

will tell you it's the typography that sets the great maps apart from the average ones. Selecting appropriate typestyles when designing and compiling a map should, therefore, not be taken lightly. Not all typestyles work well on maps. For that very reason, early in the history of National Geographic's Cartographic Division, Charles Riddeford designed typefaces exclusively for use on National Geographic's maps to give them character and an identity. The rest of the map-making world, it seems, is resolved to use such typefaces as Helvetica and Franklin Gothic.

Unlike its counterparts, Michelin uses predominantly Helvetica and members of its font family such as Helvetica Condensed. Overall, it's used well. But if, as on Travel Vision's map, they had used a few serif typefaces such as Times Roman, New Century Schoolbook or Memphis for drainage, water or large land features, Michelin could have presented us with an award winner. When only sans serif typestyles are used, the map can take on a 'produced on a computer' look. And, unfortunately, there are too many maps made today that have that similar look.

In conclusion, except for the size, I enjoyed using Michelin's new map *Central Washington DC*. I'd like to add that as more and more cartographers are designing, compiling and producing maps on computers they are faced with the challenge of remembering that the computer is only a tool. Strong typographic skills, a good sense of color, and a keen visual mind are paramount. It is the mapmaker's creative energy that produces useful, informative and beautiful maps.

Editor's note: Michelin's Central Washington DC Street Map earned a Best of Category Map Series award at the 1992 Map Design Competition of the American Congress on Surveying and Mapping.

BOOK REVIEW

Abrams, L.N. (1991) *Our Secret Little War*. Bethesda, MD: International Geographic Information Foundation, 87 pp. Softcover \$35. ISBN 0-944426-47-6. Library of Congress Catalog No. 91-071237

Reviewed by Michael Russell Rip, Michigan State University.

Automated mission planning and rehearsal systems (MP&RS) saw widespread use during Operation Desert Storm. The US Air Force, Navy, and Marine Corps credit such computerized systems with saving many aircraft and pilots from destruction by minimizing the number of sorties flown and ordnance delivered to achieve the desired objective. In fact, MP&RS enabled F-117A Stealth Fighters to plan their critical missions over the heavily-defended Iraqi capital, Baghdad. Rehearsing a mission prior to leaving the ground enabled pilots to develop a familiarity with the target area and decide on appropriate attack strategies and how best to use terrain to mask their approach and exit. Pilots employed these terrain visualization techniques to better understand the target and surrounding area, and plan flight information, routes, and produce flight maps. How this was achieved using MP&RS is one of the better kept 'secrets' of the 1991 Persian Gulf conflict. Two commercial remote sensing satellites, as well as a number of military satellite and aerial platforms, provided digital imagery at various spatial and spectral resolutions. LANDSAT and SPOT satellite imagery combined with digital terrain elevation data provided by the Defense Mapping Agency (DMA) within a MP&RS environment allowed for the development of three-dimensional perspective views along specific flightpaths and pilots were able to

interactively 'walk/fly through' areas of interest.

If military targets are visualized, and aerial bombing missions and attacks planned and practiced this way using digital computers in 1991, what techniques were used in earlier times, especially the military campaign waged against Western Europe during World War II? This is the subject of Abrams' book *Our Secret Little War*; something that appears to have been neglected in the plethora of titles dealing with the history of the Second World War.

In a capsule, this interesting 87-page book is the story of Leonard Abrams and his career — and those of many Allied men and women — in the model shop, officially referred to as V-Section. This joint British-American team were responsible for constructing accurate and highly detailed scale models of strategic and tactical targets and battlefields from aerial reconnaissance photographs. Many of the most important land, sea, and air attacks undertaken in western Europe during World War II were planned using these models. For example, a scale model of Peenemunde not only enabled intelligence experts to infer the real purpose of the site — the testing of the secret German V-weapons — but also became a briefing model for planning the successful heavy bomber attack.

