## Notes

1 The third great book is discussed in my article in the October 1979

2 Danto's metaphysics is presented in his Analytical Philosophy of Knowledge and Analytical Philosophy of Action, and summarized in his What Philosophy Is. Wollheim's naturalism is discussed in his "On Persons and Their Lives" in Amélie Rorty, ed., Explaining Emotions, and in his British Academy lecture. The Good Self and the Bad Self. Some of his essays on imagination and art history and criticism are collected in his On Art and the Mind. The personal relation of these aestheticians to art is described in Danto's memorial to Munakata, The Print Collector's Newsletter, X(6) (January-February 1980); in Wollheim's account of his great friend, the critic Adrian Stokes, in PN Review 15, 7(1) (1980); and in Wollheim's novel A Family Romance, and his account of the implicit social background to that novel, "Babylon, Babylone," Encounter, May 1962

P. D. A. Harvey. The History of Topographic Maps: Symbols, Pictures and Surveys. London: Thames and Hudson, 1980, 199 pp., maps, bibliography, index. \$29.95.

## **Reviewed by Wilbur Zelinsky** The Pennsylvania State University

Only once in a long while is cartographic literature enriched by a work that challenges the reader's critical faculties or asks interesting new questions. This is one of those rare occasions, for P. D. A. Harvey has done both. The author, professor of medieval history at the University of Durham, has provided us with the first detailed history of topographical maps from prehistoric times up through the sixteenth century (when they become recognizably modern); and, at the same time, he has proposed a theoretical framework to accommodate the available facts, one that compels us to wrestle with several basic issues in symbolic communication. Despite my reservations about his hypotheses, we have here a document I must strongly recommend to any serious student of visual communications, and not just cartography.

Before I begin jousting with some of Harvey's notions, let me offer the kindest of kind words about the book as an example of the art of bookmaking and for its packaging of a considerable mass of data. It is a lovely volume in terms of page design, typography, paper, dust jacket, and, especially, the 106 illustrations, some of them in color. Moreover, Harvey's lucid prose and avoidance of jargon or intellectual posturing make this a work that can appeal to the greenest of novices as well as the most advanced of specialists.

It is essential to note the limits in coverage. Harvey has tried to concern himself solely with topographic maps, that is, schematic representations at a large scale of segments of the earth's surface small enough to lie within sensory range of their inhabitants. In their modern form, such maps are drawn to scale and combine the skills of surveyor and cartographer. They stand in contrast to "geographic," or small-scale, maps that cover much larger tracts far beyond the ken of any single observer—a species of cartography much better documented and researched than the subjects of this study. Despite the practical and theoretical importance of the distinction between the two genres, the author is obliged, on occasion, to treat some aspects of small-scale mapping, for its evolution was not entirely unrelated to the development of

topographic mapping.

In his Introduction and 11 chapters that pursue a rather elastic chronological sequence, Harvey presents and interprets what appears to be every available scrap of evidence. (One can only marvel at his zeal and erudition.) And, until late medieval (or early modern?) times, the surviving examples of topographic mapping are scrappy indeed. With the utmost catholicity, the author reviews such aboriginal items as we have recovered to date that seem to be wholly or largely free of European influences and maps from the early Far East, India, Mexico, the Near East, and medieval Europe as well as ancient Greece (a grand total of one Hellenic artifact!) and Rome. They exist in a variety of physical media, including sticks, sand, clay, stone, metal coins, and mosaic tiles as well as the more familiar parchment and paper; and Harvey has reviewed a variety of representational forms bearing directly or indirectly on the matter at hand: building plans, elevations, aerial photos, legal documents, cadastral surveys, diagram maps, bird's-eye views, picture maps, landscape paintings. itinerary maps, and nautical charts. I do regret his saying so little about landscape painting and its connections with map-making, especially in the exuberant artistic traditions of China, Japan, and Western Europe; the topic is pregnant with unrealized possibilities.

All of this evidence is arrayed so as to support the basic argument of the book, as suggested in its subtitle: that there has been a progression from an initial primitive phase, in which highly abstract symbols prevailed, to the next, in which landscape details are rendered pictorially as they might be seen laterally or in diagonal perspective from above, and that the picture-map is succeeded by a culminating form, the survey map, in which the results of methodical survey are drawn more or less true to scale using abstract conventions and only a few vestigial pictorial symbols. One wonders whether a similar scheme might be suggested for other modes of communication.

