográfico:

Professional memberships/Socio de organización:

Membership Fees for the Calendar Year*/

Valor de nomina de socios para el año:

Individual/Regular: \$28.00 U.S./E.U.

Students/Estudiantes: \$8.00 U.S./E.U.

Institutional/Miembros institucionales:

\$58.00 U.S./E.U.

Make all checks payable to/

Hagan sus cheques a:

NACIS

c/o Edward J. Hall, Treasurer

Map Library

410 McGilvrey Hall

Kent State University

Kent, OH 44242-0001

*Membership fees include subscription to *Cartographic Perspectives* and are due
January 1.

The North American Cartographic Information Society (NACIS) was founded in 1980 in response to the need for a multidisciplinary organization to facilitate communication in the map information community. Principal objectives of NACIS are:

§ to promote communication, coordination, and cooperation among the producers, disseminators, curators, and users of cartographic information;

§ to support and coordinate activities with other professional organizations and institutions involved with cartographic information;

§ to improve the use of cartographic materials through education and to promote graphicacy;

§ to promote and coordinate the acquisition, preservation, and automated retrieval of all types of cartographic material;

§ to influence government policy on cartographic information.

NACIS is a professional society open to specialists from private, academic, and government organizations throughout North America. The society provides an opportunity for Map Makers, Map Keepers, Map Users, Map Educators, and Map Distributors to exchange ideas, coordinate activities, and improve map materials and map use. *Cartographic Perspectives*, the organization's Bulletin, provides a mechanism to facilitate timely dissemination of cartographic information to this diverse constituency. It includes solicited feature articles, synopses of articles appearing in obscure or non-cartographic publications, software reviews, news features, reports (conferences, map exhibits, new map series, government policy, new degree programs, etc.), and listings of published maps and atlases, new computer software, and software reviews.

Department of Geography
302 Walker Building
The Pennsylvania State University
University Park, PA 16802

NONPROFIT ORG.
U.S. POSTAGE
P A I D
UNIVERSITY PARK, PA
PERMIT NO. 1