

SCIENCE EDITORS' HANDBOOK. EDITED BY HERVÉ MAISONNEUVE, PEHR H ENCKELL, ARJAN K S POLDERMAN, RABI THAPA, AND MOIRA VEKONY. WEST CLANDON, SURREY, UK: EUROPEAN ASSOCIATION OF SCIENCE EDITORS; 2003. VI + 91 PAGES. LOOSELEAF. £21.50 OUTSIDE EUROPE; £18.00 WITHIN EUROPE. ISBN 0-905988-13-2.

This revised handbook was unveiled at the last triennial conference of the European Association of Science Editors (EASE) in Bath, UK, in June 2003, where it was presented to all registrants. It is also distributed to dues-paying EASE members and, unlike its predecessors, is available for sale outside the organization. The looseleaf handbook contains 47 short chapters arranged in four sections, each with several subsections. Thirty-seven authors contributed these chapters; because each chapter is limited to four printed pages, the content of each is necessarily brief, but the two-column format and A4 paper permit considerable text to fit into that four-page limit. All together, the editors have designed this handbook to summarize just about everything anyone might need to know about what running a scientific journal entails.

Hervé Maisonneuve's introduction provides a short history of the evolution of this revised and expanded handbook, raises some questions to users about the approach taken in this edition, and looks ahead to the next edition, seeking comments and suggestions from readers and users. Preaddressed cards to be used for suggesting topics and prospective authors are thoughtfully provided at the back of the handbook.

Section 1, Editing, contains 20 chapters split into four areas: Editorial Policy, Procedure, Reviewing, and Ethical Issues. Under Editorial Policy, the chapters cover developing an editorial policy, editorial boards, scientific authorship, and personal development for editors. The chapters under Procedure discuss such topics as editing conference proceedings, editing an electronic journal, copyediting scientific papers, editing manuscripts by nonnative speakers of English, on-screen editing, and editorial processing of manuscripts and proofs. The section called Reviewing contains two chapters covering aspects of the peer-review process and one on book reviews (which I found especially interesting during my preparation of this review). The fourth area in this section covers ethical issues in scientific publication, including an overview, two chapters on

scientific fraud, one on conflict of interest and disclosure, and one on the relationship between journal editors and the biomedical industry.

Section 2, Standards and Style, contains eight chapters in three areas: Presentation, Illustration, and Format. The chapters under Presentation discuss requirements for the first page of journal articles and for individual issues and entire volumes and cover layout and principles of lists. Illustration contains only two chapters—a review of the basics and one called “Multipliers in axis labels of graphs and column or row headings of tables”. The third area, Format, contains three chapters that cover statistical errors, references, and advertising standards.

Section 3, Nomenclature and Terminology, comprises 14 chapters in five areas: General Aspects, Chemistry, Medical Sciences, Biology, and Earth Sciences. Topic coverage in these areas varies from only one chapter each for Chemistry (“Nomenclature and typography in chemistry and pharmacy”) and Medical Sciences (“Anatomical nomenclature”) to five chapters for Earth Sciences (three of which concern nomenclature of rocks).

Finally, Section 4, Publishing and Printing, contains five chapters spanning the three areas of Office Management, Printing Issues, and Communication. Office Management includes a chapter on peer review and manuscript tracking and one on indexing; Printing Issues covers paper and prepress, printing, and binding issues; and Communication contains a single chapter called “Dealing with the media”.

The handbook is generally well written and edited and easily understandable. Wearing my author's editor's hat, I found the chapters on copyediting interesting—it's always fun to see what different authors have to say about the nuts and bolts of my profession. And as an editor of many, many manuscripts written by nonnative speakers of English, I would probably benefit from a closer reading of the chapter on that subject. In addition, because I edit not only on paper but also on screen, I found

the presence of two chapters on that topic intriguing and will return for a closer look at them because I have not seen their like in any other resource.

Wearing my other hats, those of managing editor of a subspecialty medical journal and a sometime teacher of parts of a course on writing scientific articles for publication, I found most of the rest of the handbook's content useful as well, even if it was not particularly new. I gleaned a few different perspectives and was reminded of certain aspects of scientific publishing I had not thought of recently. Journal processes, authorship and other ethical concerns, and the peer-review system are always good to keep up with. Also, having worked for more than 2 decades in the biomedical industry before entering the world of academic medicine, I found that chapter of interest and look forward to revisiting it sometime soon.

I thought it rather curious that the subsection on nomenclature and terminology in earth sciences (five chapters) was so long relative to those in chemistry and medical sciences (one chapter each). Perhaps the focus on earth sciences reflects the membership of EASE, but I suspect it more likely that fewer authors volunteered to contribute chapters on nomenclature in the fields of chemistry and medicine than in earth sciences (four of the five chapters in earth sciences were contributed by a single author). Or perhaps chemistry and medicine were covered in less depth because so much information is available in other sources. Maybe the next edition will achieve a better balance among the sciences.

