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Special Libraries Association

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February 1969, vol. 60, no. 2

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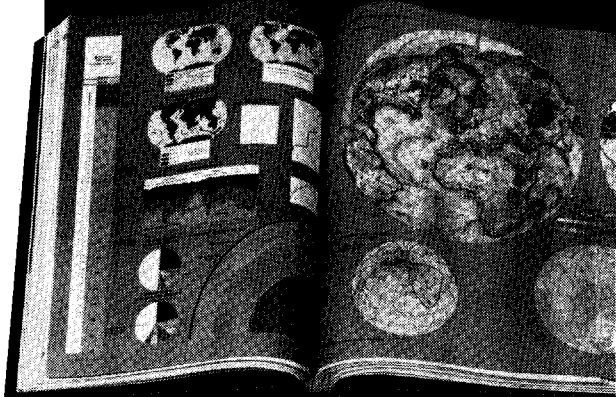
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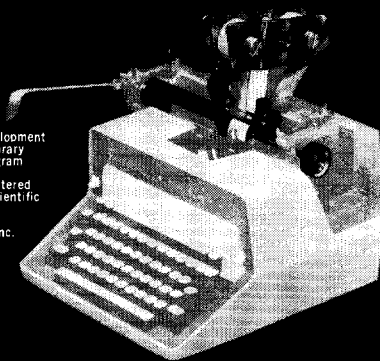
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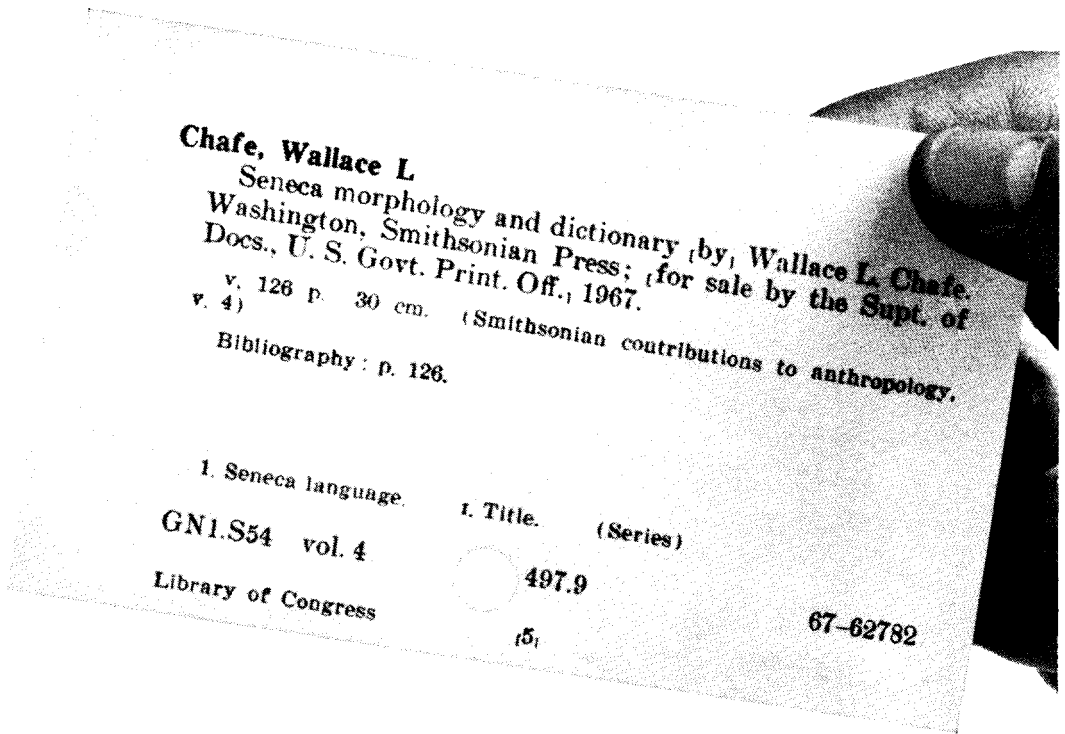
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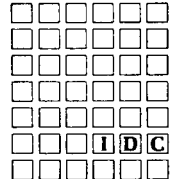
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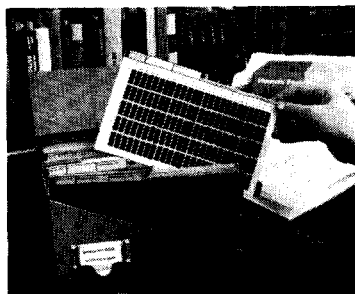
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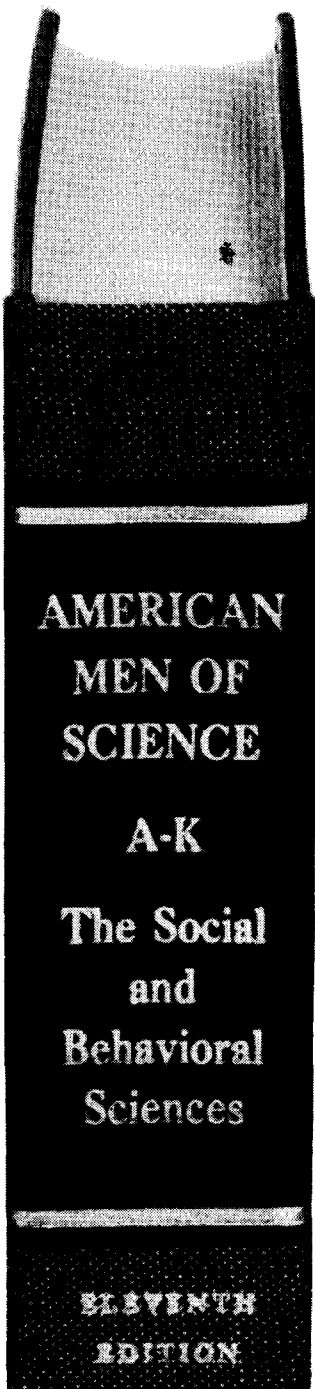
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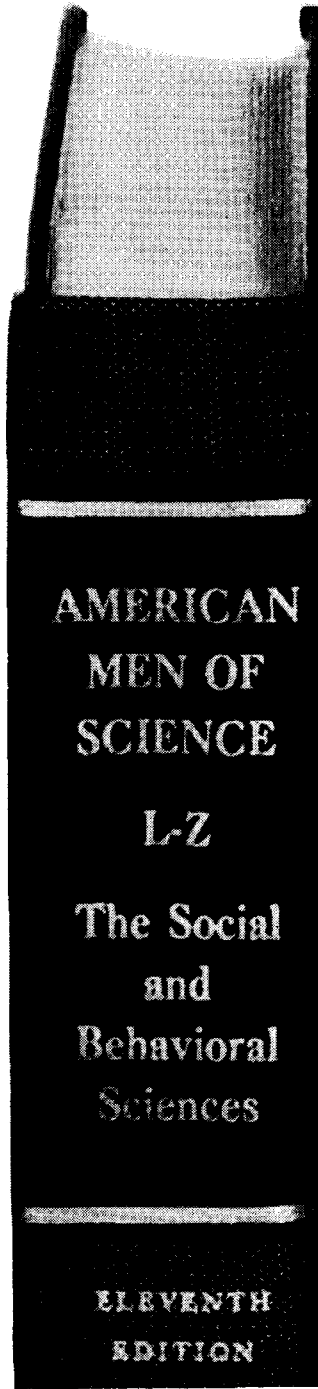
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SLA Board & Council

Rochester, N. Y., Jan 1969

FOR three days—or more accurately for a marathon of 72 hours—the meetings of SLA's Board of Directors alternated with those of the Advisory Council. Intermingled with these meetings were Committee sessions and the social pleasantries arranged by the host Chapter, Upstate New York.

Again, both major and minor issues consumed the energies of the Board. A listener could well have been confused as to which were the major issues and which the minor issues from the relative lengths of time spent on some agenda items. In spite of previous Board resolutions to protect itself from reports submitted after the agenda deadline, tardy items were—once again—added to the agenda even though there had been no time for study by Board members.

Again, recommendations from some Committees were not presented with adequate clarity to allow for definitive action by the Board. And, again, the Board embarked on its own editorial adventures in an attempt to rescue Committee assignments that were inadequately presented. To conserve their own energies, SLA Board members must, one day, face up to the difficult task of rejecting Committee reports that are not adequately prepared or presented. Committee chairmen and members are volunteers, but so are the members of the Board. A rejected Committee chairman may be temporarily displeased, but an ill-advised action by the Board can survive for years.

As the Board prepared to adjourn, echoes of solemn pronouncements by the 1963 Board threw their shadows over the 1969 Board: What had happened to the "Goals for 1970"* so bravely stated in 1963 and largely overlooked ever since? Some activity has existed in some areas of the goals, but the total balance sheet for SLA's "Goals for 1970" is deficient. Perhaps, some of the goals were unrealistic; and perhaps, some were unattainable with the available resources of manpower or money.

Can the defective approaches to the goals be found in defective lines of communica-

tions within the Association? In diffused lines of communications? In uncertain lines of authority? In June 1964 the Keynote Speaker of the St. Louis Convention described SLA's organization chart‡ in these words:

"In its splendid resemblance to an eight-level freeway interchange, it is clear that it [the organization chart] could have been conceived only by an intellect vastly superior to that existing among today's engineers—and thus it is an effective countermeasure against any attempts by the latter to infiltrate the ranks of special librarianship."

Are the paths of communication within SLA clearly defined? Obviously not. Do the Association's Chapters and Divisions (and their subunits) contribute appropriate strength to SLA or are they sometimes unwittingly divisive in their influence? Chapters provide year-round strength. But are the values of local contacts diluted—or even destroyed—by the subdivision of the metropolitan Chapters into Groups, that correspond—more or less—to the "subject" Divisions?

Do the Divisions themselves contribute to a divisive philosophy: "I am more *special* than *you* are *special*." Have our "subject" Divisions failed to recognize the evolution of information services that have expanded the arena of every special library? Expanded so that the special library is no longer special in a unique subject, but rather that its specialty is really its special services and special philosophy for a specialized clientele.

Much effort has already been expended in discussions about a "news" publication for SLA. *News and Notes*, as an insert in four issues per year of *Special Libraries*, has been discontinued after its November 1968 issue.

Three identifiable sections are planned for the issues of *Special Libraries*: 1) formal papers; 2) news of the Association; and 3) news and views from the world of libraries, information and knowledge.

News items of immediate interest from the January Board and Council meetings are reported in this issue; additional reports will appear in the March issue of *Special Libraries*.

FEMCK

* *Special Libraries* 54: no. 4, 215-216 (Apr 1963).

‡ *Special Libraries* 53: no. 2, 160 (Feb 1964).

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Toward Professionalism

Herbert S. White

President, Special Libraries Association

IN THE broad consideration of Special Libraries Association and its future, it is appropriate to think in terms of the outlook for special librarianship itself. Much of our energy is devoted to a consideration of the pros and cons of professional standards, of membership requirements, and of the place or absence of a place for library technicians. All such considerations occur without any clear discussion or definition of what it really takes to be a special librarian—except for the general assumption that you certainly cannot go wrong with a library degree.

We are much preoccupied with the shortage of librarians in general and of special librarians in particular. Our own staff vacancies give ample evidence that the shortage is real. At the same time some of us are nagged by the suspicion that the shortage might not be as great if we did not squander professional talent on non-professional tasks; and that the problem is really more one of logistics, of moving available professionals into professional assignments.

Librarianship, and special librarianship in particular, is a profession in transition. There is no profession more dynamically involved in change; and the end results will depend on us. This is challenging and exciting.

The road of special librarianship is branching, and we must look down both forks of the road. Our dilemma arises from the fact that, quite suddenly, we have competition in the information business. Until quite recently, the acquisition, storage, analysis, and dissemination of information were our business; and our customers were stuck with us whether they liked our approach or not. We

made the rules, and we enforced them. Information service has become a big business and a lucrative one. In part this has occurred because expanding technology places a high premium on complete, timely, up-to-date information; in part because scientific management is supposed to be based on facts rather than intuition; and in part because new sophisticated pieces of hardware make so much of this increased manipulation and sophistication feasible.

Service or Self-Service

There has always been something of a conflict between the two functions of a library: as a part of the educational process and as a service institution. At least part of our problem comes from the fact that library service—as special library customers have a right to expect it—really conflicts with the emphasis on librarianship as an educational adjunct, which still dominates our profession. In school librarianship and in much of public librarianship, the emphasis is on teaching the client how to help himself. We tend to make value judgments about our customers on the basis of their understanding of bibliographic tools and their ability to serve themselves; and we strive to improve that understanding and that ability. It is difficult to realize that, in a special library setting, this standard may have no meaning. For a particular customer, his ideal library service may be one in which he need know nothing (or do nothing) about the way in which we

handle material or secure answers. He has a problem, he needs a solution—and no moral judgments, please. (You will notice that I insist on using the word, *customer*, although many may find it more irritating than *patron*.)

There are many indications that we do not function as well in the service area as we should or, perhaps, as we think we do. Traditionally, the responsibilities of the librarian have been directed toward a strong program in acquisitions, a professional effort in making materials ready and available through their preparation for use, the preparation of tools to assist in their location, and finally in assistance to the user in finding the information he needed. *Assistance* to the user? Yes, but the responsibility was still basically that of the customer. In fact, the "morality standards" of the library profession were and still are largely based on the assumption that knowledgeable, educated, cultured, worthwhile people are the ones who know how to use a library. We have, in various shadings, all of the subtle little devices for showing disapproval of those who do not measure up to our expectations, from outright shock to friendly paternalistic condescension. "Oh, you mean you've never used *Engineering Index*? Well, come, let me show you how it's arranged." Such an approach hurts only the librarian. If the would-be user now feels foolish and inadequate, he will find reasons not to use the library at all. It then follows that "Since I never use the library anyway, why does it need such a big budget? We need to cut expenses!"

Glib generalizations may be very unfair on an individual basis to many, or most, of us. Nevertheless, part of our problems of importance, status, and recognition has come from an insistence on providing service on our own terms; by giving the user what we feel he ought to get, and by making him do for himself what we think he ought to do

himself—with no concern as to his opinion on the subject.

This sort of an attitude cannot succeed in a service organization. The special library—whether it be in an industrial, nonprofit, government or university environment—does not produce or market a product. The library will have difficulty proving its impact on sales volume or production costs. What can be easily established from the accounting ledgers is that the library is a not insignificant overhead expense, and that it therefore dilutes the operating profit. It is a perfectly natural and understandable reaction on the part of operating managers to question and challenge the validity of the library operation in terms of their own needs. As executive director of Leasco's NASA Facility, I have operated a direct contract project with profit objectives, and have supported, from my operating profit, the corporate library. Even though I am a librarian, I have also questioned its costs and the cost impact in terms of the services it provides to our operation.

Our problems in this area are caused largely by our own stubborn refusal to admit that, to any appreciable extent, we are a service and not only an educational organization, and by our insistence in providing information services as we think the customer ought to be receiving them. When I emphasize the necessity for providing information services as the customer needs them, I am not saying that they should be provided as *he says* he needs them. I am emphatically not stating that the internal techniques for information manipulation can be directed by the user. The librarian has management responsibilities which he cannot delegate to his customers.

Some libraries have developed well in such an environment while others have just continued to exist. Nevertheless, these conditions might have continued indefinitely, with the library supervisor finding his own place in the organization by his ability to manipulate and maneuver, but for one rather recent innovation: the development of information centers. Many of our libraries have simply become information centers, and the library managers are now managers of these information centers. There is nothing particularly wrong with this, unless you feel an attachment to the historic nomenclature. The

This paper is based on Mr. White's talk presented during his presidential visits to Chapters of Special Libraries Association. Mr. White is vice president, Leasco Systems and Research Corporation, Bethesda, Maryland.

manager of the information center (formerly the librarian) can probably command a new job description with a comparably higher salary.

Our areas of deep concern come in situations in which an existing special library has been *supplemented* by the formation of a new information center with no connection to the existing library organization. Inevitably such information centers have been formed to provide information to the users in easy-to-digest, packaged forms—frequently, though not always, through the use of computerized equipment. What such information centers—with their computerized search, their SDI services, their annotated bibliographies, and their competitive product evaluations—are providing, or promising to provide, is *information*, not materials and not procedures for obtaining materials.

Pioneering Techniques

There is irony in this development. Much if not most of the early experimentation with such information techniques as SDI service was pioneered by librarians, frequently through the necessity of overcoming reluctance and apathy of management. It is sad, indeed, to find that our own tools have been turned to use by others, while much of the library profession has hidden behind the endless refrain: "We know machines are coming, and we know they will have applications in the library, but nobody has proven their usefulness yet." Apparently others do not agree.

It now becomes fairly obvious that the reason for the instant success of these programs is the fact that they provide or promise to provide a kind of service which the customer has wanted all along and for which, despite the protestations of corporate poverty, he would gladly have been willing to pay.

There is no service performed by an "in-addition-to-the-library" information center which should not legitimately be performed by the library. If our concerns are information and all of the intermediate processes necessary for the full, proper and successful utilization of this information, then the

business of the information center is part of the business of the library. I cannot visualize the continued co-existence of the two concepts as separates in the same organization, without eventually relegating the library to the status of a high level stock room.

Staff Services

Without doubt the special library staff will need the assistance of subject specialists, of translators, of systems analysts, of programmers, and of budget analysts. These individuals, however, must provide staff services to the special librarian. When full-time assistance is required, these subject specialists, analysts and programmers must be members of the library's staff, reporting to the special librarian.

All librarianship, but particularly special librarianship, must change to meet the expanding desires and interests of the user community, or be relegated to a supply room function. Certainly the advent of computer processing, with greater and more rapid access to large information stores, rapid large-scale printing, and reprographic processes, has had considerable impact on the philosophy of information service. Our customers simply cannot keep up with the developments in their fields—scientific and humanistic alike—without assistance.

