We in the Council of Science Editors and the broader medical scientific publishing community have been eagerly awaiting the revised edition of Ed Huth’s book, now named Writing and Publishing in Medicine. Parts 1 through 4—“Before Writing”, “The Content and Format of Papers”, “Writing and Revising”, and “You and the Journal”—provide the temporal framework for the mass of details we all need to know when involved in writing and publishing medical or scientific journal articles.

These first four parts and their sections equate with an invaluable list of “19 Steps in Planning, Writing, and Publishing a Paper”, many of which we all learned but can forget in our publishing process. The book begins with the critical advice to decide on the message of the paper (chapter 2) and with guidance on gathering the materials needed to write and eventually publish the paper—including protocols, permissions, and such technical tools as software for word processing (chapter 4). The heart of the book asks the writer to consider the proper structure for the paper before beginning to outline or write (chapters 5 through 11) and then guides the writing (chapters 12 through 16) and the “hard work” of revising for fluency, clarity, accuracy, economy, and grace (chapter 17). The book finishes by describing the journal submission (chapter 21) and review process (chapter 22), with advice on responding to reviewers (chapter 22) and an admonition to authors to proofread carefully and return galley proofs promptly (chapters 23 and 24).

Some of the wisdom that distinguishes Writing and Publishing in Medicine for experienced writers and editors is found in the same chapters that so successfully summarize for beginning authors how to write and publish articles. I especially appreciated the following:

- Advice, without condescension, that authors maintain a bibliographic software file of all articles that they expect to use in writing, with the admonition to retain xerographic or scanned copies of the full articles (including pages with citation data such as volume number), just in case.
- Explanation of what should be most important to authors in managing their peer-review process effectively (which is often delegated to technical or computer sales advisors)—selecting appropriate word-processing software with automatic date and time for indicating “unambiguously where a draft version of the paper sits in a sequence of drafts”.
- Exposition of how the conventional headings of “Methods” and “Results” (although useful) do not necessarily correspond directly to the elements of critical argument from “statement of the problem through the ‘verdict’ arrived at to establish a point of view” (p 60-2).
- Summary of all we need to remember when faced with illustrative material. The purpose of a table is to present complex information more clearly than in text or a figure, and a table too simple and probably based on a slide can be transferred to the text. Pages 144-5 present “Logical Structure for Tables” and note that knowing the names of the parts of a table can help an author in discussions with a journal’s manuscript editor. Illustrations should be used only when they provide evidence (for example, an electron micrograph of a newly discovered bacterium) or efficiency (for example, to show a relation) but probably not just for emphasis.
- Suggestion that permission be obtained when patient photographs are taken and preferably again when the paper is being planned for a specific journal. The best advice here is that you are likely to need a photographer to produce satisfactory prints of clinical views, roentgenograms, and photomicrographs that cannot be accurately represented by line drawings.
- Continual reminders throughout the book of ways to gain the difficult-to-
Effective teaching of scientific writing, especially to students who have had little exposure to it, demands extensive use of examples. But finding appropriate examples and devising activities with them that engage students can be difficult and time-consuming. Writing in the Sciences, a technical writing textbook designed for undergraduate science majors, alleviates the problem by providing many examples of scientific writing and exercises using them.

This book—which draws on research in rhetoric, composition, sociology, and other realms—begins by discussing science as a social enterprise and acquainting students with journals, conferences, and other channels of scientific communication. Next come chapters on reading and writing reports of original research, writing review articles and related items, preparing and delivering conference presentations, and writing research proposals. The main part of the book ends with a chapter on popular science communication and one on ethics in the communication of science.

The remaining three chapters consist of journal articles and other documents on Helicobacter pylori (recently shown to cause peptic-ulcer disease), neurotoxin-producing algae (a cause of fish kills), and the astrophysics topic supernova remnants. The authors reproduce here reports of original research, letters published in journals, a review article, grant proposals or parts thereof, and articles from Scientific American and Discover. Earlier chapters include shorter examples, such as instructions for authors and grant applicants, abstracts of conference sessions, and a poster for conference presentation.

