

solution calls for over ten times the correct amount of paranitrophenol; it is little wonder that Cunha has trouble with staining, as he mentions earlier. On the basis of this the reviewer would hesitate to use any of these formulae without checking them in their source, but the sources are not given. The glossary which comprises Appendix I is reprinted from ALA's 1951 *Library Binding Manual* and has little to do with conservation.

The organization of the bibliography is almost incomprehensible; it purports to follow the chapter arrangement of the text, but does not exactly do so. For a bibliography with seventy-eight headings and approximately two thousand entries, an index of authors would be useful, and a table of contents is indispensable. Within the classification scheme, catalogs of exhibitions of bindings are listed under "History—General," "History—Bindings" and "Repair and Restoration—Binding—General." An article on a device for testing library bindings is listed under "Material—General" and "Conservation—General," but not under "Binding—General" or "Library Binding."

The principles of selection are difficult to deduce. Haslam's virtually worthless pamphlet on cleaning books and prints is listed twice (once anonymously), but I could not find the *TAPPI Standards* which includes widely cited procedures for the testing of paper. Storm and Peckham's useful *Introduction to Book Collecting* is listed, but *Glaister's Encyclopedia of the Book* is not. One of the most puzzling omissions is Herbst's supplement to Mejer's major bibliography on bookbinding.

The bibliography (as well as references in the text) is a veritable jungle of inconsistencies, misconstructions, and obscurities. Titles in foreign languages are sometimes but not always given in English; accents are used or ignored at random; titles of journals are cited in widely varying form. Some entries are annotated, most are not. Joannis Guigard and Jacques Guignard both emerge as J. Guigard. Warren Jenney becomes Jenney Warren. Keyes D. Metcalf is cited as D. M. Keyes. Or take Mr. Smith. He is cited four times, as Hermann Smith, Herman Smith, L. Herman Smith (correctly!), and as Herman L. Smith. His article

is cited once in the bibliography without his name at all.

There are a number of cases of the same items being listed twice under different main entries. For example, the catalogue of the 1957 Baltimore bookbinding exhibition is listed in the same section of the bibliography under both its title and the name of its (unstated) compiler. (The publication date in one entry is given as 1950.)

The Conservation of Library Materials, then, no matter how inaccurately, obscurely, or indirectly, will provide access to virtually all knowledge on book conservation in the Western world. It is unfortunate that so much patience will be required of the reader to find the information that he wants, and that there is so much misinformation in the text and appendixes, and cited in the bibliography. That such a key to the field as this has been so desperately needed cannot, however, absolve the publisher from blame for such an incredibly bad job of editing, if indeed the manuscript was edited at all. It is particularly distressing that the "publisher to the library profession" is responsible for so totally careless an example of publishing.—Paul N. Banks—*The Newberry Library*.

Developing a Computer-Based Information System. By R. E. Rosone *et al.* New York: John Wiley and Sons, Inc., 1967. 384p. \$14.95 (67-21331).

The term "information system" is an elusive one since it encompasses such a broad range of specific kinds of systems. The techniques, methodology, and philosophy of system design are in principle applicable to all of them. However, there are differences in detail which result from the need to focus attention on the problems of particular importance in a specific type of system. Since any author attempting to present methods for system design must use realistic examples to illustrate them, his book will show an emphasis on the problems significant in those examples.

Such is the case with this very useful introduction to techniques for development of information systems. The examples chosen are generally representative of "management" information systems, but par-

ticularly of those from a military environment (SAGE, NORAD, Strategic Air Command, etc.), generally called "command and control" systems. Such an emphasis is a natural one, since it has represented the major concern of the authors in their professional work at System Development Corporation, but it means that readers with different kinds of information systems in mind must be prepared to translate and interpret what is said in the light of their own concerns.

For example, Chapter 1 presents the basic definitions of "information," "system analysis," and the "development process." The concept of an "information system" is defined as "the formal or rationally planned means whereby managers receive and transmit information." The author goes on to say, "It may include automatic data processing as one aspect of the information-handling apparatus assisting management, but it may also include oral briefings." The emphasis is clear, proper, and very descriptive of the book. But the reader whose concern is, say, "scientific and technical information systems" will need to translate "managers" into "researchers" and "oral briefings" into "journals, printed reports, and Colleagues."

Chapter 2, in discussing some of the problems in over-all management of the development process, draws an illuminating contrast between "hardware systems" and "information systems" in order to emphasize the extent to which agencies procuring the latter may be using irrelevant criteria for decision concerning their utility. The reader will want to consider just as carefully the extent of differences between *his* information system and that represented by military command and control.

Chapter 3, which discusses "The System Requirements Phase," raises some issues of special importance. It contrasts several approaches to the transition from present operations—including "totally integrated system design" and "planned evolution." The latter seems to have particular relevance to those, such as libraries, whose "information system" is not simply a management tool but their very reason for existence.

Chapter 4 discusses the steps in the

"design process," again with emphasis on the military command and control system. As a result, "retrieval" is given scant attention and yet, in a library, it is likely to be the most significant technical problem.

Chapter 5 discusses the design and production of computer programs. The experience on which it is based is particularly illuminating and well presented. The estimates of time and manpower should be read with care, since the programming of any kind of computer-based information system is a complex, expensive task.

Chapters 6, 7, 8, and 10 present the issues in development of the operating organization, in design of procedures, in training of personnel, and in system evaluation. These are particularly subject to change from one type of system to another since they affect the organization itself and not simply the computer. The reader will need to examine them closely. On the other hand, Chapter 9 discusses "installation" and raises issues of universal concern.

In summary, this book is a well conceived, well written, and highly readable presentation of the issues in the development of "military command and control systems." As examples of information systems, they have many features in common with libraries and technical information centers, but there are also some significant differences, and the reader will need to keep his own situation continually in mind.—*Robert M. Hayes—UCLA.*

Bibliography, Current State and Future Trends. By Robert B. Downs and Frances B. Jenkins, eds. Urbana: Illinois University Press, 1967. 611p. \$8.95. (67-21851).

The volume under review is a reissue of the January and April 1967 issues of *Library Trends*. The two well known and highly respected editors were obviously of the opinion, and probably rightly so, that a republication in book form would be a welcome addition to our professional literature. I doubt that reference librarians will prefer this book to their well established tools such as Winchell, Walford, and Totok. I am certain that the subject specialist will hardly profit by it, but teachers and