An additional area of significant change with impact on the library profession is directly related to computer technology, and, through it, to the interchange of information between library locations.

When I speak of the developing application of computer technology to library operations, I am not talking about its pertinence to library housekeeping functions, to such tasks as ordering, check-in, routing, circulation control, etc. Machine applications here have been feasible and practicable for at least a half-dozen years, despite the never-ending pleas for more study and for more time. Such library functions are very like similar tasks in insurance companies, banks, mail order firms, and warehousing operations. Techniques and principles long established fit our needs quite nicely with only

minor adaptation. I am addressing myself to the far more significant and far more difficult questions involved in computer assistance to the library in the performance of intellectual functions within the library.

The NASA Information Program has been distributing computer tapes to NASA Centers and selected major contractors for over five years. The National Library of Medicine has been active in the program for about four years, and the Library of Congress and the Defense Documentation Center also have programs in being or in preparation for the distribution of machine readable information. These programs of centralized processing, as they affect libraries, are being tremendously accelerated through the development both of remote access consoles for input and output to computers at distant locations, and through the feasibility and practical economic necessity for computer time sharing. To a greater extent, today's computers have excess processing capacity. They can handle more manipulations within a time span than any one input device can demand. It therefore becomes both economically and technically practical to make one central computer location *the* information reference store for a large number of libraries, with each of these libraries querying the information store in what to the machine is sequential but to the user appears to be a simultaneous manner. This development, accompanied in turn by greater sophistication in microstorage and blowback and by cathode ray tube projections of computer information, changes all of the economics of computer storage of library information.

It also changes all of the ground rules for the library itself. It simultaneously multiplies the reference resources of the participating organizations and places greater emphasis on the use of this material through professional reference work, through bibliographic search and through selective dissemination, while at the same time considerably de-emphasizing the local requirement for technical processing. Because, in this kind of cooperative organization, processing can only be done once within the system, and that processing must be accepted by all of the other members. I doubt that we will have difficulty adapting to this, once we realize its inevitability.

Intraprofessional Relations

We worry about our relationship to other professional associations which seem, in large part, interested in the same kinds of programs and ideals in which we are interested. A quick glance at the American Society for Information Science membership roster discloses the names of some of the most active members of SLA. The American Library Association has now established a formal division for systems studies and mechanization, an area we tended to consider our private domain. But such concerns are an inversion of the real problem. People will affiliate with groups which best satisfy their needs and interests, regardless of what those groups or associations are called. SLA's decision—whether to be completely independent, to cooperate closely, or eventually to merge—will follow as a natural result of which path we choose as a profession, and how well this Association, or any other, responds to meet the needs which are generated.

Our concerns with recruitment, our concerns with professional standards, and our concerns with the continuing questions about what kind of people we ought to permit to become members of the Special Libraries Association are valid and topical, and I am not suggesting that they be side-tracked. I have already expressed my own personal opinion, in other forums, that I consider the library degree by far the most suitable training for work in special librarianship and information science, but that I consider the degree as neither an exclusive qualification nor an automatic one.

What I am suggesting is that the question of formal educational qualifications becomes secondary when compared to the total need for all special librarians to continue their education and preparation—no matter what their original training. Those of you who attended library school a decade or two ago, as I did, know how ill prepared you would be for coping with the operational problems you face today if you had to rely exclusively on that training. It is safe to say that this year's graduates, if they put their minds into

the deep freeze, will be just as unqualified and ill prepared ten years from now.

This is not the fault of the educational institutions, much as we like to blame them for many of our problems. A library school, or any other school, can only prepare its students with the information available at that time, no matter how well it orients its curriculum to special library needs. A physician who attended medical school twenty years ago and who has learned nothing since graduation is not someone I would like to have treat my illnesses. A special librarian who has learned nothing since graduation twenty years ago is a poor bet to run a special library.

There is no one single simple solution to the problem of continued updating, and it is certainly not unique to us. Technical obsolescence or, to be genteel, technical erosion affects many professions. Some of the solutions can and must come from our educational institutions, and some library schools are aware of their responsibilities. Others, of course, are still turning out masses of graduates with cookie cutter uniformity.

However, not all of the activity in this area can come from the library schools, and even when it does, it will require your support and assistance. It is the exponents and developers of new ideas and new technologies who must teach about them. Much of the activity must come through your own participation and initiative; much of this activity should be channeled through the framework of your professional association.

Special librarianship will not be a profession for the faint of heart, for those lacking in intellectual stimulation, for those unwilling to commit themselves to continued self-education and improvement, and for those looking for a nice quiet place to retire immediately upon graduation.

We need not do it. We can quietly step aside and let the ranks be filled by the scientific informationalists, logicians, behaviorists, philosophical empiricists, empirical philosophers, and the thousand-and-one others, who can see the expanding frontier and who want their piece of real estate. Even these people, in their projected scheme of things, have a place for us. They need somebody to run their information stock room.

The Answers Are Crucial

Our consideration of these questions is not just germane but it is crucial for the future and growth of librarianship, specifically special librarianship, and even more specifically the Special Libraries Association.

The task of information analysis, information dissemination, and information packaging will be performed, whether we do it or not. We still have the option of being the ones to do this. We have the head start in the fact that we are the incumbents, and that we have the education and training for the handling of information. But we rapidly throw that advantage away when we refuse to recognize all the signs which indicate what management and the customer really want—when we insist on talking about back-orders, filing backlogs, lack of cooperation in returning overdue material, crises in binding because of missing issues, by insisting on talking to our management about tools and mechanics in which nobody but us is remotely interested, and by failing to translate our needs into the concepts which management does understand.

We can fight to retain what was ours by default at a time when it was too mundane to interest others, and has now become a challenge of tremendous scope which has attracted many outsiders—some earnest and qualified, some quacks and charlatans. We can fight to demonstrate to others what we so clearly know, that the management of information services is properly ours by training, experience and attitude. Or we can nestle securely in our fortress, ordering material only on demand, indicating its location in the system once it arrives—through an intricate cabala of symbols—and keeping accurate records of who borrowed what. This is a job even our newly arrived competitors in the information business are willing to concede to us. After all, who wants to spend his life running a stock room?

We still have the opportunity to do something about it. But it must be soon.

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What Everybody Should Know About Translation

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■ Translation, whether "literary" or "technical," is a creative art, not a lexicographic process; machines have failed to give useful translations of serious texts for this reason. The conventional distinctions between "literary" and "technical" translation are misleading and perhaps false. Literal or word-for-word translations are not translations at all and their use should be discouraged. Translation requires a full command of both languages and some understanding of the subject. Quality is difficult for a layman to judge, but idiomatic English is one good sign and there are other indications.

ALTHOUGH nearly everybody who has a degree from an accredited college or university is supposed to have a nodding acquaintance with a foreign language, most college students get very little training in translation except at the elementary level. They are taught to *understand*, nowadays, rather than to translate; although there are good reasons for this from the point of view of general education, those elementary exercises in translation leave the graduate with strange notions of what translation is and what it involves. Finally, translation is fast becoming a recognized and respected profession, and those of us who are concerned with information transfer should know more about it.

First of all, the distinctions frequently made between "technical" translation and

"literary" translation, although necessary and useful for some purposes, are often arbitrary and misleading. Most of what follows refers to "technical" translation, since that general class is what concerns most readers of this journal, but we need also to consider translation in general and, briefly, "literary" translation as well.

"Literal" versus "Exact" Translations

There is a French proverb to the effect that a translation is like a woman: if she is beautiful, you must not expect her to be faithful. And Chateaubriand, with a more restrained image, compared the translator to the painter who gives us not the original person, but a portrait of her. Benedetto Croce, however, had the last word with this sort of comparison. He said that the translator of poetry who claims to reproduce or even replace the original is like someone who gives a lover an "equivalent" or "similar" woman in place of the one he loves.

Now there is something fundamentally misleading about all of these clever comparisons, for they imply that a translation must be *literal* in order to be *exact*. And this assumption is based in turn on the mistaken idea that the translator transcribes *words* from one language to the other, that translation is largely a mechanical, word-matching, or lexicographic process. The naiveté of this notion is not lessened by the fact that many translators have inadvertently helped to perpetuate it.

A "literal" translation is not only *not* more faithful than some other kind but it is really not a translation at all, for it leaves the statement in a kind of limbo between the original language and the new language.

One of the reasons for this is that interlingual synonyms—two words in two different languages having exactly the same meaning—are extremely rare. Even when they do exist, it usually turns out that their secondary meanings do not match or that their connotations are quite different. This is particularly true of false cognates or “false friends,” as translators call them.

Word-for-word translations, even when the subject matter is as simple as, say, the warning on the back of a can of rat poison, are often dangerously inaccurate, often misleading, and frequently unintelligible. No competent translator will deliver one, and their use should be discouraged. The reader who asks for a “literal” translation shows his ignorance of what translation is and of what it is supposed to do. If he simply cannot wait for a proper translation, he should ask for a summary, specifying, for example, the number of typewritten pages or perhaps a percentage of the length of the original. This, incidentally, is one test of a translator’s competence. If he is not capable of summarizing the *ideas* in a document, he may not be capable of translating it properly, for its *words* cannot be understood without some grasp of the ideas they convey.

Machine Translation

If translation were the mechanical process some have imagined it to be, we should have had useful machine translations long ago. In fact we have nothing of the kind, and may never have, for the steps in which an idea in the source language is first understood and then re-expressed in the second language are so subtle, so complex, and so deeply hidden from observation that we may never be able to devise a machine program capable of imitating them. We cannot program a machine to carry out steps which we are unable to specify. The effect, for example, of the syntax and the context upon the meaning of a single term may be so subtle as to defeat all attempts at linguistic analysis, and yet the intended sense may depend *entirely* on those two factors, and the choice involved may be between not two or three terms or phrases in the second language but between twenty or thirty! No linguistic scientist or translator has yet fully described the operation of these

influences, and yet they can make all the difference between a useful translation and mere gibberish. A simultaneous interpreter may perform logical analyses on whole strings of polyvalent terms while he is reconstructing phrases at the rate of a hundred words or more a minute, but he does most of it subconsciously and is therefore unable to give anything more than a superficial account of it.

The failure of the machine translation program is no fault of the computer scientists. It was the inevitable result of unjustified optimism on the part of the linguistic scientists associated with it who faced, apparently without being aware of it, an enormously difficult problem containing vast sets of unknown complex variables.

The translators, who must have known what was involved in translation, did not know what computers could and could not do. On the other hand, the computer people, who presumably knew what their machines could do, did not know what translation involved. Communication between the two groups was fragmentary and ineffective. Yehoshua Bar-Hillel, a lone giant who understood both worlds, and who had devoted ten years to the problem, declared in 1960 that the thing was impossible.¹ He was not listened to, and the federal government spent another ten million dollars trying to do it. But in 1967 a report issued by the National Academy of Science² concluded with a touching understatement to the effect that useful machine translation was not in “immediate prospect.”

Literary and Technical Translations

Translation, as the French say of diplomacy, is the “art of the possible.” It works within severe restraints, and it succeeds when the best choice is made of many alternatives. In other words, it is a *creative art*, a dynamic process in which a series of problems are seen to have multiple solutions, whether the text is “literary” or “technical.”

What the translator of a technical text does requires essentially the same skill as the work of a literary translator. If the translator of, say, Rimbaud or Mallarmé must grapple with whole strings of words de-

liberately chosen for their clusters of polyvalent meanings, the translator of, say, Heisenberg or Schrödinger—as he approaches words chosen usually, but not always, for the opposite quality, their *lack* of ambivalence—must first grasp concepts of very great subtlety. I, for one, would not presume to call one more difficult or more worthy of respect than the other. With regard to two quite specific texts, such a comparison could be made, but that is another matter. For example, the translation of Edgar Allan Poe's poetry into French can be done with great ease because of what Kenneth Rexroth has called, "the very banality of [Poe's] thought and the poverty of his style." On the other hand, the translation into French of a paper on "Optimal Unsupervised Learning Multicategory Dependent Hypotheses Pattern Recognition" from the *IEEE Transactions on Information Theory* will require an understanding of ideas of a far higher order of complexity than anything in Poe for all his ingenious onomatopoeia.

But comparisons of this kind are instructive only if we keep in mind the fact that both poetry and scientific writing are concerned with *ideas*. In both cases, the translator must re-create the ideas (or the emotions) and not the words, which are merely symbols representing them. In both cases, he must create a new set of symbols which will give the reader of his new version an

impression as similar as possible to that received by the readers of the original.

Some of the more vocal professional translators, nevertheless, seem to be split into two groups. I. J. Citroen, addressing himself to "The Myth of the Two Professions" in *Babel*,³ the official organ of the International Translators' Federation, argues convincingly that the conventional distinction between "literary" and "non-literary" translation is irrational and misleading and should be discontinued. Others, in the same journal and elsewhere, have contended—much less successfully, I think—that the two kinds of translation are fundamentally different in both purpose and method.

But this is a translators' quarrel. What librarians need to know is that the translator of serious subject matter of *any* kind, from the *Gospel According to St. John* to A. I. Oparin's essay *On the Origin of Life*, must understand the ideas in the original. To argue that one or the other, in general, is more difficult or more dignified is a waste of time. What must be borne in mind is that at this level or anywhere near it, a superficial command, no matter how encyclopedic, of the two languages alone is *not nearly enough*.

Whether the translator has acquired his ability to deal with a specific subject through previous experience with it or, as I suspect some of the really brilliant ones do, whether he picks up that ability *as he goes ahead with*

Ach, bitter bereut, wer des Weisen Rat scheut
 Und vom Alter sich nicht lässt beraten.
 Ach, zu hoch nicht hinaus! Es geht übel aus!
 Sagte das Weib zum Soldaten.
 Doch der Soldat mit dem Messer im Gurt
 Lacht' ihr kalt ins Gesicht und ging über die Furt.
 —Brecht

Ah, bitterly rues, who good counsel eschews
 And by the wisdom of age is not guided.
 So fly not too high, or you'll fall from the sky!--
 By the woman the soldier was chided.
 But, the knife in his belt a gleam,
 He laughed in her face and forded the stream.

(Addis)

his translation is also useless to argue. In any case, a translator deals with ideas, for which the words are mere symbols; he is an intellectual, not a keypunch operator.

Good Translators

A good translator is an accomplished writer in his own language. This principle, universally acknowledged in the books on the subject, is frequently ignored in practice because the people who hire translators or buy their work often think of translation as a mechanical process, where actually it is less apt to be mechanical than most kinds of writing. The effectiveness of a translation, that is, its accuracy and its basic fidelity, depends heavily on the translator's own style. And the "attainment of style," as the Unesco report on scientific and technical translation⁴ put it, "is an art—something dependent on personal choices between uncodifiable alternatives, not a science susceptible to analysis." Above all, style is functional; it is not a matter of decoration; it conveys meaning, and impact. The competent translator tries to write, "in the phrases which would have occurred spontaneously to an educated native of the language of translation, had he wanted to express the same ideas and the same shades of meaning. It is precisely this which is not grasped by the second-rate

translator . . . who has used English words forced into French, German, or Russian thought patterns. . . ." Finally, "it should never, ever, occur to the non-linguist reader of a translation that what he is reading is a translation. This is the test of a merely competent piece of work, for an excellent translation ought to be able to deceive even another translator."

If a literary translator has the prestige of a Stephen Spender, he may, with some impunity "translate" Goethe's poetry without understanding it. This may not be a very edifying spectacle, but at least nothing explodes in the laboratory, and nobody is poisoned. Or, if he has the reputation of a W. H. Auden, he may "translate" Bertolt Brecht's lyrics with perfectly gratuitous embellishments. This may not be very honest, but since no job or contract is at stake, the translator will not be fired.

Here are six lines from a song in Bertolt Brecht's *Mutter Courage und ihre Kinder*,⁵ followed by a line-by-line translation which Robert Addis of Addis Translations International composed at my request for the benefit of readers who do not know German. The second translation by W. H. Auden appeared in *Delos*,⁶ the official organ of the National Translation Center. The third version, my own, is the result of a simple extension of the principles exhibited in Auden's "translation."

"Ah! Watch what you do! What I tell you is true,
For the sake of the Good God who made us,
O believe what I say: your death lies that way,"
Cried the goodwife to the invaders.
"Balls!" they all roared, waved a lance or a sword,
Laughed aloud in her face and marched down to the ford.

(Auden)

Ah, bitter brews he, whom the white rat shies,
And by the Old Man lets himself not be baked!
Ah, drink up, but not outside! 'Tis foul without!
Says the soldier's wife to her spouse.
But the soldier with a knife in his gut
Caught her cold in the nose and gave over the fort!

(Lufkin)

In technical or scientific translation the most rigorously exact reproduction of what is said in the original is usually demanded, or assumed, of every translator. I say *usually*, because for some purposes, exactness is not required, and because sometimes a translator can improve on a badly written original. I say *assumed*, because the output of the technical translator is seldom compared, by the users or buyers of that translation, with the original. It is taken on faith, and this puts a very great importance on both the honesty and the competence of the translator. On the other hand, a literary translation, even though it is presumably intended for people who cannot read the original, may be read by a good many scholars and others who already know the original or have easy access to it. And few publishers would pay for a translation of a novel, play, or poem without having it checked by a competent judge of its quality as a translation. But in industrial and academic situations, the translation of a given journal article, symposium paper, patent, or field report must usually be done at once—and presumably paid for promptly—and there is little opportunity to check it.

