

boundaries, and circles on the third map obliterate everything beneath them. In the center of plate 56, there is a multi-part, two-color graph of social welfare institutions that lacks a key to the colors; it is not hard to infer the meaning of the graph but that does not excuse the lack of a legend. At the top of plate 17, a map of fur production displays a network of heavy black lines (district bounds, perhaps) that are not identified in the legend or the text. The map of "Cleared Land, 1842" on plate 14 is a dot map on which the dots appear in interesting patterns within townships. As in all maps of this type, the number of dots (communicating quantity) and their positions (communicating pattern of distribution) are the key elements. How frustrating to learn from the back notes that the dots have been plotted according to a randomizing program, implying that the positioning of the dots is completely artificial and is not related to any characteristic of the data. However, the most frequent and frustrating experience is encountering maps that feature a spectacular but confusing mass of overlapping graduated circles (the quantitative symbol used most often). Inevitably, the reader is left wondering what can be inferred from such a display, other than an abundance of the particular phenomenon. No atlas as large, as complicated, and as densely packed with data as this one is can be entirely free of glitches and small errors in design and execution, but the problems described above are neither isolated nor unusual; they are representative samples of what too often confronts the map reader who examines the details of the plates and tries to grasp their message.

On a number of plates, the base maps employed to show distributions are colored to distinguish between "settled area" and presumably empty land. The term

"settled area" is never defined. It could mean population density above some minimum level. A comparison with the dot maps of population distribution reveals a very close correlation between the distribution of people recorded in the censuses and the settled areas, although the 1851 "settled area" south of Dalhousie and Chaleur Bay is much larger than it is for later censuses and is larger than appears warranted by the population distribution map for 1851. Plate 5 implies that all land used by Indians in 1891 lies outside the settled areas, and that "settled area" means territory occupied by people of European background. The Indian reserves fall in the non-settled area. Perhaps by 1891 there no longer were any Indian settlements, and perhaps the key really is population density, but whatever the standard is, it should be made clear to the reader. This is more than a matter of vogueish political correctness, for it speaks the editors' fundamental conceptions of the nature of Indian culture and of the subject matter of the atlas. It may be one of the issues of interpretation that later researchers will dig out of this "research quarry reflecting contemporary views."

How easy or difficult is it for a reader to find the information and insights that the authors and editors have poured into this book? That is a question that must be asked of every reference work. For example, can a reader quickly and easily find a long lost fur trading post or military garrison in this atlas? Trading posts and garrisons are mapped here, but, without an index, the answer is: no, it will require time and effort. Of course, anyone trying to compile an index would be frustrated by the floating maps and text because they bear no coordinate system with which to make references. What about plain topical research into a subject

like population? Even though several plates are explicitly concerned with demography, information about population is also presented on a number of plates concerned with other subjects. The table of contents is a good one, but it is not meant to function as anything except a table of contents, and having to search it for the titles of maps and graphs on population is an unattractive chore. By the standard of accessibility, this atlas fails, and that may discourage readership.

Hundreds of talented, accomplished, and dedicated people, some of whom labored at this project for nearly two decades, did a marvelous job of gathering a treasure of historical knowledge and insight, and then they put it almost out of reach by casting it in a barely accessible form. Had more attention been paid to making the information highly accessible and to assuring clarity in the maps and text, this second volume of the *Historical Atlas of Canada* would have been the exemplary contribution its makers strove to achieve. □

ATLAS REVIEW

Atlas of the Pacific Northwest, 8th ed.
Philip L. Jackson and A. Jon Kimerling, editors. Corvallis, Oregon: Oregon State University Press, 1993. 152 pp., maps, diagrams, tables, photographs. \$32.95 cloth (ISBN 0-87071-416-3). \$19.95 paper (ISBN 0-87071-415-5).

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This regional atlas of the Pacific Northwest was first produced in 1953 and new editions have been published every four to eight years

since. The edition previous to this 1993 edition was published in 1985. The volume is largely a product of the Department of Geosciences at Oregon State University. Nine of the contributors (including the two editors) are full-time faculty members and three contributors are emeritii of that Department. Other contributors are from the Marine Resources Program at Oregon State University, the Geography Department at the University of Washington, and the Oregon Department of Transportation.

