is helpful in disentangling some rather intricate patterns which are often mixed up in both the design and application of ordering systems (and thus in line with the author's general purpose as stated in the preface, namely to provide a theoretical basis for the planning and design of information systems), the treatment of the topic in this last section suffers somewhat from over-simplification and even some outright inaccuracies. Thus, when discussing classification schemes (which he characterizes as "static", "rigid" and "cumbersome") he says that notation must be allocated before such a system can be fully designed, and that this makes changes or even additions difficult or impossible. He chooses as his paradigm for all classification systems the UDC, but even for this old and admittedly imperfect system such statements do not hold true. A look into any textbook on the design of classification systems would have shown him that his ideas are not borne out by modern classification theory and practice. His treatment of thesauri (which he clearly prefers over classified retrieval aids) shows that he seems not to be aware of the classificatory structure that of necessity underlies the verbal surface structure of a thesaurus.

The chapter concludes with the assertion that the principles which are necessary for the *design* of an ordering system are not the same that govern the *operation* of such a system, although it is not made quite clear why this should necessarily be so.

The author cites 27 references for this chapter but these reveal a somewhat unusual insularity: except for a reference to the Encyclopaedia Britannica (which can hardly be considered as specific to the topic) they are all from German sources. Even Soergel's work on indexing languages (which treats to a large extent the same topic but goes far beyond his earlier German writings that are cited by the author) was not found worthy of citation. It is of course true that American (and to a lesser extent British) authors are guilty of the same iniquity, yet considering that most of the basic work in this field has been done by researchers in English-speaking countries, this is a major flaw, made worse by the fact that many of the ideas first propounded by British or American authors are here presented as if they were Meyer-Uhlenried's own.

The book as a whole does not make for easy reading, both because of the theoretical approach to its subject (which is legitimate) but even more because of its turgid prose (which is less excusable). Concise and elegant style seems to have gone out of fashion among contemporary German writers on documentation.

Hans H. Wellisch

SETTEL, Barbara (Ed.): Subject description of books; a manual of procedures for augmenting subject descriptions in library catalogs. Syracuse, N.Y.: Syracuse University, School of Information Studies. Subject Access Project. Research Study 3, 1977. No pagination. \$5.—

The terms used for "augmenting subject descriptions" — depth indexing — are chosen entirely from the contents

pages and indexes of the books being catalogued. The job of selecting key terms to indicate the subject content of the book has already been done once, and it would be a waste of effort to do it again and look at the text itself. The principle (though it is never stated) is sound enough, but to rely on it is to make a large assumption about the relationship of index to text, to assume a constant quality of indexing. The problem is briefly and partially acknowledged in a discussion of the means of determining the number of subject entries to make for each book (determining when to stop applying the selection criteria that this manual sets out for us). The point is that this "quota" is worked out by the application of a formula to the number of entries in the book's index, taking no account of the length of the text itself, and that this is not wholly satisfactory is admitted. But it is a far more fundamental problem than that, a matter of more than just the relative lengths of index and text. That this manual should conceive of the "quality" of indexing purely in terms of the number of entries per page of text is indicative of its whole mistaken approach to the problem of subject cataloguing.

It is assumed that the subject of the book is adequately analysed by the book's own index. Relying on that assumption, the manual takes the whole question of the subject of a book entirely for granted. In spite of the fact that the aim is to provide "subject descriptions", the one thing that is not considered is the subject. The idea behind it, presumably, is to find a technique of subject cataloguing that relies on purely objective criteria for the selection of its terms. Objective they certainly are, and objective in the most crudely physical sense: the significance for cataloguing purposes of a term in the table of contents or index is determined by such criteria as whether it is printed in capitals or lower case, in boldface type, or indented, and chiefly by the number of pages of text it refers to. When this manual talks of the problems posed by "stylistic variation in contents tables" it means variation in layout on the page. A different set of rules is laid down for each of three classes of index: those with page ranges, those with "f", "ff" and "et seq.", and those with neither. As it turns out, the three sets of rules are largely identical.

This form of subject cataloguing is utterly dependent not only on the terms chosen by the compiler of the book's index, but even on the format of that index. Subject cataloguing is reduced to the level of counting pages, and it is not only the book being catalogued, but the cataloguing process as well, that is seen in merely physical terms. The selection of terms is typically referred to by means of its physical manifestation, as underlining those terms in a photocopy of the index. The manual concentrates on the minutest details of applying a technique, and the principles behind that technique are lost. Granted that this is a "manual of procedures" not a treatise on principles; granted that the format in which a word appears in the index does tell us something about its importance; granted that the recognition of three classes of index is no doubt intended to reflect merely practical considerations - but it is precisely in this directing of attention to the merely formal and merely practical that the manual is at fault.