Evaluating Quality

What can the buyer or user do about quality in this situation? First of all, he can read the translation to make sure the English (or whatever the target language may be) is natural and idiomatic. This is by no means an absolute index of translation quality but it is far more helpful than it is generally known to be. If your translator cannot command his target language fully you have reason to suspect the presence of other deficiencies in his work. Incidentally, it is generally, although not quite universally, agreed by authorities that the translator should be *writing* (translating *into*) in his native language and *reading* (translating *from*) his acquired language (and even those—notably a school of interpreters in Russia—who believe he should work the other way around are assuming a level of general competence so high that the question becomes academic).

Secondly, the user, that is, the person who needs the technical information for his work, can read the translation through and check

for any phrase or statement that seems wrong, incongruous, or implausible. These he should check with the translator, personally if possible, or through his agency head. This may not prove anything, but in general a really incompetent translation will be full of patently inexact expressions and this technical review should reveal them. In particular, this can be a powerfully effective means of discovering the fundamental unreliability of a translation done by someone who has apparently a *full command of both languages but not of the subject*. And as one professional translator has emphatically pointed out to me, the two kinds of knowledge—if there actually are “two”—are not separable in practice.

Translators Disagree

On the whole question of the relative importance of the translator's knowledge of the *subject* when he is confronted with a text of really substantial intrinsic difficulty, I have encountered sharply divergent opinions from professional translators. Some of them say that their work is “purely linguistic” (whatever that means) and that they can translate the most abstruse technical discussions with no more knowledge of the subject matter than they gain from the process of translating it, dictionary in hand, although they admit that it may not be a translating dictionary at all but a dictionary or even an encyclopedia of physics or of electronics. This last point confirms my notion that translation of serious texts is never “purely linguistic” but is deeply involved with the concepts themselves.

Other professional translators assure me that they are able to work effectively only in fields that they are well acquainted with and that no matter how well they know the language concerned, they do not attempt to translate technical discussions in fields in which they have not actually worked or at least read extensively.

But I have summarized here a debate among giants. The professional translators I have questioned in connection with the preparation of this essay all have enormous erudition in many fields, and have full command of several languages. As to what percent of the professional translators whose services

are available are this well endowed, I can only guess, but I suspect that it is small.

It is unnecessary to exaggerate the point—by claiming, for example, that only another physicist can properly translate a simple laboratory report in physics—in order to emphasize the importance of understanding. But an important and very awkward truth about journal articles and some of the more esoteric reports in science and technology is too often overlooked: these communications are *not written for outsiders to understand*. They are written by specialists for other specialists; the outsider is not in most cases deliberately excluded, but he might as well be. For example, the specialist writing for other specialists in the same field frequently makes free use of terms which may look like “standard” terms but which have special meanings accepted *only* by this in-group. And if the science or technology in question is a fast-moving one, these special meanings may not be given in *any* dictionary. Furthermore—and this can be an even more formidable obstacle—the specialist writing for others who are concerned with the same problem does not usually define or explain his basic assumptions, or, as he would call them, his initial or boundary conditions. There are two perfectly good reasons for this: first, explanations of this kind can be extremely difficult, especially in advanced, theoretical work; and second, the author can assume, generally, that his readers already know them. The result may easily be an important contribution to one branch of physics which experienced researchers in another branch of physics *cannot understand*. Where does this leave the translator? Unless he can make out the meaning of every separate statement in the text (regardless of whether he can understand the whole and its implications or not) this task will be extremely difficult for him.

What then, are we to make of the translator who claims to be able to deal with “many” languages and “all” subjects? The answer is not simple. There apparently are translators who can do this; there certainly are some whose translations do not match their claims. Since translators in the U.S. are not yet certified or licensed, anyone can call himself a translator—just as, in a country where not one adult in a hundred can

read a newspaper in a foreign language, anyone can claim that he is “fluent” in seven (or nine, or twelve) different languages without much fear of contradiction. Surely, in view of the difficulties outlined in this article, a little humility would be a better sign to look for in a translator’s qualification sheet. If there are doubts about the matter, it is best to question someone who has used the services of that translator.

Generally speaking, you get about what you pay for (or less) in the way of quality, in translation as in any other professional service, although there is nothing to prevent a quack from charging the same rates that his competent competitor does. Translation *is* a service, not a commodity. Furthermore, good translators do not engage in systematic price competition, and the buyer is well advised to be as wary of bargain translations as he is of bargain medical or legal services. A competent translator who has earned the respect of his colleagues and his clients does not work for a clerk-typist’s wages (even if he has to do his own typing because he cannot afford a secretary).

Translation Costs

Regarding rates, some broad generalizations are possible. In this country, translation of technical matter of moderate difficulty into English from one of the West European languages is usually billed at *about* \$25.00 per thousand English words, with a low in the neighborhood of \$20.00 and a high of \$35.00 both falling within the normal range. Translations *into* the same languages may cost more than twice as much because they are usually intended for publication and must be highly polished. The fees usually include proofreading. Translation from or into Russian is generally a little higher, and the relatively esoteric languages may bring \$40.00 or even \$50.00 per thousand English words, according to Kurt Gingold, a former president and now a director of the American Translators Association, writing in *Babel*⁷ in 1966.

Literary translation is much cheaper. André Schiffrin,⁸ editorial director at Pantheon, says that \$15.00 per thousand words is close to the standard, although I have heard of rates of \$20.00 and even \$25.00. One reason for

this is that most newly translated novels, for example, sell hardly enough copies to break even, so that even this low rate can look big to the publisher. Incidentally, the translator rarely shares a book's royalties, so that he has exactly the same reward, whether the book fails or becomes a best seller.

According to Kurt Gingold,⁹ there are somewhere between 2,000 and 4,000 full-time translators in the United States today (nearly all of them, I believe, engaged entirely or mainly in technical translation), and about 500 of these are members of the American Translators Association, the leading and the only national professional society for translators affiliated with the International Federation of Translators (FIT). ATA published in 1966, for the first time, a *Professional Service Directory* giving language and subject matter qualifications for about half of its members. A new edition of this directory will be ready for distribution early in 1969.*

Finding a Competent Translator or Translation

I assume that the readers of this journal are well aware of SLA's *Translators and Translations: Services and Sources in Science and Technology*, a 224 page book announced in this journal (July-August 1965). However, in 1966, Dr. Gingold⁷ pointed out that there is very little overlap between the ATA Directory and the SLA publication, so that many readers will want them both. The article just cited, incidentally, contains the best advice on this subject that I have seen, and I have made free use of it in this paper. In fact, since *Babel* may not be seen regularly by most readers of *Special Libraries*, I can do no better than to quote from Dr. Gingold's concluding advice to those who buy or subcontract for translations:

"Make sure you have specified exactly what is to be translated and by when you will need it. Build up a group of suppliers on the basis of your own experience. Once you have found a group of individuals or firms who can give you the type of service you require, use them

* Available at \$10.00 per copy. Address orders to American Translators Association, P. O. Box 489, Madison Square Station, New York 10010.

regularly and make their work a little easier by providing them with English-language references whenever possible. Above all, do not be overly concerned with costs. A good translator is a highly trained and skilled professional and will not condescend to work for cut-rate fees."

A Note on Some Periodicals Devoted to Translation

The Incorporated Linguist. Published quarterly by the Institute of Linguists (91 Newington Causeway, London, S.E. 1), it was, until this year, quite the most distinguished journal of its kind anywhere. It publishes scholarly articles, often by famous authorities, devoted to both technical and literary translation, and it is beautifully produced. However, it now has a formidable rival in the U.S. (see below). *The Incorporated Linguist* is in its 7th year.

Babel. The official organ of the Fédération Internationale des Traducteurs (16, rue A. de Pontmartin, 84 Avignon, France) is published quarterly. It is a little less demanding of its authors than its British counterpart, and its format is somewhat more modest, but it also finds room for both technical and literary contributors, many of them with distinguished reputations. *Babel* is in its 14th year.

Delos, A Journal On & Of Translation. Published six times a year by the National Translation Center (2621 Speedway, Austin, Texas 78705). Like the two journals described above, *Delos* publishes essays about translation by well-known authorities but unlike them it also publishes complete translated poems, stories, and essays, and excerpts from longer works. It is also unlike both *Babel* and *The Incorporated Linguist* in that it is apparently to be devoted to literary translation exclusively. In fact, in its first issue an anonymous review of a volume of essays by members of the Fédération Internationale des Traducteurs published by Pergamon gives evidence of a degree of hostility to technical and scientific translation that both charity and logic must attribute to envy, for there can be no other grounds for such malice. But as a medium for the exchange of both ideas and information about literary transla-

tion this journal promises to be extremely important, although it has apparently been funded for two years only. Its parent organization was established by the Ford Foundation, and it is able to offer both small fellowships and substantial grants for specific translation projects, the terms and conditions for which are given inside the cover of the first issue. It also has a section, called "Clearing House," listing current translations in progress, together with the names of the publishers (for those accepted for publication) and the translators. Of the current list of 163 titles, most or all of them presumably of book length, about 40 are being done under National Translation Center grants or fellowships. Although the list does not pretend to be complete, the commercial publisher showing the greatest interest in new literary translations is Alfred A. Knopf, by far, with 27 titles. *Delos* is in its first year.

The American Translator. The official organ of the American Translators Association (P.O. Box 489, Madison Square Station, New York 10010). From a modest beginning as little more than a newsletter, the *American Translator* is well on its way toward becoming a serious journal. However, unlike *Babel* or *Delos* it has no financial support from Unesco or the Ford Foundation, and it has not had time to acquire the industrial support now enjoyed by the *Incorporated Linguist*. Incidentally, *The American Translator*, *Babel*, and the *ATA Professional Services Directory* are sent free to all individual and corporate members of the ATA.

Notes and References

1. The reader interested in knowing what happened to this much-heralded effort should read the Introduction, and Chapters 12, 13 and 14 of Part III, "Machine Translations," of Yehoshua Bar-Hillel's *Language and Information* (Addison-Wesley, 1964) and still in print. Much of the book is technical, but the historical introduction and the chapters cited are not. For readers who do not have easy access to Bar-Hillel's book, a review of the entire problem which I wrote specifically for laymen appeared in the *IEEE Transactions on Engineering Writing & Speech* (June 1965) under the title, "Human vs. Machine Translation of Foreign Languages." This essay has been extensively reprinted in other journals, but I will send a copy to anyone who asks for it. However, it is only an amateur's survey, and I wrote it when I had seen only one of Bar-Hillel's famous papers on the subject. *He is the authority*.
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Trimming the Clipping Files by the 7 R's

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■ Clipping files always need weeding. Because weeding is a negative action, this winnowing process must be approached positively through the 7 R's.

Restraint. Retain less initially.

Revision. Rework and reclassify; define tighter headings.

Reorganization. Eliminate something by consolidating with something else.

Replacement. Abstract a pile of clippings on one index card.

Retirement. Move less frequently used clippings to an inactive storage area.

Reproduction. Reduce volume of clippings by use of a reduction copier or by various microforms.

Relinquishment. Sensible discarding is advisable; use positive standards.

WEEDING is a topic that is frequently shuffled to the bottom of the deck when librarians compare their problems. All know it must be done; all rather dislike doing it; and all would rather not think about it—because it makes us feel guilty. Some will, perhaps, add hundreds of clippings to the file each day, discarding nothing—while keeping one hopeful eye on the computer specialists who are expected to come like conquering Romans to take over our files when they have become too unwieldy. Unfortunately for many of us, automation is

still a distant dream, but the need for weeding is here and now.

Part of the weeding problem is that *weeding is a negative action*. Librarians were born to save things, and it goes against the grain to throw away a clipping which has been lovingly nurtured for ten or twenty years. No one will give a librarian a medal for weeding except perhaps the company officer who signs the purchase requisitions for new filing cabinets—and he usually does not even use the clipping file. The people, who do use the file, will be unhappy because *that* clipping they wanted has been discarded.

The very term, "weeding," is unappetizing with its connotation of a back-breaking, down-on-the-knees type of drudgery. Weeding implies grabbing whole handfuls of noxious matter and discarding it. This is certainly not the ideal way to treat a clipping file. A better approach to this operation is to think of trimming the clipping files by the 7 R's: Restraint, Revision, Reorganization, Replacement, Retirement, Reproduction and Relinquishment.

It is apparent that restraint is necessary in discarding, but restraint should also be practiced at the outset so as to keep the volume of clippings down. Continuing review sessions with the indexers and classifiers (who "mark" the articles to be retained) should be routine as the first step in trimming the files.

Too Conscientious?

Many clipping files have grown to their present frightful proportions under a succession of industrious, conscientious librarians

who have retained everything with multiple copies for insurance. There is undoubtedly a need to rework and to reclassify in line with current usage and nomenclature. As reorganization progresses, keep in mind how the subject headings may affect computerization. Then the trimming and weeding become part of the total operation.

Libraries with large staffs (but little space) are particularly fortunate in having the man-hours to discard piles of clippings and to replace groups of clippings with one card with a brief description of such clippings with date and page references. Routine discards can be established for clippings about deceased persons and about business organizations that have moved out of the area.

If the discard process is too painful, that moment can, perhaps, be postponed a few years longer with a retirement program. If you are lucky enough to have a little corner of a basement or attic for storage, so much the better. But if there is to be storage, it should be in a form that is classified and readily available. Even though such processing is more expensive, it would have the advantage that stored material is almost as accessible as current material—thus eliminating most complaints about the inaccessibility of stored material.

Another alternative is to rearrange furniture for maximum utilization of the available floor space. Someone has said that the suc-

cessful librarian is the one who is skilled at improvising storage areas in unlikely places. Double decks of cabinets with ladders might be a possible intermediate solution in some libraries.

Another space saving possibility for the retired—or less frequently used—clippings is some sort of mobile cabinet or shelf arrangement, such as cabinets on casters to eliminate a good deal of aisle space. This arrangement would be particularly valuable where the unit cost of floor space is high. The saving in space would probably compensate for the extra cost of the casters and bumpers required on the cabinets. Such an arrangement would, of course, not be practical except where there is minimal use of the material.

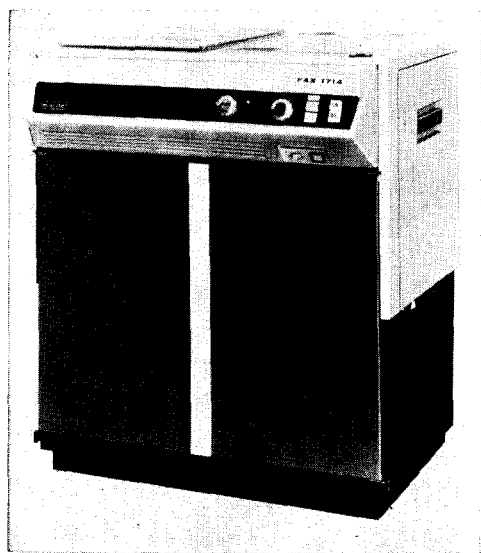
As budgets permit, the purchase of the new suspension and powered conveyor files, such as the Remington "Lektriever" and Diebold "Power Files," should be considered. The St. Petersburg (Fla.) *Times-Independent* and the Long Island (N.Y.) *Newsday* are among the newspapers that have installed "Lektrievers" in their libraries. The Toronto (Ont.) *Globe and Mail* and the Jamaica (N.Y.) *Long Island Press* are among those who have purchased Diebold files. These units utilize otherwise wasted overhead space.

After all possible means of stretching our physical space have been exhausted, we come to the possibility of shrinking the clippings. There are now copiers such as the Minolta FAX 1714, an electrostatic copier that produces an $8\frac{1}{2} \times 11$ copy (reduced 20% or 50% from the original size). Copies can be filed compactly, but they are still readable with the naked eye.

Micro-excuses

Microreproduction—which is expensive and which may not be the ideal solution for every library—has the advantage that the stored material is almost as easily available as current material (after the library's clients accustom themselves to the use of the viewing machines).

The Minolta Fax 1714 made its official debut at the BEMA Show in Chicago, Oct 28—Nov 1, 1968. Dimensions: 35½" W x 30½" D x 40½" H.



About 95% of the reporters—on being presented with microfilmed clippings—made one of the following comments:

- The material is more difficult to find and read on a viewer;
- They prefer a clipping on their desks for ready reference as they type the story (without the necessity of taking notes beforehand);
- Print-outs take too long and smell bad;
- They are reluctant to ask for print-outs of a whole file when perhaps only one buried fact was needed; and
- The use of a viewer for any length of time gave them a headache, vertigo, upset stomach, impaired vision and/or pains in the lower back.

Twelve years after we began our microfilm program, the older employees were resigned to it. Operations at the San Diego *Union-Tribune* are ample evidence that the smaller library with a limited budget can begin a microfilming program on a fairly small scale without too large an expenditure. A Recordak RV-2 Starfile Microfilmer camera is operated for about 2 hours a day to microfilm clippings while the operator also answers inquiries. The film is 16mm, and there is an 18:1 reduction. The $9\frac{1}{2} \times 14$ filming surface accommodates five columns. When 100 ft. of film has been exposed, it is sent for processing. The cost is about \$5 per 100 ft. to produce one negative and one positive print. The negative is stored in roll form with a brief table of contents on its box. The positive is cut up and inserted into $3\frac{1}{2} \times 5$ four-channel acetate jackets; and a heading is typed at the top of the jacket.

The jackets are then either filed in one of the old envelopes if feasible, or if the envelope is worn, a new one is prepared. At 5¢ each, the jackets are the most costly phase of the operation.

However, a package 1/16 inch thick takes the place of 20 envelopes (each 1 inch thick) for a saving of almost 2 ft. of file depth. In the 12 years we have been microfilming at this slow pace, about 9,500 ft. of microfilm have been added to the files to replace 455,000 column-inches of newsprint. The saving in new cabinets has more than made up for the cost of the filming.

To do our own microfilming at the pace we choose rather than to send the work out has the advantage of flexibility and complete control. We skip through the files and choose subjects with large full envelopes so as to achieve the maximum saving of space; usually nothing less than three years old is filmed.