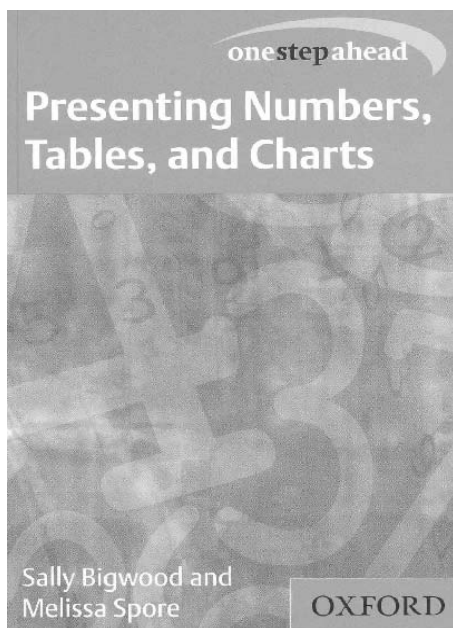
My only complaint about this handbook concerns its system of pagination, which is very inconvenient and impracti-

cal if one is trying to locate a particular chapter. The major sections, numbered 1 through 4, each correspond to a tab in the binder. However, in the subsections within each tabbed section, each article is paginated independently according to its order within the subsection. Thus, the subsections of Section 1, Editing, are numbered 1-1 (Editorial Policy), 1-2 (Procedure), 1-3 (Reviewing), and 1-4 (Ethical Issues). Subsection 1-3, for example, contains three chapters, 1-3.1, 1-3.2, and 1-3.3. The third of those articles is the one on book reviews; to locate that chapter in the binder, I had to thumb through all the articles in tabbed Section 1 until I found 1-3.3. Moreover, that chapter has two pages, so the first page is 1-3.3, p. 1, and the second, 1-3.3, p. 2. Fortunately, each chapter has a running head, or finding a given chapter would be even more frustrating. For the next edition, I recommend the use of a much less complicated, more user-friendly system of pagination.

I believe this handbook achieves its aim, which is to "encourage good practice in the editing of publications in the sciences". It may not achieve that aim any better than any other similar volume does, but when one considers that this handbook is distributed as a benefit of membership in EASE and was written strictly by volunteers, I think readers would concur that it covers an admirable amount of material quite well.

**Karen F Phillips**

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PRESENTING NUMBERS, TABLES, AND CHARTS. SALLY BIGWOOD AND MELISSA SPORE. OXFORD: OXFORD UNIVERSITY PRESS; 2003. 144 PAGES. SOFTCOVER £7.50. ISBN 0-19-860722-9.

JESSICA ANCKER does research and consulting in medical and health communication. She teaches "Designing and Editing Tables and Graphs" as part of the Medical Writing and Editing Certificate program at the University of Chicago Graham School of General Studies.

Are you an editor who is sick of receiving ugly 3-D bar charts and PowerPoint pie charts from your authors? If so, send them copies of *Presenting Numbers, Tables, and Charts* with your compliments. Novice writers can learn a lot from this concise and well-researched guide to elementary tables and graphs. Science editors, however, will probably need more than what is covered in this slender book.

Bigwood and Spore draw liberally and admirably from the classic work of Edward Tufte,<sup>1</sup> discussing such concepts as clarity of message, "chart junk" (ink that clutters up the image and conveys no information), and human cognitive limitations in interpreting visual images. In addition, it provides useful practical tips not found in Tufte, including how to work with some common software programs.

Particularly helpful are the many before-and-after examples that demonstrate how to revise ugly or confusing graphs and tables. The discussion of rounding is excellent, as are the accompanying exercises. American readers should be aware that the authors follow British style.

Although good for beginners, the book is less useful for experienced science editors, because it is intended for business readers rather than scientific ones. (An early chapter begins, "Many people find numbers a trial.") As a result, the authors cover only very simple data and do not follow common scientific style standards. They present many sample bar charts but no box plots or error bars.

Science editors also might find it frustrating that Bigwood and Spore present only one solution to each problem. For example, the authors recommend arranging tables and bar charts so that entries are in numerical order. That arrangement does draw attention to the numerical pattern, but it is important to recognize that other arrangements are better for other purposes. For instance, entries in a reference table meant to facilitate looking up specific pieces of information could be arranged in alphabetical order, and a telephone directory is essentially an enormous table that would be impossible to use if entries were in numerical rather than alphabetical

order. The best solution depends on the author's goal and the reader's needs.

Similarly, Bigwood and Spore instruct readers to place numbers that are to be compared one above the other, in adjacent rows. Their opinion is supported by some writers,<sup>2,3</sup> but others prefer comparing numbers side by side, in adjacent columns.<sup>4</sup> The debate seems to be guided by intuition and analogy. Authors who think that comparing numbers is similar to adding or subtracting them tend to prefer the up-down arrangement. Those who think that comparing numbers is like reading prefer the side-by-side option. Hard data appear to be lacking, so the best arrangement might simply be the one that is most familiar to a particular readership or that fits best on the page.

Although not as beautiful as Tufte's books, Bigwood and Spore's has the advantage of a more welcoming and approachable tone: Tufte's readers are likely to feel somewhat intimidated by his continual exasperation. For that reason, as well as for its coverage of the basics, *Presenting Numbers, Tables, and Charts* serves as a good introduction to elementary issues. However, science editors handling complex data would do well to consult the *American Medical Association Manual*<sup>4</sup> on scientific tables or Tufte,<sup>1</sup> Peterson,<sup>5</sup> and Lang and Secic<sup>6</sup> on statistical graphs.

Jessica Ancker

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