Happily, this book is profusely illustrated with 32 pages of interesting, and in many cases never before seen black and white photographs of the three-dimensional scale models, including the only color photograph of the 1:5,000 scale Normandy (Cabourg-sur-Dives) model used in planning the D-Day invasion. From these pictures and text, the reader will come to respect the modelers' skills and techniques. In fact, the scale models were so detailed that it is difficult to distinguish the photograph of a model from a

reconnaissance photograph. In a time before the advent of modern two- and three-dimensional computer graphics and solid modeling, not to mention digital image processing systems, the construction of scale models by the V-Section extended the insights provided by traditional photo interpretation into the third dimension.

The book contains eleven chapters, covering the period from October 1942 to November 1945, a complete index and a fascinating illustrated glossary of model making that details the scale model production process using actual black and white photographs taken during the war.

Priced at \$35 and only available in softcover this volume is a relatively expensive item. Nevertheless, I can readily recommend *Our Secret Little War* to anyone with an interest in the history and uses of aerial photography, as well as those who build and/or use scale models.

LANDFORM MAPS AVAILABLE

The 1:3,500,000 scale shaded relief image of the United States described in Richard Pike's and Gail Thelin's featured article "Mapping the Nation's Physiography by Computer" (*Cartographic Perspectives* Number 8, Winter 1990-91) is now available. The 55.5" x 35.5" black and white sheet can be purchased for \$5 from U.S. Geological Survey Map Sales, Federal Center, Box 25286, Denver, CO 80225; (303) 236-7477.

Watch for a review of the Pike and Thelin relief image by Peirce Lewis in a forthcoming issue of the *Annals of the Association of American Geographers*.

Two value-added map products based on the Pike and Thelin image are available from Raven Maps and Images, 34 North Central, Medford, OR 97501;

(800) 237-0798. "The United States except Alaska and Hawaii" overlays color hypsometric tints, hydrography, roads, county seats and state boundaries (derived from USGS 1:2,000,000 National Atlas sheets) on the landform image. "Landforms and Drainage of the 48 States" is a black and white sheet that superimposes named hydrography. Both maps are 58" x 37" and are priced at \$35 (\$60 laminated) plus shipping. As we have come to expect from Raven, the maps are exquisitely printed.

U.S. TOPOGRAPHY DATA FOR PERSONAL COMPUTERS

The National Geophysical Data Center has developed a digital topography data and software package designed for personal computers. The package contains a complete 30-second resolution point topography data base for the conterminous United States and a set of software for accessing the data.

The data were originally developed by the Defense Mapping Agency Topographic Center and revised by the National Telecommunications Information Administration. The topography data set spans the entire United States (excluding Alaska and Hawaii) and a small portion of the bordering areas. Elevations are given for every 30-second by 30-second coordinate cell (approximately one square kilometer).

Access software which enables the user to select and extract data from any area within the data base is included. Menu-driven screens allow the user to choose the coordinate boundaries of the area to be extracted and select from columnar, array, or undelimited file format options. The program operates in DOS with no additional software needed. A separate user manual details software usage and data base information.

The price for the entire data set

and access software is \$310.

Specify product number 168-A25-001. Regional subsets available for \$50 each. Call for details.

Data contributors and academic researchers should call (303) 497-6764 for information about obtaining data by special arrangement.

Make checks and money orders payable to COMMERCE/NOAA/NGDC. All foreign orders must be in U.S. Dollars drawn on a USA bank. A \$10 handling fee is required on all non-USA orders.

Orders may be charged to American Express, MasterCard, or VISA by telephone or letter; please include credit card account number, expiration date, telephone number, and your signature with the order.

Please direct telephone inquiries about these data to (303) 497-6764 or fax (303) 497-6513; internet: info@ngdc1.colorado.edu. Inquiries, orders and payment should be addressed to National Geophysical Data Center, NOAA, Code E/GC1, 325 Broadway, Boulder, CO 80303.