Each chapter was prepared by one or two of the sixteen contributors. The chapters range in length from five to thirteen pages. The first chapter provides a brief introduction and spatial context for the region. Seven chapters cover human geography issues: "Historical Geography," "Population," "Transportation," "Land Use," "Agriculture," "Manufacturing and Industries," and "Recreation Resources and Tourism." Four chapters cover physical environment issues: "Landforms and Geology," "Climate," "Vegetation," and "Soils." Six chapters cover some aspect of resources: "Water," "Energy," "Commercial Timberland," "Ocean Resources," "Minerals and Mining," and "Hunting and Fishing."

The atlas combines text, tables, maps, photographs, and other graphics. There are a total of 159 maps, 31 photographs, 27 tables, 20 graphs, 5 illustrations, and 3 block diagrams. The volume has an 8.5" x 11" page size, and is bound as six signatures in a 32-32-16-16-32-32 page sequence, and utilizes what appears to be a 160 line dot tint. The four 32-page signatures are printed on a bright white un-coated stock in two colors: black and a reddish-brown, reminiscent of the color scheme and appearance frequently found in many textbooks. The middle two 16-page signatures are printed

in four-process color, creating visual variety and a different look in this part of the atlas.

The body text is set in Times Roman, 11/13 and 19 picas wide, creating an uncluttered and inviting appearance. A variety of typefaces are used on the graphics, including Times Roman, Bookman, Futura, and Helvetica and the sizes vary from 4 point to 20 point and are very legible.

A number of map types are used in the atlas to illustrate a variety of distributions. Point, line, and area shading symbols are used to identify cities, highways, parks, dams, major tectonic features, etc. Isoline maps are used to portray the distribution of precipitation, temperature, mean date of last killing frost, and surface runoff. Dot maps present information on population and agricultural production. Graduated pie maps relate patterns of minority population by county, surface water withdrawals by use, and waterfowl harvest. Choropleth maps portray population density, percent of land in farms, percent change in employment, and a variety of other economic and agricultural data.

This new edition states that it has "113 new maps and charts, and several maps have been redesigned for graphic clarity." Although many maps are new, most are simply reprints from earlier editions. This mix results in frequent shifts in style from map to map that reflect the various looks of several editions. This stylistic contrast is especially apparent in variations in line weight hierarchies, shifts in typeface selections, and differences in base map detail. These inconsistencies are particularly noticeable when maps appear side-by-side (as on page 28, where one map uses a red-brown thematic layer on a gray flat tint base and the other map reverses the visual association and uses a black thematic layer on a red-brown

base). This raises a basic issue with regard to atlas design; should a rigid set of design guidelines be followed in an attempt to produce a uniform "look?" Or should the guidelines be allowed to vary in an attempt to make each map distinctive and thereby stand out in the reader's memory? There is unlikely to be a "right" answer to this question.

Other graphic shortcomings of the atlas include poor symbolization choices. This is particularly apparent in the diagram on page 87 and the maps on pages 96, 108, 134-5 and 138-9, where graduated symbols would have been more effective to show different quantities. There are also problems with the photos; all but one or two of them lack captions and their connection to the text (if any) is unclear. There is a sense that the photos are included simply as space filler and to provide visual variety.

The most serious criticism of this atlas relates to the documentation of information and data. The atlas has no index—a situation that might be excused by the topical nature of the chapters and the relative ease of finding subjects within such a structure. However, there is no bibliography either. Only one map and a handful of the tables in the atlas cite their data sources. Perhaps the most glaring example of this problem occurs on page 137, where the text discusses a recent analysis "undertaken by Swanson" and a map is presented based on that analysis, but nowhere is there a bibliographic citation of the Swanson source. Three chapters do end with lists identified as "Further Reading," "Sources," or "References." However, the omission of a proper bibliography leaves the reader with no springboard to explore issues further.

Overall, a good job was done in editing the atlas and few errors were detected. The registration is