There are at least three other corollaries to this central theme: that "the form a map takes-whether of symbols or of pictures—reflects the general level of a society's culture"; that cartographic thinking is a rare phenomenon, appearing only sporadically in "islands of map-consciousness"; and that, given the foregoing premises, topographic mapping, and most especially its more advanced forms, diffused outward over space and time from these oases of cartographic precocity. In his Introduction, Harvey also flirts with the possibility that cartographic ontogeny recapitulates phylogeny by referring to the results of Denis Wood's investigation of the progression of hill symbols as used by untutored youngsters of various ages.

This is certainly an exciting idea, or cluster of ideas; but I am afraid that, for the time being, it must remain speculative rather than certain or even probable. In the first place, as already indicated, the evidence is too fragmentary, too widely dispersed areally and temporally to offer firm footing for any general explanation of the history of topographic mapping. Despite his extraordinary diligence, Harvey is unable to cite even one society that has experienced all three of the postulated phases in the proper order. Moreover, the two non-Western European civilizations for which we have the best cartographic records—the Roman and Chinese—seem to have undergone two partial cycles (from picture maps to survey maps, then the same sequence once again), but without any tangible clues of any primordial stage of symbolic mapping, and no adequate explanation by Harvey for the interruption of the first cycle. In addition, the author tends to undercut his own argument in a discussion of a Sumerian stone carving of the 3d millennium B.C. when he muses, "It is an interesting comment on the unevenness of man's advance in ideas and techniques that when we turn to the most sophisticated form of topographical map—the scalemap, drawn to a consistent scale from actual measurements—we have to start by looking at some of the oldest maps that are known to exist.'

The Harvey thesis may be the correct one, although we shall have to recover and sort out much more evidence from neglected archives and archaeological digs to give it a fair hearing; but the facts, as presented in this volume, are susceptible to alternative, equally logical hypotheses. For example, one could make the case that all three modes of large-scale cartographic expression, the symbol, picture, and survey map, coexist now and have done so for thousands of years. Thus, just which type of drawing dominates at a given time or place may depend on a map's immediate purpose and the market it is intended to serve or the relative strength of various technologies. And, as a matter of fact, if we look at even the most sophisticated topographic quadrangles being published nowadays, it is not difficult to identify all three cartographic languages on the same sheet.

My most basic guarrel with this book—and with almost every other treatment of maps—is a reluctance to define precisely what it is that we are talking about. Although Harvey is courageous enough to ask, "Just what, after all, is a map?"—a question that goes to the very heart of any theory of communication—his answer is incomplete and evasive. Because of an unwillingness to confront this most central of issues, he confounds cartography with mapping: "... the capacity to make maps, the habit of mind that thinks cartographically, is something that cannot be taken for granted even in quite advanced societies; it involves ideas that are far less simple, far less a normal part of human intelligence than we are apt to suppose, and if we have interpreted the evidence correctly map-making seems to have appeared rather

erratically in the course of man's history."

I cannot agree. Cartography, that is, the production of some relatively durable physical object that represents spatial relationships among various phenomena, is only one part, and a very small part at that, of a larger activity, i.e., mapping. And mapping, I would claim, in one form or another is a form of behavior that is universal among human beings, young and old, in every society and era and includes bodily gesture and movement and verbal expression, not to mention thought; its cartographic expression, though important, is incidental, and its absence does not denote creatures who do not practice nondocumentary forms of mapping. To say that "the capacity to make maps" is rare and limited is about as absurd as saying that human beings never danced until choreographic notation was invented a few decades ago or the first cinematographer recorded a ballet for the first time, or that people never sang until they learned how to set notes down on paper or never dined before the first menu was printed. Although this argument may strike the reader as frivolous or too subtle or far-fetched at first glance, I believe that after some reflection it will be granted some relevance. We cannot write a meaningful history of music or dance—or of drama and art—before arriving at meaningful definitions of these things. Harvey has given us an important initial statement about the early history of topographical documents. He or someone else could advance our understanding much further by placing the discussion within a broader, more realistic view of that basic human activity known as mapping.