

narrative. Similar events though distanced by time are juxtaposed in the work. To fully describe an event, he occasionally moves backward and forward in time. For that reason it is difficult to say whether the description ends abruptly with his sudden death and whether he had intended to say something more about his life.

The book essentially reveals us his behavioral aspects. He usually overreacted with persons he thought were his enemies. Many were simply rivals or professional opponents. His conflict with K.M.Asaduallah (1890-1949), Secretary, I.L.A (1943-1947) appears to have been nothing but a clash of two egos, but it made Ranganathan denounce all Punjabis as ridden with an inferiority complex. (The fact remains that the North Indian have remained on the forefront to perpetuate his legacy). No doubt his colleagues were overworked while he gleaned all the glory. He was witty and had the capacity to laugh at himself; and he was quick to admit his mistakes - he called them follies. His attitude was fatalistic, superstitiously religious; and there is abundant proof of his belief in supernaturalism. In librarianship, he was a staunch proponent of empiricism and the scientific method.

In presentation and style this life account is perhaps unique in its kind, and far from exemplary as a model. The *dramatis personae* in the first section have been disguised into alphabetic-classed notation of CC for no obvious reason and without any seeming profit. In the original publication, he designated himself as 2 (2 denotes Library Science in the CC; in the present publication 2 has been replaced by SRR); WCB Sayers as 2SA, Edward Ross, his mathematics teacher, as BR, a working class woman as Y49, and so on. To decipher their identities requires considerable research. Tabulated dialogues, a Ranganathan gimmick, further subtract from the book's literary elegance. Dialogues appear incredible, even concocted, putting the veracity of the document at stake. Technical details and numerical figures are distracting. At times one feels as if reading through a technical treatise. On the other hand it is an interesting story in plain words of an incipient profession of what Ranganathan did for it and of what he received in terms of formal honours, personal delights and joys. It is a balance sheet of the agonies he suffered and the lavish adorations he was paid. The biography is laced with flashes of abstract thoughts and morals drawn from life experience. Conclusions are explicitly didactic. Yet the autobiography is much less than his life work and philosophy. Appendices by Professor Kaula partially fill the gap. Kaula writes about the beginning of his own association with Ranganathan and the work he did for him: he describes Ranganathan's work at Madras, Banaras, and Delhi and evaluates his impact on Indian and worldwide librarianship. The book ends with three valuable appendices: A list of awards and honours Ranganathan won; a descriptive catalogue of the major works published on Ranganathan, and lastly a chronology of Ranganathan's life. Kaula, an apostle of Ranganathan, is reticent as ever, and evades controversial issues. Therefore, this work does not obviate the need for a full and

critical biography. Girja Kumar (1) has already done some spade work and is presently engaged on a fuller volume.

A name and subject index provided by S.P.Das, concludes the volume.

The quality of the paper is poor, misprints abound and for that reason the price of 550 rupees is too high. Nevertheless it is a document of cardinal value for Ranganathan scholars and historians of the Indian library movement. For Professor Kaula it has been a realization of a dream and fulfilment of an obligation.

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(1) Kumar, Girja: Ranganathan, Dewey and C.V.Raman: A study in the arrogance of intellectual power. New Delhi: Vikas 1991. 147p.

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WELLISCH, Hans H.: *Indexing from A to Z*. New York : Wilson, 1991. XXVI,461p., ISBN 0-8242-0807-2

When a book of this kind is published which as a genre in its narrower field is a novelty and the author is both a respected and a seasoned master of the art the reviewer faces considerable difficulties indeed.

I will risk and call this work a special subject encyclopedia, a long awaited reference tool; and encyclopedias - when well conceived and gracefully delivered as the one here under consideration has been - deserve special attention.

One cannot but agree with James Anderson who, on the back of the dust jacket, recommends the book by stating that it is a sheer delight. This is not a commercially charged casual remark, perhaps solicited by the publisher to promote sales; close analysis confirms it as the truth.

I will take issue with the idea and actual accomplishment of what concerns the intended audience but before that - while running the risk of making untimely and unsubstantiated claims - I must say that this book will be considered first and foremost as a student's aid. Having been a faculty member for quite a while I have had the opportunity to use and recommend a plethora of textbooks, manuals, primers, monographs and other compilations. From a formal and often practical point of view they range from the usual fare of introductory and basic texts with various levels of accessibility or collections of individual essays featuring selected topics and methods to the more bizarre idea of programmed texts or exclusively format-oriented treatment, all lumped together under the magic term of "subject analysis". Indexing and its different areas and aspects generally receive, of course, an optimum 50% of the total but it also happens that they are relegated to a secondary, Cinderella status vis-à-vis classification, which often plays the role of the

elder or even the big brother.

