

BOOK REVIEWS

With this issue, it is a pleasure to welcome two new reviewers to the column, Richard Uriarte and Mike Moffitt. Mike received his Ph.D. from Ohio State in Biochemistry. He taught Chemistry and Computer Science for six years at Stockton State College in New Jersey before joining the staff at Texas A&M University Agricultural Extension Service, where he is currently employed as a computer systems engineer. Mike works with a LISA and an Apple IIe at home and uses various IBM and IBM clones at work.

Rich also received his Ph.D. from Ohio State, but he is an inorganic chemist. He is now an Associate Professor of Chemistry at St. Peter's College in New Jersey, teaching Inorganic and General Chemistry. Apparently Rich is spending much of his time on his new Mac, but he is also currently working on a computer workbook for possible use with a freshman chemistry text. We will be looking forward to future contributions from both Rich and Mike.

Since the last issue of the Newsletter, several readers have written to volunteer to serve as reviewers, and we will be hearing from them in future issues. If there are other readers who wish to review for this column, please write to me: Dr. Harry E. Pence, Department of Chemistry; SUNY-Oneonta, Oneonta, NY 13820, for further information and assistance. As always letters of comment and suggestions of books for review are also welcome.

THE APPLE MACINTOSH™ BOOK

by Cary Lu

Microsoft Press, Bellevue, WA

1984, 383 pages, paperbound, \$18.95

Reviewed by Richard J. Uriarte*

and Michael J. Moffitt**

The Macintosh™ is the kind of computer that generates strong reactions. Depending on your attitudes, it's either a liberating marvel because it requires so little actual thought to operate, or a case of techno-pablum, again because it requires so little thought to operate. Most of the books about the Macintosh™ have been written by people clearly in the prior camp; they seem to read like extended travel brochures. Perhaps this is because they were written after brief exposure to the Macintosh™ (and its mass of promotional hype), rather than after in-depth experience. The Apple Macintosh™ Book, by Cary Lu of Microsoft Press, suffers from much less problem of focus, even though it came out near the release date for the Macintosh™, probably because the folks at Microsoft had Macintosh™ to work with for over two years before the rest of us.

This graphically stunning book seems to be several books in one. The first part of the book details how to set up a Macintosh™ out of the box -- useless to anyone who doesn't have a Macintosh™, and equally useless to anyone who already does. It does have nice pictures, though. Other chapters in the first part of the book also seem to suffer from this "not enough if you already know -- too much if you don't" problem, as Lu runs through simple operations and use of Apple-provided software. Short chapters dealing with two Microsoft products, Multiplan™ and Chart™, are sound, though very cursory. The chapter on word processing is interesting in that it compares the free MacWrite™ with Microsoft Word™. It is interesting that almost a full year after the publication of The Apple Macintosh Book Microsoft Word™ is finally available on the Macintosh™. A section on business applications was a bit premature, since only recently have accounting programs begun to appear.

The chapter on programming languages gives some indication of the frustration that Macintosh™ owners have felt. Of five different packages discussed by Lu, only one is current - MacPascal™. As of March, 1985, Apple had not released MacBASIC™, MacLOGO™, or the Assembler/Debugger, and Microsoft had already made extensive improvement of its BASIC, resulting in a 2.0 version much more elegant than that discussed by Lu.

The second part of the book gives a great deal of insight into how the Macintosh™ actually works; more insight, in fact, than is available from Apple. There are separate chapters on the hardware design, the video screen, the keyboard, the mouse, disk drives, I/O ports, printers, and modems. Much of this information will be of interest to both experienced and inexperienced users, but detail is not quite on a level sufficient to engage the serious hardware hacker. For example: "The best way to connect a non-Macintosh™ printer is to find someone who has done it already and copy the technique exactly (page 207)." The section concludes with general comments on software design, advice on maintenance "getting help", and gives a fairly detailed comparison between the Macintosh™ and IBM PC (though IBM fans won't have gotten this far, I fear).

The final section of the book claims to "contain material for people with specialized needs or interests (page 281)." It does give some interesting suggestions on how to trace artwork, as well as advice on how to modify the Macintosh™ for use in a moving vehicle (bolt it down.) It also gives simple advice for use by the handicapped. There is a detailed discussion of communications and data-moving concepts, all of which are a little out of place because they are so much in the abstract. The Technical Topics chapter is the gem of the entire book because it contains exceedingly arcane information such as pinouts for the mouse connector and the wiring for an adapter cable to RS-232C devices. These alone could justify the purchase of the book for the really experienced MacUser.

All in all, this is a professionally produced work. It suffers a bit from trying to please two vastly different audiences (those who have seen the MacWay, and those who haven't ...yet), but it remains the most thorough and objective source on information yet available.

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VISICALC FOR SCIENCE AND ENGINEERING
 by Stanley R. Trost and Charles Pomernacki
 SYBEX, Berkeley, CA
 1983, paperbound, \$13.95

**Reviewed by Harry E. Pence
 and Celene DiFrancia***

Although VisiCalc is best known as a spreadsheet program for business applications, it can also be extremely useful in some chemical problems. Especially in analytical chemistry laboratories, it is used to do repetitive calculations, organize and correlate data, develop reports, and identify data trends. In fact, one of the reviewers (C.D.) has done exactly this type of work in an industrial laboratory during the summer and vacations for the past year.

Trost and Pomernacki have written this book to demonstrate some of the possible scientific uses of VisiCalc. The authors presume that the reader already has a working knowledge of VisiCalc, although a brief summary of the necessary commands is provided in an appendix. This assumption should create few difficulties since there are several books available that describe VisiCalc and other similar spreadsheet software.

The major emphasis of the book is on creating design tables or spreadsheets that can be manipulated with routine VisiCalc commands. The sample spreadsheets discussed are intended to both serve as a library of useful applications as well as demonstrate how the techniques can be extended to other situations.

The authors have chosen to draw their examples from a widely divergent group of scientific fields, including not only statistics, communications, heat flow, optics, and simple mechanics, but also electrical, solar, mechanical, and civil engineering. Over fifty examples are provided, and in each case the approach is the same. First a specific situation is outlined, then the appropriate data is provided, and finally instructions are given for a sample problem. The instructions are clear, although a little dry. No unexpected results were discovered in running a number of these examples.

It is unfortunate that so few of the problems selected are directly related to chemical applications. More important, the focus on specific situations tends to somewhat blur the generalities that might identify broader implications of the method. Reading this book will help to develop a general appreciation of the power of VisiCalc and similar spreadsheet analysis software, but it is left to the individual to determine how these principles might relate to chemical problems.