

is an image that this sophisticated society with a highly educated and literate population has not developed an appreciation for the library and librarians. For most of their information needs, the people bypass the librarians and even the library itself. Only in the science-technology fields, some systematic services have been developed successfully. The overall quality of his information is excellent if one keeps in mind the fact that six to ten years have elapsed since he has gathered them, and some things have changed for the better. There are, however, a few questionable matters serious enough to be mentioned.

First, Welch states that the University of Tokyo has revived its library science program and that it already has awarded doctoral degrees in librarianship. To date, this university has not produced any graduates with degrees in librarianship, not even with a B.A. In the National University system, there is no program which offers a degree in librarianship. The Toshokan Tandai (the National Junior College of Library Science which offers two-year certificates) will be graded up to a four-year college in a few years when the college moves to a new site outside of Tokyo. The only Ph.D. program in library science in Japan began in 1975 at the Library School of Keio University, and none of its four candidates has received the degree as of April 1977, its second anniversary.

Again, Welch mentions that there are more than 10,000 special clerks serving as school librarians and that they are paid a "mere 14 dollars a month." According to the Japanese Bureau of Statistics, the income of an average urban salaried family has tripled during the ten-year period from 1965-1975. It gives the monthly income of Y236,197 (about \$840) for 1975. Even part-time student workers make \$1.50 to \$1.70 an hour in most places, including libraries. To suggest that any regular employee in Japanese libraries today earns a monthly salary of \$14 is preposterous.

Those who are interested in comparative librarianship may find this book very stimulating, and others will find it to be a valuable handbook on Japanese libraries.—*Eugene Carvalho, Librarian, East Asian Library, Kansas University Libraries, Lawrence.*

Kunz, Werner; Rittel, Horst W. J.; and Schwuchow, Werner. *Methods of Analysis and Evaluation of Information Needs: A Critical Review*. München: Verlag Dokumentation, 1977. 84p. \$12.00. ISBN 3-7940-3450-3. (Available from Unipub, Box 433, Murray Hill Station, New York, NY 10016.)

This work is a synopsis of a study performed under the auspices of the Fédération Internationale de Documentation entitled *Methods of Analysis and Evaluation of Information Needs to be Satisfied by National Documentation, Library and Archive Infrastructures*. Although the frame of reference throughout the work is the design of national and international information systems, the discussion is equally relevant to smaller constructs, such as local or regional networks or even individual libraries/information centers.

The authors' approach is conditioned by the basic assumption that "the effectiveness of such facilities depends upon the extent to which their system characteristics correspond with the situation of the user and on how much the potential user of these facilities is willing and able to make use of these services." Although librarianship has, in recent years, tended to concentrate on its service aspects rather than its archival functions, the equation of user satisfaction—especially the satisfaction of the unsophisticated user—with library success by no means commands the universal agreement assumed here.

Nonetheless, users are obviously central to any information system so it is incumbent upon the designers and operators of such systems to know as much as possible about those they attempt to serve. Kunz and his colleagues identify, discuss, and analyze the traditional methodologies employed in user studies and conclude that for the most part they have "led only to an accumulation of previously known data and to a confirmation of already known relationships, and have not generated much new knowledge." The need for more and better research about users and the phenomenon of use is clear, and the relatively untried but promising research strategies suggested by the authors to expand our knowledge of this area are worthy of further development.

Turning specifically to the design of information systems, the authors posit that traditional concepts of systems analysis have been inadequate to the task because information problems tend to be "Wicked Problems." The properties associated with "Wicked Problems" include the following: there is no definitive solution to the problem; problem formulation is identical with problem solving; wicked problems have no stopping rule, for improvement is always possible; solutions cannot be categorized as right or wrong, but only as "good" or "bad" in varying degrees depending upon the viewpoint of the evaluator; and there is no right to be wrong. Opportunities for experimentation and trial and error solutions do not exist.

The authors describe a variety of methods and techniques to assist in the design of information systems which they call "systems research of the 2nd generation." The methodology requires the joint participation of potential users as well as operators of the information system in all stages of design and implementation. The structured approach is an educational process and insures that competing demands (e.g., exhaustiveness vs. costs) are recognized and compromised in a rational fashion. As a theoretical model the technique unquestionably has great merit; but it demands a level of leisure, cooperation, and rationality seldom encountered in the real world. Still, information systems designers would be well advised to consider the well-documented failures of the traditional approaches before dismissing this procedure as too theoretical.—*Robert L. Burr, Director, Crosby Library, Gonzaga University, Spokane, Washington.*

Turner, Eric G. *The Typology of the Early Codex*. Haney Foundation Series, Publ. 18. Philadelphia: University of Pennsylvania Press, 1977. 188p. \$25. LC 75-10125. ISBN 0-8122-7696-5.

In this volume, which originated in a series of lectures delivered at the University of Pennsylvania in the spring of 1971, E. G. Turner, professor of papyrology at the University of London, investigates the bibliographical form of the surviving codices from the ancient world. The codex form in manuscript made its first appear-

ance in the second century A.D. when leaves on papyrus or vellum were first placed between two covers rather than in a roll. Turner confines his examination to this early period through the sixth century and traces the early stages of the development of the format of the book.

In this pioneering study, Professor Turner has examined more than 1,000 manuscripts and has formed a series of tables where similar manuscripts are grouped together based upon dimension, papyrus or vellum material, the format of the text, and paleographical evidence. He has examined the majority of the manuscript fragments personally and carefully gives sources for his information for the other manuscripts. The tables of series and groupings are distributed throughout the text. A full discussion of these manuscripts and a review of the literature concerning each one is included. The second half of this volume consists of a table of eighty-three pages. It is a consolidated list of the codices studied, giving in tabular form in columns the basic information about the codices cited in the text. Each is identified by a serial number that serves to lead the reader quickly from the text to the table when a manuscript is discussed. A list of monographs and journals consulted precedes the text.

Professor Turner, a distinguished papyrologist and paleographer, has published a number of monographs and articles on books in antiquity. In this volume he has carefully pieced together his evidence from the extant fragments to create hypotheses that can aid in dating early codices and in tracing their development in a coherent manner. Considering the fragmentary and fragile nature of these manuscripts scattered throughout the Western world, his undertaking has been considerable. His hypotheses, while by the very nature of the objects studied tentative, are built upon the evidence gathered and are indeed impressive. They shed much light on the format and development of the earliest books in codex form.

This book will no doubt be purchased by all research libraries for the use of their classical scholars, and one hopes that library schools as well will want this study in descriptive bibliography for it is a significant contribution to the literature on the