However, microjackets are certainly not the only microform available for use in the crowded library. There is the possibility of using roll film coupled with a card index. While many newspapers now find that roll film is excellent for storage of the entire newspaper, the rolls may be somewhat inflexible when used for the large variety of subjects of a clipping file.

Among the other cut film formats there are aperture cards, which are simply a small square window of film inserted into a punched card. After punching information into the card it is possible to select and retrieve the information through the use of tabulating devices. There is also the microcard which is still another version of an opaque aperture card with multiple images arranged in rows.

Microfiche is yet another possibility. Fiche is a rectangular sheet of film on which are processed microimages arranged in rows with an eye-readable heading at the top of the card. Fiche has all the advantages of translucent film, plus the flexibility of the index card concept. At least one library, the Toronto *Globe and Mail*, has changed from microfilm in jackets to microfiche for clippings. A 4×6 fiche can contain 60 or more images depending on the reduction; approximately 100 fiche will fit into 1 inch of filing space. There is equipment for quick film-to-film reproduction of microfiche, an important point for the regional library concept. Excellent hard copy reproductions are obtained on reader-printers.

Supermicroreproduction

Finally there are the new supermicroreproduction techniques, such as the NCR photochromic microimage (PCMI) which makes possible a reduction of 48,400:1. The entire text of a 1,245-page Bible can be reproduced on a piece of film less than 2×2 in. in area.

Becoming less remote daily are the ad-

vanced integrated film systems that combine photographic images with coding, and on into complete computerization and the world of digital storage, with the possibility of material being fed into the machine directly from the newspaper's automatic typesetters. A total system is unnecessary for many library situations. The name of the president of the Rotary Club should be identifiable without an expensive computer.

By some form of miniaturization the necessity of weeding can be postponed for a number of years. By setting up a continuous, selective weeding program the necessity of a microfilm program can also be postponed.

If you decide on a trimming and weeding course, most files contain reams of material that can be discarded quickly and painlessly: obvious duplicates, forecasts on economy or farm output, announcements of coming events after the event is over, much foreign news, sports, day-to-day routine weather stories, stock exchange activity, fashion and cooking articles, youth features, out-of-date scientific and medical material (which could be seriously misleading), feature stories about construction-in-progress, minor accidents and crimes.

The biographical aspect of a story is often more important than the subject aspect, so that the subject clipping can be eliminated in some cases. Political news is composed of much hot air; after an election a lot of it should be allowed to escape. Beware of the mistake we once made by having an elderly rock-ribbed Republican lady weed the political clippings. Our remaining collection was 95% Republican clippings and 5% Democratic.

Entertainment news is another area for possible excision, especially the puff stories received from press agents. In clipping society news, social organizations can be restricted to lists of officers and factual articles. Teas or luncheons that creep into the files can be promptly discarded.

Heads vs. Subheads

In many libraries the question of place versus subject has not been resolved, that is, a clipping will be filed under "Air Force Academy—Meningitis epidemic" and also one under "Meningitis—Air Force Acad-

emy." It may never be possible to be completely consistent, but there should be an effort made to standardize headings and to eliminate the duplicate clip in many cases.

"Miscellaneous" seems to be in disrepute these days, but if the number of envelopes in the collection is to be a minimum, there should be general subheadings for articles which do not warrant a separate file. Some libraries have an "A—Misc." or "B—Misc." for persons who may be mentioned in only one clipping. Another useful catch-all subheading is "Background Articles" which can be under almost any subject and can include almost anything. If a library still mounts clippings on backing sheets, the amount of filing space is doubled. Certainly consideration should be given to eliminating such pasteups.

The possibility of using different colored markings or envelopes or tabs from year to year has been discussed frequently in the past. These devices make the discard steps easier if discards are to be in wholesale lots or after a predetermined length of elapsed time.

It is, of course, wise to have the sanction of management before any weeding program is initiated. It is also wise to attack the problem before there is a sense of crisis and pressure from drawers already overflowing. Ideally, positive standards are used—perhaps, even written procedures or an authority book—for selection of the clippings to be retained.

If there is no time for weeding and if the library is short-staffed, the librarian should review and revise procedures—and should even consider hiring additional temporary help. The use of library assistants for weeding has not generally been considered to be good practice. But other professions, such as medicine, assign important life-and-death duties to competent assistants. If you are lucky enough to have a clerk on your staff who is experienced and capable, by all means give him the weeding assignment. If you insist on doing it yourself, set a goal of, perhaps, only 20 clippings a day. If done every day, this small number does make a difference.

Obviously, there is no way to weed without decreasing the totality of the collection. But in many ways, the right kind of selective

weeding and reorganization can improve and strengthen your service, by clearing out deadwood, by tightening classifications, and by providing more space for newer topics.

Fear Not

If you are afraid to even contemplate the discard of material which may have some future value, it would be well to remember that no library is able to maintain an unlimited collection in all fields. Through such attempts to keep everything—in case it might be needed—we have choked our libraries.

It is to be expected that some mistakes will be made in weeding even with the most careful approach. But, surely, the more important consideration (rather than worrying about some elusive fact that might be wanted ten years from now) is to have, in general, an up-to-date, trim, functional collection, whether it be in clippings, or aperture cards, or stored on some magnetic surface.

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Thesaurus Construction

A Small Collection of Nonscientific Reports

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■ The techniques used to construct a non-scientific subject thesaurus are discussed. Considerations important to the librarian experiencing for the first time the problem of coordinate indexing applied to a small report collection are presented. Simple relationship, rule, and form factors showing a generalized relationship case illustrate the points discussed. Vocabulary scope, control need, term generation, thesaurus format, and structure of thesauri are considered.

WITH THE advent of coordinate indexing systems, index creators have found it necessary to exercise control over the terminology employed in their information retrieval systems. This control function, also present in other indexing systems, is performed by a thesaurus containing the various terms used and their interrelationships.

Detailed and comprehensive published thesauri have been compiled for many scientific and technological subject fields; however, such fields as history, sociology, economics, business, psychology, languages, geography, art, and other nonscientific fields, have been relatively untouched.¹⁻⁴ The published thesauri extant serve as invaluable

guides for persons wishing to employ coordinate indexing techniques as their organizational method for the subject fields they wish to index. These thesauri may be custom tailored to fit the particular situation, just as subject heading lists may be altered to fit an individual library situation.

Indexers working with nonscientific collections must depend primarily upon their own creative approach without benefit of published thesauri as additional aids. It is the purpose of this paper to show one particular approach to the control of indexing terminology for nonscientific subject disciplines. These points are a result of the application of uniterm coordinate indexing to a Marketing Research Library (MRL) report collection.⁵ The thesaurus of terms which resulted from this indexed collection will be used to provide examples where needed and hereinafter referred to as the "MRL Thesaurus."

The problem of terminology control revolves about the heavy occurrence of nebulous and ill-defined words, rapidly changing terminology, and great numbers of synonyms. Changes of meaning with changes of word order are another phase of indexing problems. It was found in a small system (1,600 reports and 1,200 terms) indexed, using the "MRL Thesaurus," that word order problems were few and did not hamper searching this particular collection. Therefore, no corrective techniques were applied to this phase of the

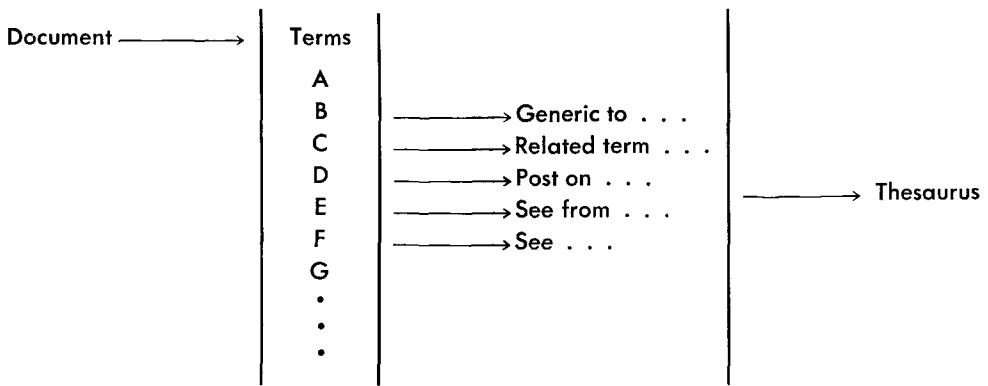


Figure 1. Document Generating Index Terms.

indexing problem. This is not to preclude that in another subject collection, especially one much larger or needing more descriptive terms, that techniques should be considered to alleviate this phase of the indexing problem. Dependent upon frequency of search, errors resulting from this condition would have to be the deciding factor before the application of any corrective techniques.

The remedy for the problems resulting from the terms themselves is to consider each term only as it is used in the individual document under consideration. Later on, if it is found that the term has additional connotations, the resultant changes in use should be recorded in the thesaurus to insure future continuity in the use of that term and its related terms. Thus, a building block approach was most workable in the formulation of the "MRL Thesaurus."

Vocabulary Scope

Before indexing a collection, it is necessary to find out in general terms what subject areas are encompassed. This will enable the indexer to select certain aids to determine such things as the various kinds of relationships between terms, definitions of terms both in the general sense and in the sense specific to the use of the term in the item being indexed, and any synonyms not readily apparent. Periodical indexing services, subject heading lists, classification schemes, dictionaries, textbooks, and personal conversations with subject field authorities are all useful aids for the final selection terms.

The system language will be generated primarily by the items indexed. This language is characterized by a varying combination of entwined related sets of terms. The entwining becomes more complex as the particular subject language becomes larger. Figure 1 shows the composition of this entwining from the particular document, the terms generated by the document, their various possible relationships, and finally the resultant thesaurus.

The total number of terms needed to adequately describe a collection at any particular point in time will be dependent upon the number of separate, distinct concepts within the collection. In the indexing which created the "MRL Thesaurus," 100 documents dealing with the generic category "Cakes" produced the bulk of the terms in this broad field, even though there were over 300 reports having "Cakes" as their general subject. This same phenomenon occurred in all other general subject categories in this collection.

Need for Vocabulary Control

The need for language control is demonstrated by two conditions, whatever the organizational method used for the collection. The first condition is the lack of continuity throughout a particular system in term usage, term meanings relative to their use in the system, and term assignment as a result of the individual differences between indexers. The second condition is the inability of an index user to always determine all possible

avenues of searching the index for the desired information, especially if the creator and user of the index are not the same person. Certain search problems will be more complex than others. To ameliorate this difficulty of determining proper search terms, consultation of the "MRL Thesaurus" to find a term—and its related terms as they appear in the system language at that point in time—is of definite aid.

Construction of a thesaurus improved the conditions described above and also served as a method of familiarizing staff and users in the general system language and content of the particular collection. The "MRL Thesaurus" serves both the user and creator of an indexing system in locating the desired information more reliably and efficiently.

Term Generation from Documents

To simplify development of vocabulary pertinent to broad subject areas, documents to be indexed were categorized in advance of actual indexing. Simple sorting methods determined documents pertinent to broad subject categories and enabled the indexer to concentrate on terms relative to a particular subject area of the collection. It is difficult enough to index a collection without the additional distraction of switching thoughts to

and searching of this portion had taken place over a short period of time, additional terms, term relationships, and synonyms were discovered. As this reworking continues, using the index will make its effectiveness greater as time passes. Each time a search does not locate the desired information or the amount of information suspected of being in the collection, a thorough examination should be made to discover any omissions or mistakes which may have occurred in indexing. Any changes which can be made to facilitate better searching should be accomplished as efficiently as possible.

Physical Format of Thesaurus

In order to trace the various relationships between terms, it is necessary to employ a notational code. Several codes have been devised by the compilers of the various printed thesauri. Our preference for the code of the American Institute of Chemical Engineers has been influenced by a desire to create an index which would have a format like another index within the company. The notational form chosen should not influence the actual manipulation of the index since fundamentally the same relationships are traced by the various codes. Some examples of these codes are in Table 1.

Table 1. Notations of Four Codes.

AICHe ¹	EJC ²	DDC ³	USPHS ⁴
GT—Generic to	NT—Narrower term	Generic to	See also—related
RT—Related term	RT—Related term	Also see	—specific
PO—Post on	BT—Broader term	Specific to	—down
SF—See from	UF—Used for	Includes	x —See from
See	Use	Use	xx—See also from
			See
			See under

a totally different subject area each time a different report is read.

As each item was indexed and terms were assigned, each term was simultaneously recorded for the "MRL Thesaurus." As indexing proceeded, the "MRL Thesaurus" was consulted to check each term assignment. New terms and new relationships were recorded as they were generated. Cards are the medium for this authority record. After a portion of the total collection was indexed

The form which various terms take should be governed by a set of ground rules. These provide a frame of reference to insure handling of singulars, plurals, foreign words, and other situations in like manner. Table 2 lists the rules with examples which were used in the "MRL Thesaurus" construction.

Inclusion of scope notes in a thesaurus broadens its usefulness. These notes clarify terms which are to be employed only in a certain manner or for concepts not readily

defined by familiarity or by sight. Scope notes should be only as lengthy as is necessary to properly categorize the particular term to which the note is to be applied. For example, the term "Cereals (RTE)" designates that this term includes only ready-to-eat varieties and not the use of the grain as a cereal or a cereal which must be cooked by the consumer before eating. This very short, abbreviated scope note serves its purpose, although occasionally one or two sentences are needed.

Language Relationships—Thesaurus Structure

Basic to all indexing systems are the interrelationships among various terms. The nature of these relationships can be described by the analogy of a jewel cut in such manner to have five facets. Each facet is a distinctive kind of relationship, while the jewel itself represents the total system language and its glitter the information gleaned from the collection. The relationships are: hierarchy, synonymy, homonymy, association, and syntax.

Table 2. Form Rules for the "MRL Thesaurus."

RULE	EXAMPLE
1. If a word is used alone or in combination with two or more other words as an indexing term, it is called a free term .	1. Describing a report titled "Chocolate Fudge Cake vs. Yellow Cake," the term cake would be a free term since it would be entered alone. Also, the other terms in this title would be free .
2. If a word in the filing position is used with only one other word in the vocabulary, it is a bound term or in other words not free .	2. Taste test is used as one term; it is not posted as Tastes and Tests so it is a bound term .
3. Enter substantive forms in the plural only, provided the singular can be inferred conveniently without broad change of meaning.	3. Term Sweetners .
4. Enter <i>singular forms after plurals</i> where the appearance of both terms facilitates searching and indexing.	4. Term Loaves ; loaf.
5. Enter the singular form of foreign words and the complete plural form.	5. Term Veloute ; veloutes .
6. If the singular form is broadly generic or defines a field and the plural is more substantive, enter the singular and add the plural.	6. Term Cake ; cakes .
7. Add attributive or adjectival forms to the substantive words with which they stand in the closest sense relationship.	7. Term Confusion ; confused .
8. Enter the gerundive forms and add the participles.	8. Term Interviewing ; interviewed .
9. Consider the first word of proper names and foreign phrases to be bound term and enter the full phrase.	9. Term Betty Crocker .
10. Where synonyms occur, enter the well known form and make a See reference from the other. Trace the See reference under the well known term by See from reference .	10. Term Gold Medal Kitchen Tested . See Gold Medal Kitchen Tested Gold Medal SF Gold Medal Kitchen Tested Kitchen Tested SF Gold Medal Kitchen Tested
11. Enter homonyms showing meanings parenthetically each on separate cards.	11. Terms Cereals (Cooked) . Cereals (RTE) .

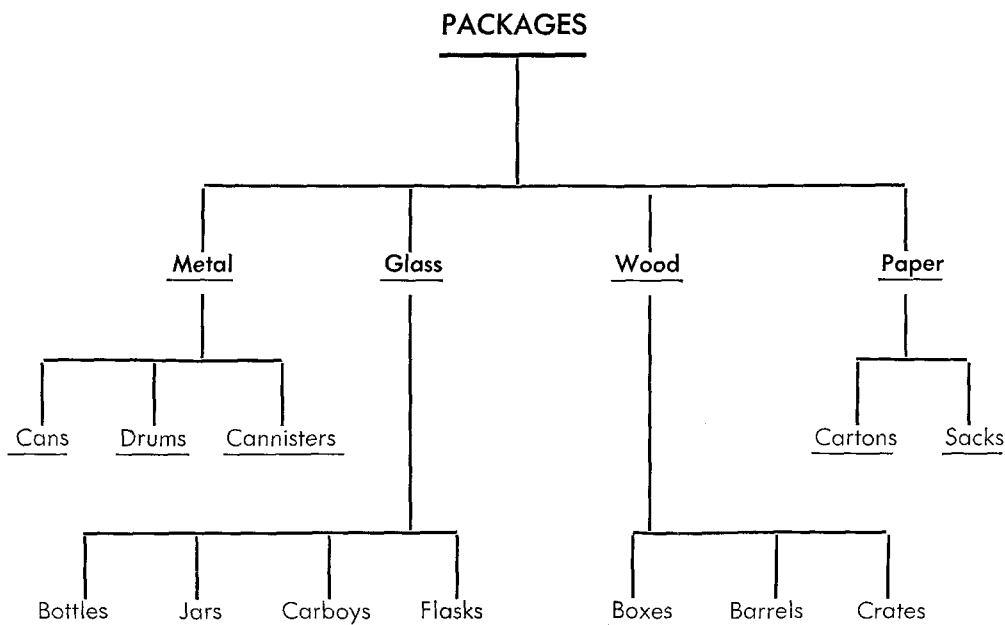


Figure 2. Example of Hierarchic Relationship.

HIERARCHY. Hierarchic relationships are of a generic nature such that specific terms denoting specific concepts fall within succeeding broader concepts. The example in Figure 2 could take other forms, particularly if the use of the terms was interpreted differently. Independent of the specific manner of each of these relationships, hierarchic relationships enable the index user to search for material on several different levels of specificity.