Exercises in the main chapters often entail reading and analyzing writings that are in the book or that students identify in their own fields. Together, the examples and related exercises probably constitute the greatest strength of the book. Another particular strength is the attention paid to how various forms of scientific writing are prepared by scientists, evaluated by peer reviewers, and used by readers. Overall, the book provides sound and insightful information and guidance.

The book does, however, have some limitations. Some examples in the main chapters are about a decade old; use of more recent items might have made the text seem fresher. The book lacks a section on preparing a résumé or curriculum vitae. Occasionally, the authors, who teach English at North Carolina State University, lapse into jargon from their own field. The chapter on popular science communication seems less well grounded than those on communication in the scientific community; consulting the literature in science journalism could have strengthened it.

Nevertheless, people taking or teaching undergraduate courses largely on scientific writing are likely to find Writing in the Sciences a fine resource. Teachers of scientific writing at the graduate level and beyond can also draw on it fruitfully, as can people without a scientific-communication background who find themselves in jobs that entail editing manuscripts in science. The abundant use of examples and the attention to the context of scientific writing make this book a valuable complement to other texts.

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achieve agreement among coauthors. “All coauthors should be expected to read at least one of the early drafts.” “You should insist with coauthors, however, on a definite schedule for revision and hold them to it.” “All coauthors must be expected . . . to read and approve the final version that will be submitted to the journal.” Some readers might find explicit discussion of contributorship lacking, but the same concept (the continuum from authorship through acknowledgment) is well covered in the special appendix on criteria for authorship.

• Ecologic wisdom. “If you are reworking the manuscript yourself with a word processor you may not have to make additional paper copies at this stage [bravo!] because paragraphs and other segments of text are readily moved with the block-move function.”

• The section on what I recall as one of Huth’s “pet peeves”: wrong choice of verb tense for completed or continuing actions.

Chapter 18, “Writing English as a Foreign Language”, is fascinating, although it might have acknowledged that almost every manuscript one reads is written in some foreign language or other, reflecting a local English-language idiom at least as often as a truly foreign language. The section “Articles: Omission or Incorrect Use” directed to writers of “some languages [that] do not use articles” points out that “in English an incorrect use of an article or omission of a needed article can influence the meaning of the noun it precedes and even that of the entire sentence.” That idea is of value for nonnative and native speakers of English alike.

Chapter 20, “Preparing the Final Manuscript”, constitutes a checklist of essential elements to be included in a manuscript before submission to a journal. The section on citation of references, in particular, contains important advice: “As you read through the text and come to a citation, look back at the references to be sure that the citation is appropriate to the immediately preceding text.”

Chapters 21 through 24 are on what to do and what not to do with journal-copyedited page or galley proofs. After publication, the kindest advice an author could ever receive would be this: “Do not be surprised if on reading the paper in the journal you are hit by a wave of nausea or some other unpleasant sensation. You may suddenly see a defect you did not catch in the last revision. Hold on; do not flog yourself. You will do better in your next paper!” (This requires only a correction to the journal.) And it is also helpful to state that when “we have unwittingly written a paper with fraudulent or otherwise unreliable data and with erroneous conclusions . . . we are obliged by generally accepted ethical standards for scientific publication to . . . convey [such information] to the involved journal.” (This requires a retraction.)

Appendixes complete this well-organized work: “Guidelines on Authorship”, the “Uniform Requirements” document, “Specialized Databases of the National Library of Medicine”, “Searching Index Medicus: The Print Alternative to MEDLINE” and “References and Reading: An Annotated Bibliography”.

My attempt to be critical of this fine book left only one area perhaps distracting. Part 5, “Writing or Editing a Book”, seemed too limited as presented and might have been properly relegated to an appendix, inasmuch as there is little consideration of the electronic publishing process or of illustrations production. Perhaps a monograph expanding the editorial and business considerations introduced in book publishing will appear soon.

Although concise, Part 4, “You and the Journal”, was the best section of all, reflecting Huth’s expertise and popularity as editor of Annals of Internal Medicine from 1971 to 1990 and as a major figure in medical publishing for nearly 40 years. We in the medical and scientific publishing field are fortunate indeed to have had access to Writing and Publishing in Medicine, with its earlier editions, and to be able to congratulate its author in person the next time we see him at a CSE meeting.

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