

cart lab bulletin board

ence at Harvard and elsewhere indicates that as much as 80 percent of the time required for computer-based analysis of a cartographic data base is consumed in the input and editing phases of a project. ROOTS has been developed to provide graphic feedback and topological structuring and labeling as an integral part of the digitizing process, so that a complete map overlay can be created in a single pass. In addition, ROOTS includes vector to raster conversion software to support output to analysis programs such as the Map Analysis Package, IDRISI, and GRASS.

ROOTS has been written for the Apple Macintosh and for the Harris/MASSCOMP UNIX workstation. The program will work on any Macintosh of at least 512K of memory, including the Mac Plus, the SE, and the Macintosh II. A version for the IBM-PC/XT/AT and true compatibles is also now available. Other versions may be developed independently at other sites. Contact the Laboratory for Computer Graphics & Spatial Analysis, Harvard University Graduate School of Design, for information on the status and availability of such conversions.

SUPERMAP

SUPERMAP consists of a single CD-ROM which contains data for the 1980 United States census of population and housing, as well as a wide variety of other social and economic data. In addition, SUPERMAP software retrieves, manipulates, and displays graphically, data subsets as selected by the user. The entire system is now available through the use of a desktop computer. Chadwyck-Healey, Inc., 1101 King Street, Alexandria, VA 22314. (800) 752-0515. \$990.00 for County level census data and mapping for the entire U.S. (regional sets also available).

This forum is offered to encourage communication among practitioners at a time of rapid technological transition. Questions, comments, and announcements of approximately two hundred words in length are invited.

The arrival of Macintosh hardware and Adobe Illustrator software has had a significant impact on production procedures at the University of Wisconsin Cartographic Laboratory, as it has in many other facilities. We are currently confronting two main problems, and would appreciate hearing from others with similar concerns.

First, the lack of map projection software for the Mac forces us to deal with the problem of reformatting files generated by the World map projections package for the IBM PC into Illustrator's EPS format. It would also be very useful to be able to edit AutoCAD drawing files in Illustrator. Has anyone out there solved this already?

Secondly, we have been generating some Illustrator products via a local vendor's Linotype 300, but are just beginning to experiment with Illustrator 88's color separating functions. We would like to talk with anyone experienced in such matters.

Contact: University of Wisconsin Cartographic Lab, 550 N. Park St., Madison, WI 53706 (608) 262-1366/0688.

USGS MEMBERSHIP IN INTER-AGENCY COMMUNICATIONS COMMITTEE

The USGS recently was selected for membership in the Federal Research Internet Coordinating Committee. Other organizations represented on the Committee are the Defense Advanced Research Projects Agency, the Department of Energy, the Department of

Health and Human Services, the National Aeronautics and Space Administration, and the National Science Foundation.

The principal goal of the Committee is to develop electronic communications interfaces and protocols that will enable the universal exchange of information on research activities throughout the United States. Such a network could speed the exchange and application of research results and data and help avoid duplication of effort. The Department of the Interior's GEONET communications network that is operated by the USGS may play a significant role in attaining this goal.

(*New Publications of the U.S. Geological Survey*, 11/88)

fugitive cartographic literature

Interesting articles about cartographic information often appear in unexpected outlets. The goal of this section is to bring those publications to the attention of our readership. We invite synopses (or abstracts) of papers appearing in journals other than those devoted to cartography, geography, and map librarianship. Contributions of this kind should be limited to five hundred words.

Yamahira, Takuya; Kasahara, Yutaka; and Tsurutani, Tateyuki (1985). How map designers can represent their ideas in thematic maps. *The Visual Computer*, 1:174-184.

reviewed by Alan M. MacEachren,
Penn State University

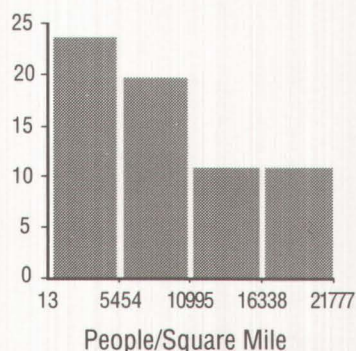
In this paper the authors (from NEC Corp. Laboratories) outline a user interface they have devised to assist planners in creating choropleth maps. Their system is a data classification aid that allows users to interactively manipulate data class limits depicted on a frequency histogram. The system appears to begin by presenting a histogram of the data using four equal value steps. New class

break points can be inserted and class breaks can be moved or removed by pointing to positions on the x axis of the histogram.