Hans Wellisch's lexicon is a most welcome addition to this repertoire and is specifically about what the title explicitly and implicitly promises the reader to tackle.

It is nevertheless in place to make some comments on general matters and to voice the cord of dissent concerning a few issues which, I think, should have been handled differently.

Preliminary information culled from the dust jacket flap and the first page of the introduction reveals that the author's intention is to provide students and other beginners as well as experienced practitioners and specialists with a handy reference tool.

I have already referred to the fact that the book is an excellent aid for students but with regard to specialists close scrutiny does not bear out this contention and one might add that it should not either; it would even spoil much of the fun.

One of the greatest merits anyone trying to apply this work to actual problem solving will soon discover is that it is essentially an exercise in using an index. Its alphabetic structure needs to be supplemented by the constant use of the index since the single articles are usually long, often with complex, layered content which would otherwise remain hidden. Frequently it amounts to a trial-error process but then that is what happens in real life situations. The structure of the index and its relation to the main access mechanism and the overall cross-referencing system made easier and more transparent by modern computerized typesetting is undoubtedly exemplary.

It appears only as a minor inconsistency that the use in the index of boldfaced locators to indicate more extensive treatment of individual topics is not always followed up. This device is conceived mainly though not exclusively to incorporate terms from the titles of the major articles and often also terms from the titles of their subchapters. It is, however, not clear what exactly the criteria have been to qualify for such treatment. One can point here to several examples such as "Comma" which is a subchapter in Punctuation but receives no preferential boldfaced treatment as an index entry. Examples abound and they might easily be dismissed as minor errors which in fact they are. But it also happens to Indexing tasks within Indexing: the process and its techniques where the twelve commandments of capital importance from both a theoretical and practical point of view are laid down.

If the method of comparing the articles with the index is further sustained it is possible to illustrate the complexity of indexing through the index structure of the current work. There are certain areas where disagreement with the author is inevitable and where he himself, at least partially, contradicts his own recommendation.

First to be considered is the thorny issue of double entries. It must be kept in mind, however, that the following comments concern only a special type of double

entry, the one that is rendered through the inversion of the elements of a topical associative compound heading, plain or prepositional. Although it should not be forgotten that double entries for proper and place names cannot be taken for granted either and "see references" might often prove to be the better way of sorting out a problem that is a nuisance to indexer and reader alike. This is particularly valid for and contrary to the author's opinion in the example offered with regard to place names; i.e. two entries for Beijing and Peking.

To describe it in a simplified form: it is a procedure which implies the inversion of a main heading-subheading entry with the result that the subheading will be turned into a main heading with the former main heading as its subheading. The author suggests that the necessity (and probably also the feasibility) of such an operation depends on the number of subheadings and locators. When, e.g., there is only one subheading he recommends a solution with a double entry while in other cases "see references" should suffice. Obviously he makes an attempt to offer a codifiable solution or simply to set rules or quasi-rules whenever that seems feasible and prudent. My opinion, on the other hand, has always been that the number of double entries should be kept at a minimum and be allowed only in well argued cases where prospects of retrieval create an inescapable necessity. Short of such pressing needs not only judicious but extremely cautious use of double entries is what is required lest beginners and uninitiated craftsmen arrive at the unwarranted conclusion that inversion is all that is necessary to secure access from all conceivable points of view; or in other words it is quite an agreeable method to make everybody happy and most importantly it is an easy and painless way to fill up the allotted space.

Browsing the index we can find a number of cases where the author does not follow up his own advice and prepares double entries though the main headings are followed by more than one subheading: filing vs. biomedical terms; marking vs. indentions or most surprisingly: "and" and foreign languages where it is difficult to see the point why a user might wish to find these terms fully indexed in both places. The area of topic vs. place testifies to the same dilemma, especially in view of the example offered to illustrate the point. There appears here an inner contradiction since the author is obviously aware that current practices do not favor what he nevertheless proceeds to advocate a few lines later.

All this shows that the whole issue does not entirely hinge on taste or current vs. older indexing practices but requires a sense of judgment and the supposition of a probable frame of retrieval which is shaped by the epistemological make-up of the user's mind.

