work; he was obliged to give his theory. Even if understandable, the result was unfortunate. Snow rushed and in his hurry chose not to carefully consider the concerns of other researchers. He knew he was right and was...impatient" (241, ellipses in original). This style has the effect of belying Koch's own point about the importance of relying on the weight of evidence rather than the force of personality to overcome the objections of skeptics.

One minor criticism having nothing to do with the author should be mentioned: *Disease Maps* contains a surprising number of typographical errors, many of the sort that spelling and grammar checkers routinely flag. Nouns are missing, words are misspelled, at least one date clearly misidentified, words are reiterated within sentences, and some punctuation is missing. Though these distractions (I marked 25 overall) do not prevent the reader from following Koch's line of thinking, they are out of character for a major university press.

Koch's command of information is impressive: the breadth of illnesses examined, the variety of maps that generated revelations about diseases, and the depth of detail about yellow fever, cholera, typhoid fever, and cancer all produce confidence in the book's main theme of viewing leading to theorizing and from there to knowing. *Disease Maps'* chapter paralleling the development of cartography with that of early anatomy is both thorough and engaging as well. The book is certain to be a useful addition to collections about epidemiology and the history of public health.

## RETHINKING THE POWER OF MAPS



By Denis Wood, with John Fels and John Krygier. New York, NY: Guilford Press, 2010. 335 pages, maps, figures, notes, index. \$30.00, Paperback. ISBN 978-1-59385-366-2.

**Review by**: Russell S. Kirby, University of South Florida

Rethinking the Power of Maps is a substantially updated follow-up to Denis Wood's The Power of Maps, published in 1992 to accompany an exhibit of the same name which he curated at the Cooper-Hewitt National Museum of Design, and which was later remounted at the Smithsonian Institution. The present volume is intended for a mass audience, yet readers with some knowledge of the history of academic geography and cartography will find several

chapters of considerably greater interest than will the general readership.

The book begins with a brief introduction, followed by eight chapters grouped into two parts titled "Mapping" and "Counter-Mapping." Wood defines these terms in the introduction: "mapping" is used to describe the ways that maps serve the interests of the state or polity, and "counter-mapping" focuses on uses of maps to resist the power of the state (7). A number of philosophical and historical topics of greater and lesser interest are covered in the first section, including the emergence of mapping as primarily a post-15<sup>th</sup> Century phenomenon, the uses of maps to create and maintain order on the ground and within society, map elements as "signs," and maps as aspects of culture.

The section on "Counter-Mapping" begins with a critical appraisal of the field of cartography, in which the author argues that the notion (propounded by Arthur Robinson and others in the 1940s and beyond) that cartography is, or was, a scientific discipline in its own right, never had a basis in theory or practice. The emergence of Geographic Information Systems and GIScience, Wood suggests, have sounded the death-knell for the discipline of cartography. Wood would not argue that there are no professionals who focus on cartography, but, rather, that new tools, techniques and methods of map dissemination make the process of map creation open to all. However, in the chapter on public participation GIS (PPGIS), Wood argues that most of what passes for PPGIS is a sham. The public has little say as to how a PPGIS is created, what its contents will be, or how it will be used. Furthermore, the role for "participation" is so circumscribed that the true potential of what might be achieved through public engagement can never be realized. While Wood makes this argument rather stridently, I found myself largely in agreement with the general proposition.

The book concludes with two chapters on the topic of map art. Here the discussion delves into the interface between contemporary art and methods of human expression and some artists' use of mapping in a variety of innovative and occasionally disturbing ways.

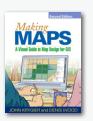
The section on counter-mapping was more intriguing to me than was the first section, as it points the way to the potential for future methods of expression using maps that extend beyond our current comprehension. As technology evolves, opportunities for counter-mapping will grow at an ever increasing rate—consider, for example, that at the time

Denis Wood completed this book, the now iconic iPad was only an idea, but since then, that device has transformed the way many access, use, and create information in all forms, including spatial data.

As one might expect from a geographer who teaches theory and principles of design, *Rethinking the Power of Maps* is illustrated with well-selected diagrams and maps that complement the arguments made in the text. The book is well-edited, the arguments are engaging, and the text is referenced in detail (the notes at the end of the volume take up 71 pages). At times the prose is more conversational than is typical of an academic discussion, but the occasional repetition that occurs is not too annoying.

Without question, this a book that professional cartographers will find of interest. Geography and map libraries should invest in hard-cover library editions, as this book will receive wide circulation. Many will undoubtedly read it in electronic book form, perhaps using iPads or other tablet devices. Personally, I would not recommend the book to someone just beginning to think about cartography and map representation, but those with some experience in mapping will definitely benefit from reading *Rethinking the Power of Maps*.

## MAKING MAPS: A VISUAL GUIDE TO MAP DESIGN FOR GIS, 2ND EDITION



By John Krygier and Denis Wood. New York City: The Guilford Press, 2011. 256 pages, maps, illustrations, diagrams, notes, bibliography, index. \$50.00, paperback. ISBN: 978-1-60918-166-6

**Review by**: Paulo Raposo, Penn State University

Writing in this journal, Denis Wood asserts that even if some of us consider ourselves among a trained professional corps of cartographers, "when it comes to mapmaking *there are no outsiders*," and that mapmaking may be practiced by anyone, trained or not (2003, 6). This, of course, is true, and *Making Maps* is written by John Krygier and Wood for everyone; the book is a very accessible text on the elements of maps and their design, aimed at a novice or layperson reader wanting to learn how to make a map with today's digital tools. It also serves as a textbook for coursework.

The book is unconventional. It opens with a short graphic novella, illustrating how two women quickly become interested in making maps to use in challenging their city's plan to put a major thoroughfare through their neighborhood. Following straight on, before the table of contents, Krygier and Wood begin the book with rhetorical reasons why people want to make maps, and how different designs variously play to these reasons. This is followed up with further discussion on the reasons for making maps in Chapter 2, "What's Your Map For?," as well as throughout the book. Other chapters deal with various elements of map design: data, tools and software, projections, graphic variables and symbolization, generalization, text, and color. The authors keep a single example map—The Flight of Voyager, by David DiBiase and John Krygier, 1987—running throughout the book, quite effectively returning to it in each chapter to discuss how it has dealt with the chapter's considerations. Chapters 6 and 7 particularly stand out; ostensibly these are overview chapters discussing the basic components of most maps (titles, labels, legends, etc.) and the concept of visual hierarchy, but these chapters do a nice job of having the reader consider those things immediately in the light of design notions such as placement, eye movements, symmetry, and balance.

The book is accompanied by a freely-accessible online blog, makingmaps.net. While many textbooks these days are accompanied by websites, makingmaps.net pulls together a gallery of maps and map-related art pieces, serving as an exhibition-like design muse.

The first edition of *Making Maps* was a good book, but the second edition is significantly better. The general layout of the pages is more balanced and does away with much of the excessive whitespace of the first edition. The font itself (Stone Sans) is crisper and more modern, and is used nicely as an exemplar in the chapter on text. Not counting the novella at the beginning, the chapter sequence is mostly the same, except that the final chapter of the first edition, essentially a list of questions to pose oneself during map evaluation, is gone. Also, while the first chapter in the first edition felt like a very concise distillation of texts from Wood, such as *The Power of Maps* (1992), the first chapter now takes a more pragmatic approach, and sets the stage for the challenge of making effective (and affective) maps. It does this using a list of questions like those from the last chapter of the first edition. As in the first edition, the second concludes each chapter with a set of intriguing and funny quotes, and a few highly-abstracted cartographic art