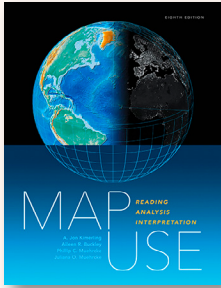


MAP USE: READING, ANALYSIS, INTERPRETATION, 8TH EDITION —



by A. Jon Kimerling, Aileen R. Buckley,
Phillip C. Muehrcke, and Juliana O.
Muehrcke; foreword by Jack Dangermond

Esri Press, 2016

664 pages, 550+ illustrations. \$99.95,
softcover.

ISBN: 978-1-58948-442-9

Review by: Daniel G. Cole, Smithsonian Institution

This hefty book, now in its eighth edition, has evolved over the past 40 years from an entertaining read about map use, reading, analysis, and interpretation into a formidable textbook on these subjects. The Preface tells us that “this book offers a comprehensive, philosophical, and practical treatment of map use in three primary ways” (ix). “First,” the authors write, “we define a map as a graphic representation of an environment that shows relations between geographic features ... second, we make a clear distinction between the tangible cartographic map and the mental or cognitive map of the environment ... third, we reference commercial products and services of special interest to the map user” (ix–x). As an afterthought, they also promise to show how map use is relevant to daily life. This review will look to see if this book achieves its goals.

The text is organized into three parts: Map Reading (eleven chapters), Map Analysis (seven chapters), and Map Interpretation (four chapters). Each section has a two-page preface, and every chapter is led with a preamble somewhat less than a page in length. Rather than providing a single reference section at the end of the book, the authors place lists of selected readings at the end of each chapter. In addition, the authors note that “several of the new illustrations are linked to online animated and interactive maps through QR codes” (x).

The Introduction covers, in variable depth, several basic topics, including: Mental Maps, Cartographic Maps, The Map Transformation Process, What Makes Maps Popular?, Functions of Maps, and Map Use. It cautions the reader that “maps, even more than the printed word, impress people as authentic. We tend to accept the

information on maps without question. This blind acceptance is potentially disastrous when using maps indiscriminately...You should also question the credibility of maps” (8). This warning is to alert the reader to the range of possible distortions, errors, generalizations, and biases on the cartographer’s part. It should be noted that these topics are discussed without ever mentioning the term “critical cartography.”

Part I starts with map reading, which involves determining what the cartographer has depicted and how to discover the map’s message. As the introduction to Chapter One points out, maps “tell you where things are and let you communicate this information efficiently to others” (25). In the first two chapters, the authors succinctly and logically cover the Earth & its coordinates and map scale, respectively. In Chapter One, they discuss the Earth as a sphere, the graticule, the Earth as an oblate ellipsoid, the differences between geocentric versus geodetic latitude and longitude, and the Earth as a geoid; the explanations are clear and useful. Likewise, Chapter Two features good explanations of expressing scale, large and small-scale maps, converting scale, and determining an unreported scale. Table 2.1 “Commonly used ways of expressing map scale” (43), is especially helpful by covering not only US, but also UK and Canadian practices.

Chapter Three covers projections—a difficult subject for many map users—with sufficient clarity to allow the reader to understand map projection processes, as well as their properties, families, and parameters. Illustrations in this chapter are quite well designed and informative. The fourth chapter discusses different types of grid coordinate systems. The text deals with Cartesian coordinates, UTM, Universal Polar Stereographic, state plane, state grid, and other grid systems (although the Ordnance Survey National Grid [OSNG] dominates the “other” category), and how these systems are used and determined around the world. Grid coordinate determination on maps and grid cell location systems, such as the Military Grid Reference System, US National Grid, OSNG, and proprietary grids are also described. Land partitioning, described in Chapter Five, covers the history and logic behind irregular systems such as metes and bounds, French



© by the author(s). This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.