of the history of a serial title. Added features include the entry number for the first almanac recorded in each of 362 towns from Eastport Maine and Oahu Hawaii, a list of the libraries and private collections searched, and a good bibliography. Information is brief and almost always uniform. Although the work is a check list and not a "bibliographer's bibliography," it bids fair to remain a definitive check list for a long time.

To a cursory reading, *Almanacs of the United States* appears relatively free of typographical errors, although there is an errata slip tipped in. The book is neatly and servicably printed from cold type. Some critics might attempt to attach the pejorative term "antiquarian" to these 1,397 pages and ask if indeed the study needed to have been made; Terence on the other hand would no doubt have felt that almanacs deserve study because they exist. At any rate it will not be denied that the compiler has herein preserved a record of passing Americana that could easily have been lost. Any bibliographer who has ever attempted to locate an almanac for collation or other purposes will bless Milton Drake.—*David Kaser, Joint University Libraries, Nashville.*

Computers and the Library

Advanced Data Processing in the University Library. By Louis A. Schultheiss, Don S. Culbertson, Edward M. Heiliger. New York: Scarecrow Press, 1962.   xiv, 388p. $10.

At the Miami Beach Conference in 1962, the authors of this book and Gregory P. Williams, their consultant, reported on the project at the University of Illinois Congress Circle campus to study the use of computers in library technical processes. Mr. Williams warned that the book is not a "cookbook." No one can take this book, go to his library, and put everything on punched cards or magnetic tape. This book is a final report on a project for which the Council on Library Resources gave $50,000, and the University of Illinois contributed an extra $2,000 plus. The money was used completely, and I think it was very well spent. The results as reported in this book show that college and university libraries, especially, must start to think of computers as a means of reducing

costs in the library, and the book explains how to do the thinking.

One of the first decisions of the project staff was not to consider information storage and retrieval systems which are even now in too parlous a state for anyone to reach definite conclusions at this time. Other decisions were rather forced on the staff as they went along. There was constant concern over the attitudes of staff toward the machines, relieved to some extent by essays which enabled staff members to say what they thought. There was worry as well over maintaining service standards, and there were great hopes for the computers to take over large segments of the library routines, hopes that were then unrealized and may be in part unrealizable.

But even if the project had concluded that computers could do nothing for a library, the report would have been valuable and the grant worthwhile. As it is, an important—indeed vital—result of the study is in the report for all to see. The charts, representing a step-by-step analysis of the routines of technical processing, are a kind of anatomy of the methods by which a book is purchased and prepared for storage and for use. The cost analysis of these routines with and without computers gives us a clear picture of what a respectable university library has to spend to get a book into its collection and into its records, to keep track of serials, and to provide service to those who wish to borrow books.

Because colleges and universities are installing computer equipment for other purposes, and because the library can arrange to get time on these machines, it is essential for librarians to investigate methods of programing their operations. The report is, at times, a little vague about these methods, but they are not so complicated as may seem. Any librarian can devise a computer program of a given routine by pretending that he is explaining it to a village idiot who can understand only those questions which can be answered by yes or by no and can follow only one direction at a time.

Computers are giant brains in size but not in mental capacity. The refinements of Boolean algebra and mathematical logic are an essential element of computer programing, but there is really no need to study physiology and hydrodynamics if you want to learn to swim. There is really no need for

the jargon of computer types—it saves time and gives names to things—but there is a great need for the sort of detail that a computer requires if a routine is to be put into a machine. Whether or not the library will ultimately employ computers, any librarian who explains all his routines in the fashion computers require will discover kinks in the flow and thereby reduce costs before a machine is consulted. It is no surprise that the project staff did so when they set out on their programing operation.

This book could be better in many ways, one of which would have been the complete report after the machines were tried out. The sections of the book, though, that are "iffiest" are probably the very ones that will be found experimentally wanting, and in any case the book does not pretend to be something it is not. As it now stands, it deserves a wider circulation than it is likely to have because of the price, but one can only hope that librarians will not retreat in horror from the idea of machines taking over some of the maddening routines of technical processing and supplying ever more lists and bibliographies. As the authors hint, and the reviewer has reason to believe, computers and the programing they require will come to be the methods by which technical processes are studied. In this sense, the book may not be a "cookbook" but it is certainly, to continue the metaphor, the most useful study to date on what technical processes are and therefore a kind of guide to menu planning. Anyone taking the charts and their symbols and putting down in all the detail required every step of the cataloging process will come to discover useless actions that can be eliminated.

I would like to predict that ultimate reports, after the machines have been tried out, will conclude that the routines which are most repetitive, least likely to change internally, are the ones which the computers can handle best. The charts rather clearly indicate this for serial work and for acquisitions. The employment of the machines for any work that is truly professional will be unsuccessful because the machine cannot make a value judgment, which should be the librarian's task. For other reasons, but ultimately because of the canon I have announced, I am highly suspicious of the POSH index. In fact, despite the hopes expressed in the book, I think POSH is bosh.