Indexing ought to be an activity where document purpose and functional utility combine to serve the cognitive ends of the most probable user. Theory and practice of retrieval - even when exercised through indexes - naturally imply the concept of relevance which drags subjectivity on its coat-tails. As Bar-Hillel has it:

"... the set of indexes is not, in any serious sense, a transform of the document, but only a set of clues to it" (1). But these clues must nevertheless be organized and having taken the issues of relevance and subjectivity into account we are supposed to present a structure that is the least repetitive and is based on clearcut hierarchical and associative as well as grammatical relationships supported by a cross-reference network resting on the same principles.

Another, again both theoretically and practically important matter is consistency in the use of definitions. This concerns first of all beginners for whom a good start can be decisive. Therefore it is almost mandatory to offer clear and simple definitions and then consistently apply them throughout the work. From evolutionary, organizational and classificatory points of view alike it is, e.g., necessary to differentiate between subject heading lists and thesauri. It is in vain to look for such a discussion in pertinent textbooks; as far as I am aware it has not been done anywhere in a systematic way. Wellisch is the first one to address this important question on this level. He devotes to it almost a full page (p.388) at the end of the article on thesauri. Of the more for the specialist type of literature, with the recent exception of Dykstra whom Wellisch cites, it is only Soergel who touches on the issue but he equates LCSH with a thesaurus on the grounds that it displays hierarchical and synonymous relationships (2). While Wellisch effectively dismantles this contention adding a few more, supplementary arguments will render the picture even more lucid. Accordingly, the major differences can be summarized as follows:

- a subject heading list like LCSH is or has the tendency to be universal in scope while thesauri, at least the really good ones, are restricted to narrow fields,
- there are far reaching structural differences (cf. Wellisch's analysis)
- their respective areas of application are widely different.

There are of course many specialists and experts who take this distinction for granted and refer to these two superficially related devices as separate entities. Therefore in such an important reference tool standard and consistency of usage should be rigorously upheld and it comes as a surprise that in spite of his excellent definition, on other occasions (on pp. 246 and 274), the author uses the two terms in a way that they can be interpreted (or misinterpreted) as synonyms.

The book treats the reader to a trove of useful information on a variety of technical problems and often does that at a considerable length which is not only on the credit side but also the basic function of such encyclopedic collections. It occurs, however, that presentations of this type get out of bounds, frequently in spite of the author's best intentions. That is what has happened to the chapter on personal names. The dire complexity of the topic is itself an invitation to meticulous treatment but is at the same time a trap since the subject cannot be reliably discussed in the framework of a single chapter

even when it receives more space than it should. It is unjustified to go into details which will necessarily be incomplete and sometimes even inaccurate. The blame should go to cataloging rules and practices whose proliferation in indexing the author implicitly, and rightly, deplores but then, unfortunately, makes ample use of them. Indexing, however, is not cataloging; it is more individually cut and the role of functioning has priority. The article on personal names ought to be much shorter, giving guidelines rather than examples. In any event the subject is thoroughly discussed in Knight's still unrivalled manual which is part of Wellisch's bibliography and is often referred to throughout the work but strangely enough it is not mentioned at all in this particular chapter (3).

Turning now briefly to the debt side; the absence of a few topics is all too conspicuous and some of them are sorely missed. The composition of a "wanted" list will of course always be up to individual preferences but I have found the lack of separate entries for at least two areas somewhat disturbing.

First, it would have been extremely useful to include a chapter on how to index encyclopedias. There are scattered references to some of the problems an indexer has to solve in this particularly demanding and challenging field but a coherent presentation in the form of a single article would have been a better choice and for obvious reasons; the most important ones being:

- their historical significance in knowledge organization,
- their acknowledged complexity, mainly in the case of large, multivolume, comprehensive works, and
- the prospect of a growing market for encyclopedias on CD-ROM.

Undoubtedly this will be most puzzling for those who are familiar with Wellisch's writings and know that he is one of the very few who have published about indexes in encyclopedias and belongs to the select group of those most knowledgeable about the subject.

Some will consider the lack of information on the chain indexing method not something to be regretted and indeed from a purely pragmatic point of view it is not a serious deficiency. Nonetheless it has at least some historical importance and might also serve, among others, as an introduction to PRECIS which is described here under the title "String indexing"; thus to have a word or two about the methodology of chain indexing would not be out of place at all. In any event the author promises the reader occasional historical digressions. Beyond that there has been some professional guesswork making the rounds that in a computerized environment it might even enjoy a revival especially as a complementary device to online Dewey searches. Similarly, to mention POPSI, only for the specialist's sake, would have been useful.

