

Book reviews

The Art of Scientific Writing by H.F. Ebel, C. Bliefert, and W.E. Russey, VCH Weinheim, etc., 1987. xx + 493 pages. DM 98.00 (Hardcover); 48.00 (Softcover). ISBN: Hardcover, 3-527-26771 (Weinheim) and 0-89573-645-4 (New York); Softcover, 3-527-26469-8 (Weinheim), 0-89573-495-8 (New York).

This book is written by chemists and directed mainly at chemists, but the authors say that they have tried to present the basic ideas in such a way that they will be accessible to scientists in general. They also say: "Our book is designed as both a reference manual and a basic text; a source of background information on causes and consequences of scientific writing, and a guide for the novice. ... Throughout the book we have tried to show the reader not only 'how', but also 'why' certain procedures are recommended." Its scope is indicated by the titles of the chapters, viz.: Reports; Theses; Papers (Journal Articles); Books; From manuscript to document; Chemical nomenclature; Quantities, units, and numbers; Equations and formulas; Figures; Tables; Collecting and citing the literature. There is also an extensive set of appendixes, some extending the main text (e.g., Aspects of Scientific English), and others presenting factual information (e.g. lists of abbreviations, and selected quantities, units, and constants).

The general advice given is very good; e.g. the guidance on organization and presentation of material, and the emphasis on the use, where possible, of simple words and shorter constructions. There are, however, among the detail some over-generalizations, some assertions that are surprising, and some advice that is, in my opinion, wrong. An example of an error is the statement in a footnote on page 68 that 'short communications' are "reserved for **complete** papers, usually describing secondary results of more extensive studies discussed elsewhere", whereas 'notes' are 'brief **announcements** of work', with this followed by the observation that 'some journals (e.g. *J. Chem. Soc.*, *Chem Commun.*) publish **only** short communications.'!

Other points on which I take issue with the authors are as follows:

- (i) It is stated that individual items written in sequence should be numbered (1), (2), (3) etc., and that the use of (i), (ii), (iii), etc. is "now considered old fashioned". I have not encountered this view previously, and I wonder precisely who holds it; I certainly think that Roman numerals (or (a), (b), (c) etc.) are preferable in journals in which compounds or equations are often numbered (1), (2), (3) etc. (not always in bold).
- (ii) It is stated that if a journal uses boldface type for formula numbers, the numbers are placed in parentheses when they follow the name of a compound but not when the number replaces the name of a compound (e.g. a solution of **14** in ...). This is by no means generally true, and here and elsewhere the writers should have advised authors to examine carefully recent papers in the journal concerned and adopt the

conventions evident there – which is much more satisfactory than relying only on the publisher's general instructions.

(iii) It is stated that standard proofreaders' marks should always be used in correcting proofs of articles in journals, and an appendix gives details of the "American" system and an "Alternative" system, that is said to represent the convention used in continental Europe, especially Germany. (There is no mention of the British system used in many parts of the world.) This practice would be essential if the proofs were to be passed directly to the printer, but the amendments made by authors in proofs for scientific journals are normally (I suspect always) transferred by an editor in the publisher's office to a correctly marked proof. Few scientists can be relied on to behave ideally, and seek details from the publishers of the convention to be used and then follow it precisely, and authors should be told that if they have not fully mastered the relevant convention, the best thing to do is to cross out the erroneous letters, words, numbers, sentences etc., and write the correct versions clearly in the margin.

My greatest concern is about details of the guidance on the correct use of English. Thus the authors rightly advise against unnecessary wordiness, but I do not think, as they imply, that 'taken into consideration' can always be replaced by 'consider'; when a judge in sentencing takes into consideration other admitted offences he does more than consider them. Or that (in a chemical context) 'replaces' can always be used in place of 'serves as substitute for'; for example, the sentence 'In these reactions bromine serves as a substitute for chlorine' could not safely be replaced by 'In these reactions bromine replaces chlorine'). Furthermore, 'become aware of' is not always replaceable by 'realized' or 'sense'; would one write 'during the work we realized (sensed) an earlier report...'.? Nor does 'is representative of' always have the same meaning as 'represents'; if we say 'the following are representative of the methods available' we mean that we are presenting some examples of the methods, whereas if we say 'the following represent the methods available' we imply that all of them are shown. But my most serious objection is to the statement that 'an adverb should not divide a compound verb', so that one should write, e.g., 'usually is generated' not 'is usually generated'. I had not encountered this "rule" before, and it seemed to me totally inconsistent with the practice of good writers. I was thus reassured to find that Fowler's *Modern English Usage* (mentioned with approval by the authors as the authoritative guide for scholars), comments: "...a prejudice has grown up against dividing compound verbs. It is probably a supposed corollary of the accepted split infinitive prohibition; at any rate, it is entirely unfounded", and: "Not only is there no objection to thus splitting a compound verb, but any other position of the adverb requires special justification."

In spite of defects on points of detail (which could be corrected in a later edition) this is a useful book. I am glad to have it on my shelves, and I will bring it to the attention of students and other aspiring authors, but with guidance on the parts to be disregarded. It contains much good sense, and a lot of helpful information, clearly presented.