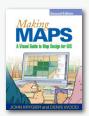
Denis Wood completed this book, the now iconic iPad was only an idea, but since then, that device has transformed the way many access, use, and create information in all forms, including spatial data.

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

pieces are placed between each chapter. Also like the first edition, the second provides the reader with a generally excellent set of references for further reading at each chapter's end. There are also substantial changes to the figures used throughout the book.

Some aspects of the second edition are particularly strong. As a whole, the book is actually quite beautiful and inspiring, and much of it stands as a good example of how black and white alone can achieve excellent graphic effect. The explanations of concepts are concise and effective, and written in an honest, colloquial style. Krygier and Wood's stress on data as it relates to intended map purpose is great. They devote a great deal of attention, for example, to data classification schemes in Chapter 8, providing effective visual examples and stressing the rhetorical impressions of each—a great passage I would have much appreciated in my freshman GIS class, learning about classification schemes for choropleth maps for the first time. Many discussions are accompanied by small diagrammatic maps that tend to display effective and non-effective design choices in extremes: quite useful to readers newly learning about design options.

There are only a few small shortcomings. While the authors suggest the book is suitable for both beginner and advanced cartography classes, it's probably much better used at introductory levels because of its persistent focus on basic map and graphic design elements. There is little nuance in the book's examples, verbal or graphical, to offer food for thought to more experienced designers. Further, while the use of *The Flight of Voyager* throughout the book to illustrate concepts from each chapter is quite effective, the book could have also benefited from doing the same with more examples of published maps by cartographers other than the authors. This latter point is partly addressed at the book's online blog, where Krygier has been posting various examples of maps and symbol sets with commentary.

The book is essentially very engaging and effective as a first text on how to make maps, and it stands out in its insistence that a mapmaker think about his or her rhetorical goals at each design decision. Well worth reading for someone new to the craft, or for someone wanting to review the rudiments with a fresh critical view such as Krygier and Wood provide.

## REFERENCES

Wood, D. 1992. *The Power of Maps*. New York: The Guilford Press.

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