SYNONYMY. Synonymic relationships are of such construction that most terms meaning the same thing can be determined through familiarity with the specific subject terminology or the use of some of the previously mentioned indexing aids. Tracing synonyms through the index by means of cross-references insures that one term will be used consistently for that concept. A search under the unused terms will indicate to the index user to refer to the proper term. This also cuts down the number of postings which would have to be made for some documents without jeopardizing retrieval of the desired information.

HOMONYMY. Homonymic relationships occur infrequently and take place when two terms are spelled alike but have different meanings. For example:

- Roll—the shape of a particular cake.
- Roll—the small sweet pastry usually glazed or jellied.

Addition of a scope note clarifies the difference between these two terms and restricts their use to the proper situation. We then have:

- Roll (Cake form)
- Roll (Pastry)

ASSOCIATION. Associative relationships can occur between any two or more given terms dependent only upon how these terms are used in relation to each other to convey the concepts of the item indexed. Many of these relationships are a result of the individual indexer's viewpoint. Occasionally terms can have a dual relationship of both associative and hierarchic natures. For example, "Chocolate" is a product in itself, a type of cake (or a modifier denoting flavor), and an in-

redient of the cake type commonly called "Devil's Food." Here we see "Chocolate" being hierarchic to "Cake" and associative to "Devil's Food," a particular kind of cake.

SYNTAX. Syntactic relationships involve the order of words and the change in meaning which can occur as a result of this order. These relationships are not controlled by means of terms alone, but involve the use of techniques known as "Links" and "Roles."⁶⁻⁷ Few problems of this type occurred in the searching of this collection and as stated previously it was concluded that the expense of adding either one or both of these techniques was not warranted. It was concluded that the small nonscientific collection did not need these techniques particularly if one follows the popular premise, "Keep it simple."

Conclusion

Pertinent terms derived from the items indexed should be formulated when the subject parameters of a collection have been determined, method of indexing has been chosen, and the need for system language control has been recognized. As terms are generated, they should be recorded for the working thesaurus, and additions and changes entered as they occur in the indexing. Terms should be formulated with a set of rules for their grammatical structure. Thesaurus notation should be consistent and trace the needed relationships as they apply to the particular collection. The thesaurus serves as an authority guide for the indexer and index user. It insures continuity in term assignment. It serves the index user as an addi-

tional search tool to determine term relationships not readily apparent. In summary, the thesaurus is the key to the system language and enables a search request to be translated into the search language for the particular system. The thesaurus is as necessary to controlled vocabulary coordinate indexes as a subject heading authority list is to a subject heading index.

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Through the Pre-professional Training Maze

To the Ballard School, with Gun and Camera

Elizabeth Ferguson

Institute of Life Insurance, New York, N. Y. 10017

Discussions of programs for the training of library technicians have not cited the major contribution of SLA's New York Chapter since 1948. "Special Libraries" is pleased to reprint this article from the December 1968 issue of "New York Chapter News." Miss Ferguson is the New York Chapter's Ballard School Representative.

EVER since the Master's Degree became standard equipment for a library professional, and the library schools stated that they were training only administrators, the official rule has evolved as follows: educate the chiefs and let the chiefs train the indians. (It has been stated more seriously by a library school dean that the role of the graduate school is to "educate for the profession" and that the individual library must "train for the job.") However, the chiefs are in short supply, so the indians actually carry a great deal of the work, and this training can be a real burden. Query: shouldn't some education and training be available short of the graduate level?

There is great current controversy among librarians concerning this problem. Very much involved is the question of what the Indians are to be called—those whose work puts them between the out-and-out clerks and the professionals. This aspect isn't too serious in special libraries. In general, the term "library assistant" is used, but this must be carefully distinguished from "assistant librarian" who may or may not be professional.

There is more variation in public libraries; for instance, "senior clerk," "library trainee," "pre-professional," and "sub-professional." These titles usually apply to people involved in the library's technical service area.

An interesting new training concept and designation, which is being developed in Maryland, is the "para-professional" program. Trainees with good basic education, mostly college graduates, are being placed in public service areas of libraries and are being trained by means of a lengthy in-service course. They are generally called "library aides" but are occasionally referred to as "mini-librarians."

As the profession increases pressure on academia to undertake some education for the pre-professional level of library work, other titles have evolved. Most popular so far is "library technician," extending acceptance similar to that granted by science in such cases as dental technician and x-ray technician. Currently, however, this is being revised in some quarters to "library technical assistant." Accordingly, most of the courses, now in their experimental stages in community and junior colleges, are called "library technician training programs" or "library technology programs." And even these terms may be on the way out since there is also talk about "information technicians" and "information specialists."

Generally speaking, library technology courses are appearing in the curricula of community colleges and technical institutes, in a few four-year colleges, and as night school programs in such non-collegiate institutions as the Graduate School of the U.S. Department of Agriculture and the Ballard School of the YWCA of New York City.

Needless to say, the library associations are very much in the act. SLA's Education Committee sponsored an important discussion session at its pre-conference program in

1967. MLA has a newly created Committee on Library Technician Training and has also approved a program in medical library technology under the State University of New York at the Upstate Medical Center in Syracuse. ALA, officially in opposition to any sort of undergraduate training for lo, these many years, has now set up a Subcommittee on Undergraduate Standards of the Committee on Accreditation.

Special librarians have been concerned with technical library training for a long time. The number of professionals on the typical small staff of a special library is limited, and non-professionals often carry considerable responsibility. Furthermore, the pressure of business makes in-service training particularly difficult. Individual chapters have conducted programs of many sorts—mostly short-term workshops given by groups of librarians not attached to an educational institution. Almost none of these can be operated on anything like a continuing basis because of the tremendous time and effort they demand of busy librarians.

New York Chapter tackled the problem in 1948, when a committee was established to investigate the possibilities of having an established business school conduct training courses in librarianship. The committee got a sympathetic hearing and immediate cooperation from the Ballard School of the YWCA. Ballard is the oldest business school in the city and is dedicated, like the YWCA itself, to furnishing practical help to working men and women.

On April 4, 1949, the first class opened. Taught by Florence Bradley, long-time librarian of the Metropolitan Life Insurance Co., it was called "library clerical practice." There were two sections of 25 students each. Miss Bradley inquired of these students what aspects of special library work needed more detailed study and she learned, to nobody's surprise, that cataloging and filing headed the list. Following this clear indication, the general course was abandoned and individual courses substituted. The list of 1969 Ballard courses announces the four basic courses in library techniques which have been given for many years, plus the newer, and very useful, session on book repair.

Ballard's course list corresponds very closely to the core curriculum being offered in

many undergraduate situations. Ballard's distinction in the field results from twenty years of effective teaching; and that effectiveness emerges partially from not having to deal with the knotty questions of college credit. Many Ballard alumnae have, however, gone on to graduate schools of library science. New York Chapter hopes that its experience in training library technicians will prove helpful to the newer programs.

Ballard School Courses (Spring 1969)

Basic library operations: Survey of clerical and technical procedures in libraries; including acquisition, binding, preparation and storage of library materials, duplicating methods, circulation and routing techniques, etc. Monday, 5:30-7:25 p.m. 8 classes \$28. Jan 27-Mar 19.

The care and repair of books: A practical course dealing with the mending and repair of books, magazines, and file materials. Thursday, 5:30-7:25 p.m. 8 classes \$24. January 20 through March 30. Instructor: Nancy P. Russell, B.A. Cornell Univ., bookbinder and restorer, Metropolitan Museum of Art.

Book repair workshop: Repair your own books and magazines in class. (Prerequisite: the care and repair of books.) Thursday, 7:35-9:30 p.m. 8 classes \$24. Mar 27-May 15. Mrs. Russell.

Elementary reference work: Covers basic reference books, indexes, microfilm, newspapers, government documents, and bibliographies. Monday, 5:30-7:25 p.m. 8 classes \$28. March 24 through May 12. Instructor: Lorraine E. McKinnie, M.L.S., Pratt Institute; librarian, Continental Can Co.

Elementary cataloging I: The simple theory of cataloging and its practical application, useful to assistants or catalogers in small libraries. (Prerequisite: high school diploma and typing.) Monday, 5:30-7:25 p.m. 8 classes \$28. Jan 27-Mar 1. Mrs. McKinnie.

Elementary cataloging II: Classification schemes, book numbers, and practice with subject headings. (Prerequisite: elementary cataloging I.) Wednesday, 5:30-7:25 p.m. 8 classes \$28. Mar 26-May 14. Mrs. McKinnie.

Subject filing and indexing: Classifying and arranging material, planning and subject classification for various types of industries, cross referencing, preparation of indexes to the subject file. Thursday, 5:30-7:25 p.m. 8 classes \$28. March 27 through May 15. Instructor: Ann McDonald, librarian, Metropolitan Commuter Transportation Authority.

This Works For Us

A Computerized System for Periodical Subscription Control

Franklin S. Varenchik

Products Division, AtlanticRichfield Company, Wilmington, Calif.

IN THE Products Division of the Atlantic-Richfield Company, representatives* of both the Technical Information Center and the Systems and Procedures Department have jointly developed a computerized system for a Periodical Control System. The new system has achieved the following:

- An improved method of renewing periodical subscriptions,
- Periodical cost control through the elimination of duplicate subscriptions,
- The ability to rapidly locate particular copies of periodicals,
- Centralized file maintenance, and
- The ability to handle many different information processing applications.

Furthermore, the Periodical Control System eliminates the costly overlap of purchasing and accounting functions.

The nucleus of the Periodical Control System (PCS) is a master file of the approximately 1,000 periodical subscriptions of the employees and departments of the company. For each periodical there are three major categories of information:

IDENTIFICATION INFORMATION. Data elements which are unique to each periodical title. Within this category is contained all data which describe the publication.

* Members of the team included Mrs. Hester Dale and Marcia Wingo from the Technical Information Center, and Wim Boerdam and Walt Shirley from the Systems and Procedures Department.

RETENTION INFORMATION. The major holdings of copies of the periodical within the company. Since there is more than one library within the company and since the several libraries do not all contain the same periodicals, the Retention Information provides the necessary data to locate rapidly a particular volume of any publication retained.

RENEWAL AND PURCHASING INFORMATION. Data pertaining to the procurement of the publication by the individual subscriber or the departmental subscriber. This information is utilized by the subscription renewal programs to generate renewal lists.

Specifically, the data elements captured on the PCS Master File are:

IDENTIFICATION INFORMATION

○ *Acquisition Serial Number.* A unique 4-digit identification number assigned to each periodical title.

○ *Publication Title.* The official title of the publication.

○ *Supplementary Information.* 120 characters of any information which may be useful to the Technical Information Center, but for which no specific field has been provided. Titles (either births or deaths), date of title change and general explanatory text are all examples of items placed in this field.

○ *Publication Frequency.* Frequency of publication per year.

○ *Indexing Services.* Abbreviations for the

services which regularly index the articles appearing in this periodical.

○ *Language.* The language of the periodical if it is not received in English.

○ *Name and Address of Source.* Name, address, city, state, zip code and country (if needed) of the source from which this periodical is procured.

RETENTION INFORMATION

○ *Where Retained.* The retention center where copies of the periodical are regularly filed.

○ *How Retained.* Whether the periodical is bound, unbound, microfilmed, etc.

○ *From Date.* The earliest date of retention; this is the date of the first copy on file.

○ *To Date.* The most recent copy on file; if there is a current subscription, this field is blank.

○ *Retention Center Box Number.* The physical location of the periodical within the retention center.

○ *Missing Copies.* The dates of the copies missing or lost from storage.

RENEWAL AND PURCHASING INFORMATION

○ *Accounting Responsibility.* The code for the individual or department subscribing to the periodical.

○ *Copies.* The number of copies received by a department or individual.

○ *Addressee.* The name of the subscriber.

○ *Location Code.* The subscriber's address code.

○ *Room No.* The subscriber's room number.

○ *Expiration Date.* The expiration date of the current subscription.

○ *Method.* The method of procurement of this subscription; for example, gratis, gratis/membership, purchase order, etc.

○ *P.O. No.* The number of the purchase order used to initiate this subscription.

○ *Price.* The subscription price as found on the purchase order.

○ *Years.* The time period of the current subscription.

tion to a specially designed data transmittal form. These forms are sent to the Data Processing Center where they are keypunched and processed on an IBM 360/50 computer. The result of this procedure is an updated PCS Master File and a new page for the *Periodical Coordination System Catalog*. The catalog is nothing more than a formatted print-out of the information contained on the PCS Master File. Therefore, the Technical Information Center has been given complete control and responsibility for the quality of the information in the center's master file. This one factor, more than any other, has been instrumental in the success enjoyed by the new system.

There were several uses to which the file was put immediately. One was the generation of an alphabetic listing of all the 1,000 periodicals. This listing has been very useful as a support tool to the basic catalog. A listing of the holdings of each of the major retention centers is also generated. In this way there is no need to supply each retention center with a full catalog of the PCS Master File.

The major accomplishment of the new system, however, is the development of a program for subscription renewals. Before development of the master file, the procedure was overloaded with copying, typing, recopying, and retyping in addition to the multitude of errors inherent in such a manual system. The new system for periodical orders operates once per year and consists primarily of three steps.

First, a listing is generated from information that is extracted from the PCS Master File. This listing, known as the Periodical Subscription Check-List, is circulated to all departments in the company together with directions for its completion. The check-list, organized by department, contains the name of each subscriber in the PCS Master File. Beneath his name is listed the periodicals to which he subscribes together with the prices, number of copies, and expiration dates. The subscriber is instructed to indicate how many copies of each periodical he wishes to renew for the coming year.

The *second* step is the updating of the file:

As changes occur, the Technical Information Center transfers the necessary informa-

coding, keypunching, and inserting the new information into the Master File.

In the *third* step, a listing is produced containing the new subscriptions and renewals for each publisher and/or jobber. A purchase order is prepared and attached to each order list. The purchase order and order list are then mailed to the appropriate publisher or jobber. When the purchase orders are returned, they are sent directly to the Accounting Department where the individual departmental account is charged. Furthermore, if any changes have occurred, the Technical Information Center is notified and the PCS Master File is updated.

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An additional benefit derived from the implementation of the subscription renewal system has been a reduction in the expenses related to subscriptions. The new system uncovered cases of duplicate subscriptions. Furthermore, some subscribers cancelled their expensive periodicals when they realized how much they actually were costing. The most important benefit, however, remains the improved procedure for renewing periodical subscriptions.

In the future it is planned to incorporate books, conference papers, and internal company reports and correspondence into the system in order to develop a total information gathering, processing, and dissemination network. Together with work that is now under



way toward improving an already operational information retrieval service, the Periodical Control System has enabled what was once a book and periodical depository to evolve into the Technical Information Center.

The work described in this paper was developed while Mr. Varenchik was systems analyst for the AtlanticRichfield Company, Wilmington, California. Mr. Varenchik is a graduate of the University of California, Los Angeles, in Business Administration; he is now engaged in graduate study at USC in quantitative business analysis. Late in 1967 he joined Capitol Records, Inc., Hollywood, California 90028 as a senior systems analyst, where he is participating in the redesign of the Corporate Inventory Control System.

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HAVE YOU HEARD ?

Federal Information Processing Standards

The National Bureau of Standards will maintain the *Federal Information Processing Standards Register* as the official source of information in the federal government for hardware standards, software standards, application standards, and data standards. A new publication series (*FIPS Pubs*) has been initiated by NBS. A current list of all publications in the series may be obtained from: Office of Technical Information and Publications, NBS, Washington, D. C. 20234.

Tisco Awarded NASA Contract

The National Aeronautics and Space Administration has awarded a \$4.3 million per year contract to Tisco, College Park, Md. The new contractor is jointly owned by Information Dynamics Corporation, Reading, Mass., and Informatics, Inc., Sherman Oaks, Calif. The present "batch" process EDP operations of the NASA facility will be converted to real time operations.

Indexers' Society

The American Society of Indexers was founded recently. The new society will be affiliated with the (British) Society of Indexers. Alan M. Greengrass (*New York Times*) was elected president pro tem, and Dee Atkinson (Mills College of Education, New York), treasurer. Membership applications are available from the secretary: Mrs. Jessica L. Harris, 43 Wilson Place, Freeport, N. Y. 11520.

New Regional Medical Library

Regional library services for health professionals in Michigan, Ohio and Kentucky are now available as a result of the establishment of the East Central Regional Medical Library at Wayne State University, Detroit. A \$100,000 grant was made under the authority of the Medical Library Assistance Act of 1965. Other regional medical libraries have already been established in Boston, Philadelphia, Seattle and Chicago.

Leasco's SEC Financial Information Service

Four additions to the "disclosure" financial information service have been announced by Leasco Systems & Research Corporation; the service is operated by Leasco under an exclusive contract with the Securities and Exchange Commission. The new reports are annual reports to stockholders, registration statements on new offerings, prospectuses on new offerings, and mutual fund annual reports. Microfiche, microfilm and full-sized copies are available. A variety of subscription packages are available. For information write: Leasco, 4833 Rugby Avenue, Bethesda, Md. 20014.

Wilson Library Bulletin



Pach Bros.

The H. W. Wilson Company has announced the appointment of Arthur Plotnik as associate editor of the *Wilson Library Bulletin* effective February 3. Mr. Plotnik was formerly Information and editorial specialist at the

Library of Congress where he was assistant editor of the *LC Information Bulletin*. He received an MLS from Columbia University in 1966.

GPO Bookstore in San Francisco

A new branch of the Government Printing Office opened on Jan 22 in the Federal Office Building, 450 Golden Gate Ave., San Francisco. Extending to the West Coast a public service that already exists in Chicago and Kansas City, the San Francisco store will offer for immediate purchase some 1,000 popular U.S. Government publications. High-speed mail order service for the other GPO publications will be provided.