REFERENCE MATERIALS AWARDS

The National Endowment for the Humanities Reference Materials Program supports projects to prepare reference works that will improve access to information and resources. Support is available for the creation of dictionaries, historical or linguistic atlases, encyclopedias, concordances, reference grammars, data bases, text bases, and other projects that will provide essential scholarly tools for the advancement of research or for general reference purposes. Grants also may support projects that will assist scholars and researchers to locate information about humanities documentation. Such projects result in scholarly guides that allow researchers to determine the usefulness or relevance of specific materials for their work. Eligible

for support are such projects as bibliographies, bibliographic data bases, catalogues raisonnés, other descriptive catalogues, indexes, union lists, and other guides to materials in the humanities. In both areas, support is also available for projects that address important issues related to the design or accessibility of reference works. The application deadline is September 1, 1992 for projects beginning after July 1, 1993. For more information, contact: Reference Materials, Room 318, NEH, Washington, DC 20506.

MORE BIG MAP IDEAS

Young map makers tackle the United States

Sending out more than 200,000 TRIP-PLANS each year means a lot of mapmaking for the Allstate Motor Club. But the motor club has never tackled a U.S. map as large as the one recently made by 65 fourth-graders at Grove Avenue School in Barrington, Illinois.

The students, under the direction of teacher Jeff Andruss, used chalk to painstakingly sketch and color a 50'x85' map of the United States on the suburban Chicago school's playground blacktop.

"We created the map so kids could see all 50 of our states and where they were," Andruss says. Many educators have lamented children's lack of geographical knowledge.

"Any time kids can have a hands-on experience, the more rich it is," says Principal Cindy Kalogeropoulos. "We're trying to instill a sense of respect for different cultures in our country and throughout the world."

The Allstate Motor Club visited the fourth-graders shortly after they had completed the two-month project. Representatives from the motor club talked with the students and gave each of them a TRIP-PLAN to trace a route

from Chicago to Orlando, Florida. Grove Avenue is one of many Chicago-area schools that the motor club will visit this year to give students an early start in learning how to read and understand the kind of maps they will encounter in everyday life.

Andruss, who conceived the map project, also appreciated the smaller maps the motor club provided. "The kids got a greater sense of where the highways are, not just the state lines," he says. "I think they realize they have a whole world they haven't learned about yet." Andruss encouraged the students' learning by incorporating the map into outdoor games.

"Who can be the first one to Missouri?" Andruss asks, and students immediately dash to stand inside the state's border. Everyone involved in the project hopes that the students' enthusiasm will carry over into a real exploration of at least some of the 50 states.

Discovery Magazine, Spring 1992

Professional Playground Maps

An outfit named USA Designs (4855 W. 159 St., Oak Forest, IL 60452; (708) 535-2400) will professionally stencil a variety of large (typically 60'x30') multicolored maps on your asphalt or concrete surface. Customers can choose from world, continental and U.S. maps. Prices range from \$495 to \$1,895. The company states that map data are derived from standards set by USGS.

GENIP News, Fall/Winter 1991-92

map librarian bulletin board

MAP AVAILABILITY RECORDS ON GPO CATALOGING TAPES

GPO (the Government Printing Office) has been receiving feed-

back from vendors and the depository library community concerning the cataloging records for availability versions of map records as they appear on the GPO Cataloging Tapes. GPO's practice has been to produce multiple availability records with the same OCLC control number. This practice, combined with the normal duplication process performed by the Library of Congress, Cataloging Distribution Service (CDS), makes it difficult for many local systems to identify and process these records.

Current Procedure: GPO creates an availability record for each individual map quadrangle of a particular state by using the collected set records for the entire state. The collected set record is modified to reflect and identify each specific quadrangle, the record is then produced, which creates a bibliographic entry in the Monthly Catalog and on the GPO Cataloging Tapes. Each quadrangle in a state has the same OCLC control number, the OCLC control number of the collected set record. The availability records that identify each individual quadrangle do not appear on the OCLC database. The collected set record remains unchanged on the OCLC database.

GPO currently distributes collective and availability records for maps on the GPO Cataloging Tapes distributed by CDS. Only a portion of the map availability records are distributed following the deduplication process at GPO and the Library of Congress. A deduplication check is performed using the 001 field (OCLC control number) and the 005 field (date and time of latest transaction). If a single month's data contain multiple transactions with the same OCLC control number, only the latest iteration of a record is retained and distributed by CDS.

New Procedure: On December 9, 1991, GPO will begin to provide