POSH means permutation on subject headings and this is meant to supplant the *see* and *see also* structure of Library of Congress subject-heading methods. There are three rather unfortunate assumptions which led the authors to hope that fifty-four samples might supply something that a whole library catalog would not. First of all, subject headings are not similar to titles, even though a subject-heading list can be defined as a systematic aggregation of formalized titles. The "key-word in context" theory falls down with subject headings, because there is virtually no context. Indeed, when a subject heading contains a context for the key-word, it is improperly formed and something should be dropped or condensed. The Library of Congress main headings are really about 75 per cent one-word headings, though for 25 per cent several words are employed.

Second, Library of Congress subject headings are not hierarchical. Studies of the syndectic structure fail to show any classification not inherent in natural semantic structures. All words, except function words, fall into classes and are interrelated. Even the dash as a mark of subdivision really shows as much agglutination as it does inflection; that is, the dash is used simply to join words together which really comprise one grammatical unit (I am not speaking of morphemes but of units that can be employed as a whole in grammatical transformations).

Third, it is quite simple to program the whole of the Library of Congress subject-heading method with *see* and *see also* references thereby making permuting unnecessary. Permutation is not the only method; indeed, it is probably the worst.

This does not denigrate the book one iota. It ought to surprise the authors as much as anyone else if their experiments should prove accurate in all details. The true value of the book consists not in plaintive hopes but in actual accomplishments and these are the translation of library routines into computer programing with vivid awareness of what the computer can and cannot do. Even the bibliography is a valuable compilation of works on computers and automation. I would recommend this book to all college and university librarians—especially those on campuses where computer time may be available to them. There are several books

on programing, and this book can serve as a model and guide for library uses, even for libraries which will never have to worry about punched cards or tapes.—*Jay E. Daily, New York City.*

West German Scholarly Libraries

West German Library Developments Since 1945. With special emphasis on the rebuilding of research libraries. By Gisela von Busse. Washington: Library of Congress, Slavic and Central European Division, Reference Department, 1962.   82p.   50c.   (From the Superintendent of Documents.)

A major disability of library literature, when considered from the international point of view, is the general lack of comprehensive, up-to-date material on the principal aspects of librarianship in one country written in the language of another. Important exceptions to this generalization exist, of course. The volume edited by Carl Wehmer, *Zur Praxis der Wissenschaftlichen Bibliotheken in den USA* (Wiesbaden: Harrassowitz, 1956), made available to the German librarian an excellent account of scholarly librarianship in the United States. More recently, G. v. Busse, W. Grunwald, O. Mach, and W. Seuberlich have prepared a comparable, monograph-length account for Russia, "Berichte über eine Studienreise zu Bibliotheken in Moskau und Leningrad," *(Zeitschrift für Bibliothekswesen und Bibliographie,* IX, 1962, 97-176) .

Among numerous other contributions that might be cited are *Libraries in Japan* (Tokyo: Japan Library Association, 1958); Horecky's *Libraries and Bibliographic Centers in the Soviet Union* (Indiana University Press, 1959); Lancour's *Libraries in British West Africa* (University of Illinois, *Occasional Papers,* No. 53, 1958); E. J. A. Evan's *The Development of Public Library Services in the Gold Coast* (London: Library Association, 1956); Preben Kirkegaard's *The Public Libraries in Denmark* (Copenhagen, 1950; Danish Information Handbooks); G. Ottervik's *Libraries and Archives in Sweden* (Stockholm: Swedish Institute, 1954); and *The Development of Public Libraries in*

Latin America: The Sao Paulo Conference (Paris, UNESCO, 1952). There is, as this listing suggests, considerably more material available to the reader of English and German than of other languages. UNESCO has provided, in its *Bulletin for Libraries,* a useful service by publishing in its several language editions, good though brief accounts of international librarianship, particularly in the new and developing countries. Some other journals, notable *CRL, The Library Journal, The Library Quarterly,* and *Libri,* have also contributed significantly, but again in the often-too-brief compass of the periodical article.

It is likewise true that the "disability" referred to above is a greater one for the librarians of some lands than others. The educated person, and hence the librarian, of the Scandinavian countries and Holland generally reads English, French, and German, and the German librarian English and French, well enough so that publications in those languages are little trouble to him. The German, also, has available much information in the unique *Handbuch der Bibliothekswissenschaft.* English, the language of the largest amount of library literature, is no problem for librarians in such parts of the world as Ghana, India, Pakistan, and Taiwan. Similarly, French is still read by the educated Tunisian or Algerian, and Dutch by the Indonesian. But where is the Latin American librarian to find, in Spanish or Portuguese, a detailed account of library education in the USSR? Where can the Italian or Russian read in his native language an extensive description of the development and status of the county library or special librarianship in the United States? Where will the Frenchman locate comprehensive information in French about the university library in South America or the public library in Norway? The answers to these and many other questions of like import is "Nowhere." Until publication of the study under consideration here, the same answer would necessarily have been given to the search for a full account in English of the scholarly library in West Germany.

West German Library Developments Since 1945, written by the chief of the Library Department of the German Research Association *(Deutsche Forschungsgemeinschaft)* is

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