High Speed Facsimile

A new high speed facsimile transmission machine has been designed by Matsushita Research Institute, Tokyo, Japan. Only 8-24 seconds are required to scan a 7 x 10 inch area. For additional information contact: Masaoka-Ishikawa & Associates, 551 Fifth Ave., N. Y. 10017.

Quebec Bar Miniaturizes

"Mini-Biblex," the new microfiche service offered by the Quebec Bar, includes law reports of the Supreme Court of Canada since 1876 and of the Quebec Court of Appeal and Superior Court since 1892. Filming will be done by Bell & Howell. Contact: Micro-Data Division, Bell & Howell Company, 6800 McCormick Rd., Chicago 60645.

Information on Engineering Standards

The National Bureau of Standards is now prepared to offer information services on published engineering standards and specifications. More than 16,000 standards and specs have been collected from more than 350 U.S. trade, professional and technical societies. They have been indexed and cataloged; and a KWIC Index has been compiled. Address inquiries to: Information Section, Office of Engineering Standards Services, NBS, Washington, D. C. 20234.

Biomedical Librarianship

For the third consecutive year the Welch Medical Library, Johns Hopkins University, has received a grant from the U.S. Public Health Service for postgraduate training in Biomedical Librarianship. The stipend will be \$5,500. Applications will be accepted until May 1 from those wishing to begin the program in Jul 1969, and until Jul 1 from those wishing to begin in Sep 1969. For applications write to: Alfred N. Brandon, Welch Medical Library, 1900 E. Monument St., Baltimore, Md. 21205.

Pergamon Moves

Pergamon Press has a new address: Maxwell House, Fairview Park, Elmsford, New York 10523. The new telephone number is 914/592-7700.

Computer Careers

A new career brochure has been issued by the Business Equipment Manufacturers Association in collaboration with the American Federation of Information Processing Societies. Single copies free; 2-99 copies at 40¢ each; 100-999 at 36¢ each. Orders to: BEMA, 235 E. 42nd St., N. Y. 10017.

Fiftieth Anniversary

The Technical Library at Wright-Patterson AFB observed its fiftieth anniversary on Oct 25, 1968. The library is the oldest USAF library. In addition to the main library there are two branch libraries and three field libraries. Technical library service is provided for all military and civilian personnel at Wright-Patterson.

Systems Analysis for Special Librarians

The University of Illinois at Chicago Circle has announced an introductory course in systems analysis for special librarians. The course includes EDP and programming principles, and criteria for evaluation of manual and machine methods. The course began Feb 4 and will meet weekly through May 27.

Continuing Education

The 1969 list of conferences, workshops and short courses of interest to librarians, *Continuing Education for Librarians*, has been published as a reprint from an article in the *LED Newsletter*. The directory and three supplements are available at \$1.00 prepaid (billed orders, \$1.50). Order from: Continuing Education for Librarians, ALA, 50 E. Huron St., Chicago 60611.

Ontario Education Collection

The library of The Ontario Institute for Studies in Education (OISE) has purchased the major part of the library of the Canadian Association for Adult Education. The collection is comprehensive for Canadian materials. OISE, a center for graduate studies, is at 102 Bloor St. West, Toronto 5, Ontario, Canada.

Grolier Acquires Scarecrow

Scarecrow Press, Inc., which publishes a wide variety of reference and systems materials for use in all libraries, has been acquired by Grolier Incorporated. Also included in the acquisition are two Scarecrow divisions: Mini-Print Division and Scarecrow Reprint Division. The officers of Grolier's new Scarecrow Press Division are Dr. Ralph R. Shaw, president; and Albert W. Daub, vice president and sales manager.

Computer Reference Guide

CCM Information Sciences will publish a one volume reference book, *Guide to Information Sources in the Computer Sciences* in Summer 1969. Persons who wish to submit review material for possible inclusion should contact the author: Mrs. Ciel Carter, head librarian, Association for Computing Machinery, 211 E. 43rd St., N. Y. 10017.

Past Cataloging Records

The Council on Library Resources has made a grant of \$25,000 to the Library of Congress to support a three-month project to determine the feasibility of converting LC's retrospective cataloging records to machine readable form. Deputy Librarian of Congress John G. Lorenz is officer-in-charge of the project.

Engineering Index Tapes

Current Information Tapes for Engineers (CITE) are now available for the fields of plastics and electrical/electronics engineering. The CITE program consists of a monthly master tape, thesaurus on tape (updated monthly) and complete abstracts in either hard copy or microfiche. The 1969 subscriptions are \$2,300 per year for Plastics and \$2,800 for Electrical/Electronics Engineering. Write: Marketing and Business Services Division, Engineering Index, 345 E. 47th St., N. Y. 10017.

New Oral History Library

The organization of the William E. Wiener Oral History Library of the American Jewish Committee was announced on Oct 27. Louis G. Cowan, director of special programs at Columbia's Graduate School of Journalism will be director of the library. The collection, which will chronicle the American Jewish scene for the last seven decades, will be maintained at the American Jewish Committee's Institute of Human Relations, 165 E. 56th St., N. Y. 10022.

COMING EVENTS

Mar 31-Apr 1. Workshop on Library Personnel Problems at the Windsor Park Hotel, Washington, D. C. Sponsored by Executive Management Service, Inc. in conjunction with Drexel's library school. Registration fee \$60. For information: Shirley A. Stover, Executive Management Service, Inc., 2317 Wilson Blvd., Arlington, Va. 22201.

Apr 19. Council of Planning Librarians. Tenth Annual Conference . . . in Cincinnati at the Netherland-Hilton Hotel. Contact: Cynthia F. Stoots, Indiana Dept. of Commerce, 336 State House, Indianapolis, Ind. 46204.

Apr 23. Third Aslib Annual Lecture by The Baroness Wootton of Abinger on "Expert and Layman in Contemporary Society" . . . at the University of London.

Apr 24-25. Eighth Annual Conference on Records Administration, sponsored by the American Records Management Association and the University of Minnesota. Write: J. P. Shaner, Dept. of Conferences & Institutes, Nolte Center, University of Minnesota, Minneapolis 55455.

Apr 27-30. Seventh Annual Clinic on Library Applications of Data Processing in the Illini Union Building, University of Illinois at Urbana. For information: Extension in Library Science, 111 Illini Hall, Champaign, Illinois 61820.

Aug 9-26. PL/I Library Programming Seminar in the Illini Union Building, University of Illinois at Urbana. Write: Extension in Library Science, 111 Illini Hall, Champaign, Illinois 61820.

Aug 24-25. Symposium on Programming Languages Definition sponsored by the Special Interest Group on Programming Languages of the Association of Computer Machinery . . . in San Francisco. Write: Dr. James A. Painter, IBM, Dept. 978, Bldg. 025, Monterey & Cottle Rds., San Jose, Calif. 95114.

LETTERS

Two Hoover Libraries

In Mrs. Wayne Cole's interesting article on "Presidential Libraries" in the November issue (p. 691-697), reference was made to the paucity of certain collections at the Herbert Hoover Presidential Library in West Branch, Iowa. The principal reason for this is that a large amount of material relating to President Hoover and many of his associates is in the Herbert Hoover Archives of the Hoover Institution at Stanford University.

E. Berkeley Tompkins
Herbert Hoover Archivist and
Senior Staff Member

The Hoover Institution on War,
Revolution and Peace
Stanford University, California 94305

Are All [Book] Cats the Same in the Dark?

The article on book catalogs in the December issue (p. 783-788), by Estelle Brodman and Doris Bolef, is on the whole an excellent paper, subtly reasoned and with a fine historical sense. In that part of the discussion dealing with the situation today and the present rationale for book catalogs, however, several highly relevant matters are ignored.

For example, it is not clearly enough brought out that the justification for a book catalog does not necessarily depend simply upon a direct one-to-one confrontation with the card catalog at its central location. As a matter of fact, the advantages of book catalogs become most dramatically apparent in situations where branch libraries, or several closely cooperating libraries (a constantly increasing phenomenon), are involved. The most obvious case is certainly the planned addition of a branch collection (admittedly less prevalent in industry and universities than with school and public libraries) where the use of a book catalog to avoid certain start-up costs for the new location can be a powerful motivation. In both branch and cooperating situations the use of holdings or location codes permits both union catalogs, listing the combined collections of all participants, and catalogs restricted to the collections of a single location, as desired. Other benefits of book catalog systems may be the sharing of participants in expenses, and the

avoidance of unnecessary duplication and purchases.

Also something of a "blind spot" in the article is the fact that the bibliographic data, once captured in the machine-readable form is further manipulable for a variety of purposes, e.g. circulation control, SDI and specialized reading lists, statistical reporting, etc., either as part of the initial system design or as subsequent developmental phases. A minor corollary of achieving machine-readable status is the additional protection afforded the data base (with its "father" and "grandfather" tapes) from vandalism, theft, fire or other accidental destruction.

Last but not least, there is a certain failure to recognize differences between catalogs. All book catalogs are considered "the same in the dark," whereas there are in reality vast differences in acceptability between the techniques used to produce them. This refers primarily to the graphic arts quality (or absence of same) achieved by the catalog but may also cover such things as format, data element manipulation, sorting capabilities, etc.

In summary, I found myself in basic agreement with what the article said while at the same time being troubled by what was omitted.

W. T. Brandhorst
Principal Information Scientist

Leasco Systems & Research Corporation
Bethesda, Maryland 20014

Career Minded

I may not be a "professional" librarian, but I am a career librarian. Whether or not I can wear the SLA lapel pin and feel that the whole world recognizes it as the outward and visible sign of an accepted and accomplished "professional" librarian makes little difference to me. Maybe that's because nowhere does my diploma stipulate that possession of it guarantees that I am or will be a professional anything. The diploma simply attests to the fact that I was willing and able (intellectually and financially) to fulfill the requirements of a formal higher education.

Do persons of like interests congregate because of their like interests, or is it a means of keeping others out of the holy circle? I realize that engineers for example would not want carpenters to have the same level of recogni-

tion, pay, privileges, etc. they enjoy. But do they really join a society as proof of their professionalism, or because of their desire for dialog with persons with careers similar to theirs? I know of no organization which is both a professional certification agency *and* a common meeting ground for persons of similar careers or interests. Attorneys must pass a state bar examination or its equivalent before being allowed to practice law. But persons have been known to pass the bar without first having a law degree. Doctors of medicine must be licensed to practice. These are *legal* requirements regulated by state and federal statutes. Membership in the ABA or the AMA doesn't give you the right to practice law or medicine. You must meet the legal requirements.

A percentage of the SLA membership prefers to view SLA as a certification agency first and foremost, SLA's function as a common meeting ground for persons of like careers and interests being merely a product of unplanned parenthood. Is this practical? Is it real? Is it what the majority of the membership thinks or wants? And, who cares? Nearly everyone I have tried to talk to on this subject of membership requirements are apathetic. Are they unprofessional? Or is it they are more career minded than profession oriented?

Aphrodite Mamoulides
Shell Development Company
Houston, Texas 77001

A Closed Club?

Nothing Professor Sellers [*Special Libraries* p. 57 (Jan 1969)] can do or say will change the situation regarding the use of the title "Librarian"; that isn't even the issue. Neither is "standards." The issue is the membership—the life—of SLA. Shall it be a closed club of the near contemporaries of John Cotton Dana or a growing organization meeting changing needs? Voices cry out for the status quo but their once insistent ring has changed to a hollow rattle.

Professor Sellers may have calculated that innuendo is stronger than truth when she suggests that Margaret Pflueger's Committee was so permeated with non-degree folk that unwise conclusions would emerge. A review of *Who's Who in Library Service* will convince any skeptic that Elizabeth Usher appointed a Committee with enough graduate degrees in library science and subject areas to satisfy the severest honest critic. If our new SLA President is to appoint a Committee to arrive at an answer acceptable to Professor Sellers I suggest that a criterion other than the L.S. degree be used.

Perhaps age?

Charles H. Stevens
Chairman, Advisory Council 1967/1968

Project Intrex, M.I.T.
Cambridge, Mass. 02139

ERRATA

Four lines were inadvertently omitted from the January 1969 issue of *Special Libraries*. The following lines should be inserted *above* Equation 2 in the left-hand column of page 28:

Then the system can be expressed mathematically thus:

$$\begin{matrix} [A] & \{x\} & = & \{b\} \\ 1 \times J & J \times 1 & = & 1 \times 1 \end{matrix}$$

[Eq. 1]

$$\begin{matrix} \{C\}^T & \{x\} & = & T \\ 1 \times J & J \times 1 & = & T \end{matrix}$$

To Reflect Our Objectives

YOUR Board of Directors attempts to reflect the wishes of the membership. Accordingly, in response to an Advisory Council resolution from the New Orleans Council meeting in January 1968, a special committee was appointed to investigate possible changes in our Bylaws and Guidelines relating to Association membership classifications of Active, Associate and Affiliate members. The special committee subsequently prepared a series of proposed changes in the Bylaws that were in keeping with the Council's recommendations.

The Special Libraries Association has long taken great pride in the ability of its members to serve their user groups and so, accordingly, our membership qualifications must consistently receive a high level of our concern. AND these membership qualifications must also reflect the SLA objectives as stated in our Bylaws if we are to continue to grow and serve our constituents. A vibrant organization should reflect broadening horizons and new techniques.

In Montreal at our Annual Business Meeting in June, proposed changes in our membership requirements will be presented for discussion and action. A positive action will result in a mail ballot during the summer. The proposal encompasses changes that will allow a graduate librarian or information specialist immediately to become a full, active member of SLA. The proposed changes will also enable anyone holding a professional position in a special library to become an associate. (For other changes, please refer to *News & Notes* for April 1968 and July-August 1968.)

These changes must be carefully thought through and thoroughly discussed. It is my strong feeling that SLA is most effective as a voice for special librarians and information specialists, and in support of special librarians when it speaks for most of us. If SLA is to represent us truly, membership requirements must be designed to afford membership to all professionals in our field. We need the enthusiasm and idealism of new librarians just as much as we need the experienced voices of our present members.

Therefore, as President-Elect, I urge your active participation in discussions on these changes and your support when voting for the simplification of the membership requirements. REMEMBER, we are a professional organization and as such have a responsibility to future special librarians and information specialists.

ROBERT W. GIBSON, JR.
President-Elect

Additional statements regarding the proposed changes in the Association's Bylaws will appear in the March and April issues. These statements will be prepared by President White and by Mrs. Charlotte S. Mitchell, Chairman of the Advisory Council.

The National Translations Center

SPECIAL LIBRARIES ASSOCIATION has transferred ownership of the SLA Translations Center to The John Crerar Library, Chicago. Since 1953 the center has been operated for SLA by Crerar through contractual arrangements. Financial support for the center has come from grants received from the National Science Foundation, the Clearinghouse for Federal Scientific and Technical Information, U.S. Public Health Service, and the American Iron and Steel Institute. More than 136,000 translations prepared by members and member firms of SLA, as well as government agencies, have been deposited in the center.

Increasing administrative burdens led to the decision by the SLA Board to relinquish direct administrative responsibility for the center.

The center has been renamed the National Translations Center by Crerar. A grant of almost \$70,000 was made by NSF for partial support of current operations in the year 1968/1969.

SLA is now represented on the Advisory Board of the center by Charles E. Kip, chairman of SLA's Translations Activities Committee. The Advisory Board of fifteen members will also have representatives of the major scientific societies as well as representatives of professional library associations, such as ALA, MLA, ASIS, etc.

Since 1953, more than 100,000 translations have been supplied to requesters. The cooperative efforts of the center and those who have contributed translations have prevented needless duplication of work; the savings thus far are estimated at about 10 million dollars. Inquiries on availability and orders for translations are welcomed by mail, telephone and teletype:

National Translations Center
The John Crerar Library
35 West 33rd Street
Chicago, Illinois 60616

Telephone: 312/225-2526
Teletype: 312/431-1758

The continued success of the center depends on the continued broad participation by all who prepare and use translations. Anonymity of donor organizations is assured through careful obliteration of all markings which might allow the identification of the donor. The translations are indexed, and are then made available to others on request on payment of a nominal photocopying and service fee. (If the donor desires, a loaned copy of a translation will be microfilmed, and the original returned to the donor.) Records of translations available from other sources are also maintained.

A semi-monthly bulletin, *Translations Register-Index*, announces new additions to the collection and provides a quarterly cumulating index. *Translations Register-Index*, prepared by the center, continues to be sponsored by SLA. Orders for subscriptions for the calendar year 1969 and for back years (1967 and 1968) at \$30 per year should be addressed to:

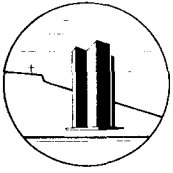
Special Libraries Association
Subscription Department
235 Park Avenue South
New York, N. Y. 10003

Subscriptions are accepted for the calendar year only.

SLA's Translations Activities Committee believes that if the translations activities story is presented personally to the SLA Chapters, many more SLA members will realize the value of both the center and the translations publications and will wish to contribute their translations on a regular basis. Therefore a short "package" presentation has been prepared which will be distributed soon to all the SLA Chapters. It is hoped that all Chapters will be able to schedule the "package" at one of their meetings this year.

Charles E. Kip, Chairman
Translations Activities Committee

Chemstrand Research Center, Inc.
Durham, North Carolina 27702



60th SLA CONFERENCE
The Queen Elizabeth Hotel
Montreal, P. Q., Canada
June 1-5, 1969



Canadian National

MONTREAL, Canada's metropolis, is one of the world's most dynamic cities. It is a natural hub of transportation and communications, the connecting link between a great inland waterway and the seven seas.