Advanced technology does not seem to be a panacea for age-old chronic ailments like misprints, slips and other minor though occasionally irritating errors. This

book is not exempt from them either. The most amusing is to find Lenin in the index with the forename of Nikolai. Or is it just the sign of the times, a pardonable slight? Another slip obviously committed in a humorous vein is the case when the reader interested in indexing as a hobby is directed to a blank page. Other more serious mistakes which might even result in information loss include e.g. the confusion around medical vs. biomedical terms. On the one hand important information in this context (on p. 273) is ignored and remains unindexed, on the other - though "biomedical terms" is designated as the preferred term in the index - the article on Latin terms retains a subchapter entitled "Medical terms" (boldfaced).

The bibliography is possibly the best concise compilation one can find in this field but again, that has been another specialty of the author. It is conveniently up-to-date, divides into selected major writings about indexing and handy technical reference aids respectively; confirming - willy nilly - that the basic orientation is towards beginners and to a lesser extent to practitioners.

The easy-going, witty style, often anecdotic makes it an attractive reading for all those interested.

Irrespective of its intended audience this book should be part of private and public reference collections for a long time to come.

Daniel Benediktsson

(1) Bar-Hillel, Y.: Language and information: selected essays on their theory and applications. Reading, MA.: Addison-Wesley, 1964. p.361.

(2) Soergel, D.: Indexing languages and thesauri: construction and maintenance. Los Angeles: Melville, 1974.

(3) Knight, G.N.: Indexing, the art of. London: Allen & Unwin, 1979.

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HARROLD, Ann; LEA, Graham: MUSAURUS: A Music Thesaurus. A new approach to organising music information. London: Music Press 1991. 128p. ISBN 1-873260-00-8

In 1960 a paper was published by B.C.Vickery with the title "Thesaurus - a new word in documentation" (1). Nowadays "thesaurus" no longer is a "new" word in the field of documentation.

Outside traditional documentation many new approaches for thesaurus application are seen to exist as for example in expert systems, interface systems, object-oriented design and programming, hypertext systems, machine translation and machine abstracting (2). In the meantime, special thesauri are available for nearly all fields of knowledge (3) and in this connection MUSAURUS indeed is a new word in the world of music, a new instrument in organizing music information, which can permit the inclusion of music scores and the scholarly, professional and business aspects of music as well. The

aim of MUSAURUS is to provide a comprehensive system for indexing the whole field of music, including music scholarship, the music profession, and the music industry.

Furthermore, MUSAURUS is designed to be suitable for indexing music books, journal articles, newspaper items, documents, recordings, instruments, brochures, files, artefacts - in fact anything of musical interest. MUSAURUS consists of a subject part with the following seven subject divisions, which are divided in "subdivisions" of different degrees of specificity: A Musicology, B Musical instruments, C Musical works, D Performance, E Music profession & education, F Music business, G Music documentation. In addition some auxiliary tables can also be used, for example: history, geography, and language auxiliaries. Each auxiliary table has its primary, secondary and tertiary divisions, each division has a code and an associated term.

A rotated index allows to enter the MUSAURUS by using the codes. I think MUSAURUS is a suitable combination of a classification and thesaurus. "Both classification systems and thesauri have their specific strengths and weaknesses. Through properly combining both approaches one can eliminate the latter and largely preserve the strengths" (4).

As to future developments it is intended that MUSAURUS will be used to index a database, called MusBase, that will store data, full text, digitized musical notation, scanned documents, and bibliographical references.

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(1) Vickery, B.C.: Thesaurus - a new word in documentation. J.Doc. 16(1960)No.4, p.181-189

(2) Schmitz-Esser, W.: New approaches in thesaurus application. Int.Classif.18(1991)No.3, p.143-147

(3) Dahlberg, I. (Ed.): Classification systems and thesauri, 1950-1982. (International Classification and Indexing Bibliography. ICIB-1). Frankfurt: INDEKS Verlag 1982. XIV,143 p. (The bibliography is continued in the issues of the journal International Classification.)

(4) Fugmann, R.: An interactive classaurus on the PC. Int.Classif. 17(1990)No.3/4, p.133-137

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MEADOWS, A.J.(Ed.): Knowledge and Communication: Essays on the Information Chain. London: Library Assoc.Publ. (A Clive Bingley Book) 1991. IX,164p. ISBN 0-85157-454-8

Man needs information next to absolutely bare necessities of life; and every human being possesses knowledge of certain kind and level. But only a few persons in society are concerned with the 'science of knowledge' which cuts across many disciplines. The study of the nature of knowledge is the concern of anthropologists, philosophers, sociologists, psychologists, educationists,