Peter's, and Robinson's. A review of relief representation discusses mountain drawing, hillocks, hachures, contours, shading, and the role of exaggeration in representing landforms. A section on symbols offers advice on choosing and designing pictorial symbols. The computer's role in revolutionizing map production is examined with an eye toward both the benefits and the horrors of the technology. Vehicle navigation systems and scientific visualization are tacked on as further expansions of computer technology. Scale is approached in a very practical manner; the goal is to make the scale of a problem comprehensible by placing the information in the context of something known. Finally, distortions, such as cartograms, are discussed as means of altering views of information.

The seventh chapter concludes Holmes' examination of pictorial maps with metaphors, directions for friends, and cartographic jokes. The Gerrymander and other satiric maps are examples of metaphorical maps. Directions for friends are exemplified by sketch maps, and cartographic jokes are covered by several joke postcard maps and cartoons. A list of map sources, a partial bibliography, map credits, and an index complete the book.

Holmes writes in a conversational style and covers topics broadly. Most people would find his book easy to read and informative. The broad brush strokes may disturb trained cartographers, and from an academic perspective this book would be easy to criticize for lack of substance and detail. However, Holmes accomplishes his goals, and he makes no pretense of academic rigor. Simply, he takes a fun look at fun maps. The book's main value lies in its examples and in Holmes' discussion of pictorial map design. The book is meant to be looked at and here lies its appeal. It is copiously illustrated in color and gives one a great deal to explore. To fit the number of illustrations in this book, they are often small; however, as examples of the themes, the maps are well chosen and are large enough to illustrate the point.

Few, if any, books are perfect. Other than a few typographic errors and two instances of misplaced graphics, the only conceptual error is a bungled description of Kitiro Tanaka's illuminated contour method (p. 151). Tanaka's (1950) method does not employ hachures between the contours, but instead uses a medium background with light and dark contours of systematically varied width to represent, respectively, the lighted and shaded sides of the land surface. The remainder of his discussion of this method is accurate. These are minor deficiencies and do not significantly detract from the book's impact.

The subject, pictorial maps, overlaps slightly with several other books; e.g., Monmonier's *Maps with the News*, Tufte's books *The Visual Display of Quantitative Information* and *Envisioning Information*, and Wurman's *Information Anxiety*; however, these are different books written with different purposes in mind. This is the only book that examines a very different genre of cartographic material and is therefore one of the few sources that sees the role of maps in a broader context of commercial art and design. This book shuns typically sterile approaches taken toward maps, and the book in its own right is not meant to be taken entirely seriously. It has much to offer visually and would be a good source of inspiration for cartographers and information graphics artists, for a cartographic design class, or for anyone with an interest in maps. *Pictorial Maps* is a book to be looked at, and in looking, we might learn to escape the flatland of conventional cartography.

References

Tanaka, K. 1950. The relief contour method of representing topography on maps. ***The Geographical Review***. 40(3): 444-456.

ATLAS REVIEW

The New State of the World Atlas, 4th edition

Michael Kidron and Ronald Segal, London: Simon and Schuster, 1991. 159 pp, maps. $15.00 paper. (ISBN:0-671-745-565)

Reviewed by Ellen R. White
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This edition updates and revises a volume first published by Pan Books in 1981. As in previous editions, the atlas shows that while much has changed in the world, much remains the same.

The atlas is composed of 50 world maps (including 12 cartograms) divided into the following sections– The Scene, Economy, Society, Government, Holds on the Mind, Business, Labour, Arms and the State, and Environment. Each map occupies a two page spread and frequently contains a smaller world map and/or a graphic on a related topic. Insets are included where appropriate and generally cover the areas of Europe or the Middle East. All of the map topics relate to current issues, e.g., population growth, food production and distribution, health and disease, government influence, international corporations, or military presence. A set of explanatory notes discusses each map in terms of the data used to create it, sources, reliability, and brief remarks on interpreting what is shown. A table of basic data for each country is also included.