The dynamic qualities of Montreal will furnish the background for the dynamic programs in the handling of man's knowledge. Although the technical programs planned by SLA's Divisions vie for the attention of Conference attendees, there is also time for more relaxed informal discussions.

While the lights of Canada's "showcase city" brighten the night, the heart of another city beats underground.

The Conference Theme:

Information Across Borders

PRELIMINARY PROGRAM?

ADVANCE REGISTRATION FORMS?

HOTEL REGISTRATION FORMS?

The preliminary Conference information was mailed to SLA members in early February. If you do not receive your copy, please request copies from:

George M. Horner, Chairman
SLA Registration Committee
Shawinigan Chemicals Limited
P.O. Box 6030
Montreal, P. Q., Canada

Miss Tees



Miss Goodfellow



Miss Morash



Van Dyck & Meyers

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Miss Ryan



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Welcome to Montreal

1969
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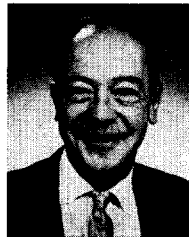
L. Vaincourt

Miss Kudo



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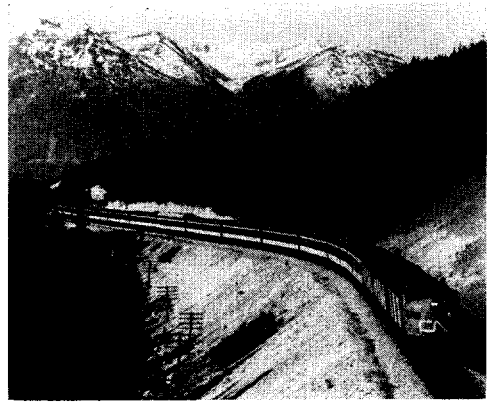
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Of course, you're coming to
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If you didn't receive the reservation
 forms mailed in December, write
 at once to:

Miss Helene Dechief, Chairman
 Transportation & Tours
 1969 SLA Conference
 P.O. Box 1341
 Main Post Office
 Montreal 101, P. Q., Canada

Continuing Education for Librarianship

FOUR separate Pre-Conference Seminars in Conjunction with 60th Annual SLA Conference, Montreal on Sunday, June 1, 1969 at The Queen Elizabeth Hotel. The four all-day seminars will run concurrently:

- | | |
|----------------------------------|-----------------------------------|
| 1. Personnel Administration | 3. Problem Publications |
| 2. Planning the Library Facility | 4. Basic Principles of Management |

Registration fee for each seminar: \$20 (includes lunch)

Registration closes April 15, 1969.

SLA membership is *not* a prerequisite. Registration brochures were mailed to SLA members from New York on February 10. If you have not received yours, write, telegraph, or phone:

Mrs. Margaret N. Sloane, Chairman
 SLA Education Committee
 The Ford Foundation
 320 East 43rd Street
 New York 10017
 Telephone: 212/573-5103

1969 CANDIDATES FOR SLA OFFICES

For President-Elect

Florine Oltman is chief of the Bibliography Branch, Air University Library at Maxwell Air Force Base, Alabama. She received a B.A. (with a major in English) from Southwest Texas State College, San Marcos, Texas (1937) and a B.S. in Library Science from the University of Denver (1942).

She has been a high school teacher and librarian in Texas (1937/43), reference librarian at the Naval Air Station, Pensacola (1943) and a hospital librarian during World War II at the U.S. Naval Hospital, Pensacola, Florida (1944/46). At the Air University Library, she has been a cataloger (1946/47), and librarian of the Special Staff School Branch of the Air University, Craig AFB, Alabama (1947/50). Miss Oltman has served as reference librarian and bibliographic assistant (1950/55), and as librarian of the Air War College Branch (1955/58) before attaining her present position in 1958.

Miss Oltman has published articles in *Special Libraries* and *Library Journal*. She has been a consultant on library services at the School of the Armed Forces, Caracas, Venezuela. She is a member of the Alabama Library Association and has served as chairman of its Planning Committee.

SLA Chapter activities. In the Alabama Chapter (now the South Atlantic Chapter), she has served as secretary (1954/55), vice-president (1955/56), and president (1956/57). In addition there have been Chapter committee appointments.

SLA Division activities. In the Military Librarians Division, she has served as secretary (1957/58), vice-chairman (1958/59), and chairman (1959/60) plus Division committee assignments.

At the Association level. Chapter Relations Committee, member (1959/60), chairman of the Committee and Chapter Liaison Officer (1960/61); second vice-president of the Association and Chairman, Advisory Council (1961/62). A member of SLA since 1946.

Margaret L. Pflueger is assistant chief, Technical Services Branch, Division of Technical Information Extension, U.S. Atomic Energy Commission, Oak Ridge, Tennessee. She received a B.A. (with a major in French) from Capital University (1937), an M.A. from Ohio State University (1940), and a B.L.S. from the University of Chicago (1944).

She was an assistant at the Columbus Public Library (1941/42) and librarian of the Metallurgical Laboratory, University of Chicago (1944/45). She was a cataloger at the Army Library (1945/48). At Oak Ridge Miss Pflueger was librarian of the U.S. Atomic Energy Commission Library (1948/50), and chief of the Information Section, Division of Technical Information, U.S.A.E.C. (1950/66).

Miss Pflueger is the author of papers published in *Special Libraries*.

SLA Chapter activities. In the Oak Ridge Chapter (now Southern Appalachian Chapter) Miss Pflueger was secretary (1954/55), vice-president (1955/56), and president (1958/59). In addition there have been many Chapter committee appointments. She was editor of the *Union List of Serials in Technical Libraries of the Oak Ridge-Knoxville Area* (1964).

SLA Division activities. She was secretary-treasurer of the Nuclear Science Section of the Sci-Tech Division (1964/65).



(continues)

At the Association level. Translations Activities Committee, member (1963/66); Bylaws Committee, chairman (1966/69); and chairman of the Special Committee on Membership Requirements (1967/68). A member of SLA since 1946.

For Advisory Council Chairman-Elect



Keith G. Blair is chief librarian, Convair Division of General Dynamics, San Diego, California. He received a B.A. (with a major in General Science) from the University of Iowa (1941) and a B.L.S. from Columbia University (1942).

He was reference assistant in the Science Technology Division, New York Public Library (1942/43) before service in the U.S. Navy (1943/45). He served as librarian of the General Chemical Company, New York City (1945/46) and the Maritime Service at Sheepshead Bay, N. Y. (1946/47). At the Navy Electronics Laboratory, San Diego, he was reference librarian (1947/57). Since 1957 Mr. Blair has been at General Dynamics Convair; before his appointment as chief librarian in 1966 he had been engineering librarian, library supervisor, and technical information specialist (1957/66).

Mr. Blair is a member of the American Society for Information Science, American Library Association, and California Library Association. He was associate professor of library science at San Diego State College (1965/66). He has published in *Special Libraries*.

SLA Chapter activities. A charter member of the San Diego Chapter (1960), Mr. Blair has been treasurer (1961/62), vice-president (1962/63), and president (1963/64) of the Chapter.

SLA Division activities. Sci-Tech Division's Bulletin Project, chairman (1961/62). Aerospace Division, treasurer (1965/66).

At the Association level. Resolutions Committee (1968); Membership Committee (1968/69). A member of SLA since 1946.



Robert E. Fidoten is assistant director, Research Planning and Information Sciences at PPG Industries' Glass Research Laboratories, Pittsburgh, Pennsylvania. He received a B.A. (with a major in Radio) from Washington Square College, New York University (1949) and a B.L.S. from Pratt Institute's Library School, Brooklyn (1950). Additional graduate studies have been at Harvard's Graduate School of Education (1950/52) and the University of Pittsburgh's School of Library and Information Science (1965/present).

He was librarian of Emerson College, Boston (1950/51) and cataloger at Brandeis University, Waltham, Massachusetts (1951/52). At Binghams, N. Y. he was library supervisor, Link Group, General Precision (1952/56); and in Baltimore he was librarian of RIAS (Martin-Marietta Corp.) (1956). He served as chief librarian, Republic Aviation Corporation, Farmingdale, Long Island, N. Y. (1956/64). Mr. Fidoten served as manager, Information Services for PPG Industries (1964/68) before appointment to his present position at PPG.

Mr. Fidoten is a member of the American Society for Information Science, Pennsylvania Library Association, National Microfilm Association, Institute of Management Sciences, and the Tri-State Association of College and Research Libraries. He is visiting lecturer at the School of Library and Information Sciences, University of Pittsburgh (1968/present), and a

member of the Advisory Board, Library Technician Program, Allegheny County Community College (1967/present).

SLA Chapter activities. In the Pittsburgh Chapter he has served as vice-president (1966/67), president (1967/68), and director (1968/69), in addition to Chapter committee appointments. He has also served on committees of the New York Chapter.

SLA Division activities. In the Engineering Division he has served as chairman-elect (1966/67) and chairman (1967/68).

At the Association level. Membership Committee, member (1965/67); Planning Committee, chairman (1967/69). A member of SLA since 1950.

For Director (1969/72)

Aphrodite Mamoulides is head librarian, Shell Development Company, Houston, Texas. She received a B.S. in Chemistry from the University of Wisconsin in 1953.

Miss Mamoulides has been head librarian at Shell Development Company's Houston facility since 1954.

SLA Chapter activities. In the Texas Chapter she has served as second vice-president (1958/59), first vice-president (1959/60), and president (1960/61). She was bulletin editor (1958/59) and has served on Chapter committees; a member of the Chapter's Education & Recruitment Committee to plan courses at the Graduate School of Library Science, University of Texas (1959/62).

SLA Division activities. In the Petroleum Section of the Sci-Tech Division, she served as secretary-treasurer (1959/61). In the Petroleum Division she has been vice-chairman (1966/67) and chairman (1967/68). A member of the Petroleum Section's committee to plan the *Forum on the Abstracting and Indexing of Petroleum Exploration and Production Literature*, held in Dallas, Texas on February 19, 1960.

At the Association level. Member of Special Committee on Membership Requirements (1967/68); Membership Committee, member (1968/70). A member of SLA since 1954.



Edythe Moore is manager, Library Services, The Aerospace Corporation, Los Angeles. She received a B.S. (with a major in physics) from Pennsylvania State University (1942) and an M.S. (L.S.) from the University of Southern California (1965).

She was an engineer at the Brewster Aeronautical Corporation, Hatboro, Pennsylvania (1942); patent liaison at L. P. Graner, Inc., New York City (1943/44); coordinator, Technical Information Center, Philips Laboratories, Inc., Irvington-on-Hudson, N. Y. (1944/47); research librarian, Hydrocarbon Research, Inc., New York City (1948/53); research librarian, Behr-Manning Corporation, Troy, N. Y. (1953/55); and head, Technical Information Center, American Potash and Chemical Corp., Whittier, California (1956/62). Miss Moore joined Aerospace Corporation as literature research analyst (1962/64) and has been manager of library services since 1964.

Miss Moore is instructor in the School of Library Science, Immaculate Heart College, Los Angeles (1965/present). She is a member of the California Library Association, American Society for Information Science and the American Chemical Society. She has published in *Special Libraries*



and *Journal of Chemical Documentation* and has directed seminars of AMA and ARMA.

SLA Chapter activities. In the Southern California Chapter she has served as secretary (1958/59), vice-president (1963/64), and president (1964/65). In addition there have been Chapter committee appointments in the New York Chapter (1949/53), Upstate New York Chapter (1954/55), and in the Southern California Chapter.

SLA Division activities. In the Aerospace Section, Sci-Tech Division she served as secretary (1963/64). In the Chemistry Section, Sci-Tech Division she served as vice-chairman (1960/61) and chairman (1961/62). She has also held committee appointments in the Engineering Section, Sci-Tech Division.

At the Association level. 1968 Los Angeles Conference Registration Committee, chairman; Membership Committee, chairman (1967/69); Special Committee on Membership Requirements (1967/68). A member of SLA since 1949.

For Director (1969/72)



Howard B. Bentley is research librarian and special assistant to the chief, Bureau of Editorial Reference, Time, Inc., New York. He received an A.B. (with a major in English) from Principia College (1947) and an M.S. from the Graduate School of Library Science, Simmons College (1954).

He has served at the Brooklyn Public Library (1954/55), and in New York Public Library's Economics Division (1956/57); he has also been a free lance library consultant (1955/57). At Alanar (a division of Bro-Dart) he was administrative librarian (1957/59). At Time Inc. he was research librarian in charge of the Architecture and Building Branch Library (1959/66) until appointment to his present position.

Mr. Bentley is a member of the American Library Association and the Council of Planning Librarians. He has been a consultant to various projects including *Urbandoc* (1964). In addition, he is the author of several books and articles.

SLA Chapter activities. He was chairman of the New York Chapter's Newspaper and News Group (1964/65), and has also served on Chapter committees.

SLA Division activities. He has been chairman of the Social Science Division's Planning, Building, and Housing Section (1963/64), and has also served on Social Science Division committees. He is a member of the Documentation Division, Newspaper Division and Social Science Division.

At the Association level. Special Libraries Committee, member (1964/66), chairman (1966/67). A member of SLA since 1957.

Lloyd R. Rathbun is library officer of MIT's Lincoln Laboratory, Lexington, Massachusetts. He received a B.A. (with a major in music and English) from the University of Southern California (1939); an M.A. (1942) and an M.S.L.S. (1959) were also received from U.S.C.

He has been solo oboist, Kansas City Philharmonic Orchestra (1934-41); oboist, Warner Bros. Pictures (1941/59); and lecturer in oboe at U.S.C. (1941/52). He was librarian, Communications Division of Hughes Aircraft Co., Los Angeles (1959/62).

Mr. Rathbun is a member of the American Library Association, New England Library Association, Massachusetts Library Association and Beta Phi Mu. He was the John Cotton Dana Lecturer at Pratt Institute (1966). He has participated in SLA Conference programs and is the author of papers published in *Special Libraries*.

SLA Chapter activities. In the Boston Chapter he was bulletin editor (1962/64), president-elect (1966/67), and president (1967/68) in addition to Chapter committee appointments. In the Southern California Chapter he was assistant bulletin editor (1960/62).

SLA Division activities. A member of the Sci-Tech Division.

At the Association level. Personnel Committee, member (1962/64), chairman (1964/66); Professional Standards Committee, member (1964/66). A member of SLA since 1959.



Other officers and directors who will continue to serve on SLA's Board of Directors in 1969/1970 are:

Robert W. Gibson, Jr. who automatically succeeds to the office of President; and **Helen J. Waldron** who automatically succeeds to the office of Advisory Council Chairman. **Mrs. Gloria M. Evans** and **Efren W. Gonzalez** will serve the third year of their three-year terms (1967/1970) as Directors. **Rosemary R. Demarest** and **Burton W. Lamkin** will serve the second year of their three-year terms (1968/1971) as Directors.

Ballots and voting instructions will be mailed from the Association's New York offices in early March.

National Advisory Commission on Libraries

SLA Board and Council Reaction

THE Report of the National Advisory Commission on Libraries was discussed by SLA's Advisory Council and Board of Directors during their January meetings. The Board of Directors adopted a resolution which has been transmitted to Robert H. Finch, Secretary of Health, Education and Welfare, by SLA President Herbert S. White. The resolution adopted reads:

"The Board of Directors of Special Libraries Association, while recognizing shortcomings and omissions in the report, endorses the report. Specifically, we endorse the recommendation for the establishment of a National Commission on Libraries and Information Science. We

also encourage the establishment of the proposed Federal Institute of Library and Information Science, and wish to indicate our Association's strong interest in participating in the planning and implementation of this institute."

Mr. White also indicated the Association's hopes that the new Administration will introduce or support legislation to achieve these objectives as soon as possible.

The "National Library Commission Act of 1969," a bill (HR 908) to establish a permanent National Commission on Libraries and Information Science, was introduced by Representative William A. Steiger (R-Wisc.) when the 91st Congress convened its first session January 3. Mr. Steiger is a member of the House Education and Labor Committee.

SLA and ASIS to Study Possible Merger

THE Council of the American Society for Information Science (ASIS) and the Board of Directors of Special Libraries Association (SLA), in separate meetings, expressed themselves as favoring, in principle, investigation of a merger between the two organizations; their respective presidents were authorized to appoint three members to a six-member committee to bring to both organizations a specific report. It is anticipated that such a report will be ready for initial detailed discussion by the SLA Board in June 1969 and by the ASIS Council in July 1969.

The American Society for Information Science, with approximately 3,000 members, has its headquarters in Washington, D. C. The president of ASIS is Joseph Becker, EDUCOM, Washington, D. C.; Charles P. Bourne, Information General Corp., Palo Alto, California is president-elect.

Special Libraries Association has approximately 7,400 members; its headquarters are in New York City. The president of SLA is Herbert S. White, Leasco Systems & Research Corporation, Bethesda, Maryland; Robert W. Gibson, Jr., General Motors Corporation,

Research Laboratories, Warren, Michigan is president-elect.

Membership of both organizations is primarily in the United States and Canada.

The three SLA representatives appointed by President White to the committee are:

Grieg Aspnes, Research Librarian
Cargill, Inc.
Cargill Building
Minneapolis, Minnesota 55402

Miss Louise K. Montle, Library Supervisor
The Boeing Company, Airplane Division
P.O. Box 707
Renton, Washington 98055

Theodore D. Phillips
Assistant Chief Librarian
Queen's University
Kingston, Ontario, Canada

Both organizations are aware of the fact that there are unique features in each organization, and the committee will be specifically charged to safeguard the interests of the entire membership.

CHAPTERS & DIVISIONS

New Jersey Chapter's all-day meeting on Mar 20 has the topic, "Manual vs. Computer Systems: Guidelines for the Road to Take." Seminars will be conducted in: systems analysis, mechanization and automation. For details: J. R. Cronin, Squibb Beech-Nut, Inc., East Brunswick, N. J. 08816.