The article, which includes numerous color illustrations, begins with some rather unsophisticated comments about choropleth mapping that demonstrate limited knowledge of cartography. The first maps they show, for example, are of *raw population totals* rather than standardized data. The main thesis of their system is also somewhat at odds with accepted practice. They view the role of a choropleth map as being to "convey the planner's intentions to map viewers" rather than to communicate the data accurately.

In spite of these weaknesses, the system they describe along with its potential application provides some food for thought. The most interesting example in the paper involves an application in which a choropleth is used in planning for regional development. They describe a situation in which a planner "well recognizes the tendencies that the eastern areas in the Tokyo region have excessively dense populations and the population density becomes sparser closer to the western area." The sequence of steps (taken from Table 2 of the paper) are listed below along with reproductions of a series of three histograms generated.

a. INITIAL HISTOGRAM

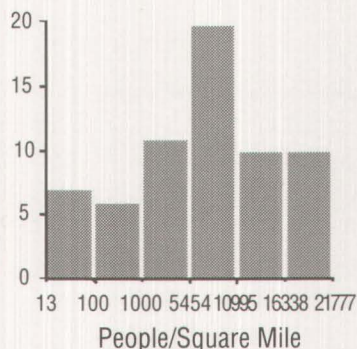


Intention: Understand the rough statistical distribution tendencies.

Operation: Divide the statistical data into four groups.

Impression: It is difficult to understand the characteristics of the areas in the lowest class.

b. INTERMEDIATE HISTOGRAM

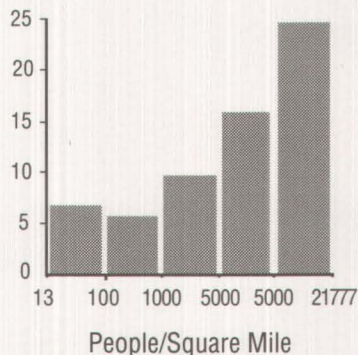


Intention: Classify the areas in the lowest class into several classes so that the characteristics in the western area can be expressed.

Operation: Select 100 and 1,000 people/sq. km. as the boundaries.

Impression: The areas belonging to the fourth class are considered as the object for development. The higher classes are too detailed, since the areas in these classes are not objects for development.

c. FINAL HISTOGRAM



Intention: Emphasize that the most crowded areas are spreading over a wide area.

Operation: Delete two higher boundaries and select 10,000

people/ sq. km. as an appropriate boundary.

The paper concludes with some comments concerning the need to pay more attention to selection of the appropriate thematic symbolization for phenomena being mapped and a brief mention of the problems of data classification when maps in a time series are to be compared. This later issue is one that needs more attention by cartographers.

Roselle, Marsha and Deller, Howard (1988). Maps of the imagination. *School Arts*, September 1988; pp. 40-42,78.
reviewed by Debra Daggs,
Penn State University

Roselle and Deller present an exciting art project which introduces students of Cedarburg (Wisconsin) High School to the history of cartography and encourages individual creativity. The project is so rich with educational potential that I am reluctant to state what students "should" learn as they design and create decorative maps. Through the instructional sequence, students certainly will gain an appreciation of decorative maps and the process of scholarly research. Highlighting period style as Roselle and Deller recommend, for example, teaches students to attend to graphic material in a new and more informed way; such a simple but significant lesson may extend well beyond this art project. Further, by selecting different styles and themes, students will generate a range of decorative maps, materials required to discuss changes in representational technique over time between artist-cartographers.

Roselle, an art teacher, and Deller, a map historian, bring appropriate expertise to bear on this project. They provide a list of