The authors provide very little information in this current edition as to their intentions, however, perusing the introductions of past editions gives insight not only into the purpose, but also the evolution of the content of the atlases over the past decade. Rather than compile a standard reference work, *The State of the World Atlas* is intended to be a work of cartojournalism and provides a frame of reference for the interpretation of events. The events involve issues of an international scale and the maps are often cross-referenced to one another. For example, notes for the map on global warming refer the reader back to maps on national income and unproductive labor. It also appears that the selections of topics in the atlas have also evolved over time, reflecting changing concerns in the world at large. Less emphasis is paid to nuclear threats (featured heavily in earlier editions) and more space is given economic and social domination by multinational corporations and large governments.

A major shift in the atlas production techniques has taken place since 1981. Originally, many of the maps were hand colored or used transfer patterns. Today's edition is computer-generated and, in a cartographic sense, a much finer product. Overall, the graphics are clever and well executed. A few of the color scales left me confused due to their color sequencing (e.g., Mostly Down, pg. 91; and Diplomacy, pg. 14) yet the somewhat unconventional use of color communicates well. The atlas, as a whole, is largely free of typographic and other production errors, although the notes for the first map, The World of States, refer to states in red and green where orange and beige appear on the map itself.

Overall, I found the atlas to be much more interesting than I had expected, a reflection on my ignorance. Each plate is full of information that really only becomes apparent upon close study and a careful reading of the associated notes. I would recommend this publication to anyone curious about our relationships within a global society.

(An interview with the designers and producers of The State of the World Atlas *appears on page 28-31 in this issue of* ***Cartographic Perspectives****.)*

SOFTWARE REVIEW: ATLAS*PRO and ATLAS*GIS

Reviewed by Robert Werner
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A considerable amount of cartographic work is done with commercial software instead of specialized programs attentive to the needs of cartographers. This is true both for cartographic production and education. Examples of such commercial software are ATLAS*PRO and ATLAS*GIS. These programs will accomplish some of the needs of cartographic production and education, but have important limitations. Cartographers continually review many mapping and analysis programs, needing to evaluate them for their functionality and educational quality. This review is meant to contribute to this ongoing task.

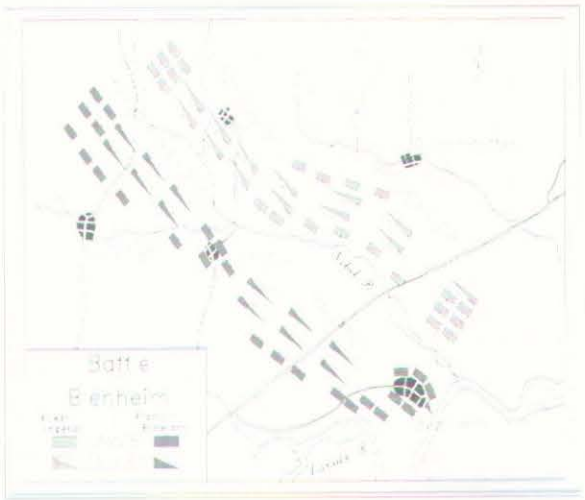
ATLAS*PRO is a vector-based mapping program; ATLAS*GIS is both a vector-based mapping and GIS program. Both programs are designed to run on an IBM PC or compatible, and there is a version of ATLAS*PRO for Macintosh. ATLAS*PRO is a subset of ATLAS*GIS; in other words, ATLAS*PRO and ATLAS*GIS are the same programs and have the same functions and user interface, except that 1) ATLAS*GIS has some GIS functionality, including union and intersection overlays, address matching, and buffering, and 2) ATLAS*GIS supports digitizing tables. All comments below apply to both programs, with those two exceptions. Separate comments at the end address ATLAS*GIS.

HARDWARE REQUIREMENTS

Minimum requirements are an IBM PC-compatible, 80286 or above, with at least 640 Kb of RAM and 2 Mb hard disk, VGA or EGA graphics, and DOS 3.0 or later. My recommendation would be for an 80386 with a math co-processor, 1 Mb or more of expanded memory, and a much larger hard disk.

TYPES OF MAPS PRODUCED

The programs are capable of producing choropleth, graduated symbol, dot, line symbol, point symbol, and other area-shaded maps.



*An example of a map created in ATLAS*GIS*