Southern California Chapter will meet on Mar 13 and Apr 10; the Chapter's annual business meeting is scheduled for May 14.

The Insurance Division has published the Jul 1967/Jun 1968 issue of *Insurance Periodicals Index*; the price is \$15 each. Send checks to: Special Libraries Association, Insurance Division, P.O. Box 406, Back Bay Annex, Boston, Mass. 02117.

MEMBERS IN THE NEWS



Milwaukee Journal Photo

Budington



Doms

William S. Budington . . . appointed executive director and librarian of The John Crerar Library, effective Apr 1 to succeed **Herman H. Henkle**, who has served as chief executive officer since 1947.

Fred Croxton, former director of Redstone Scientific Information Center, Redstone Arsenal . . . to executive vice-president of Technical Information Services Co., a subsidiary of Informatics, Inc., Sherman Oaks, Calif.

Louise Darling, Biomedical Library, UCLA will discuss "Regional Medical Library Services to the Hospital Libraries" at a meeting of the Hospital Librarians' Section, Association of Western Hospitals . . . Apr 28-29 in Anaheim, Calif.

Keith Doms, now director of the Carnegie Library of Pittsburgh has been elected director of The Free Library of Philadelphia . . . to succeed **Emerson Greenaway** after his retirement in September.

Laura Nell Gasaway . . . assistant catalog librarian, University of Houston Law Library. Miss Gasaway received her MLS from Texas Woman's University; she was the recipient of an SLA Scholarship in 1967.

Charles M. Gottschalk, director of libraries, U.S. Atomic Energy Commission, Washington, D. C., has begun a two-year leave of absence to join the International Atomic Energy Agency, Vienna, as a senior officer in the development of an International Nuclear Information System.

Mrs. Merlie Hughes, librarian at the Arctic Health Research Center, was presented with an Award in Recognition of Sustained High Quality Performance on Dec 13. The center, operated by the U.S. Public Health Service, is located on the University of Alaska campus in College, Alaska.

Dr. Leroy H. Linder . . . elected a director of Friends of the Library, University of California, Irvine. He has also been selected to serve on the Advisory Council on Education for Librarianship by UC's president.

The *Buffalo* (N. Y.) *Courier-Express* presented a feature story on **Mrs. Ruth Lake MacDonald**, librarian of the Erie County Technical Institute in Buffalo on Nov 10, 1968.

Joanne M. Mann, recipient of an SLA Scholarship in 1967, is librarian, Department of Defense Library, Fort George G. Meade, Md.

AUDIT REPORT

Oct 1, 1967–Sep 30, 1968

Board of Directors of
Special Libraries Association, Inc.

In our opinion, the accompanying statements (Exhibits I through IV) present fairly the assets and liabilities of Special Libraries Association, Inc. at September 30, 1968 resulting from cash transactions, and the income collected, expenses disbursed and changes in fund balances for the year, and are presented on a basis consistent with that of the preceding year. Our examination of these statements was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The accounts of the Association are maintained on the basis of cash receipts and disbursements, and accordingly include approximately \$74,816 collected at September 30, 1968 for dues and periodical subscriptions applicable to subsequent periods; the corresponding amount at September 30, 1967 was approximately \$64,000. The accounts at September 30, 1968 do not reflect expenses incurred but not paid of approximately \$30,000; the corresponding amount at September 30, 1967 was approximately \$21,000.

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December 6, 1968

EXHIBIT I

SPECIAL LIBRARIES ASSOCIATION, INC. STATEMENT OF ASSETS AND FUND BALANCES RESULTING FROM CASH TRANSACTIONS SEPTEMBER 30, 1968

Assets	Fund balances (Note 1)
General Fund:	
Cash, in savings accounts	\$ 74,648
U. S. Treasury Bills	59,171
Deposits	2,850
	<u>136,669</u>
	Exhibit II
Federal Grants and Contract Fund:	
Cash	36,863
Less—Unexpended advances from National Science Foundation	(22,174)
	<u>14,689</u>
	Exhibit III
Reserve Fund:	
Cash in savings accounts	19,497
Marketable securities at cost (approximate market value \$50,987)	44,528
	<u>64,025</u>
	Exhibit IV
Life Membership Fund:	
Cash in savings account	11,199
	<u>11,199</u>
	Exhibit IV
Non-Serials Publications Fund:	
Cash, including savings accounts of \$29,035	48,542
	<u>48,542</u>
	Exhibit IV
Carried forward	275,124

EXHIBIT I (continued)

Brought forward	275,124	
Scholarship and Loan Fund:		
Cash in savings accounts	20,317	
Loans receivable	1,979	
	22,296	Exhibit IV
Equipment Reserve Fund:		
Cash in savings account	7,769	Exhibit IV
Foreign Publications Agency Fund:*		
Cash	—	
Motion Picture Fund:*		
Cash	—	
Total assets	\$305,189	

Note 1. The total of assets of each fund represents the fund balance of the the respective fund. The changes in the respective fund balances during the period are shown on the indicated exhibits. The cash balances shown in the respective funds have been adjusted for amounts owing to or due from other funds.

* The Foreign Publications Fund and the Motion Picture Fund were closed out by action of the Board of Directors during the fiscal year. The balances in these funds were transferred to the General Fund.

EXHIBIT II

SPECIAL LIBRARIES ASSOCIATION, INC.

**STATEMENT OF INCOME COLLECTED, EXPENSES DISBURSED
AND CHANGES IN GENERAL FUND BALANCE
FOR THE YEAR ENDED SEPTEMBER 30, 1968**

	Actual	Budget
Income collected:		
Dues and fees	\$158,564	\$158,400
Periodicals		
Scientific Meetings	15,222	14,200
Special Libraries	84,208	72,100
Technical Book Review Index	28,497	28,500
Net receipts from conference	27,175	27,400
Contributions for new furniture and equipment	8,130	
Interest	3,938	1,500
Addressing service	2,398	5,000
Miscellaneous	1,684	1,000
Total income	\$329,816	\$308,100
Expenses disbursed:		
Allocation of funds to subunits:		
Chapters	16,845	19,000
Divisions	14,236	14,400
Committees	1,044	900
	32,125	34,300
General operations:		
Salaries and wages	99,299	92,800
Employee benefits (Note 2)	9,986	8,600
Office services	19,246	16,500
Occupancy costs	26,786	26,300
Professional fees and service	5,738	3,700
Travel and entertainment	10,079	7,400
Member services	3,549	5,400
Public relations	5,827	4,400
Carried forward (General operations)	180,510	165,100

SPECIAL LIBRARIES ASSOCIATION, INC.

EXHIBIT III

STATEMENT OF INCOME COLLECTED, EXPENSES DISBURSED
AND CHANGES IN FEDERAL GRANTS AND CONTRACT FUND BALANCE
FOR THE YEAR ENDED SEPTEMBER 30, 1968

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	Soviet Exchange	Cumulative Index to Translations	Translation Center	Information Science Literature Display	Translations Register-Index	Total
Income:						
National Science Foundation		\$21,202	\$48,414	\$8,468	—	\$ 78,084
Sales		—	—	—	\$36,244	36,244
Total income		<u>21,202</u>	<u>48,414</u>	<u>8,468</u>	<u>36,244</u>	<u>114,328</u>
Expenses:						
Salaries		18,192	36,269	2,250	10,268	66,979
Payroll taxes			2,250			2,250
Supplies and equipment		149	951	371	507	1,978
Communications			1,131	144		1,275
Computer processing					1,301	1,301
Reference tools			37			37
Photocopying			9,361			9,361
Promotion			4,268		495	4,763
Handling charges					1,659	1,659
Display materials				4,751		4,751
Rent and administrative services			697			697
Travel		95	745	74		914
Shipping				430		430
Service fees			(7,705)			(7,705)
Printing					14,348	14,348
Postage					2,414	2,414
Other			2		3	5
Overhead charged by John Crerar Library		2,766	408		334	3,508
Overhead charged by SLA General Fund				403		403
Design				45		45
Total expenses		<u>21,202</u>	<u>48,414</u>	<u>8,468</u>	<u>31,329</u>	<u>109,413</u>
Excess of income over expenses					4,915	4,915
Fund balances, beginning of year	\$11,798		(2,339)		9,774	19,233
Interactivity transfer	(2,339)		2,339			
Transfer to unexpended advances from National Science Foundation	(9,459)					(9,459)
Fund balances, end of year	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>\$14,689</u>	<u>\$ 14,689</u>

SPECIAL LIBRARIES

Note 3. During the year ended September 30, 1968 the Association combined the Translations Register-Index Fund with the Federal Grants and Contracts Fund. The balance of the combined fund at September 30, 1968 represents the net excess of receipts from Association, private industry and government sources over expenditures for National Science

Foundation-sponsored activities since the inception of the respective activities. To the extent that the receipts from the government exceed government-authorized disbursements, such excess is refundable to the government or may be used for current and future government-sponsored activities.

EXHIBIT II (continued)

	Actual	Budget
Brought forward (General operations)	180,510	165,100
Periodicals:		
News and Notes	1,837	1,400
Scientific Meetings	8,498	8,500
Special Libraries	64,209	58,600
Technical Book Review Index	15,957	15,300
New furnishings	10,797	
Moving expenses	4,230	
Miscellaneous	401	100
Reduction for expenses disbursed for account of:		
Non-Serials Publications Fund	(10,000)	
Federal Grants and Contracts Fund	(2,062)	(5,500)
	274,377	243,500
Expenses disbursed (cont'd):		
Systems study at headquarters	1,670	5,000
Contingencies	221	7,000
Total expenses disbursed	308,393	289,800
Excess of income collected over expenses disbursed	21,423	<u>\$ 18,300</u>
Fund balance, September 30, 1967	114,759	
	136,182	
<i>Add:</i>		
Transfer from Foreign Publications Fund	404	
Transfer from Motion Picture Fund	83	
Fund balance, September 30, 1968	\$136,669	

Note 2. The Association has a contributory group annuity retirement program with an insurance company covering substantially all qualified employees. The total pension expense for the year was \$3,519, which includes amortization of prior service cost. The actuarially computed value of vested benefits was fully funded as of September 30, 1968. Unfunded past service cost to be paid by the Association amounted to \$12,844 as of September 30, 1968. The employees' contributions to the plan for the year ended September 30, 1968 totalled \$569.

EXHIBIT IV

SPECIAL LIBRARIES ASSOCIATION, INC.

**SUMMARY OF CHANGES IN SPECIAL FUND BALANCES
FOR THE YEAR ENDED SEPTEMBER 30, 1968**

Reserve Fund

Interest and dividends received on marketable securities and savings bank accounts	\$ 4,373	
Balance, September 30, 1967	59,652	
Balance, September 30, 1968 (Exhibit I)	\$64,025	

Life Membership Fund

Interest on savings bank account	\$ 384	
Dues received	7,360	
John Cotton Dana lectures—expenses	(2,247)	
Balance, September 30, 1967	5,702	
Balance, September 30, 1968 (Exhibit I)	\$11,199	

(continued)

EXHIBIT IV (continued)

Non-Serials Publications Fund

Sales charged to Sustaining Members	\$ 1,436
Proceeds from sales of publications	25,130
Interest on savings bank accounts	1,313
Other	542
	28,421
Production and selling expenses	(23,933)
Excess of income over expenses	4,488
Balance, September 30, 1967	44,054
Balance, September 30, 1968 (Exhibit I)	\$48,542

Scholarship and Loan Fund

Gifts	\$12,541
Interest on savings bank accounts and student loans	1,219
	13,760
Scholarship grants	(18,500)
Balance, September 30, 1967	27,036
Balance, September 30, 1968 (Exhibit I)	\$22,296

Equipment Reserve Fund

Insurance proceeds	\$ 209
Interest on savings bank account	400
<i>Less</i> —Expenses disbursed	(1,423)
Balance, September 30, 1967	8,583
Balance, September 30, 1968 (Exhibit I)	\$ 7,769

Foreign Publications Agency Fund

Balance, September 30, 1967	\$ 404
<i>Less</i> —Transfer to General Fund	(404)
Balance, September 30, 1968 (Exhibit I)*	—

Motion Picture Fund

Interest on savings account	\$ 83
<i>Less</i> :	
Return of contributions to Chapters	(592)
Transfer to General Fund	(83)
Balance, September 30, 1967	592
Balance, September 30, 1968 (Exhibit I)*	—

* The Foreign Publications Fund and the Motion Picture Fund were closed out by action of the Board of Directors during the fiscal year. The Balances in these funds were transferred to the General Fund.

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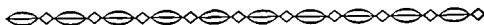
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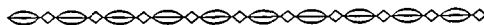
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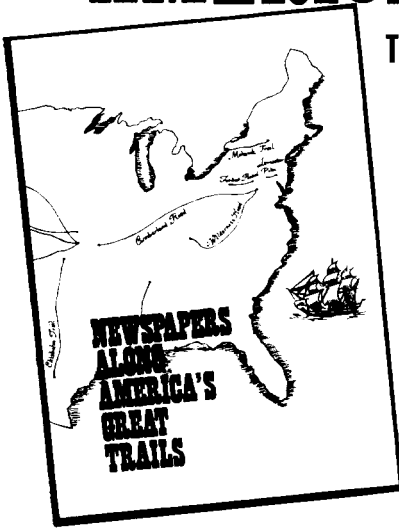
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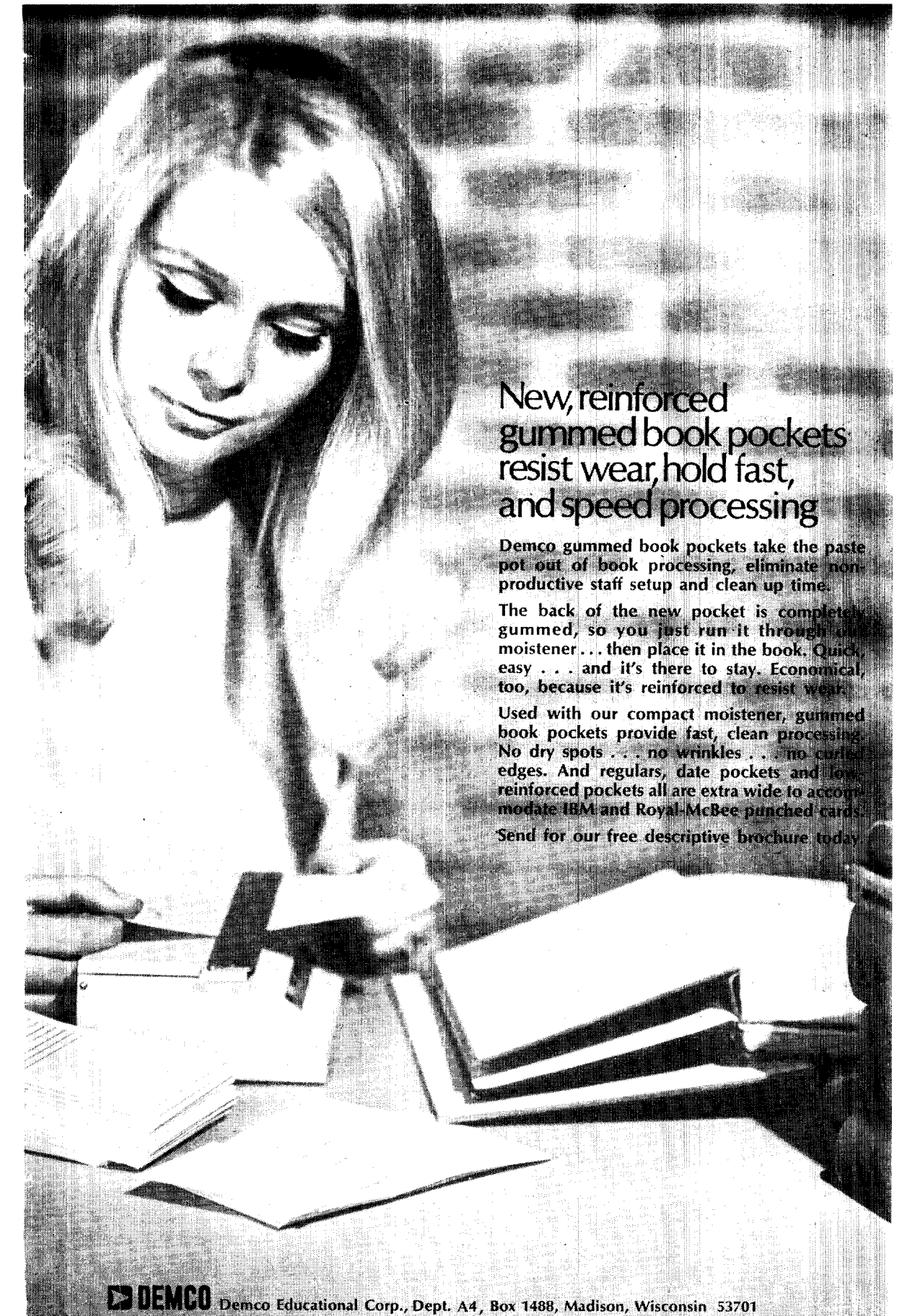
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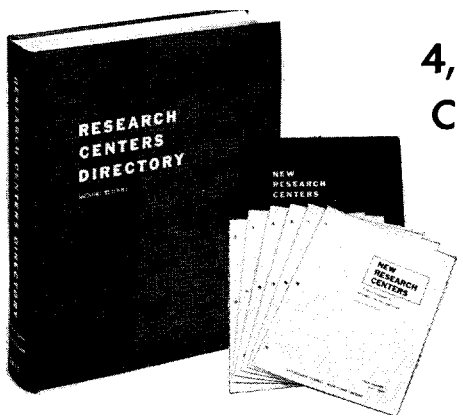
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