There are a lot of rules to cope with a lot of different cases: the impression given is that chaos is with difficul-

ty kept at bay by the application of a formula whose complexities are but the necessary reflection of the complexities of the cases to be dealt with. But the difficulty is entirely of the manual's own making: it is only because subject cataloguing is reduced to the level of minute physical analysis that the many variations in the format of an index or table of contents pose such threats to order. If those variations are seen for what they are, as trivial, then the triviality of this manual at once becomes clear.

Perhaps I am unduly dismissive. If only we can accept the redefinition of subject cataloguing as a technique of counting pages, then a different assessment is possible. The problem of how to work out the number of pages referred to by each chapter heading or index entry is admirably and clearly (if not concisely) dealt with:

"A range of pages is designated by two numbers separated by a hyphen. '22-27', '13-14', '105-176' are all page ranges. The *length* of a range is determined by counting the beginning and ending pages, and pages between. Thus, '22-27' is actually a range of six pages - 22, 23, 24, 25, 26, 27 - and not five - 27 minus 22. To count the ranges quickly and easily, subtract the lower number from the higher number and add one. Thus 27 minus 22 equals 5 plus one equals six."

As a manual of procedures for counting pages this work deserves serious consideration.

H. D. Brazier

WELLISCH, Hans H. (Ed.): International PRECIS Workshop. University of Maryland, 1976: The PRECIS Index System. New York: Wilson 1977. VII, 211 p., ISBN 0-8242-0611-8; LC 77-1932.

There is so much to applaud about PRECIS and about this book that I hope I can be critical of many details without keeping those who need to read it from doing so — and those who need to are

- teachers of subject cataloging,
- practicing subject catalogers, and
- administrative types who are considering or might be wise to consider comparison between various available subject cataloging systems, either in terms of choice of change —, as well, of course, as
- anyone interested in keeping current about where subject cataloging is going in the last quarter of the century (and that includes almost anyone who reads

But there is cause for some serious criticism, and it relates not merely to this presentation of the system, but, by implication, to the system itself.

What is overwhelmingly to be applauded about PRECIS as a system is that it is a set of rules for creating subject headings, rather than merely a system of subject headings (85, 172). This terminology is consciously analogous to that by which Ranganathan characterized an analytico-synthetic classification as against an enu-

merative, and fits the case well for Derek Austin and his associates in the design and development of PRECIS: they have dissected what goes on in the use of a system of subject headings so as to determine what is necessary to build a new one up. What is different, even at this juncture (since, after all, the construction of new indexing systems is something taught in library schools and done every day in practical documentation work), is that the PRECIS program for construction of an indexing system does not begin with the classical compilation, analysis, and structuring of the vocabulary of the subject, but instead allows the system to begin anywhere which makes sense in so far as compilation, analysis, and structuring of the vocabulary of a delimited subject is possible, whereas the same operations for a general system, i.e., the vocabulary of everything, is hardly possible beforehand -. This feat is made possible by a well- and carefully devised set of rules governing both semantic relationships (thesaurus construction) and syntactic relationships (subject heading construction). These rules are discussed in this volume, though not in detail sufficient to learn the system without study of more thorough and more didactic documents.

Rhe focal interest of this volume, instead, lies in its comparisons between PRECIS and other indexing systems, and in its description of applications. And I find in the comparisons the locus of what needs to be criticized:

Besides what I have already said about PRECIS, it is also a system intended for manipulation by computer. The subject-heading system to which PRECIS is compared is Library of Congress Subject Headings (LCSH) (and, in Phyllis Richmond's paper, KWIC); LCSH is most emphatically not a system intended for manipulation by computer: it can of course be printed etc. by computer, but this does not by any stretch of the imagination extend to the sort of manipulation possible on PRECIS. Because of PRECIS's deep involvement with computers, two more-or-less unconscious judgments arise (especially in the minds of users and prospective users, but even to some extent in the minds of originators and purveyors), namely

- that it is the subject-heading system of the future (because of its intimate association with the tool of the future), and
- that it is not to be tampered with as far as users (who do not clearly know what effect such tampering might have on the computer that is to manipulate the system) are concerned.

PRECIS comes off as something rigorous and elegant and modern, attributes that could be applied to LCSH only after the suppression of many doubts, or even of some inner laughter.

LCSH is a mess, but it can produce reasonably good results when embodied fully and utilized thoroughly. LCSH is not modern, though it once was; it has become what we know (often to our regret) because of its lack of rigor. LCSH is vast, which is almost a corollary of its non-modernity. LCSH is often used in far-from-full form, even without the syndetics called for right in the authority documents, and almost never with the syndetics that are implied in the Library of Congress' own practice. PRECIS may become a mess, too, in time, just as (if it lives long enough) it will also become vast. The real point, though, is whether, when PRECIS has be-